OCT 6 - 2004

This notice was posted on _____
and will remain posted for a period of thirty days
until 11/05/04

04-1006-2

NOTICE OF DETERMINATION

EEVE T. LEWIS, Co. Clerk
BY _____
DEPUTY CLERK

To: County Clerk, Sonoma County
2300 County Center Drive, B177
Santa Rosa, California 95403

State of California Office of Planning and Research
PO Box 3044
Sacramento, California 95812-3044

$1,250 pd by grd

From: Sonoma County Regional Parks
2300 County Center Drive, Suite 120A
Santa Rosa, California 95403

The Sonoma County Regional Parks Department, is filing this Notice of Determination in compliance with §21108 of the Public Resources Code.

GUERNEVILLE RIVER PARK PROJECT
Project Title

2004022066	Michelle Julene	707/565-3962
State Clearinghouse Number	**Contact Person**	**Area Code / Telephone Number**

13882 State Highway 116
Project Location – *include county*

Guerneville (unincorporated)	Sonoma
Project Location – City	**Project Location - County**

Project Description: The project consists of the three-phased development of a primarily passive type park facility including paved (ADA compliant) and compacted gravel trails, group and family picnic areas, small outdoor stage, small craft boat portage, restroom building, open grass areas, nature study areas and vehicle access and parking, amenities and appurtenances.

This is to advise that the County of Sonoma has approved the above described project on October 5, 2004and has made the following determinations regarding the above described project.

1. The project [☐ will ☒ will not] have a significant effect on the environment.
2. ☐ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
   ☒ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [☒ were ☐ were not] made a condition of the approval of the project.
4. A Statement of Overriding Considerations [☐ was ☒ was not] adopted for this project.

This is to certify that the final environmental document, with comments and responses and record of project approval, is available to the general public at the Sonoma County Regional Parks Department main office.

Philip Sales
Title: Park Planning and Design Administrator
Sonoma County Regional Parks

Date: October 5, 2004

$25.77

Date Sent for Filing at OPR: 10/06/2004

Sonoma County Regional Parks Department

GUERNEVILLE RIVER PARK

Sonoma County, California

MASTER PLAN & INITIAL STUDY

SCH# 2004022066

September 2004

Prepared for:
Sonoma County Regional Parks
2300 County Center Drive, Ste. 120 A
Santa Rosa, CA 95403

Prepared by:
Brelje & Race Engineers
5570 Skylane Blvd.
Santa Rosa CA 95403
707/576-1322

CONTENTS

Project Data 3
Introduction 4
Policy Setting 6
Project Description 8
Notice of Preparation Period 13
Related Environmental Documents 16
Other Public Agency Approvals 16
Environmental Significance Checklist: 17
I Aesthetics 18
II Agricultural Resources 20
III Air Quality 21
IV Biological Resources 23
V Cultural Resources 28
VI Geology and Soils 31
VII Hazards and Hazardous Materials 33
VIII Hydrology and Water Quality 36
IX Land Use and Planning 39
X Mineral Resources 40
XI Noise 41
XII Population and Housing 45
XIII Public Services 46
XIV Recreation 47
XV Transportation/Traffic 48
XVI Utilities and Service Systems 50
XVII Mandatory Findings of Significance 52
Determination 53
Document Preparation and Sources 54

FIGURES

Regional Location Map 5
Project Location Map 7
Site Plan 9

Appendix A: Mitigation Monitoring and Reporting Plan
Appendix B: Archaeological Survey
Appendix C: Special Status Plant Survey
Appendix D: Wildlife Habitat Assessment
Appendix E: Noise Study
Appendix F: Traffic Impact Study
Appendix G: Notice of Preparation & Scoping Meeting
Appendix F: Initial Study Public Review

PROJECT DATA

Project Title:	Guerneville River Park	
Lead Agency:	Sonoma County Regional Parks	
Contact Person:	Michelle Julene Sonoma County Regional Parks 2300 County Center Drive, Ste. 120 A Santa Rosa, CA 95403 707/565-2041	
Project Location:	APN 071-170-013, 071-170-014, 071-160-057 and Public Right of Way (ROW) Guerneville, Sonoma County, California	
General Plan Designation:	APN 071-170-013	K (Recreation/Visiting Serving Commercial)
	APN 071-170-014	K (Recreation/Visiting Serving Commercial)
	APN 071-160-057	K (Recreation/Visiting Serving Commercial)
	Highway 116 ROW	Public ROW
Zoning:	APN 071-170-013	K (Recreation/Visiting Serving Commercial)
	APN 071-170-014	K (Recreation/Visiting Serving Commercial)
	APN 071-160-057	K (Recreation/Visiting Serving Commercial)
	Highway 116 ROW	Public ROW

INTRODUCTION

The purpose of this Initial Study is to provide the Lead Agency, Sonoma County Regional Parks (Regional Parks), with an assessment of relevant environmental information associated with implementation of the proposed project in order to determine whether a Negative Declaration or an Environmental Impact Report (EIR) will be required for the Guerneville River Park. This environmental evaluation is intended to fully inform the Lead Agency, other interested agencies and the public of the proposed plan and associated environmental impacts. This Initial Study has been prepared in conformance with the requirements of §15063 of the California Environmental Quality Act (CEQA) Guidelines.

If the Lead Agency determines that there is no substantial evidence that the project may cause a significant effect on the environment, then a Negative Declaration may be prepared. A Negative Declaration may include conditions of approval to avoid or reduce potential impacts. However, if the Initial Study determines that the project may cause an unavoidable or unknown significant effect on the environment, the Lead Agency must prepare an EIR.

The Initial Study process also enables an applicant to modify a project, mitigating adverse effects before an EIR is prepared, thereby enabling the project to qualify for a Mitigated Negative Declaration. This facilitates the environmental evaluation portion of the project development process and eliminates unnecessary EIRs.

PROJECT PURPOSE

Implementation of Guerneville River Park would serve the following purpose and goals:

- Provide additional recreational opportunities along the Russian River to visitors and residents of Sonoma County and the unincorporated community of Guerneville, including providing a place for local outdoor gatherings and events.
- Create a park facility that is sensitive to the unique river environment and blends well with the character and features of the site and its surroundings.
- Organize and develop recreational uses on the site to maximize opportunities and minimize impacts to existing trees, plants and wildlife, and to adjoining residential areas.
- Enhance existing bike and pedestrian connections between Guerneville on the north side of the river and the proposed park and residential areas on the south side.
- Provide a park facility design that minimizes maintenance and operations expenses.

PROJECT SETTING

The project site is located in the unincorporated community of Guerneville, in west central Sonoma County (Figure 1). Natural characteristics of this area are mixed evergreen, riparian, and second growth redwood forests along the river and its tributaries. The regional topography consists of steeply sloped tributary valleys descending from nearby coastal mountains to floodplain terraces. The terraces adjacent to the river support vacation resorts, agriculture, businesses, residential and recreational uses.

Figure 1: Regional Location

At the time this Initial Study was published, all parcels are owned by Caltrans. The County and Caltrans are in the process of transferring property ownership to the County of Sonoma. This transfer of property was contemplated and agreed upon during the environmental review of the Guerneville Bridge project on Highway 116.

The project site is located at the southern end of the old Highway 116 truss bridge and new concrete vehicular bridge (Figure 2). The truss bridge has been restored and converted to non-vehicular use. This historical structure connects the new downtown plaza with the proposed park area and south side of town and provides safe pedestrian, bicycle, and equestrian access across the river. The proposed park site will also provide more desirable pedestrian and bicycle access to Drake Road from the downtown area. The Russian River forms the northern boundary, Pocket Canyon Creek forms the western boundary, Drake Road/Drake Road extension forms the southern boundary and residential lots form the eastern boundary. Adjacent land uses are residential, recreational, lodging, campground and J's Amusement Park. The project area consists of approximately 8.8 acres. Of the total acreage, only approximately 5 acres of land will be developed for recreational use.

There has been a history of homeless people occupying the site, particularly in the dry months from May through October. While the development of the park will provide amenities for cooking and eating, as well as sanitary facilities, the proposed park improvements will inhibit their use of the site for overnight stays and may displace individuals to other locations.

POLICY SETTING

Development of the project site is guided by the Sonoma County General Plan. The following elements apply to the project parcels:

Planning Area:

The project site is located in Planning Area #4 - Russian River Area.

General Plan and Zoning Designation:

The project parcels to be deeded to the County are zoned K (Recreation/Visitor Serving Commercial). Section 26-42-010 (k) of the Sonoma County Code allows the placement of public parks on property with this zoning designation. The General Plan will need to be amended to change the property from K to Public/Quasi Public, and the zoning from K to Public Facilities.

Open Space Element:

- Scenic Resource Areas (Figure OS-2)—The Russian River is a Scenic Landscape Unit, and Highway 116 and River Road are designated Scenic Corridors
- Resource Protection Areas (Figure OS-3)—The Russian River is a designated Resource Protection Area
- Outdoor Recreation Areas (figure OS-4a and OS-4b)—There is a waterway trail shown along the Russian River, and a Class III bikeway along Highway 116 and River Road

Figure 2: Project Location

Resource Conservation Element:

- Drainage Basin/Water and Air Quality Control District (Figure RC-1)
- Russian River Drainage Basin
  - North Coast Regional Water Quality Control Board
  - Northern Sonoma County Air Pollution Control District
- Resource Conservation Policy Requirements (Figure RC-2d)
  - Major Groundwater Basin
  - Groundwater Recharge Area

Public Safety Element (Figure PS-1e):

- Area subject to flooding by 100 year storm event
- Area with high or moderate potential for liquefaction
- Area with high potential for large wildland fires

Circulation and Transit Element (Figure CT-6d):

- Highway 116 and River Road are shown as Primary Arterial roadways
- Drake Road and other streets in the vicinity of the park are minor collectors

PROJECT DESCRIPTION

Regional Parks developed a visual Conceptual Development Plan for the Guerneville River Park in 1998. In 1999, the Conceptual Development Plan was submitted to the Russian Guerneville River Park & Recreation District for discussion at their monthly meetings (which are open to the public) and to the Chamber of Commerce. The plan is represented as the site plan in this Initial Study (Figure 3). The project consists of the development of a primarily passive type park facility, including development of vehicle access and parking, a restroom facility, group and family picnic sites, open grass areas, paved (ADA compliant) and compacted gravel paths, nature study areas and a portage area for small boats. The Guerneville River Park will serve an estimated 25,000 to 30,000 annual visitors. Grass areas will not be irrigated. Mowing will occur approximately twice each year to control fire danger and provide better recreational opportunities. Specific improvements include the following:

Improvements to Drake Road Extension: The existing width of pavement along this section of road varies between 24 to 26 feet. The pavement will be widened to 28 feet to accommodate improvements. There is no striped shoulder or sidewalk on either side of the road at this time. Improvements include striping the road on the north side to allow for a minimum four-foot wide shoulder for pedestrian and bicycle access and egress from Drake Road to the southwest park entrance. This would allow for two 12-foot travel lanes and a four-foot shoulder for a total width of 28 feet. The Drake Road/Drake Road Extension will be controlled with a four-way stop sign. Improvements will be coordinated with the Sonoma County Department of Public Works and Transportation.

Parking: The master plan for the park proposes construction of 22 paved vehicle parking stalls at the Drake Road extension on the west side of the project site in Phase I, nine paved recreational vehicle/boat trailer parking stalls below the new bridge in the northeast area of the project site in Phase 2, and 24 paved vehicle parking stalls in the southeast area of the park in Phase 3. The Phase I parking area entrance/exit area will be designed to accommodate nearby residents. A total of three ADA van accessible spaces will be provided. The parking areas are for daytime use of the park only and the gates will be locked at night. No overnight parking will be allowed. Parking and roadways will include grading/disturbance of approximately 48,000 square feet. Solid wood fencing would be installed between the parking areas and adjacent private property. The fence would be approximately six feet high above ground and would be installed to minimize potential noise impacts to adjacent residents.

Figure 3: Site Plan

11 x 17

Blank – back of 11 x 17 Site Plan

Restroom Building: A restroom to serve park visitors is proposed on the southwest side of the site near the main parking area. This location was chosen due to its upland elevation within the site, protection from potential floodway impacts and maintenance and security concerns. Hand washing facilities will be included in the restroom to protect public health. The approximately 12-foot by 30-foot restroom will be designed and constructed to withstand periodic flooding. Wastewater service will be provided by Russian River Sanitation District. The restroomr building will be locked at night.

Group Picnic Site: A group picnic area is proposed in the west central area of the site for gatherings of up to 100 people. Tables, barbecues, and trash receptacles will be provided. This facility may be reserved through the Regional Parks' reservation system for groups of 25 or more.

Family Picnic Sites: Several family picnic sites will be provided under the proposed Master Plan. Some of these sites will be paved to provide for disabled access. Tables and barbecues, as well as trash receptacles will be provided in close proximity to these locations. All picnic areas will be designed and maintained to meet fire safe standards for vertical and horizontal clearances.

Paved Paths: Paved paths will be constructed to connect the primary facilities within the park such as parking, restroom and picnic sites to provide disabled access. Paved paths will be five feet wide and total approximately 1,350 linear feet.

There is an existing paved path that connects the old truss bridge with the Drake Road Extension, and the new Highway 116 road location with the park. These existing paths will be utilized for pedestrian and bicycle access to Drake Road.

Compacted Gravel Paths: Compacted gravel paths along the river and as a connecting trail between the west and east side of the site through the riparian mitigation area will be constructed under the proposed master plan. These paths will be designed and constructed to meet disabled access requirements for trails as proposed under the new Americans with Disabilities Act guidelines for developed outdoor recreation areas. The gravel paths will cross beneath State Highway 116 and the historic Guerneville Bridge.

Many existing paths occur within the site and will be utilized whenever possible for road and trail construction to minimize the impacts of the park development. New paths will be five feet wide and total approximately 1,400 linear feet.

Small Outdoor Stage: A small outdoor stage is proposed for construction in Phase I. This will provide a facility for un-amplified music, plays, and other community events. Use of the stage area would be limited to normal park operation hours, sunrise to sunset. Formal events involving more than 25 people will require the organizers to make a reservation with the Regional Parks Department. The stage would be approximately 300 square feet in area and would be constructed of stamped concrete.

Boat Portage: The proposed master plan has identified an area on the northeast side of the site for kayak, canoe and other small craft portage. This location could also serve as a haul out area for fisherman who launch boats at Steelhead Beach and drift down to Guerneville. Caltrans used this location for access to the river during construction of the new bridge abutments. This location has been used by locals in the past for launching small boats. Some minor grading and surface treatment with compacted rock is proposed at this location to improve access and reduce potential erosion. Improvements to the boat portage will include an area of approximately 1,400 square feet. Phase I work will include erosion control/bank stabilization at the boat portage area.

Development of the boat portage may require review and permits from the California Department of Fish & Game, Army Corps of Engineers, National Marine Fisheries, and the North Coast Regional Water Quality Control Board. This work may also require a grading permit from the Sonoma County Permit & Resource Management Department if the grading work exceeds 50 cubic yards.

Homeless Outreach: Prior to project construction, the County will contact homeless persons currently inhabiting the project site. Contact will include typical support services offered to homeless people in Sonoma County.

Other Site Amenities:

- Garbage cans will be provided at the group and family picnic sites, as well as various locations throughout the park. Maintenance of the park will include regular trash pick-up.
- Fencing will be required along the top of the bank of the Russian River and Pocket Canyon Creek to protect the public from hazardous conditions. The fencing will be split rail and shall be a minimum of 36 inches high.
- Interpretive signs will be developed for educating the public about environmental issues related to the Russian River and its tributaries. A map panel will also show public access locations to the Russian River from Mendocino County to Jenner.
- Drinking fountains and hose bibs for hand washing will be provided for the convenience and general health of the public.
- Benches will be provided at view areas within the park for the public.
- A bike rack will be provided within the site for securing bicycles.
- Planting of trees and shrubs will be provided to define use areas and create buffers from adjacent residences. Erosion control planting and other measures related to construction and public use of the site will also be performed.
- Irrigation for new trees and shrubs, and hydro seeding if required, will be designed and installed as part of the development of the site.
- Operations signs to protect public safety and inform park users of the rules and regulations will be installed throughout the park.

ANTICIPATED USE LEVELS

The Guerneville River Park is expected to serve an estimated 25,000 to 30,000 annual visitors. This estimate is based upon visitor numbers over the past three years at the most similar Sonoma County Regional Parks facility, Cloverdale River Park.

GENERAL OPERATIONS AND MAINTENANCE STANDARDS

Guerneville River Park would be operated as a passive park facility and would be open during daylight hours only. No overnight camping will be allowed. The Sonoma County Regional Parks Department rangers and maintenance staff would provide standard enforcement and maintenance services, such as:

Opening and closing the park

Emptying garbage cans

Cleaning restrooms

Mowing for fire protection (twice a year)

Mowing for landscape maintenance, as needed

Landscape and irrigation system maintenance

General facility maintenance

Monitoring parking areas for payment of fees

Monitoring facility for general compliance with park rules

Coordination with Sonoma County Sheriff Department, as needed

Guerneville River Park would be in the Central Ranger Division. The operation and maintenance level of service for Guerneville River Park would be based on actual use by park visitors and funding levels. Staffing would vary according to a variety of factors, including the season. Park rangers would patrol within the boundary of the park and therefore would not be able to enforce trespassing beyond park boundaries.

Guerneville River Park may be closed by the Director of Regional Parks due to extreme weather conditions, critical fire danger, or other hazard. Sonoma County Code, Section 20-1, outlines this and other Park Rules and Regulations that apply to the Sonoma County Regional Parks system.

The Regional Parks Department encourages volunteers and outside organizations to assist in service projects and other activities. Volunteers can assist as trail walkers to interpret park regulations and to report hazards, vandalism, and other problems. Youth or adult groups and organizations may volunteer to assist with park construction projects, trail building, and removal of invasive plant species.

The project area is served by the Russian River Fire Protection District and by the Sonoma County Sheriff Department.

PHASING

The project as described will be developed in three phases and will be dependent on available funding from a variety of sources. The County will contribute funding from Park Impact Fees collected in the project area. The Aggregate Resource Management Plan may also have funding available for this project. Other potential outside sources of funding include the Coastal Conservancy, Wildlife Conservation Board, State Parks Bond Act (Prop 12), the Clean Water Act (Prop 13), and Boating & Waterways.

Phase I: This phase of the project would include the construction of the Drake Road Extension improvements as required by Sonoma County Public Works; on-site parking for 22 vehicles; the restroom building; the group and family picnic sites; small outdoor stage, potable water and other utilities; site amenities such as fencing, pipe gates, and garbage cans; paved and gravel paths connecting the facilities in the western area of the project site; and, landscaping and irrigation. Erosion control and bank stabilization will be conducted at the future boat portage area.

Phase II: This phase of the project would include the construction of the recreational vehicle/boat trailer parking; paved road and turn around area; paved and compacted gravel trails within the eastern area of the park; connecting gravel paths between the east and west sections of the site; additional picnic tables; interpretive signs; and, landscaping and irrigation.

Phase III: This phase of the project would include the development of on-site paved parking for 24 vehicles, the boat portage facility.

NOTICE OF PREPARATION PERIOD

Regional Parks issued a Notice of Preparation (NOP) for this project, initiating a 30-day public review period. The NOP review period extended from February 13, 2004 through March 15, 2004. A public scoping session was held at the Guerneville Veteran's Building on February 28, 2004. Comments received during the NOP period are summarized below.

Written Comments Received

Written comments received are included as Appendix A. Regional Parks responded to several of the comment letters. Such responses are also included in Appendix A. Where Regional Parks did not respond to comment letters received, responses are provided below. Response numbers correlate with comment numbers contained in comment letters received.

Governor's Office of Planning and Research

No response necessary. This letter indicates Governor's Office of Planning and Research dispersal of the NOP. As a note of correction, the Governor's Office of Planning and Research indicates the NOP is for an EIR. The NOP is actually for an Initial Study/Mitigated Negative Declaration.

Fish & Wildlife Service

No response necessary. The letter includes special status species occurring within the project's USGS quadrangle. Both a wildlife biologist and a botanist were retained to assess impacts to special status species. Results of that assessment are included in the Biological Resources section of this Initial Study.

Department of Transportation (Caltrans)

Response letter included.

California State Lands Commission

The project parcels will be transferred to County ownership prior to any development of the park. Facilities will not extend to the centerline of the Russian River. No lease with the California State Lands Commission will be required for this project.

California Department of Fish & Game

The project will not disrupt the mitigation site implemented by Caltrans. Fencing will be retained until the mitigation site is well established and will then be an undeveloped portion of the park.

Both a wildlife and botanical survey and assessment of the project area have been performed. The results of the assessments are included in the Biological Resources section of this Initial Study.

As indicated in response (3.) above, wildlife and botanical surveys have been performed.

No take permit is required. Wildlife and botanical surveys did not find special status species at the project site and did not conclude that special status species would be harmed by implementation of the project.

A Streambed Alteration Agreement will be filed by Regional Parks prior to construction of project improvements that would necessitate such agreement.

An Initial Study/Mitigated Negative Declaration has been prepared for the Guerneville River Project. This Initial Study has not identified any potentially significant, non-mitigable impacts. An Initial Study does not require an analysis of cumulative impacts to the same degree as an EIR. Cumulative impacts have been considered by this Initial Study but none have been identified. Analysis of alternatives is not required by an Initial Study. No other reasonable site alternatives exist for this project. Acquisition of approximately eight acres on the Russian River adjacent to Guerneville is not feasible at other locations due to private land ownership.

County of Sonoma Permit and Resource Management Department

Comment noted. Regional Parks appreciates the support of the project. An informational sign may be implemented if funding is available.

US Army Corps of Engineers

Comment noted. Regional Parks will submit for a jurisdictional determination and 404 permit should work occur below the ordinary high water mark.

Victoria Wikle
Response letter included.

Mr. Dale Davis
Response letter included.

Creekside Inn & Resort: Lynn Crescione
Response letter included.

Verbal Comments Received at Scoping Meeting

Does the park include nighttime lighting?

- The park does not include lighting. Regional Parks will enforce park closure between sunset and sunrise. See the Aesthetics section for further discussion.

Currently, the area does not have nighttime lighting and is subject to illegal nighttime activities and homeless squatting.

- No lighting is proposed by the Guerneville River Park project. However, transfer of the area to Regional Parks and subsequent development as a regional park will allow Regional Park rangers to issue citations and the Sheriff's Department to issue citations and, if necessary, arrest people violating the Guerneville River Park's posted rules. See the Aesthetics and Public Services sections for further discussion.

How will the park be patrolled?

- The park will be patrolled periodically by Regional Park's rangers during park usage hours. Nighttime patrol will be conducted by the Sheriff's Department, as needed. The Sheriff's Department will provide backup to Regional Park's rangers, as needed. See the Public Services section for further discussion.

How will the restroom/shower facility be managed?

- Regional Park's maintenance personnel will be responsible for maintaining the park's restroom facility. Also, see 3 above. THE SHOWER HAS BEEN REMOVED FROM THE PROJECT DESCRIPTION.

Is this project in the Russian Guerneville River Parks and Recreation District's Master Plan?

- The project will be included in the Russian Guerneville River Parks and Recreation District's Master Plan when that document is prepared.

Will food vendors be available?

- Regional Parks may allow food vendors to provide food products during certain times of the year. No permanent food facilities are planned.

Will there be a facility for outdoor concert type uses?

- A small outdoor pavilion is included in the Guerneville River Park plan. Events will be limited, subject to Regional Parks approval and subject to the park's operating hours of sunrise to sunset.

Are fees proposed?

- Regional Parks will charge its standard parking fee for vehicles, currently $4.00. No fees are proposed for non vehicle use.

A concern was raised regarding erosion of the bank of Pocket Canyon Creek, its lack of vegetation and erosion caused by mountain biking.

- Fencing along the bank of Pocket Canyon Creek is proposed to prevent hazards to the public. Fencing should also serve to deter bike access to the creek bank.

RELATED ENVIRONMENTAL DOCUMENTS

Final Environmental Impact Report on the Guerneville Bridge on Route 116 in Sonoma County, California. State of California, Department of Transportation, District 4. July 1991.

OTHER PUBLIC AGENCY APPROVALS

US Army Corps of Engineers (Corps)—404 Certification

California Department of Fish & Game (DFG)—Streambed Alteration Agreement

National Marine Fisheries Service (NMFS)—Section 7 Consultation related to impacts to andronomous fish

State Water Resources Control Board – General Permit to Discharge Storm Water Associated with Construction Activity (WQ order No. 99-08-DWQ)

Regional Water Quality Control Board, North Coast Region (Regional Board)—401 Water Quality Certification

Sonoma County Permit & Resource Management Department – Grading and/or Drainage Permit

ENVIRONMENTAL SIGNIFICANCE CHECKLIST:

The following list of questions is provided by Appendix G of the CEQA Guidelines, in order to determine a project's environmental impacts. The checklist utilized herein was updated by the State of California in 1999.

Based on the project description, answers to the questions fall into one of four categories:

- Potentially Significant Impact (PS)
- Less Than Significant Impact with Mitigation Incorporation (LSM)
- Less Than Significant Impact (LS)
- No Impact (NI)

With regard to the checklist, a No Impact response indicates that no impact would result from implementation of the project. A Less Than Significant Impact response indicates that an impact would occur, but the level of impact would be less than significant. A Less Than Significant with Mitigation Incorporation response indicates that an impact is involved, and, with implementation of the identified mitigation measure, such impact would be less than significant. A Potentially Significant Impact response indicates that there is substantial evidence that impacts may be significant if mitigation measures are unknown, infeasible, or not proposed. Each response is discussed at a level of detail commensurate with the potential for adverse environmental effect.

The discussion following each checklist item consists of an *Analysis* section, a *Cumulative Impacts* discussion, and a section for identification of *Mitigation Measures*, as necessary. The *Analysis* section includes a discussion addressing whether the project would result in potential adverse environmental impacts. All potential impacts have been considered, including on-site and off-site impacts, direct and indirect impacts, construction and operation-related effects, as well as cumulative effects. The recently updated CEQA Guidelines (1999) contain revised regulations relative to the project's potential for contributing to cumulative effects[1]. The *Cumulative Impacts* section presents information regarding the project's potential cumulative impacts and is included in this section. If an impact(s) has been identified and mitigation is identified to reduce the impact to a less than significant level, then such measures are contained in the *Mitigation Measures* section.

[1] California Environmental Quality Act Guidelines, §15064(i).

I AESTHETICS

Analysis

a. Would the project have a substantial adverse effect on a scenic vista?

LS The project location consists primarily of riparian vegetation, clearings, the Highway 116 bridge and the historic pedestrian bridge. Views of the site are primarily from the Highway 116 bridge and the pedestrian bridge. The project site's visual quality is currently that of undeveloped, disturbed riparian vegetation. Transition of the site from its existing visual character to that of a passively managed park will not represent a significant change in the visual character. Vegetation will remain but will be thinned in some areas. Pathways, picnic facilities and the restroom will be intermittently visible from the bridges, but no more so than existing pathways within the project site and existing structures beyond the project site. Implementation of the park will not significantly alter this visual quality and will ensure it continues as open space. Any impact to a scenic vista resulting from implementation of the park would be less than significant.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

LS Highway 116 is designated as a scenic corridor by the Sonoma County General Plan and is a state scenic highway. The Highway 116 bridge passes directly through the project site.

The Sonoma County General Plan sets policies to ensure that scenic corridors are preserved. Policy OS-3c requires that a setback of 30 percent of the lot's depth (to a maximum of 200 feet) be incorporated into lot development plans. Development is generally prohibited within that setback unless structures are minor, subject to design review, there is no other reasonable location for the structure, the location of the structure within the setback is necessary for the use or existing vegetation and topography screen the use. The restroom meets the 30% lot depth setback criteria. Due to the proposed project's compliance with County policies regarding development along a scenic corridor, impacts to scenic corridors and state scenic highways are less than significant.

c. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

LS The project will not degrade the existing visual character of the site. However, the character of the site will be changed from that of a vegetated riparian corridor showing signs of heavy human disturbance to a passively managed park. Changes associated with the visual character include new picnic facilities, vehicle parking, pathways and open (non irrigated) grass areas—typical park amenities. Such change in visual quality is considered to be less than significant in nature. Park management will include litter control, improving the existing littered quality of the site. Parking areas and the restroom building will largely be screened form view from offsite by existing vegetation and by additional planting. The restroom building will be a neutral color that will blend with surroundings and is located adjacent to the raised Highway 116 bridge to avoid placement of a structure in an open area.

The project is within a Sonoma County General Plan designated scenic landscape unit. Policy OS-2e requires that structures within scenic landscape units use natural landforms and existing vegetation to screen them from view from public roads. The proposed Guerneville River Park Master Plan would site the parking facilities and restroom facility in areas that are screened by the topography and existing vegetative cover and will not reduce the visual quality of the scenic landscape unit. Development of the site as a park will ensure that it remains open space.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

NI The park will be closed from sunset to sunrise. No night-time lighting is proposed by the project and no new source of substantial light or glare will be introduced by its implementation.

Cumulative Impacts

There are no adverse cumulative environmental impacts to aesthetic resources resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to aesthetic resources have been identified; therefore, no mitigation is required.

II AGRICULTURAL RESOURCES

Analysis

a. **Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

NI The project is designated as Urban and Built-up Land by the Farmland Mapping and Monitoring Program of the California Resources Agency[2]. Implementation of the Guerneville River Park will not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use.

b. **Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?**

NI The project is not currently in agricultural use and no Williamson Act contract exists on any of the project parcels. Parcels are zoned K and will be rezoned to Public Facilities.

c. **Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?**

NI The project will not impact agricultural resources or result in the conversion of Farmland to non-agricultural use.

Cumulative Impacts

There are no adverse cumulative environmental impacts to agricultural resources resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to agricultural resources have been identified; therefore, no mitigation is required.

[2] *Sonoma County Important Farmland Map—1996*. Farmland Mapping and Monitoring Program of the California Resources Agency.

III AIR QUALITY

The project is just within the Northern Sonoma County Air Pollution Control District (NSCAPCD). The NSCAPCD is responsible for monitoring and reporting air quality data for northern Sonoma County. As of January 2004, the NSCAPCD was in attainment status with all Federal and state ambient air quality standards except classification as non-attainment for the state ambient air quality standard for PM_{10} (particulates)[3].

Analysis

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

LS The proposed project would not conflict or obstruct implementation of an applicable air quality plan. The proposed project is within the jurisdiction of the NSCAPCD. The NSCAPCD does not have an air quality plan because it is in attainment of all Federal air quality standards. As discussed in the Transportation/Traffic section, the project will result in a potential increase in vehicle trips to the Guerneville River Park. However, given regional air quality conditions, attainment status and traffic patterns, additional pollution contributed by such vehicle trips is considered to be less than significant.

b. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

LSM Long term impacts to air quality will be limited to vehicle exhaust associated with vehicle trips to and from the Guerneville River Park and are considered to be less than significant based on regional traffic patterns, attainment status and air quality. However, construction activities will result in dust creation that could impact short-term particulate standards (PM_{10}). Mitigation Measure AQ1 will reduce such impact to a less than significant level.

c. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

LSM As indicated above, construction activities could result in increased dust and particulates. Associated construction vehicle emissions may also contribute to decreased local air quality during the construction period. Temporary construction-related dust and emission impacts can be reduced to less than significant with the implementation of Mitigation Measure AQ1.

d. Would the project expose sensitive receptors to substantial pollutant concentrations?

NI The project will not expose sensitive receptors to substantial pollution concentrations. The project will not result in a noticeable increase in vehicular emissions or other generate other pollution. Implementation and use of the Guerneville River Park will not result in production or release of substantial pollutants.

[3] Email from NSCAPCD. March 22, 2004.

e. Would the project create objectionable odors affecting a substantial number of people?

NI The project will not create objectionable odors as park use is not typically associated with odor production. Inclusion of the public restroom facility may decrease potential odor issues currently present with the lack of restroom facilities.

Cumulative Impacts

There are no adverse cumulative environmental impacts to air quality resulting from implementation of the proposed project.

Mitigation Measures

AQ1 Project plans and specifications shall require that the contractor control dust generated by construction vehicles and equipment during all phases of construction. Dust shall be controlled by spraying water. Vehicles and equipment shall be maintained in good operating order and turned off when not in use to minimize exhaust emissions.

IV BIOLOGICAL RESOURCES

A special status plant survey by Jane Valerius[4] and wildlife habitat assessment survey by Wildlife Research Associates[5] (WRA) were conducted at the project site. Botanical surveys were conducted on March 23, April 12 and May 28, 2004. A June survey was determined to not be necessary as the project site lacks habitat for plant species that could occur within freshwater marshes and swamps. Special status plant species that would flower June or later would occur only in that habitat type. Since this habitat type is lacking within the project area, it was determined that further surveys were not warranted. The flowering period for all of the potential special status plants that could occur within the project area was covered in the March to May surveys. The wildlife survey was conducted on March 23, 2004. Both reports utilized information from the California Natural Diversity Database (CNDDB) to determine potential special status species present at the site. Information in the Biological Resources section is summarized from those reports.

Analysis

a. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

LSM A total of 34 special status animal species were evaluated for their potential to occur within the study area, based on: review of the CNDDB; the "Special Animals" list maintained by the California Department of Fish and Game (CDFG) that includes those wildlife species whose breeding populations are in serious decline; and, the habitat present on-site. No special status species were identified as being present by WRA. However, WRA indicted that there is potential that ground disturbance and construction underneath the Highway 116 bridge could impact special status bat species potentially roosting in the weep holes of the bridge. Impacts could prevent exiting from the roost due to disturbance, such as noise (operation of generators or other machinery in proximity to or beneath weep holes, night construction preventing roost exiting) or poisoning of the roost (diesel exhaust rising into the holes, fuming material stored in close proximity to the holes). Mitigation Measures BR1 will reduce this impact to less than significant.

Six special status plants were initially identified as having the potential to occur within the project area based on a search of the CNDDB. Of the six species, potential habitat exists within the project area for Sonoma alopecurus (*Alopecurus aequalis var. sonomensis*) and bristly sedge (*Carex comosa*). These species were not observed during the May 28, 2004 site survey and the typical habitat for these plants does not occur within the project area. Habitat for the remaining four species does not occur on the project site and these species were not seen during the March to May surveys. No special status plants were observed within the project area.

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?

LSM The project could potentially impact some riparian forest at the boat portage area and proposed gravel pathways along the Russian River. The project should first make every effort to avoid any impacts to any native tree and shrub species. If impacts cannot be avoided, Mitigation Measure BR2 will reduce such impact to a level of less than significant.

---

[4] *Special Status Plant Survey Report and Opportunities and Constraints Analysis for the Guerneville River Park Project, Guerneville, Sonoma County, CA*. Letter report prepared April 27, 2004 by Jane Valerius.

[5] *Wildlife Habitat Assessment—Guerneville River Park*. Letter report prepared April 27, 2004 by Wildlife Research Associates.

c. Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

LSM As a navigable river, the Russian River meets the definition of a "water of the U.S." Since this portion of the Russian River is not tidal, the USACE has jurisdiction under Section 404 of the Clean Water Act. The USACE takes jurisdiction over waters at and below the ordinary high water mark (OHWM) of freshwater (non-tidal) waters.

A formal delineation has not been conducted for the project and may or may not be required. It appears that the boat portage/river access area has the potential to encroach upon the OHWM of the Russian River. The USACE has recommended that a delineation be conducted and submitted for their verification. The site assessment conducted by Jane Valerius did not find any wetlands and no wetlands will be impacted as this area of the Russian River does not support any emergent or other wetland vegetation. Since no wetlands were identified on the site, no delineation is necessary.

To determine USACE jurisdiction over "waters of the US," Mr. Mark Cleveland and Ms. Michelle Julene with the Regional Parks conducted a site visit on April 27, 2004 to visually determine the OHWM of the Russian River within the project area. The OHWM determined to be 16 feet above sea level.

If the boat portage/river access will extend into the OHWM, then it will be necessary to obtain a permit from the USACE for the work to be conducted within their jurisdiction. A permit authorization from the USACE also requires that the applicant obtain a 401 water quality certification from the Regional Water Quality Control Board. Mitigation Measure BR3 will reduce any impact to jurisdictional waters to a level of less than significant.

A Streambed Alteration Agreement from the California Department of Fish and Game will also be required for any work along the bed or bank of the Russian River or Pocket Canyon Creek.

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

LSM The proposed project could result in disturbance of potential raptor nesting habitat at the project site. No focused surveys for nesting raptors have been conducted to determine presence or absence but none were observed during the site assessment by Wildlife Research Associates. Disturbance during the nesting season may result in potential nest abandonment and mortality of young, resulting in take[6] of individuals. Mitigation Measure BR4 will reduce this impact to a level of less than significant.

Passerines not listed under the California Endangered Species Act (CESA) or the Federal Endangered Species Act (FESA) (including cliff swallows (*Petrochelido pyrrhonota*), black phoebe *(Sayornis nigricans*), and mourning dove (*Zenaida macroura*)) but protected under the Migratory Bird Treaty Act (MBTA) may be impacted by the removal of potential nesting habitat in the planted trees proposed for removal, although no focused surveys for nesting passerines have been conducted. Disturbance during the nesting season may result in the potential nest abandonment and mortality of young. Mitigation Measure BR5 will reduce this impact to a level of less than significant.

[6] The Federal Endangered Species Act defines take to mean "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Harm is further defined to include significant habitat modification or degradation that results in death or injury to a listed species by significantly impairing behavioral patterns such as breeding feeding or sheltering.

The Russian River and Pocket Canyon Creek are migratory wildlife corridors but neither will be negatively impacted by implementation of the project.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

LSM Several trees will likely be impacted by the development of certain areas for parking, the restroom and other improvements. Tree species observed on the site include: arroyo willow (*Salix lasiolepsis*),box elder (*Acer negundo*), California bay laurel (*Umbellularia californica*), Coast redwood (*Sequia sempervirens*), dogwood (*Cornus sericea*), Douglas fir (*Pseudotsuga menziesii*), fruit tree (*Prunus sp.*), northern California black walnut (*Juglans california ssp. hindsii*), red willow (*Salix laevigata*), redbud (*Cercis occidentalis*), toyon (*Heteromeles arbutifolia*), vine maple (*Acer circinatum*), white alder (*Alnus rhombifolia*), and yellow willow (*Salix lasiandra*). Development may require the removal and/or replacement of trees. The Sonoma County Tree Protection and Replacement Ordinance (Ordinance 4014) sets forth protection measures for the redwood and California bay. Mitigation Measure BR6 will reduce this impact to a level of less than significant. Replacement of trees in accordance with Ordinance 4014 will ensure that limited habitat value provided by trees to be removed will be replaced and that visual screening of the site will be maintained. Impacts to non-protected trees and grasses will be mitigated with implementation of Mitigation Measure BR7. To further reduce habitat loss associated with tree removal, Mitigation Measure BR8 requires downed trees to remain on-site.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

NI There are no such plans in effect at the project site.

Cumulative Impacts

There are no adverse cumulative environmental impacts to biological resources resulting from implementation of the proposed project.

Mitigation Measures

BR1 To avoid take of bats during ground disturbance the following measures shall be implemented:

- Emergence surveys shall be conducted prior to construction by a qualified bat biologist. If no bats are observed emerging from the holes in the bridge no further action is required.
- If bats are observed emerging from the holes in the bridge during emergence surveys, construction under the bridge shall be delayed until August when bats may be safely evicted by a bat biologist from the holes.
- If bats are present and construction under the bridge cannot be delayed until after bat eviction in August, no staging areas shall be placed underneath the Highway 116 Bridge, no exhaust fumes shall be allowed to rise into the weep holes, no idling machines shall be allowed in proximity to the weep holes, and no work at night shall be allowed near the bridge.

As an alternative mitigation, if no surveys are conducted and bat presence is assumed, construction under the bridge shall be delayed until after bat eviction in August. If construction cannot be delayed, emergence surveys shall be required.

BR2 Regional Parks will design, construct, and operate proposed improvements to avoid impacts to the riparian forest, including riparian understory, to the maximum extent possible. Where avoidance is not possible, Regional Parks will replace the permanent loss of mixed riparian forest habitat on-site at a

minimum ratio of 3:1 (replacement to loss) to create a high quality willow riparian habitat. Regional Parks will coordinate on-site mixed riparian forest mitigation with the appropriate regulatory agencies, such as the CDFG and USACE.

BR3 If any elements of the final design of the Guerneville River Park fall below the OHWM, visually estimated at the 16 foot NGVD elevation, Regional Parks will submit a request for a jurisdictional determination to the USACE. It the USACE determines that project elements are within its jurisdiction, Regional Parks will apply for Section 404 Certification from the USACE and Section 401 Certification from the Regional Board.

BR4 To avoid take and/or further evaluate presence or absence of raptors, all of the following measures shall be implemented:

- Grading in the vicinity of or removal of potential nesting trees shall be conducted outside the nesting season, which occurs between approximately March 15 and July 31.
- A pre-construction nesting raptor survey of the trees within the project area shall be performed by a qualified biologist. If no nesting raptors are observed no further action is required and grading may occur within one week of the survey to prevent take of individual raptors that may have begun nesting after the survey.
- If raptors are observed nesting on-site after March 15, it shall be assumed that they are nesting adjacent to the site. The CDFG Central Coast Regional office allows grading to occur if nesting raptors are observed on-site, providing that a 200-foot buffer zone is created around the observed nest to prevent disturbance and ultimately take of young. Once the young have fledged away from the nest, construction may take place within the buffer zone.
- Nesting bird surveys for raptors and passerines may occur at the same time, after February 15.

BR5 To avoid take and/or further evaluate presence or absence of passerines, the following measures shall be implemented:

- Grading or removal of nesting trees shall be conducted outside the nesting season, which occurs between approximately March 15 and July 31.
- If grading before March 15 is infeasible and groundbreaking must occur within the breeding season, a pre-construction nesting passerine survey of the grasslands and adjacent trees shall be performed by a qualified biologist. If no nesting passerines are observed no further action is required and grading shall occur within one week of the survey to prevent take of individual passerines that may have begun nesting after the survey.
- If passerines are observed on-site after March 15, the nesting tree shall be identified and a buffer of 75 feet shall be placed around the nesting tree. No disturbance shall occur within the buffer area until after the young have fledged, as determined by passerine surveys by a qualified biologist, or after the nesting season.
- Nesting bird surveys for raptors and passerines may occur at the same time, after February 15.

BR6 Regional Parks will clearly identify trees that will require removal for development on construction drawings. The contractor will be required to clearly mark in the field the trees that will be removed for improvements. Regional Parks will clearly identify the protected perimeter of any native trees on the construction drawings. The protect perimeter is defined in Sonoma County Ordinance No. 4014 as the tree dripline. The following measures will be followed during construction of the project:

- The contractor shall be required to place temporary protective fencing at the outermost edge of the protected perimeter of each tree or group of trees to be protected. Protective fencing will be placed prior to commencement of construction and will remain in place until all

construction related activities are complete. The contractor will be required to avoid disturbance within the protected perimeter during construction of the proposed project. Construction related activities including storing equipment, chemicals, spoil materials, trash, parking vehicles or equipment, shall not take place within the protective fencing.

- The contractor shall be required to perform all tree trimming and branch removal in accordance with the International Society of Arborists Tree Pruning Guidelines, adopted in 1995. These standards require that: (a) branches are cut cleanly, utilizing pruning shears, loppers, or a fine tooth saw that cuts on the pull stroke; (b) branches are cut just outside the branch bark ridge or at the callus shoulder, and at a point of junction with another branch to avoid leaving a limb section without live leaf support; (c) climbing spurs cannot be worn when performing work on any tree; and, (d) trees will not be "headed".
- Regional Parks staff may require a certified arborist to be on-site to direct pruning cuts on large limbs and to ensure that necessary pruning cuts are made to balance the weight of the tree.
- The contractor shall be required to report any damage to protected trees that occurs during, or as a result of, project construction to Regional Parks staff. If a protected tree is damaged so that it cannot be preserved in a healthy state, the tree will be replaced in accordance with the Arboreal Value Chart included in Sonoma County Ordinance No. 4014.

BR7 Replace vegetation removed during construction activities that are not protected by Ordinance 4014. Specifically, replace non-protected trees removed in kind at a 3:1 ratio. Disturbed areas will be reseeded with a native seed mix.

BR8 Trees to be removed for construction of the Guerneville River Park will be retained on-site as near as possible to the downed location. Downed tree retention will provide additional wildlife habitat.

V CULTURAL RESOURCES

Section 15064.5 of CEQA includes a broad definition of historical and archaeological resources. CEQA defines such resources as: 1) a resource listed in or determined to be eligible by the State Historical Resources Commission for listing in the California Register of Historical Resources; 2) a resource included in a local register of historical resources or identified as significant in an historical resource survey; and/or 3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided the determination is supported by substantial evidence, including the following: a) is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage, b) is associated with the lives of persons important in our past, c) embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of an important creative individual, or possesses high artistic values, or d) has yielded or may be likely to yield information important in prehistory or history[7].

Paleontology is the study of fossils—the recognizable remains and traces of once-living, non-human organisms that are incorporated into the Earth's rocks. Shells, bones, leaves, tracks, trails, and a variety of other remains constitute a record of the history of life on the planet dating back 3.5 billion years[8]. Fossils provide the basic data to establish a relative time scale of the physical history of the Earth. Fossils are found in a definite succession in sedimentary and slightly metamorphosed rocks. Fossils are generally most common in rocks formed in relatively shallow marine waters. In freshwater environments, fossils of animals are usually most abundant in rocks formed in lakes. Fossils tend to be least abundant in rocks that formed on dry land because dead plants and animals ordinarily are exposed to the air for long periods of time (precluding fossiliferous formation). Most fossils are relatively small and are collected either by picking up loose specimens on weathered rocks surfaces or by using simple hand tools.

Analysis

a. Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

LSM A cultural resources survey of the project location was conducted by Tom Origer and Associates on April 21, 2004 and archival research was conducted for the project site. The report prepared by Tom Origer & Associates[9] indicates that the pedestrian bridge was determined to be eligible for the National Register of Historic Places (Bridge No. 20-91) and is designated as Sonoma County Historic Landmark #173. The project will not impact the bridge. It is possible that increased use of the project area could result in an increased potential for vandalism to the bridge, however, this result is unlikely based on past experience associated with new park development. The Regional Parks Department has found that bringing more people into an area actually reduces the incidents associated with deviant behavior, such as vandalism. Construction of project components is not anticipated to disturb any historic resources. The project site is not of historical significance. The remote possibility exists that historical indicators might be discovered during project construction. In such an event, Mitigation Measure CR1 will reduce such impact to a less than significant level.

[7] California Environmental Quality Act Guidelines. §15064.5(a).

[8] *Paleontological Collecting*, National Academy Press. Washington, DC. 1987.

[9] *An Archaeological Survey for the Guerneville River Park, Guerneville, Sonoma County, California.* Tom Origer and Associates. April 23, 2004.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

LSM As verified by the Origer report, construction of project components is not anticipated to disturb any archaeological resources. The project site is not of archaeological significance. The remote possibility exists that archaeological indicators might be discovered during project construction. In such an event, Mitigation Measure CR1 will reduce such impact to a less than significant level.

c. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

LSM Construction of project components is not anticipated to disturb any paleontological resources and none were discovered during previous well drilling. However, the remote possibility exists that paleontological indicators might be discovered during project construction. In such an event, Mitigation Measure CR2 will reduce such impact to a less than significant level.

d. Would the project disturb any human remains, including those interred outside of formal cemeteries?

LSM There are no known human remains in the project areas. However, the remote possibility exists that human remains could be discovered during project construction. In such an event, Mitigation Measure CR3 will reduce such impact to a less than significant level.

Cumulative Impacts

There are no adverse cumulative environmental impacts to cultural resources resulting from implementation of the proposed project.

Mitigation Measures

CR1 The project plans and specifications shall provide that in the event prehistoric-era or historic-era archaeological site indicators are unearthed during the course of grading, excavation and/or trenching, all ground disturbing work in the vicinity of the discovery shall cease and all exposed materials shall be left in place. Prehistoric-era archaeologic site indicators could include chipped chert and obsidian tools and tool manufacture waste flakes, grinding implements such as mortars and pestles, and locally darkened soil containing the previously mentioned items as well as fire altered stone and dietary debris such as bone and shellfish fragments. Historic-era archaeologic site indicators could include items of ceramic, glass and metal, and features such as structural ruins, wells and pits containing such artifacts. After cessation of excavation, the contractor shall immediately contact Regional Parks. Regional Parks shall contact a qualified professional archaeologist immediately after the find. Such archaeologist shall conduct an evaluation of significance of the site, and assess the necessity for appropriate mitigation. The contractor shall not resume construction activities until authorization to proceed is received from Regional Parks.

CR2 The project plans and specifications shall provide that in the event paleontological site indicators are unearthed during the course of grading, excavation and/or trenching, all ground disturbing work in the vicinity of the discovery shall cease and all exposed materials shall be left in place. After cessation of excavation, the contractor shall immediately contact Regional Parks. Regional Parks shall contact a qualified professional geologist or paleontologist immediately after the find. Such consultant shall conduct an evaluation of significance of the site, and assess the necessity for appropriate mitigation. The contractor shall not resume construction activities until authorization to proceed is received from Regional Parks.

CR3 If human remains are encountered during grading, excavation or trenching, all construction activity shall cease and the contractor shall immediately contact Regional Parks and the Sonoma County Coroner's Office. If the remains are determined by the Coroner's Office to be of Native American origin, the Native American Heritage Commission shall be contacted and the procedures outlined in CEQA §15064.5(e) shall be implemented by Regional Parks or their designee.

VI GEOLOGY AND SOILS

Analysis

a. **Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**

i. **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**

LS The nearest Alquist-Priolo earthquake fault is approximately 8 miles southwest of the project location[10]. While all of coastal northern California is subject to seismic-related ground shaking, the risk of fault rupture is considered to be less than significant.

ii. **Strong seismic ground shaking?**

LS The project site is subject to seismic ground shaking similar to all of coastal northern California. Structural improvements associated with the Guerneville River Park are limited to the restroom facility that will be engineered and constructed to resist seismic ground shaking. Any risk to the restroom facility from seismic ground shaking is less than significant as the building will be designed and built to current seismic standards and codes and is not intended to be occupied on a continual basis. Roadways and parking areas will similarly be designed to resist seismic ground shaking.

iii. **Seismic-related ground failure, including liquefaction?**

LS The Geology and Soils section of the Highway 116 Bridge EIR indicates that site soils are "river terrace deposits and alluvium which is composed of clay, silt, sand and gravel. Consequently, the probability of soil densification or liquefaction along the alignments of the proposed and existing bridge [project area] during an earthquake, on one of the nearby faults, is relatively high[11]." Structural improvements, including the restroom facility, will be designed to resist seismic-related ground failure and will incorporate all relevant engineering standards to ensure that any risk of loss, injury or death from seismic-related ground failure is reduced to a level of less than significant.

iv. **Landslides?**

NI The project site is relatively flat and not subject to landslides.

b. **Would the project result in substantial soil erosion or the loss of topsoil?**

LSM Long-term use of the project will not generally result in substantial soil erosion or loss of top soil. However, the project is located within the Russian River flood plain and is subject to periodic

---

[10] *Fault-rupture Hazard Zones in California*. Special Publication 42. Revised 1997. Department of Conservation, Division of Mines and Geology. Duncan's Mills Quadrangle.

[11] *Final Environmental Impact Report on the Guerneville Bridge on Route 116 in Sonoma County, California*. State of California, Department of Transportation, District 4. July 1991. Page 53.

flooding. Such flooding can result in both deposition and erosion of soils. Generally, management of the area's trails and vegetation should result in less erosion than is occurring under current unmanaged conditions.

The amount of grading for the entire project would be approximately 1,200 cubic yards. Construction related short-term impacts could include soil erosion or the loss of topsoil during grading and other earthwork activities. Mitigation Measure GS1 will reduce potential construction related erosion impacts to a less than significant level.

c. Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

LS As indicated in (a.ii.) and (a.iii.) above, the project is located on soils that are potentially unstable and in an area subject to seismic-related ground shaking. However, designing and constructing structural improvements to current building standards will reduce risks associated with unstable soils to a less than significant level.

d. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

LS Soils at the project site are indicated as Yolo sandy loam, overwash and Yolo loam, overwash (YmB and YoB). Such soils demonstrate fair to poor strength, medium compressibility and low to moderate shrink swell potential. Typical depth to bedrock is more than five feet[12]. Design and construction of structural improvements will be to current building standards and will reduce risks associated with unstable soils to a level of less than significant.

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

NI No septic tanks are proposed by the project.

Cumulative Impacts

There are no adverse cumulative environmental impacts to geology and soils resulting from implementation of the proposed project.

Mitigation Measures

GS1 Erosion control measures that follow Best Management Practices shall be incorporated into the plans and specifications. The Bay Area Regional Water Quality Control Board publishes an Erosion and Sediment Control Field Manual,[13] which describes such practices. Specifically, the project shall preserve existing vegetation where possible and use a stabilized construction access way. Additionally, silt fences and straw bale barriers will be utilized during rainfall events to prevent offsite erosion.

---

[12] *Soil Survey of Sonoma County, California.* Vernon C. Miller. 1972. United States Department of Agriculture.

[13] *Erosion and Sediment Control Field Manual.* 1996. Bay Area Regional Water Quality Control Board.

VII HAZARDS AND HAZARDOUS MATERIALS

Analysis

a. **Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

LS Park maintenance activities may involve transportation and use of herbicides and gasoline/oil for maintenance machinery. Hazardous material use would be associated with common park maintenance activities including weed control and grass/vegetation trimming. Risks associated with such limited use are considered to be less than significant as the quantities of material and associated use are typical of such facilities and are standard practices. No disposal of hazardous materials will occur at the site.

b. **Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

LSM No hazardous materials will be stored at the project site without proper containment, clean-up and response procedures in place. During construction activities, there is the potential for fuel or oil spillage during refueling or maintenance. Mitigation Measure HM1 through HM3 will reduce such impact to a less than significant level.

c. **Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

LS The project will not emit hazardous emissions or involve the handling of acutely hazardous materials, substances or waste. Hazardous materials associated with park maintenance will be limited to gasoline/oil and herbicides. Use of such chemicals is similar to that used for school ground maintenance. Any potential impact from such use is considered to be less than significant in nature.

d. **Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

NI There are no known or suspected hazardous materials on the project site. A records search was conducted by Caltrans prior to construction of the Highway 116 Bridge project. No hazardous materials sites were present within the project boundaries[14]. The site has been under Caltrans ownership since that time and there is no reason to expect hazardous materials to have been introduced to the site.

e. **For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?**

NI There are no public or private airports within two miles of the project site.

---

[14] *Final Environmental Impact Report on the Guerneville Bridge on Route 116 in Sonoma County, California.* State of California, Department of Transportation, District 4. July 1991.

f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

NI There are no public or private airstrips within two miles of the project site.

g. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

NI The project will not interfere with the County's adopted emergency response plan or an emergency evacuation plan.

h. Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

LSM There is the remote possibility that a grass or brush fire might be started by construction vehicles or equipment during construction of the project. Mitigation Measure HM4 will reduce the potential of construction-related fires to a less than significant level.

Additional fire risk is introduced with the use of barbeque pits and smoking. Guerneville River Park maintenance will include mowing to reduce fire hazards and weed control adjacent to barbeque pits. Such maintenance will greatly reduce the risk of fires from the barbeque pits or smokers. Additionally, emergency response providers in Guerneville do not view uses associated with the Guerneville River Park as increasing demand on such services (see the Public Services section for further discussion of emergency service providers). Based on these factors, risks of wildfire from barbeque pits or smoking is considered to be less than significant.

Cumulative Impacts

There are no adverse cumulative environmental impacts to or from hazards/hazardous materials resulting from implementation of the proposed project.

Mitigation Measures

HM1 The contractor will be required to prepare, submit, and implement a spill prevention plan for any construction of the proposed project. The contractor will be required to store all flammable liquids be in compliance with the Sonoma County Fire Code and section 7-1.01G of the Caltrans Standard Specification (or the functional equivalent) for the protection of surface waters. The contractor shall be required to follow the provisions of §5163 through §5167 of the General Industry Safety Orders (California Code of Regulations, Title 8) to protect the project area from being contaminated by accidental release of any hazardous materials. If hazardous materials are encountered during construction, the contractor shall halt construction immediately, notify Regional Parks, and implement remediation in accordance with the project specifications and applicable requirements of the North Coast Regional Water Quality Control Board. Disposal of all hazardous materials shall be in compliance with current California hazardous waste disposal laws.

HM2 The contractor will be required to dispose of petroleum-based products in accordance with applicable laws and regulations. If a spill should occur, the contractor will be required to immediately call 9-1-1 and report the spill to the appropriate authority. The contractor will be prohibited from conducting vehicle and equipment repair and maintenance on-site.

Sonoma County Regional Parks Department operations and maintenance crews will be required to dispose of petroleum-based products in accordance with applicable laws and regulations. If a spill should occur, Regional Parks staff will immediately call 9-1-1 and report the spill to the appropriate authority. Regional Parks staff will be prohibited from conducting vehicle and equipment repair and maintenance on-site.

HM3 The contractor will be required to conduct inspections and maintenance, according to current regulations, of portable toilet facilities used during construction. The contractor will be required to conduct routine waste removal to ensure that effluent spills are avoided or minimized.

Regional Parks staff or agent will be required to conduct inspections and maintenance, according to current regulations, of portable toilet facilities used during project operation. Regional Parks staff or agent will ensure that routine waste removal is conducted so that effluent spills are avoided or minimized.

HM4 The project plans and specifications shall require that construction vehicles and equipment have appropriate exhaust systems and/or spark-arresting devices installed.

VIII HYDROLOGY AND WATER QUALITY

Analysis

a. Would the project violate any water quality standards or waste discharge requirements?

NI The project will not violate any water quality standard and will not impact waste discharge requirements. Guerneville River Park improvements will be above the Russian River ordinary high water level. Please see item "c and f" for further discussion of water quality.

The project may require permits from the State Water Resources Control Board (General Permit to Discharge Storm Water Associated with Construction Activity), North Coast Regional Water Quality Control Board (National Pollution Discharge Elimination System permit under the Porter-Cologne Water Quality Control Act of the California Water Code, Water Quality Certification under Section 401 of the Clean Water Act, or Waiver of Waste Discharge Requirements under Section 404 of the Clean Water Act), and from the Sonoma County Permit and Resource Management Department (Grading and/or Drainage Permits).

b. Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

LS The project will not substantially deplete groundwater supplies. Water use will be limited to landscape irrigation (primarily on the open grass area) and restroom usage. Impermeable surface areas are limited to the parking areas and will not interfere with groundwater recharge. Water service to the project area will be provided by the Sweetwater Springs Water District. Limited irrigation will be provided primarily by a drip system. The Caltrans mitigation area will continue to receive drip irrigation. Any new trees planted during park development will also receive drip irrigation during their establishment period.

c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

LS Construction of the Guerneville River Park will not substantially alter the existing drainage pattern of the site or area and will not alter the course of a stream or river. As indicated in the Geology and Soils section item (b.), long-term use of the project will not generally result in substantial soil erosion or loss of top soil. However, the project is located within the Russian River flood plain and is subject to periodic flooding. Such flooding can result in both deposition and erosion of soils. Generally, management of the area's trails and vegetation should result in less erosion than under current unmanaged conditions.

The proposed project is not expected to change the direction of drainage. Currently, runoff drains to the Russian River and this will not change after the park development. The proposed parking areas, Drake Road Extension improvements, paved and gravel paths, boat portage, and boat trailer/recreational vehicle turn-around may increase the rate of runoff from new impervious surfaces. The actual amount of increased rate of runoff would vary year to year as the runoff rate is based on actual rainfall. Any increased runoff rate from the Guerneville River Park improvements would be insignificant on the project level because the amount of new impervious surfaces is only 1.1 acre of an approximate 8.5-acre project area (approximately 13 percent of total project site). A storm with a precipitation rate of 1 inch per hour would generate approximately 1.1 cubic feet per second of

runoff. The velocity of the runoff would be relatively slow as the majority of the site (approximately 87 percent) will remain pervious and the site has only moderate slopes, with the exception of the riverbank itself. The increased rate of runoff from the project would be insignificant in comparison to the upstream watershed contributions at that point on the Russian River in terms of cumulative impact. The increased rate of runoff would not be expected to result in long-term erosion or siltation on or off-site. Potential erosion during construction will be controlled through implementation of Mitigation Measure GS-1.

d. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?

NI The project will not substantially alter the existing drainage pattern of the site or area or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site. The project area already floods and implementation of the project will not change the periodicity or severity of such flooding. The course of the Russian River will not be altered through implementation of the Guerneville River Park.

e. Would the project create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

LS Runoff from the project area will enter the Russian River similar to existing conditions. No stormwater drainage systems are included in the project. Parking areas are sufficiently removed from the Russian River to allow for overland flow to reduce any potential pollutants to a level of less than significant. Please refer to item "c" for additional discussion.

f. Would the project otherwise substantially degrade water quality?

NI The project will not substantially degrade water quality. The project site's hydrologic function will remain relatively unchanged from present conditions. Erosion control to be implemented during Phase 1 at the boat portage location will improve existing erosion problems at that location and generally result in less erosion entering the Russian River.

g. Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

NI No housing is proposed as part of this project.

h. Would the project place within a 100-year flood hazard area structures, which would impede or redirect flood flows?

LS The project includes a restroom that will be constructed to resist flooding. However, structures are within the 100-year flood hazard area. Siting the restroom adjacent to the Highway 116 southern abutment should minimize redirection of flood flows. Any redirection of flood flows caused by the restroom facility will be encompassed by the project limits and will be less than significant. Fencing along the bench of the Russian River and Pocket Canyon Creek will be a split rail fence. Such fencing is not expected to impede or redirect flood flows. Solid wood fencing placed at the parking areas adjacent to private properties are not expected to impede of redirect flood flows. The project site is within the floodplain, not within the floodway.

i. Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

NI The project is not at risk to flooding as a result of the failure of a levee or dam. While two dams exist upstream on the Russian River (one on Dry Creek), failure of those dams would not pose an immediate threat at the project location. As indicated above, the Guerneville River Park will be subject to periodic flooding from the Russian River. The Guerneville River Park will be closed during flood periods to ensure safety.

j. Would the project be subject to inundation by seiche, tsunami, or mudflow?

NI The project is not at significant risk from inundation by seiche, tsunami or mudflow.

Cumulative Impacts

There are no adverse cumulative environmental impacts to hydrology/water quality resulting from implementation of the proposed project.

Mitigation Measures

See Mitigation Measure GS-1 regarding mitigation of potential erosion during construction. No other adverse environmental impacts to hydrology/water quality have been identified; therefore, no other mitigation is required.

IX LAND USE AND PLANNING

Analysis

a. Would the project physically divide an established community?

NI The project will not divide an established community. The site is currently vacant and divided by the Highway 116 and historic pedestrian bridges. While surrounded on three sides by portions of the Guerneville community, implementation of the Guerneville River Park will not divide this portion of the community. Planned pathways will serve to link portions of the community currently split by the two bridges.

b. Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

LS Implementation of the project will require a General Plan amendment from K (Recreation/Visitor Serving Commercial) to Public/Quasi Public and a zoning amendment from K to Public Facilities. The project is consistent with the K designation. However, a Public/Quasi Public General Plan designation and a Public Facilities zoning designation are more appropriate for a park. Regional Parks will rezone the parcel to PF (Public Facility) pursuant to General Plan Policy OS-7a.

c. Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

NI The project will not conflict with any conservation plan or natural community conservation plan. There are no such plans incorporating the project site.

Cumulative Impacts

There are no adverse cumulative environmental impacts to land use and planning resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to land use and planning have been identified; therefore, no mitigation is required.

X MINERAL RESOURCES

Analysis

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

NI The project site is not listed as a known mineral resource site in the Sonoma County Aggregate Resource Management Plan[15].

b. Would the project result in the loss or availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

NI Implementation of the project will not result in the loss or availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. The site is not designated as such.

Cumulative Impacts

There are no adverse cumulative environmental impacts to mineral resources resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to mineral resources have been identified; therefore, no mitigation is required.

[15] *Sonoma County Aggregate Resources Management Plan and Environmental Impact Report*. EIP Associates. July 31, 1992.

XI NOISE

A noise study was conducted by Illingworth & Rodkin[16] for the project including existing and future noise conditions in the project area. The study included ambient noise measurements around the project site. Information presented in the Noise section is summarized from the Illingworth & Rodkin report. Illingworth & Rodkin revised their report after the Sonoma County Environmental Review Committee meeting on July 20, 2004 to incorporate the Committee's recommendation that a solid wood fence be included along the boundary of the parking areas and adjacent private properties. The revised report is included in the appendices of this Initial Study.

Analysis

a. Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

LSM The project site is located in a noise environment consisting primarily of vehicular traffic noise from Highway 116. Noise levels throughout the park site would be less than 60 dBA L_{dn}[17] and the site would not be considered noise impacted as defined in the Sonoma County Noise Element of the General Plan. Daytime hourly average noise levels would generally range from about 45 dBA L_{eq}[18] to 56 dBA L_{eq} throughout the park site and would be compatible with the proposed use.

During peak-hour conditions, noise from project-generated vehicles would be about 44 dBA L_{eq} or about 9 to 10 decibels below ambient noise levels generated by Highway 116 and Drake Road at the nearest residential receivers to the parking lot access roadways. The addition of project generated traffic accessing the parking lots would increase existing noise levels by 1 dBA or less. Although each vehicle passby would be audible at the nearest receivers, the overall increase in hourly noise levels would not be perceptible.

The noise level standards presented in Table NE-2 of the Sonoma County General Plan Noise Element are enforced at the residential property line. The Phase I parking lot on the west side of Highway 116 and the Phase III parking lot on the east side of Highway 116 are proposed approximately 25 feet from the nearest residential property lines. Typical noise levels generated by activities in the parking lots would generally range from about 55 to 65 dBA. The range of noise levels associated with common parking lot activities would generally comply with the standards presented in Table NE-2. There is the possibility that, given the proximity of the parking lots to the nearest residential receivers, intermittent sound levels could potentially exceed this standard. However, it is expected that sound levels exceeding 70 dBA L_{max}[19] would only occur on occasion and during daylight hours. A solid wood fence, six feet in height, would be installed between the parking areas and the adjacent residential areas. According to Illingworth & Rodkin, the solid wood fence would reduce noise approximately 5 to 8 decibels from the maximum noise levels generated in the parking areas. Some noise would still be audible at the nearest residential land uses, however, noise levels would not normally exceed existing maximum levels without the project or the Table NE-2 limits. Inclusion of the solid wood fence would render any increased noise from the parking areas insignificant and no further mitigation would be required.

---

[16] *Guerneville River Park Initial Study Noise Section, Sonoma County, California.* Illingworth & Rodkin. June 04, 2004.

[17] The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 pm and 7:00 am.

[18] The average A-weighted noise level during the measurement period, one hour in this case.

[19] Exceeding 70 dBA for more than one minute per hour.

Group picnic areas and family picnic sites are proposed along the Russian River in areas adjoining existing residences west and east of the project site. The majority of picnic sites are proposed on the west portion of the project site. Ten family picnic sites and an open grass area are proposed about 300 feet from the nearest residence west of Pocket Canyon Creek, and a large group picnic area is proposed approximately 200 feet from the nearest residence. Typical daytime ambient noise levels at residences west of Pocket Canyon Creek are approximately 45 dBA L_{eq} (ST-4). Three family picnic sites and a small group picnic area are proposed on the east portion of the project site, approximately 70 to 100 feet from residences to the east. Typical noise levels during daytime hours, generated by vehicular traffic, are approximately 52 dBA L_{eq} (ST-3) at the nearest receivers east of the site.

Sources of noise at the family picnic sites and the group picnic areas are expected to be typical of other parks, including voices from children and adults playing and conversing, radios or portable CD players, etc. Noise levels at the smaller family sites would be expected to be lower than the group picnic areas at the nearest residences given the increased distance and smaller gathering of people. However, noise from activities at the group picnic areas could at times be audible above existing noise levels generated by vehicular traffic along Highway 116. For instance, a large gathering of people having a sack race could generate noise levels above the Table NE-2 standards, especially during periods of excitement, yelling, laughter, etc. In general, it is not expected that noise from the smaller family picnic sites would generally exceed the standard presented in table NE-2 of the Sonoma County Noise Element.

The project anticipates that 24 to 40 reservations would be made per year for the large group picnic area (75 to 150 people), and 24 to 36 reservations would be made per year for the small group picnic area (25 to 50 people). The large group picnic area would be located about 200 feet from the nearest residence. The small group picnic area is proposed about 50 feet from the nearest residential property line. During group events sounds would generally be audible above ambient noise levels at the nearest neighbors to the west and east. If groups of people congregate immediately adjacent to the residential neighbors, then it is possible that noise levels would intermittently exceed the noise level limits set forth in Table NE-2 of the Sonoma County Noise Element. At a distance of 200 feet from a large group of people, an hourly L_{eq} noise level of 60 dBA could be expected. Similar or slightly higher noise levels would be expected from smaller groups of people located closer to adjacent residential property lines. Amplified music could also generate noise levels in excess of the NE-2. However, any such exceedance of the standard would be during daylight hours, generally during late morning and afternoon hours.

Mitigation Measure N1 is included to minimize noise impacts from parking lot noise and group picnic activities.

b. Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

NI The project will not result in generation of excessive groundborne vibration or groundborne noise levels. Use of the project site as a park does not have the potential to create such conditions.

c. Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

LS Illingworth & Rodkin report that traffic generated by the project would not cause noise levels to substantially increase on the roadways serving the site. The project would generate a slight increase in vehicular traffic in the area approximately 8 to 10 vehicles per hour during the peak traffic hours. Project traffic will access the site from Highway 116 via Drake Road. Noise levels along these local roadways may increase slightly as a result of project traffic, however, traffic volumes would have to double to yield substantial noise increases. The relatively low traffic volumes associated with the project would result in a less than significant noise impact.

d. Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

LSM The construction of the project would temporarily increase noise levels in the immediate vicinity of the project site. The construction of the project would occur over approximately three months. Construction is planned weekdays only, during daytime hours. No construction would occur on weekends or holidays. With appropriate construction time limits, noise suppression techniques, and the relatively short construction duration, noise generated by the construction activity would not generate significant adverse impacts. With the incorporation of standard construction measures provided in Mitigation Measure N2, the impact for construction-related noise would be considered less than significant.

The project will not result in other substantial temporary or periodic increases in ambient noise levels in the project vicinity.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

NI The project is not located within two miles of a pubic or public use airport.

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

NI The project is not located within two miles of a public or private airstrip.

Cumulative Impacts

There are no adverse cumulative environmental impacts to noise resulting from implementation of the proposed project.

Mitigation Measures

N1 To reduce noise levels generated by the project to generally comply with the standards in Table NE-2, the following measures should be included in the design of the project. Noise barriers or earth berms are not feasible mitigation measures because the project is located in a floodway or floodplain area. Therefore, the following alternative procedures are designed to reduce the potential for violations of NE-2, however even with the proposed strategies, noise levels could occasionally exceed the County's noise limits. The intent of these measures is to reduce the potential for exceedances as much as is practical.

- Install signage in the parking areas to encourage visitors to be considerate of the neighbors, including the use of portable radios and boom-boxes. Park rules prohibit excessively loud and/or amplified music.

N2 The following measures should be implemented at the construction site to reduce the effects of construction noise on adjacent residential land uses:

- Noise-generating activities at the construction site or in areas adjacent to the construction site associated with the project in any way should be restricted to the hours 7:00 a.m. to 7:00 p.m., Monday through Friday. No construction activities should occur on Saturdays, Sundays, or holidays except in emergencies or by special arrangement.
- Equip all internal combustion engine driven equipment with intake and exhaust mufflers which are in good condition and appropriate for the equipment.

- Unnecessary idling of internal combustion engines should be strictly prohibited.
- Avoid staging of construction equipment within 200 feet of residences and locate all stationary noise-generating construction equipment, such as air compressors and portable power generators, as far practical from existing noise sensitive receptors. Construct temporary barriers (e.g., temporary plywood screens) to screen stationary noise generating equipment when located in areas adjoining noise sensitive land uses.
- Utilize "quiet" air compressors and other stationary noise sources where technology exists.
- Control noise from construction workers' radios to the point where they are not audible at existing residences bordering the project site.
- The contractor shall notify adjacent residents to the project site of the construction schedule in writing.
- Designate a "noise disturbance coordinator," the Regional Parks Department Project Manager, who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and would require that reasonable measures warranted to correct the problem be implemented. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule.

XII POPULATION AND HOUSING

Analysis

a. **Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

NI The project will not induce population growth. Rather, the project responds to the need for a public recreational facility in the Guerneville area.

b. **Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?**

NI The project will not displace any housing.

c. **Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?**

LS Management practices at Guerneville River Park will prohibit seasonal occupation of the property by homeless squatters. The project will not displace a substantial number of people (it will not displace any legal residents on the site) and will therefore not necessitate the construction of replacement housing.

Cumulative Impacts

There are no adverse cumulative environmental impacts to population and housing resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to population and housing have been identified; therefore, no mitigation is required.

XIII PUBLIC SERVICES

Analysis

a. **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:**

i. **Fire protection?**

NI Fire protection to the project site is provided by the Russian River Fire District. Implementation of the park will not impact the District's ability to provide emergency services and will not increase demand for emergency services[20].

ii. **Police protection?**

NI Police protection at the project site is provided by the Sonoma County Sheriff's Department via the Guerneville Substation. Emergency response to the project site is adequate based on its proximity to the substation. Conversion of the project site to a County park will enhance the enforcement ability of the Sheriff's Department by enactment of park rules and regulations. Further, conversion of the project site is expected to reduce the incidence of illegal uses currently occurring at the site[21].

iii. **Schools?**

NI The project is a park project and will have no impact to schools.

iv. **Parks?**

NI The project is a park project in response to a need to provide public access to the Russian River in the Guerneville area.

v. **Other public facilities?**

NI The project will not negatively impact other public facilities.

Cumulative Impacts

There are no adverse cumulative environmental impacts to public services resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to public services have been identified; therefore, no mitigation is required.

[20] Captain Randy Wood. Russian River Fire District. Personal communication. March 23, 2004.

[21] Sergeant Paul Sullivan, Sonoma County Sheriff's Department, Guerneville Substation. Personal communication April 15, 2004.

XIV RECREATION

Analysis

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

NI The project will implement a park to provide public access to the Russian River and other recreational opportunities not currently available in the Guerneville area. The Guerneville River Park will not increase the use of existing neighborhood and regional parks.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

LS This project is a recreation facility. It will consist of construction, maintenance and use of approximately five acres of an eight acre site. This Initial Study examines the potential for the project to have an adverse physical effect on the environment. No impacts have been identified that can not be mitigated to a level of less than significant.

Cumulative Impacts

There are no adverse cumulative environmental impacts to recreation resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to recreation have been identified; therefore, no mitigation is required.

XV TRANSPORTATION/TRAFFIC

A traffic study was conducted by W-Trans[22] for the project including current and future traffic conditions with and without the project. The study included the Highway 116-Old River Road/River Road-Main Street intersection, the Highway 116/Drake Road-Neeley Road intersection and the Drake Road/Drake Road extension intersection. Information presented in the Transportation/Traffic section is summarized from the W-Trans report.

Analysis

a. **Would the project cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?**

LS W-Trans indicated that the project is expected to generate approximately 20 trips per day on weekdays and 106 trips per day on weekend, including five weekday pm peak hour trips and 32 weekend midday peak hour trips. Under the projected future traffic volumes, all intersection movements are expected to continue functioning at level of service[23] (LOS) C or better. Project-related traffic increases will be less than significant, even under future conditions.

The project includes conversion of the Drake Road/Drake Road Extension intersection to a four-way intersection with park traffic traveling to/from the north and east, and through traffic to/from the south and east. With the additional traffic generated by the park, an all-way stop control may better serve the vehicle maneuvers and conflicts at the Drake Road/Drake Road Extension intersection and is recommended.

b. **Would the project exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?**

LS W-Trans conducted two peak period traffic counts at the study intersections. Currently, all study intersections are functioning at LOS C or better during both peak periods. Based on existing conditions, future conditions and expected trips generated by the project, there is expected to be virtually no change in the operating conditions from what currently exists, with all intersections remaining at LOS C or better and experiencing increases in average delay of less than one second. Any impact to existing and future LOS is less than significant.

c. **Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?**

NI The project will have no impact to air traffic.

d. **Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

NI W-Trans reviewed the collision histories for study intersections to determine safety conditions and trends. Using records from 2000-2002, it was concluded that collision rates at all of the study intersections are lower than the statewide average for similar types of intersections and are within a

---

[22] *Guerneville River Park Traffic Impact Study for the County of Sonoma*. W-Trans. May 3, 2004.

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

range that would generally be considered acceptable. No significant safety issues were identified in the study area.

e. Would the project result in inadequate emergency access?

NI The project will not result in inadequate emergency access. Construction of parking areas and the roadway to the boat portage will serve to improve access. There is an existing 10-foot wide pedestrian easement that connects Riverlands Drive through the proposed park site to State Highway 116. Residents of the Riverlands Drive area use this easement for emergency ingress and egress during periods of flooding. This use will not change as a result of park development.

f. Would the project result in inadequate parking capacity?

NI Sonoma County does not have parking standards for public parks. However, other counties have adopted a standard of one parking stall for each 0.5 acre of developed park area. Based on this standard, the five acres of developed land for the proposed Guerneville River Park would require ten parking stalls. As proposed, the project includes 44 standard parking stalls and nine boat trailer parking stalls. Therefore, the parking supply is adequate based on standards utilized in other California counties.

g. Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

NI The project will not impact alternative transportation. As part of the project, Drake Road Extension will be widened to provide a four-foot shoulder for pedestrian and bike passage. This will assist in linking the downtown area via the historic pedestrian bridge to the park.

Cumulative Impacts

There are no adverse cumulative environmental impacts to transportation/traffic resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to transportation/traffic have been identified; therefore, no mitigation is required.

XVI UTILITIES AND SERVICE SYSTEMS

Analysis

a. **Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?**

NI Wastewater treatment will be provided by the Russian River Sanitation District. Constituents in the wastewater contributed by facilities in Guerneville River Park will not result in exceedances of wastewater treatment requirements.

b. **Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

NI The project will not require the construction of new water or wastewater treatment facilities. Both the water provider, Sweetwater Springs Water District[24], and the wastewater provider, Russian River Sanitation District[25], have sufficient capacity to serve the project's water and wastewater needs.

c. **Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

NI The project does not include any stormwater drainage facilities or expansion of existing facilities. Stormwater will continue to drain to the Russian River as overland flow.

d. **Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?**

NI As indicated in (b.) above, the Sweetwater Springs Water District has a sufficient water supply to serve the Guerneville River Park for both domestic and irrigation usage.

e. **Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

NI As indicated in (b.) above, the Russian River Sanitation District has sufficient capacity to serve the project.

---

[24] Daniel Howell. General Manager, Sweetwater Springs Water District. Email correspondence. April 7, 2004.

[25] Pam Jeane. Sonoma County Water Agency. Email correspondence. March 26, 2004.

f. Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

NI The project will not create a significant amount of solid waste and should not impact regional landfills.

Cumulative Impacts

There are no adverse cumulative environmental impacts to utilities and service systems resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to utilities and service systems have been identified; therefore, no mitigation is required.

XVII MANDATORY FINDINGS OF SIGNIFICANCE

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? **No.**

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? **No.**

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? **No.**

DETERMINATION

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature: _____ Date: _____

Philip Sales, Park Planning & Design Administrator — August 02, 2004

Sonoma County Regional Parks Department

DOCUMENT PREPARATION AND SOURCES

California Environmental Quality Act Guidelines. 2000.

Erosion and Sediment Control Field Manual. 1996. Bay Area Regional Water Quality Control Board.

Fault-rupture Hazard Zones in California. Special Publication 42. Revised 1997. Department of Conservation, Division of Mines and Geology. Duncan's Mills Quadrangle.

Final Environmental Impact Report on the Guerneville Bridge on Route 116 in Sonoma County, California. State of California, Department of Transportation, District 4. July 1991.

Paleontological Collecting. 1987. National Academy Press. Washington, DC.

Soil Survey of Sonoma County, California. Vernon C. Miller. 1972. United States Department of Agriculture.

Sonoma County Aggregate Resources Management Plan and Environmental Impact Report. EIP Associates. July 31, 1992.

Sonoma County General Plan. March 1994. Sonoma County.

Sonoma County Important Farmland—1996. California Resources Agency. Department of Conservation. 1996.

Federal Emergency Management Agency – Flood Insurance Rate Maps. Panels 060375-0515, 0635, and 0655. Revised April 2, 1991.

Prepared by:
Sue Nelson—Principal Planner
Justin Witt—Project Planner

Subconsultant Reports

Special Status Plant Survey Report and Opportunities and Constraints Analysis for the Guerneville River Park Project, Guerneville, Sonoma County, CA. Letter report prepared April 27, 2004 by Jane Valerius.

Wildlife Habitat Assessment—Guerneville River Park. Letter report prepared April 27, 2004 by Wildlife Research Associates.

An Archaeological Survey for the Guerneville River Park, Guerneville, Sonoma County, California. Tom Origer and Associates. April 23, 2004.

Guerneville River Park Initial Study Noise Section, Sonoma County, California. Illingworth & Rodkin. June 04, 2004. Revised July 20, 2004.

Guerneville River Park Traffic Impact Study for the County of Sonoma. W-Trans. May 3, 2004.

Exhibit 4: CEQA Notice of Determination and Mitigated Negative Declaration

STATE OF CALIFORNIA - THE RESOURCES AGENCY
DEPARTMENT OF FISH AND GAME
ENVIRONMENTAL FILING FEE CASH RECEIPT
DFG 753.5a (8-03)

251277

Lead Agency: Sonoma County Regional Parks — Date: 12/06/2004
County / State Agency of Filing: Sonoma County — Document No: 04-1006-2
Project Title: Larkfield River Park Project
Project Applicant Name: Sonoma County Regional Parks — Phone Number: 565-3962
Project Applicant Address: 2300 Co. Ctr. Dr. Ste A-120 Santa Rosa CA 95403
Project Applicant *(check appropriate box)*: Local Public Agency [X] School District [ ] Other Special District [ ] State Agency [ ] Private Entity [ ]

CHECK APPLICABLE FEES:

( )	Environmental Impact Report	$850.00	$
(X)	Negative Declaration Paid by Co. Gov. Ud.	$1,250.00	$ Gov. Ud.
( )	Application Fee Water Diversion *(State Water Resources Control Board Only)*	$850.00	$
( )	Projects Subject to Certified Regulatory Programs	$850.00	$
(X)	County Administrative Fee	$35.00	$ EXEMPT -
( )	Project that is exempt from fees		
		TOTAL RECEIVED	$ 1250.00 Co. Gov

Signature and title of person receiving payment: C. Larson

WHITE-PROJECT APPLICANT YELLOW-DFG/FASB PINK-LEAD AGENCY GOLDENROD-STATE AGENCY OF FILING

STATE OF CALIFORNIA - THE RESOURCES AGENCY
DEPARTMENT OF FISH AND GAME
ENVIRONMENTAL FILING FEE CASH RECEIPT
DFG 753.5a (8-03)

251277

Lead Agency: Sonoma County Regional Parks — Date: 12/06/2004
County / State Agency of Filing: Sonoma County — Document No: 04-1006-2
Project Title: Larkfield River Park Project
Project Applicant Name: Sonoma County Regional Parks — Phone Number: 565-3962
Project Applicant Address: 2300 Co. Ctr. Dr. Ste A-120 Santa Rosa CA 95403
Project Applicant (check appropriate box): Local Public Agency [X] School District [ ] Other Special District [ ] State Agency [ ] Private Entity [ ]

CHECK APPLICABLE FEES:

( )	Environmental Impact Report	$850.00	$
(X)	Negative Declaration Paid by Co. Gov. Ud.	$1,250.00	$ Gov. Ud.
( )	Application Fee Water Diversion (State Water Resources Control Board Only)	$850.00	$
( )	Projects Subject to Certified Regulatory Programs	$850.00	$
(X)	County Administrative Fee	$35.00	$ EXEMPT -
( )	Project that is exempt from fees		
		TOTAL RECEIVED	$ 1250.00 Co. Gov

Signature and title of person receiving payment: C. Larson

WHITE-PROJECT APPLICANT YELLOW-DFG/FASB PINK-LEAD AGENCY GOLDENROD-STATE AGENCY OF FILING

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Arnold Schwarzenegger
Governor

Jan Boel
Acting Director

September 10, 2004

Michelle Julene
Sonoma County Regional Parks
2300 County Center Drive, #120A
Santa Rosa, CA 95403

Subject: Guerneville River Park
SCH#: 2004022066

Dear Michelle Julene:

The State Clearinghouse submitted the above named Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on September 9, 2004, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Terry Roberts

Terry Roberts
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Exhibit 4: CEQA Notice of Determination and Mitigated Negative Declaration

Document Details Report
State Clearinghouse Data Base

SCH# 2004022066
Project Title Guerneville River Park
Lead Agency Sonoma County Regional Parks

Type Neg Negative Declaration
Description Passive park development: trails, picnic areas, outdoor stage, small craft portage, restroom / shower, vehicle access, parking.

Lead Agency Contact

Name Michelle Julene
Agency Sonoma County Regional Parks
Phone 707-573-8053 **Fax**
email
Address 2300 County Center Drive, #120A
City Santa Rosa **State** CA **Zip** 95403

Project Location

County Sonoma
City
Region
Cross Streets Drake Road
Parcel No. 071-170-013, 014; 071-160-057
Township 8N **Range** 10W **Section** 32 **Base** Diablo

Proximity to:

Highways 116
Airports
Railways
Waterways Russian River
Schools
Land Use Recreation / Visiting serving commercial
Public right-of-way

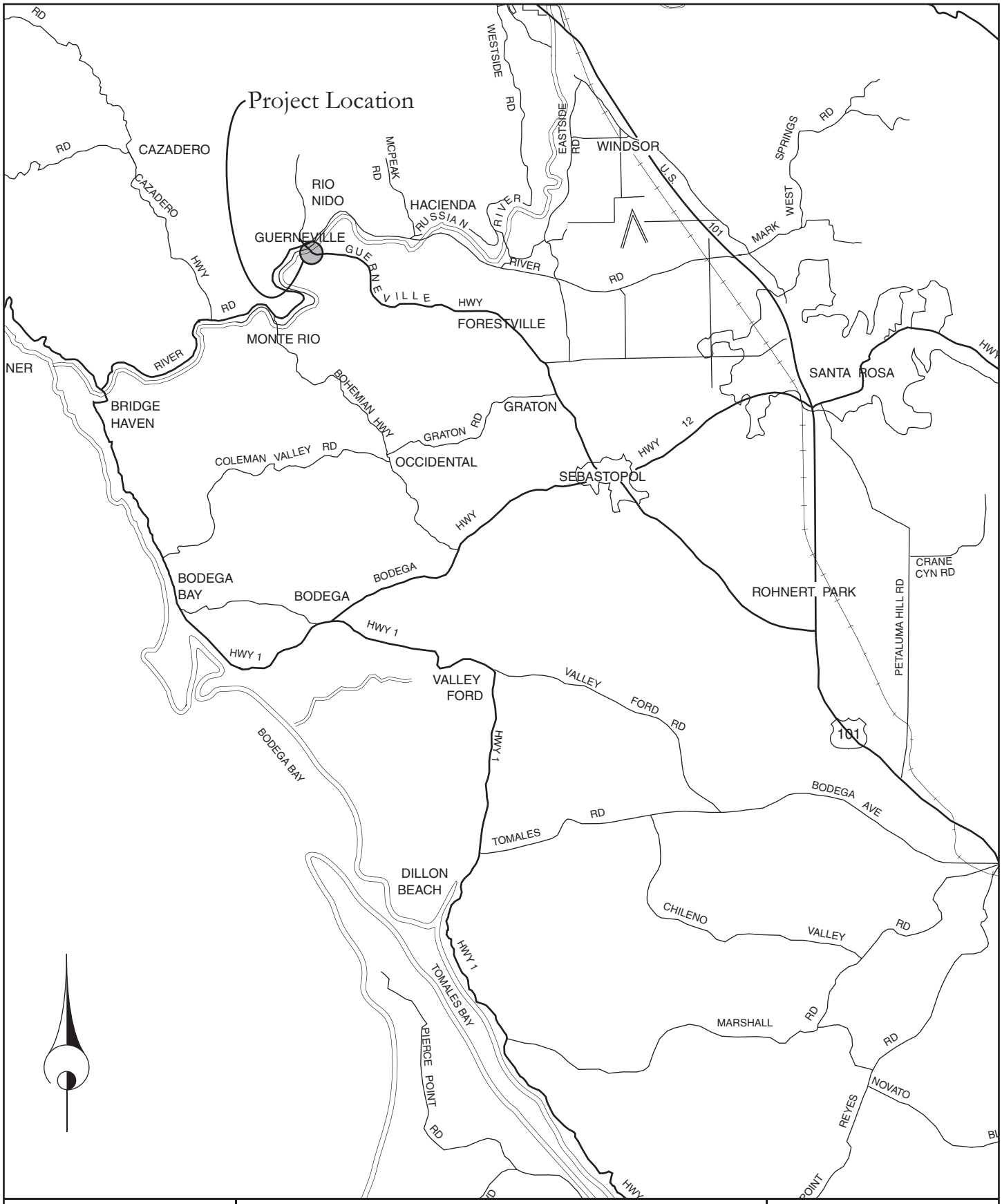
Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Flood Plain/Flooding; Noise; Public Services; Traffic/Circulation; Water Quality; Wetland/Riparian; Wildlife

Reviewing Agencies Resources Agency; Regional Water Quality Control Board, Region 2; Department of Parks and Recreation; Native American Heritage Commission; Office of Historic Preservation; Department of Fish and Game, Region 3; Department of Water Resources; California Highway Patrol; Caltrans, District 4; Department of Toxic Substances Control; State Lands Commission

Date Received 08/11/2004 **Start of Review** 08/11/2004 **End of Review** 09/09/2004

Note: Blanks in data fields result from insufficient information provided by lead agency.

Exhibit 4: CEQA Notice of Determination and Mitigated Negative Declaration



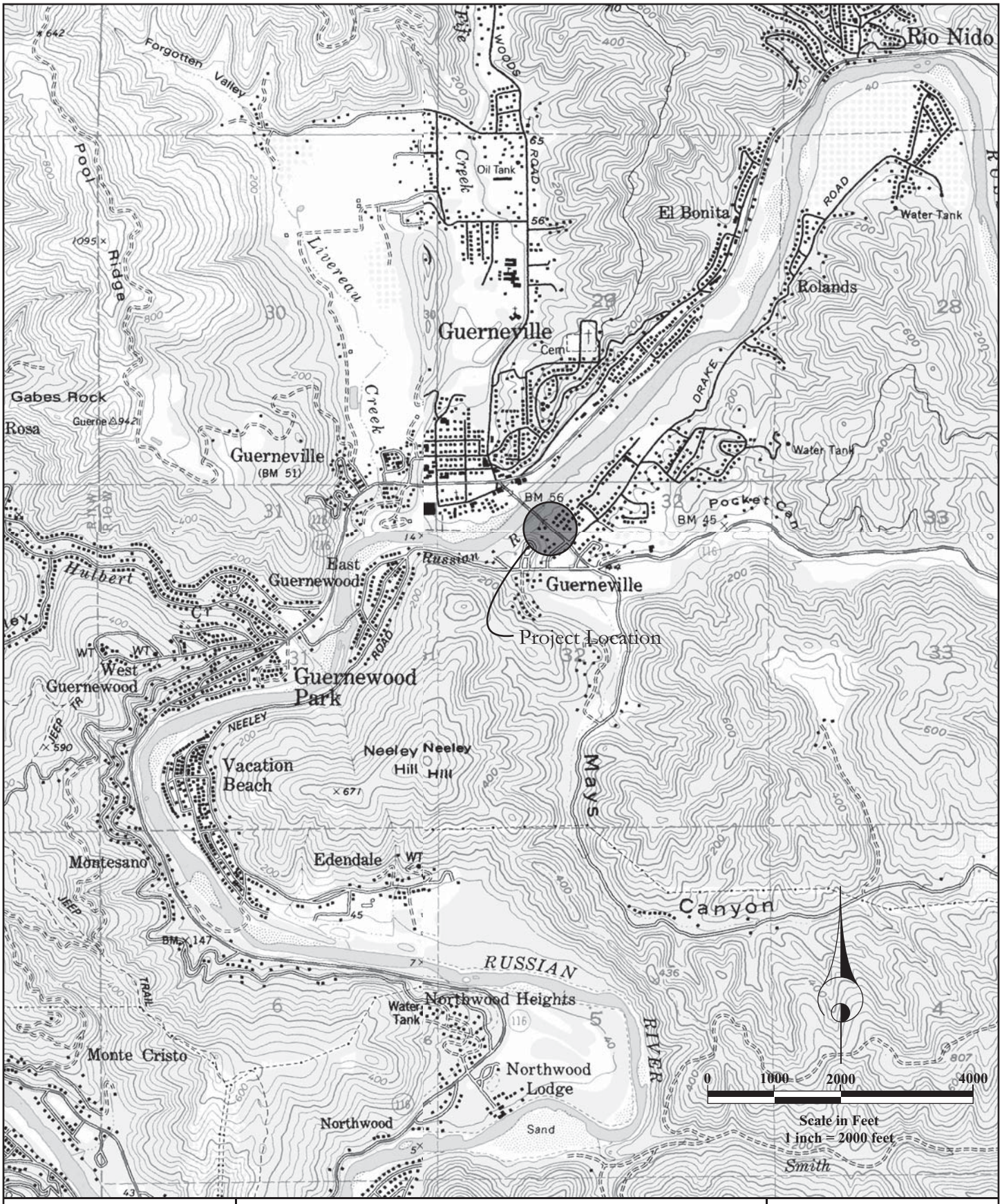
Brelje & Race
CONSULTING CIVIL ENGINEERS
5570 SKYLANE BLVD. SANTA ROSA CA 95403 707/576-1322

Guerneville River Park
County of Sonoma, California

Date: July 2004
Job #: 2711
W/RPT/2711/2711-030505FIG1.AI

Regional Location Map

Figure 1



Brelje & Race CONSULTING CIVIL ENGINEERS 5570 SKYLANE BLVD. SANTA ROSA CA 95403 707/576-1322	Guerneville River Park County of Sonoma, California	Date: July 2004 Job #: 2711 W\2711\2711-030505FIG2.AI
	Project Location	Figure 2

Brelje & Race
CONSULTING CIVIL ENGINEERS
5570 SKYLANE BLVD. SANTA ROSA CA 95403 707/576-1322

Guerneville River Park
County of Sonoma, California

Date: July 2004
Job #: 2711
W|RPT|2711\2711-040322fig3.ai

Site Plan

Figure 3

This notice was posted on FEB 11 2004
and will remain posted for a period of thirty days
until 3/12/04.
ERIK K. LEWIS, Co. Clerk
by Sandy Middleton
DEPUTY CLERK

NOTICE OF PREPARATION OF AN INITIAL STUDY

SONOMA COUNTY REGIONAL PARKS
PHONE: (707)565-2041

2300 COUNTY CENTER DRIVE, SUITE 120a

SANTA ROSA, CA 95403
FAX: (707)565-3642

FEBRUARY 13, 2004

The Sonoma County Regional Parks Department (Regional Parks) is preparing an Initial Study for the proposed:

GUERNEVILLE RIVER PARK PROJECT

Introduction

Regional Parks is requesting comments from responsible and trustee agencies, property owners in the project vicinity, and other interested parties regarding the scope and content of the Initial Study. Responsible and trustee agencies are requested to provide comments regarding the scope and content of the environmental information which is germane to that agency's statutory responsibilities in relation to the proposed project. Regional Parks is also interested in comments from property owners and other interested parties regarding what should be included in the Initial Study.

Regional Parks staff will prepare the Initial Study in accordance with the provisions of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines. An Initial Study is a preliminary analysis of a proposed project's potentially significant environmental effects regarding construction, operation, and maintenance of the proposed project. After the Initial Study is prepared, Regional Parks will present the document to the Sonoma County Environmental Review Committee (ERC), who will determine whether a Negative Declaration or and Environmental Impact Report should be prepared. Regional Parks will invite those on the project mailing list to attend the ERC meeting.

Notice of Preparation Comment Period

Please send written comments to Mark Cleveland, Park Planner II, in care of the Sonoma County Regional Parks Department, at the address listed above.

The comment period for the Notice of Preparation will close at 5:00 p.m. on **March 15, 2004.** Please note that while the comment period for the Notice of Preparation has a closing date, interested parties are encouraged to contact Regional Parks staff at any time during the process to receive an update of the process, to ask questions, and share information.

Public Scoping Meeting

Regional Parks will host a Public Scoping Meeting regarding the proposed project. The Public Scoping Meeting is not a required part of the CEQA process. Regional Parks staff will present the conceptual plan for the Guerneville River Park Project and will discuss the planning and environmental processes associated with park development. Then, the meeting will be opened to the audience to participate in the process. Regional Parks would like to hear from the community as well as the responsible and trustee agencies regarding support for the proposed project and regarding concerns. The Public Scoping Meeting is scheduled as follows:

Saturday, February 28 ❖ 10:00 am – 12:00 pm
Guerneville Veterans Building
First & Church Streets, Guerneville

Regional Parks Contact Persons

Please call Michelle Julene at (707)565-3962 if you have questions regarding this Notice of Preparation.

PROJECT INFORMATION

Project Goals

The goals of the proposed Guerneville River Park include the following:

1. Provide additional recreational opportunities along the Russian River to visitors and residents of Sonoma County, and unincorporated Guerneville. This includes providing a place for local outdoor gatherings and events.
2. Create a park facility that is sensitive to the unique river environment and blends well with the character and features of the site and its surroundings.
3. Organize and develop recreational uses on the site to maximize opportunities and minimize impacts to existing residential areas, trees, plants, and wildlife.
4. Enhance existing bike and pedestrian connections between Guerneville on the north side of the river, the proposed park, and residential areas on the south side.
5. Provide park facility designs that minimize maintenance and operations expenses.

Project Location

The proposed park site is located along the south bank of the Russian River, below the State Highway 116 bridges in Guerneville. The site consists of three recorded parcels[1] and additional right-of-way all currently owned by the State of California Department of Transportation (CalTrans). The site is approximately 8.8 acres, of which approximately 5 acres are suitable for park development. Johnson's Beach is located to the west of the proposed Guerneville River Park.

Existing Site Conditions

The proposed park site is located on a river terrace. The site includes riparian vegetation, open grassy areas, and a 2-acre mitigation site associated with the CalTrans bridge. Slopes are generally less than 5 percent. Slopes to the Russian River are greater than 5 percent. The site includes a paved path between the old bridge and Drake Road. Utilities including sewer connection, phone, and electricity as well as construction access ramp to the Russian River were installed on the project site by CalTrans for the bridge construction project and remain in place.

Project Description

The proposed Guerneville River Park project consists of the development of a passive regional park facility. It is anticipated that the Guerneville River Park would be developed in three phases over several years, depending on the availability of funding sources. The facilities proposed for development generally include the following:

- **Picnic Areas.** Group and family picnic facilities including tables, barbecues, and trash receptacles.
- **Boat Portage.** A small portage for non-motorized boats, such as kayaks, canoes, drift boats, and flotation devices.
- **Paths.** Paved and gravel paths to connect the facilities within the park.
- **Landscaping.** Use of native plants to landscape the developed portions of the park facility.
- **Utilities.** Restroom, shower building, potable water, irrigation line, electricity.

[1] APN 071-170-013 and –014; APN 071-160-057

- **Parking.** Paved parking for approximately 46 vehicles and 9 spaces for recreational vehicles and/or boat trailers.
- **Vehicle Access.** Paved internal access roads and off-site safety improvements to the Drake Road extension. Vehicle control devices, such as fencing, bollards, and gates would also be included.

A copy of the proposed site plan is available for viewing at the Guerneville Public Library.

Areas of Potential Environmental Effect

The Initial Study will analyze the potential environmental impacts associated with construction, operation, and maintenance of the proposed project. Specific areas of analysis will include: aesthetics, agricultural resources, air quality, biological resources, cultural resources, geology and soils, hazards, hydrology and water quality, land use, energy and mineral resources, noise, population and housing, public services, recreation, transportation and traffic, and utilities and service systems. These are the resource categories included in the Initial Study Checklist, Appendix G to the State CEQA Guidelines.

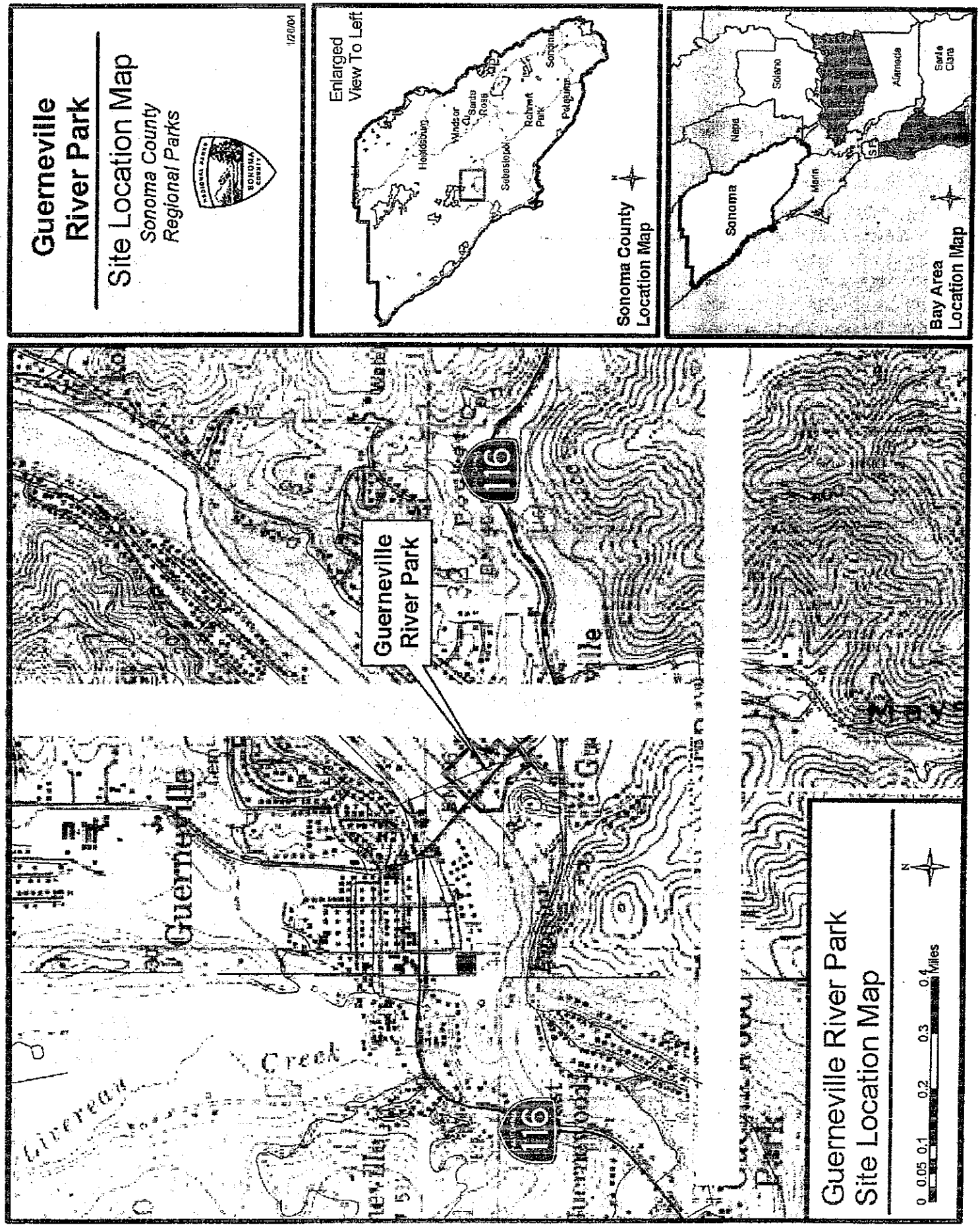
Jurisdictional, Permitting, and Regulatory Agencies

The following agencies may have jurisdiction associated with development of the proposed Guerneville River Park Project:

- United States Army Corps of Engineers
- United States Fish and Wildlife Service
- National Marine Fisheries Service
- California Department of Fish and Game
- California Regional Water Quality Control Board, North Coast Region
- Sonoma County Air Pollution Control District
- State of California Department of Transportation
- Sonoma County Agricultural Preservation and Open Space District
- Sonoma County Permit and Resource Management Department

PUBLICATION AND MAILING DATE: **February 13, 2004**
SENT TO OFFICE OF RESEARCH AND PLANNING: **February 13, 2004**

Exhibit 4: CEQA Notice of Determination and Mitigated Negative Declaration



STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Arnold Schwarzenegger
Governor

Jan Boel
Acting Deputy Director

Notice of Preparation

February 18, 2004

To: Reviewing Agencies

Re: Guerneville River Park
SCH# 2004022066

Attached for your review and comment is the Notice of Preparation (NOP) for the Guerneville River Park draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Michelle Julene
Sonoma County Regional Parks
2300 County Center Drive, #120A
Santa Rosa, CA 95403

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Terry Roberts
for Scott Morgan
Senior Planner, State Clearinghouse

Attachments
cc: Lead Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
(916)445-0613 FAX(916)323-3018 www.opr.ca.gov

Exhibit 4: CEQA Notice of Determination and Mitigated Negative Declaration

Document Details Report
State Clearinghouse Data Base

SCH# 2004022066
Project Title Guerneville River Park
Lead Agency Sonoma County Regional Parks

Type NOP Notice of Preparation

Description The proposed Guerneville River Park project consists of the development of a passive regional park facility. It is anticipated that the Guerneville River Park would be developed in three phases over several years, depending on the availability of funding sources. The facilities proposed for development generally include the following:
Picnic areas, Boat portage, Paths, Landscaping, Utilities, Parking and Vehicle access.

Lead Agency Contact

Name Michelle Julene
Agency Sonoma County Regional Parks
Phone 707 565-3962 *Fax*
email
Address 2300 County Center Drive, #120A
City Santa Rosa *State* CA *Zip* 95403

Project Location

County Sonoma
City
Region
Cross Streets Drake Road
Parcel No. Various
Township 8N *Range* 10W *Section* 32 *Base* Mtdiablo

Proximity to:

Highways 116
Airports
Railways
Waterways Russian River
Schools
Land Use Caltrans ownership and right of way
Zoned K: Recreation/visitor serving commercial, park development, picnic areas, boat portage to Russian River, paths, landscaping, parking, vehicle access, restroom, shower, water, electricity.

Project Issues

Reviewing Agencies Resources Agency; Office of Historic Preservation; Department of Parks and Recreation; Reclamation Board; Department of Water Resources; Department of Fish and Game, Region 3; Native American Heritage Commission; State Lands Commission; Caltrans, District 4; Regional Water Quality Control Board, Region 2

Date Received 02/17/2004 *Start of Review* 02/17/2004 *End of Review* 03/17/2004

Note: Blanks in data fields result from insufficient information provided by lead agency.

Exhibit 4: CEQA Notice of Determination and Mitigated Negative Declaration

NOP Distribution List

County: Sonoma

SCH# 2004022066

Resources Agency

- [x] Resources Agency
  Nadell Gayou
- [ ] Dept. of Boating & Waterways
  Suzi Betzler
- [ ] California Coastal Commission
  Elizabeth A. Fuchs
- [ ] Colorado River Board
  Gerald R. Zimmerman
- [ ] Dept. of Conservation
  Roseanne Taylor
- [ ] California Energy Commission
  Environmental Office
- [ ] Dept. of Forestry & Fire Protection
  Allen Robertson
- [x] Office of Historic Preservation
  Hans Kreutzberg
- [x] Dept of Parks & Recreation
  B. Noah Tilghman
  Environmental Stewardship Section
- [x] Reclamation Board
  Lori Buford
- [ ] Santa Monica Mountains Conservancy
  Paul Edelman
- [ ] S.F. Bay Conservation & Dev't. Comm.
  Steve McAdam
- [x] Dept. of Water Resources
  Resources Agency
  Nadell Gayou

Fish and Game

- [ ] Dept. of Fish & Game
  Scott Flint
  Environmental Services Division
- [ ] Dept. of Fish & Game 1
  Donald Koch
  Region 1
- [ ] Dept. of Fish & Game 2
  Banky Curtis
  Region 2
- [x] Dept. of Fish & Game 3
  Robert Floerke
  Region 3
- [ ] Dept. of Fish & Game 4
  William Laudermilk
  Region 4
- [ ] Dept. of Fish & Game 5
  Don Chadwick
  Region 5, Habitat Conservation Program
- [ ] Dept. of Fish & Game 6
  Gabrina Gatchel
  Region 6, Habitat Conservation Program
- [ ] Dept. of Fish & Game 6 I/M
  Tammy Allen
  Region 6, Inyo/Mono, Habitat Conservation Program
- [ ] Dept. of Fish & Game M
  George Isaac
  Marine Region

Other Departments

- [ ] Food & Agriculture
  Steve Shaffer
  Dept. of Food and Agriculture
- [ ] Dept. of General Services
  Robert Sleppy
  Environmental Services Section
- [ ] Dept. of Health Services
  Wayne Hubbard
  Dept. of Health/Drinking Water

Independent Commissions,Boards

- [ ] Delta Protection Commission
  Debby Eddy
- [ ] Office of Emergency Services
  John Rowden, Manager
- [ ] Governor's Office of Planning & Research
  State Clearinghouse

_____

- [x] Native American Heritage Comm.
  Debbie Treadway
- [ ] Public Utilities Commission
  Ken Lewis
- [x] State Lands Commission
  Jean Sarino
- [ ] Tahoe Regional Planning Agency (TRPA)
  Cherry Jacques

Business, Trans & Housing

- [ ] Caltrans - Division of Aeronautics
  Sandy Hesnard
- [ ] Caltrans - Planning
  Ron Helgeson
- [ ] California Highway Patrol
  John Olejnik
  Office of Special Projects
- [ ] Housing & Community Development
  Cathy Creswell
  Housing Policy Division

Dept. of Transportation

- [ ] Dept. of Transportation 1
  Mike Eagan
  District 1
- [ ] Dept. of Transportation 2
  Don Anderson
  District 2
- [ ] Dept. of Transportation 3
  Jeff Pulverman
  District 3
- [x] Dept. of Transportation 4
  Tim Sable
  District 4
- [ ] Dept. of Transportation 5
  David Murray
  District 5
- [ ] Dept. of Transportation 6
  Marc Birnbaum
  District 6
- [ ] Dept. of Transportation 7
  Stephen J. Buswell
  District 7
- [ ] Dept. of Transportation 8
  Linda Grimes,
  District 8
- [ ] Dept. of Transportation 9
  Gayle Rosander
  District 9
- [ ] Dept. of Transportation 10
  Tom Dumas
  District 10
- [ ] Dept. of Transportation 11
  Bill Figge
  District 11
- [ ] Dept. of Transportation 12
  Bob Joseph
  District 12

Cal EPA

Air Resources Board

- [ ] Airport Projects
  Jim Lerner
- [ ] Transportation Projects
  Kurt Karperos
- [ ] Industrial Projects
  Mike Tollstrup

- [ ] California Integrated Waste Management Board
  Sue O'Leary
- [ ] State Water Resources Control Board
  Jim Hockenberry
  Division of Financial Assistance
- [ ] State Water Resources Control Board
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [ ] State Water Resouces Control Board
  Steven Herrera
  Division of Water Rights
- [ ] Dept. of Toxic Substances Control
  CEQA Tracking Center

Regional Water Quality Control Board (RWQCB)

- [ ] RWQCB 1
  Cathleen Hudson
  North Coast Region (1)
- [x] RWQCB 2
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] RWQCB 3
  Central Coast Region (3)
- [ ] RWQCB 4
  Jonathan Bishop
  Los Angeles Region (4)
- [ ] RWQCB 5S
  Central Valley Region (5)
  - [ ] RWQCB 5F
    Central Valley Region (5)
    Fresno Branch Office
  - [ ] RWQCB 5R
    Central Valley Region (5)
    Redding Branch Office
- [ ] RWQCB 6
  Lahontan Region (6)
  - [ ] RWQCB 6V
    Lahontan Region (6)
    Victorville Branch Office
- [ ] RWQCB 7
  Colorado River Basin Region (7)
- [ ] RWQCB 8
  Santa Ana Region (8)
- [ ] RWQCB 9
  San Diego Region (9)

- [ ] Other _____

_____

_____

Last Updated on 01/12/04

United States Department of the Interior
FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825

IN REPLY REFER TO:
1-1-04-SP-1110

March 12, 2004

Ms. Michelle Julene
Sonoma County Regional Parks
2300 Center Drive, Suite 120a
Santa Rosa, California 95403

Subject: Species List for Guerneville River Park Project, Sonoma County, California

Dear Ms. Julene:

We are sending the enclosed list (Enclosure A) in response to your February 13, 2004, notice. The list covers the following U.S. Geological Survey 7½ minute quad or quads: Guerneville Quad..

Please read *Important Information About Your Species List* (enclosed). It explains how we made the list and describes your responsibilities under the Endangered Species Act. Please contact Dan Buford at (916) 414-6625, if you have any questions about the attached list or your responsibilities under the Endangered Species Act. For the fastest response to species list requests, address them to the attention of Species Lists at this address. You may fax requests to 414-6712 or 414-6713. You may also email them to harry_mossman@fws.gov.

Sincerely,

FOR
Michael G. Nepstad
Acting Deputy Assistant Field Supervisor

Enclosures

TAKE PRIDE IN AMERICA

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute *quads*. The United States is divided into these quads, which are about the size of San Francisco. If you requested your list by quad name or number, that is what we used. Otherwise, we used the information you sent us to determine which quad or quads to use.

Animals

The animals on your species list are ones that occur within, *or may be affected by projects within*, the quads covered by the list. Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them. Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents. Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones *that have actually been observed* in the quad or quads covered by the list. We have also included either a county species list or a list of species in nearby quads. We recommend that you check your project area for these plants. Plants may exist in an area without ever having been detected there.

Surveying

Some of the species on your list may not be affected by your project. A trained biologist or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list. For plant surveys, we recommend using the enclosed *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Species*. The results of your surveys should be published in any environmental documents prepared for your project.

State-Listed Species

If a species has been listed as threatened or endangered by the State of California, but not by us nor by the National Marine Fisheries Service, it will appear on your list as a Species of Concern. *However you should contact the California Department of Fish and Game for official information about these species.* Call (916) 322-2493 or write Marketing Manager, California Department of Fish and Game, Natural Diversity Data Base, 1416 Ninth Street, Sacramento, California 95814.

Your Responsibilities Under the Endangered Species Act

All plants and animals identified as *listed* on Enclosure A are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the *take* of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal. Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

> If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a *formal consultation* with the Service. Such consultation would result in a *biological opinion* addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.
>
> If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an *incidental take permit*. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project. Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that mitigates for the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the mitigation plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as *critical habitat*. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Maps and boundary descriptions of the critical habitat may be found in the *Federal Register*. The information is also reprinted in the *Code of Federal Regulations* (50 **CFR** 17.95).

Candidate Species

We recommend that you address impacts to *candidate* species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as

threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Your list may contain a section called *Species of Concern*. This term includes former *category 2 candidate species* and other plants and animals of concern to the Service and other Federal, State and private conservation agencies and organizations. Some of these species may become candidate species in the future.

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6580.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed, candidate and special concern species in your planning, this should not be a problem. We also continually strive to make our information as accurate as possible. Sometimes we learn that a particular species has a different range than we thought. This should not be a problem if you consider the species on the county or surrounding-quad lists that we have enclosed. If you have a long-term project or if your project is delayed, please feel free to contact us about getting a current list. You can also find out the current status of a species by going to the Service's Internet page: *www.fws.gov*

GUIDELINES FOR CONDUCTING AND REPORTING BOTANICAL INVENTORIES FOR FEDERALLY LISTED, PROPOSED AND CANDIDATE PLANTS

(September 23, 1996)

These guidelines describe protocols for conducting botanical inventories for federally listed, proposed and candidate plants, and describe minimum standards for reporting results. The Service will use, in part, the information outlined below in determining whether the project under consideration may affect any listed, proposed or candidate plants, and in determining the direct, indirect, and cumulative effects.

Field inventories should be conducted in a manner that will locate listed, proposed, or candidate species (target species) that may be present. The entire project area requires a botanical inventory, except developed agricultural lands. The field investigator(s) should:

1. Conduct inventories at the appropriate times of year when target species are present and identifiable. Inventories will include all potential habitats. Multiple site visits during a field season may be necessary to make observations during the appropriate phenological stage of all target species.

2. If available, use a regional or local reference population to obtain a visual image of the target species and associated habitat(s). If access to reference populations is not available, investigators should study specimens from local herbaria.

3. List every species observed and compile a comprehensive list of vascular plants for the entire project site. Vascular plants need to be identified to a taxonomic level which allows rarity to be determined.

4. Report results of botanical field inventories that include:

   a. a description of the biological setting, including plant community, topography, soils, potential habitat of target species, and an evaluation of environmental conditions, such as timing or quantity of rainfall, which may influence the performance and expression of target species

   b. a map of project location showing scale, orientation, project boundaries, parcel size, and map quadrangle name

   c. survey dates and survey methodology(ies)

   d. if a reference population is available, provide a written narrative describing the target species reference population(s) used, and date(s) when observations were made

   e. a comprehensive list of all vascular plants occurring on the project site for each habitat type

   f. current and historic land uses of the habitat(s) and degree of site alteration

   g. presence of target species off-site on adjacent parcels, if known

   h. an assessment of the biological significance or ecological quality of the project site in a local

and regional context

5. If target species is(are) found, report results that additionally include:

   a. a map showing federally listed, proposed and candidate species distribution as they relate to the proposed project

   b. if target species is (are) associated with wetlands, a description of the direction and integrity of flow of surface hydrology. If target species is (are) affected by adjacent off-site hydrological influences, describe these factors.

   c. the target species phenology and microhabitat, an estimate of the number of individuals of each target species per unit area; identify areas of high, medium and low density of target species over the project site, and provide acres of occupied habitat of target species. Investigators could provide color slides, photos or color copies of photos of target species or representative habitats to support information or descriptions contained in reports.

   d. the degree of impact(s), if any, of the proposed project as it relates to the potential unoccupied habitat of target habitat.

6. Document findings of target species by completing California Native Species Field Survey Form(s) and submit form(s) to the Natural Diversity Data Base. Documentation of determinations and/or voucher specimens may be useful in cases of taxonomic ambiguities, habitat or range extensions.

7. Report as an addendum to the original survey, any change in abundance and distribution of target plants in subsequent years. Project sites with inventories older than three years from the current date of project proposal submission will likely need additional survey. Investigators need to assess whether an additional survey(s) is (are) needed.

8. Adverse conditions may prevent investigator(s) from determining presence or identifying some target species in potential habitat(s) of target species. Disease, drought, predation, or herbivory may preclude the presence or identification of target species in any year. An additional botanical inventory(ies) in a subsequent year(s) may be required if adverse conditions occur in a potential habitat(s). Investigator(s) may need to discuss such conditions.

9. Guidance from California Department of Fish and Game (CDFG) regarding plant and plant community surveys can be found in Guidelines for Assessing the Effects of Proposed Developments on Rare and Endangered Plants and Plant Communities, 1984. Please contact the CDFG Regional Office for questions regarding the CDFG guidelines and for assistance in determining any applicable State regulatory requirements.

ENCLOSURE A

Endangered and Threatened Species that May Occur in or be Affected by Projects in the Area of the Following California Counties

Reference File No. 1-1-04-SP-1110

March 12, 2004

SONOMA COUNTY

Listed Species

Mammals

Guadalupe fur seal, *Arctocephalus townsendi* (T) NMFS

Steller (=northern) sea-lion, *Eumetopias jubatus* (T) NMFS

blue whale, *Balaenoptera musculus* (E) NMFS

finback (=fin) whale, *Balaenoptera physalus* (E) NMFS

humpback whale, *Megaptera novaeangliae* (E) NMFS

right whale, *Eubalaena glacialis* (E) NMFS

salt marsh harvest mouse, *Reithrodontomys raviventris* (E)

sei whale, *Balaenoptera borealis* (E) NMFS

sperm whale, *Physeter catodon (=macrocephalus)* (E) NMFS

Birds

California brown pelican, *Pelecanus occidentalis californicus* (E)

California clapper rail, *Rallus longirostris obsoletus* (E)

Critical habitat, marbled murrelet, *Brachyramphus marmoratus* (T)

Critical habitat, western snowy plover, *Charadrius alexandrinus nivosus* (T)

bald eagle, *Haliaeetus leucocephalus* (T)

marbled murrelet, *Brachyramphus marmoratus* (T)

northern spotted owl, *Strix occidentalis caurina* (T)

short-tailed albatross, *Diomedea albatrus* (E)

western snowy plover, *Charadrius alexandrinus nivosus* (T)

Reptiles

green turtle, *Chelonia mydas (incl. agassizi)* (T) NMFS

leatherback turtle, *Dermochelys coriacea* (E) NMFS

loggerhead turtle, *Caretta caretta* (T) NMFS

olive (=Pacific) ridley sea turtle, *Lepidochelys olivacea* (T) NMFS

Amphibians

California red-legged frog, *Rana aurora draytonii* (T)

Fish

California coastal chinook salmon, *Oncorhynchus tshawytscha* (T) NMFS

Central California Coastal steelhead, *Oncorhynchus mykiss* (T) NMFS

Central Valley spring-run chinook salmon, *Oncorhynchus tshawytscha* (T) NMFS

Critical habitat, coho salmon - central CA coast, *Oncorhynchus kisutch* (T) NMFS
Critical habitat, winter-run chinook salmon, *Oncorhynchus tshawytscha* (E) NMFS
Northern California steelhead, *Oncorhynchus mykiss* (T) NMFS
coho salmon - central CA coast, *Oncorhynchus kisutch* (T) NMFS
delta smelt, *Hypomesus transpacificus* (T) *
tidewater goby, *Eucyclogobius newberryi* (E)
winter-run chinook salmon, *Oncorhynchus tshawytscha* (E) NMFS

Invertebrates

Behren's silverspot butterfly, *Speyeria zerene behrensii* (E)
California freshwater shrimp, *Syncaris pacifica* (E)
Myrtle's silverspot butterfly, *Speyeria zerene myrtleae* (E)
white abalone, *Haliotes sorenseni* (E) NMFS

Plants

Baker's larkspur, *Delphinium bakeri* (E) *
Baker's stickyseed, *Blennosperma bakeri* (E)
Burke's goldfields, *Lasthenia burkei* (E)
Clara Hunt's milk-vetch, *Astragalus clarianus* (E)
Hickman's potentilla (=cinquefoil), *Potentilla hickmanii* (E) *
Kenwood Marsh checkermallow (=checkerbloom), *Sidalcea oregana ssp. valida* (E)
Loch Lomond coyote-thistle (=button-celery), *Eryngium constancei* (E)
Pennell's bird's-beak, *Cordylanthus tenuis ssp. capillaris* (E)
Pitkin Marsh lily, *Lilium pardalinum ssp. pitkinense* (E)
Sebastopol meadowfoam, *Limnanthes vinculans* (E)
Sonoma alopecurus, *Alopecurus aequalis var. sonomensis* (E)
Sonoma spineflower, *Chorizanthe valida* (E) *
Vine Hill clarkia, *Clarkia imbricata* (E)
clover lupine [Tidestrom's lupine], *Lupinus tidestromii* (E)
many-flowered navarretia, *Navarretia leucocephala ssp. plieantha* (E)
showy Indian clover, *Trifolium amoenum* (E) *
soft bird's-beak, *Cordylanthus mollis ssp. mollis* (E) *
white sedge, *Carex albida* (E)
yellow larkspur, *Delphinium luteum* (E)

Proposed Species

Amphibians

California tiger salamander, *Ambystoma californiense* (PT)

Plants

Critical habitat, Baker's larkspur, *Delphinium bakeri* (PX)

Critical habitat, yellow larkspur, *Delphinium luteum* (PX)

Candidate Species

Birds

Western yellow-billed cuckoo, *Coccyzus americanus occidentalis* (C) *

Fish

Central Valley fall/late fall-run chinook salmon, *Oncorhynchus tshawytscha* (C) NMFS

Critical habitat, Central Valley fall/late fall-run chinook, *Oncorhynchus tshawytscha* (C) NMFS

green sturgeon, *Acipenser medirostris* (C)

Invertebrates

black abalone, *Haliotes cracherodii* (C) NMFS

Species of Concern

Mammals

California red tree vole, *Arborimus pomo* (SC)

Pacific western big-eared bat, *Corynorhinus (=Plecotus) townsendii townsendii* (SC)

Suisun ornate shrew, *Sorex ornatus sinuosus* (SC)

Yuma myotis bat, *Myotis yumanensis* (SC)

fringed myotis bat, *Myotis thysanodes* (SC)

gray whale, *Eschrichtius robustus* (D) NMFS

greater western mastiff-bat, *Eumops perotis californicus* (SC)

long-eared myotis bat, *Myotis evotis* (SC)

long-legged myotis bat, *Myotis volans* (SC)

Birds

Aleutian Canada goose, *Branta canadensis leucopareia* (D)

Allen's hummingbird, *Selasphorus sasin* (SC)

American bittern, *Botaurus lentiginosus* (SC)

American peregrine falcon, *Falco peregrinus anatum* (D)

Bell's sage sparrow, *Amphispiza belli belli* (SC)

California thrasher, *Toxostoma redivivum* (SC)

Cassin's auklet, *Ptychoramphus aleuticus* (SC)

Harlequin duck, *Histrionicus histrionicus* (SC)

San Pablo song sparrow, *Melospiza melodia samuelis* (SC)

Vaux's swift, *Chaetura vauxi* (SC)

Xantus' murrelet, *Synthliboramphus hypoleucus* (SC)

ashy storm-petrel, *Oceanodroma homochroa* (SC)

bank swallow, *Riparia riparia* (CA)

black oystercatcher, *Haematopus bachmani* (SC)

black rail, *Laterallus jamaicensis coturniculus* (CA)
black skimmer, *Rynchops niger* (SC)
black swift, *Cypseloides niger* (SC)
black turnstone, *Arenaria melanocephala* (SC)
black-footed albatross, *Diomedia nigripes* (SC)
ferruginous hawk, *Buteo regalis* (SC)
little willow flycatcher, *Empidonax traillii brewsteri* (CA)
loggerhead shrike, *Lanius ludovicianus* (SC)
long-billed curlew, *Numenius americanus* (SC)
marbled godwit, *Limosa fedoa* (SC)
olive-sided flycatcher, *Contopus cooperi* (SC)
red knot, *Calidris canutus* (SC)
red-breasted sapsucker, *Sphyrapicus ruber* (SC)
rufous hummingbird, *Selasphorus rufus* (SC)
saltmarsh common yellowthroat, *Geothlypis trichas sinuosa* (SC)
tricolored blackbird, *Agelaius tricolor* (SC)
western burrowing owl, *Athene cunicularia hypugaea* (SC)
whimbrel, *Numenius phaeopus* (SC)
white-tailed (=black shouldered) kite, *Elanus leucurus* (SC)

Reptiles

California horned lizard, *Phrynosoma coronatum frontale* (SC)
northwestern pond turtle, *Clemmys marmorata marmorata* (SC)

Amphibians

Northern red-legged frog, *Rana aurora aurora* (SC)
foothill yellow-legged frog, *Rana boylii* (SC)
western spadefoot toad, *Spea hammondii* (SC)

Fish

Gualala roach, *Lavinia symmetricus parvipinnis* (SC)
Pacific lamprey, *Lampetra tridentata* (SC)
Russian River tule perch, *Hysterocarpus traski pomo* (SC)
Sacramento splittail, *Pogonichthys macrolepidotus* (SC)
longfin smelt, *Spirinchus thaleichthys* (SC)

Invertebrates

California linderiella fairy shrimp, *Linderiella occidentalis* (SC)
Leech's skyline diving beetle, *Hydroporus leechi* (SC)
Ricksecker's water scavenger beetle, *Hydrochara ricksecker*i (SC)
Sonoma arctic skipper, *Carterocephalus palaemon ssp.* (SC)

brownish dubiraphian riffle beetle, *Dubiraphia brunnescens* (SC)

bumblebee scarab beetle, *Lichnanthe ursina* (SC)

globose dune beetle, *Coelus globosus* (SC)

sandy beach tiger beetle, *Cicindela hirticollis gravida* (SC)

Plants

Baker's goldfields, *Lasthenia macrantha ssp bakeri* (SLC) *

Baker's manzanita, *Arctostaphylos bakeri ssp. bakeri* (SC)

Baker's narvarretia, *Navarretia leucocephala ssp. bakeri* (SC)

Blasdale's bentgrass, *Agrostis blasdalei var. blasdalei* (SC)

Bolander's reed grass, *Calamagrostis bolanderi* (SLC)

California beaked-rush, *Rhynchospora californica* (SC)

California saltbush, *Atriplex californica* (SLC)

Calistoga ceanothus, *Ceanothus divergens* (SC)

Cobb Mountain lupine, *Lupinus sericatus* (SLC)

Colusa layia (=Colusa tidytips), *Layia septentrionalis* (SLC)

Contact (Socrates) Mine jewelflower, *Streptanthus brachiatus ssp. brachiatus* (SC)

Crystal Springs lessingia, *Lessingia arachnoidea* (SC)

Davy's clarkia, *Clarkia davyi* (SLC)

Dorr's Cabin jewelflower, *Streptanthus morrisonii ssp. hirtiflorus* (SC)

Franciscan onion, *Allium peninsulare var. franciscanum* (SLC)

Franciscan thistle, *Cirsium andrewsii* (SC) *

Freed's jewelflower, *Streptanthus brachiatus ssp. hoffmanii* (SC)

Gairdner's yampah, *Perideridia gairdneri ssp. gairdneri* (SC)

Jepson's linanthus, *Linanthus jepsonii* (SLC)

Kruckeberg's jewelflower, *Streptanthus morrisonii ssp. kruckebergii* (SC)

Marin checkermallow (=checkerbloom), *Sidalcea hickmanii ssp. viridis* (SLC)

Marin knotweed, *Polygonum marinense* (SLC)

Mendocino (=pygmy) cypress, *Cupressus goveniana ssp. pigmaea* (SC)

Morrison's jewelflower, *Streptanthus morrisonii ssp. morrisonii* (SC)

Mt. Saint Helena morning-glory, *Calystegia collina ssp. oxyphylla* (SLC)

Napa false indigo, *Amorpha californica var. napensis* (SLC)

North Coast sand-verbena, *Abronia umbellata ssp. breviflora* (SC)

Nuttall's milk-vetch, *Astragalus nuttallii var. virgatus* (SLC)

Pacific cordgrass (=California cordgrass), *Spartina foliosa* (SLC)

Petaluma popcornflower, *Plagiobothrys mollis var. vestitus* (SC) **

Point Reyes checkerbloom, *Sidalcea calycosa ssp rhizomata* (SLC)

Rincon Ridge ceanothus, *Ceanothus confusus* (SC)

Rincon manzanita, *Arctostaphylos stanfordiana ssp. decumbens* (SC)
Round-headed Chinese houses, *Collinsia corymbosa* (SC)
San Francisco (=bluehead, Chamisso's, dune) gilia, *Gilia capitata ssp. chamissonis* (SC)
San Francisco Bay spineflower, *Chorizanthe cuspidata var. cuspidata* (SC)
San Francisco wallflower, *Erysimum franciscanum* (SC)
San Mateo tree lupine, *Lupinus arboreus var. eximius* (SLC)
Santa Cruz clover, *Trifolium buckwestiorum* (SC)
Snow Mountain buckwheat, *Eriogonum nervulosum* (SC)
Sonoma ceanothus, *Ceanothus sonomensis* (SC)
Sonoma manzanita, *Arctostaphylos canescens ssp sonomensis* (SLC)
St. Helena fawn lily, *Erythronium helenae* (SLC)
The Cedars globe-lily (=fairy-lantern), *Calochortus raichei* (SC)
The Cedars manzanita, *Arctostaphylos bakeri ssp sublaevis* (SLC)
Three Peaks jewelflower, *Streptanthus morrisonii ssp. elatus* (SC)
Thurber's reed grass, *Calamagrostis crassiglumis* (SC)
Tiburon buckwheat, *Eriogonum caninum* (SLC) *
Vine Hill ceanothus, *Ceanothus foliosus var. vineatus* (SC)
Vine Hill manzanita, *Arctostaphylos densiflora* (SC)
alkali milk-vetch, *Astragalus tener var. tener* (SC) *
beaked tracyina, *Tracyina rostrata* (SC)
bent-flowered fiddleneck, *Amsinckia lunaris* (SLC)
big-scale (=California) balsamroot, *Balsamorhiza macrolepis var macrolepis* (SLC)
coast lily, *Lilium maritimum* (SC)
coast rock-cress, *Arabis blepharophylla* (SLC)
coastal bluff morning-glory, *Calystegia purpurata ssp saxicola* (SLC)
curly-leaved (=curlyleaf) monardella, *Monardella undulata* (SC) *
deceiving (=salt) sedge, *Carex saliniformis (=Carex hassei)* (SLC)
dwarf soaproot (=wavyleaf soap plant), *Chlorogalum pomeridianum var minus* (SLC)
fragrant fritillary (= prairie bells), *Fritillaria liliacea* (SC)
holly-leaved ceanothus, *Ceanothus purpureus* (SLC)
large-flowered (=flower) linanthus, *Linanthus grandiflorus* (SC)
legenere, *Legenere limosa* (SC) *
maple-leaved checkerbloom, *Sidalcea malachroides* (SLC)
marsh microseris (=marsh silverpuffs), *Microseris paludosa* (SLC)
narrow-anthered California brodiaea, *Brodiaea californica var leptandra* (SLC)
narrow-leaved daisy (=serpentine fleabane), *Erigeron angustatus* (SLC)
northcoast (=Point Reyes) bird's-beak, *Cordylanthus maritimus ssp. palustris* (SC)

northcoast semaphore grass, *Pleuropogon hooverianus* (SC)
perennial goldfields, *Lasthenia macrantha ssp macrantha* (SLC)
pink sand-verbena, *Abronia umbellata ssp. umbellata* (SLC)
purple owl's-clover (=wideleaf Indian paintbrush), *Castilleja exserrta ssp. latifolia* (SLC)
purple-stemmed (=dwarf) checkerbloom, *Sidalcea malviflora ssp purpurea* (SLC)
robust monardella (=robust coyote mint), *Monardella villosa ssp globosa* (SLC)
rose linanthus, *Linanthus rosaceus* (SC) *
salt marsh owl's clover (=johnny-nip), *Castilleja ambigua ssp. ambigua* (SLC)
seashore (=coast, =beach) starwort, *Stellaria littoralis* (SC)
secund jewelflower, *Streptanthus glandulosus var. hoffmanii* (SC)
serpentine (=Cleveland's) cryptantha, *Cryptantha clevelandii* (SLC)
short-leaved evax, *Hesperevax sparsiflora var. brevifolia* (SC)
supple daisy, *Erigeron supplex* (SC)
swamp harebell, *Campanula californica* (SC)
thin-lobbed (=Santa Rosa) horkelia, *Horkelia tenuiloba* (SLC)
two-carpeled dwarf-flax (=western flax), *Hesperolinon bicarpellatum* (SC)
water sack (=saline) clover, *Trifolim depauperatum var. hydrophilum* (SC)
western leatherwood, *Dirca occidentalis* (SLC)
woolly-headed (=San Francisco) spineflower, *Chorizanthe cuspidata var villosa* (SC)
woolly-headed gilia, *Gilia capitata ssp. tomentosa* (SC) *
yarrow-leaf (=manyleaf, dark-eyed) gilia, *Gilia millefoliata* (SLC)

KEY:

(E)	*Endangered*	Listed (in the Federal Register) as being in danger of extinction.
(T)	*Threatened*	Listed as likely to become endangered within the foreseeable future.
(P)	*Proposed*	Officially proposed (in the Federal Register) for listing as endangered or threatened.
(PX)	*Proposed Critical Habitat*	Proposed as an area essential to the conservation of the species.
(C)	*Candidate*	Candidate to become a *proposed* species.
(SC)	*Species of Concern*	Other species of concern to the Service.
(SLC)	*Species of Local Concern*	Species of local or regional concern or conservation significance.
(D)	*Delisted*	Delisted. Status to be monitored for 5 years.
(CA)	*State-Listed*	Listed as threatened or endangered by the State of California.
NMFS	NMFS species	Under jurisdiction of the National Marine Fisheries Service. Contact them directly.
*	*Extirpated*	Possibly extirpated from the area.
**	*Extinct*	Possibly extinct
	Critical Habitat	Area essential to the conservation of a species.

ENCLOSURE A

Endangered and Threatened Species that May Occur in
or be Affected by Projects in the Selected Quads Listed Below
Reference File No. 1-1-04-SP-1110
March 12, 2004

QUAD: 518C GUERNEVILLE

Listed Species

Birds

Critical habitat, marbled murrelet, *Brachyramphus marmoratus* (T)

marbled murrelet, *Brachyramphus marmoratus* (T)

bald eagle, *Haliaeetus leucocephalus* (T)

northern spotted owl, *Strix occidentalis caurina* (T)

Fish

Critical habitat, coho salmon - central CA coast, *Oncorhynchus kisutch* (T) NMFS

coho salmon - central CA coast, *Oncorhynchus kisutch* (T) NMFS

Central California Coastal steelhead, *Oncorhynchus mykiss* (T) NMFS

Central Valley steelhead, *Oncorhynchus mykiss* (T) NMFS

California coastal chinook salmon, *Oncorhynchus tshawytscha* (T) NMFS

Invertebrates

California freshwater shrimp, *Syncaris pacifica* (E)

Proposed Species

Amphibians

California tiger salamander, *Ambystoma californiense* (PT)

Candidate Species

Birds

Western yellow-billed cuckoo, *Coccyzus americanus occidentalis* (C) *?

Species of Concern

Mammals

Pacific western big-eared bat, *Corynorhinus (=Plecotus) townsendii townsendii* (SC)

greater western mastiff-bat, *Eumops perotis californicus* (SC)

long-eared myotis bat, *Myotis evotis* (SC)

fringed myotis bat, *Myotis thysanodes* (SC)

long-legged myotis bat, *Myotis volans* (SC)

Yuma myotis bat, *Myotis yumanensis* (SC)

Birds

tricolored blackbird, *Agelaius tricolor* (SC)

oak titmouse, *Baeolophus inornatus* (SLC)
Vaux's swift, *Chaetura vauxi* (SC)

black swift, *Cypseloides niger* (SC)

white-tailed (=black shouldered) kite, *Elanus leucurus* (SC)

little willow flycatcher, *Empidonax traillii brewsteri* (CA)

prairie falcon, *Falco mexicanus* (SC)

American peregrine falcon, *Falco peregrinus anatum* (D)

loggerhead shrike, *Lanius ludovicianus* (SC)

long-billed curlew, *Numenius americanus* (SC)

bank swallow, *Riparia riparia* (CA)

Allen's hummingbird, *Selasphorus sasin* (SC)

California thrasher, *Toxostoma redivivum* (SC)

Reptiles

northwestern pond turtle, *Clemmys marmorata marmorata* (SC)

Amphibians

Northern red-legged frog, *Rana aurora aurora* (SC)

foothill yellow-legged frog, *Rana boylii* (SC)

Fish

Russian River tule perch, *Hysterocarpus traski pomo* (SC)

Sacramento splittail, *Pogonichthys macrolepidotus* (SC)

Invertebrates

Sonoma arctic skipper, *Carterocephalus palaemon ssp.* (SC)

Plants

Napa false indigo, *Amorpha californica var. napensis* (SLC)

The Cedars manzanita, *Arctostaphylos bakeri ssp sublaevis* (SLC)

Baker's manzanita, *Arctostaphylos bakeri ssp. bakeri* (SC)

thin-lobbed (=Santa Rosa) horkelia, *Horkelia tenuiloba* (SLC)

Crystal Springs lessingia, *Lessingia arachnoidea* (SC) ?

KEY:

(E)	*Endangered*	Listed (in the Federal Register) as being in danger of extinction.
(T)	*Threatened*	Listed as likely to become endangered within the foreseeable future.
(P)	*Proposed*	Officially proposed (in the Federal Register) for listing as endangered or threatened.
(PX)	*Proposed Critical Habitat*	Proposed as an area essential to the conservation of the species.
(C)	*Candidate*	Candidate to become a *proposed* species.
(SC)	*Species of Concern*	May be endangered or threatened. Not enough biological information has been gathered to support listing at this time.
(SLC)	*Species of Local Concern*	Species of local or regional concern or conservation significance.
(MB)	*Migratory Bird*	Migratory bird
NMFS	NMFS species	Under the jurisdiction of the National Marine Fisheries Service. Contact them directly
(D)	*Delisted*	Delisted. Status to be monitored for 5 years.
(CA)	*State-Listed*	Listed as threatened or endangered by the State of California.
(*)	*Extirpated*	Possibly extirpated from this quad.
(**)	*Extinct*	Possibly extinct.
	Critical Habitat	Area essential to the conservation of a species.

MS

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
111 GRAND AVENUE
P. O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-5505
FAX (510) 286-5513
TTY (800) 735-2929

Flex your power!
Be energy efficient!

March 15, 2004

SON-116-12.10
SON116488
SCH# 2004022066

Mr. Mark Cleveland
Sonoma County Regional Parks Department
2300 County Center Drive, Suite 120A
Santa Rosa, CA 95403

Dear Mr. Cleveland:

Guerneville River Park Project – Notice of Preparation (NOP)

Thank you for including the California Department of Transportation (Department) in the environmental review process for the proposed project. We have reviewed the NOP and have the following comments to offer:

Encroachment within State Route 116 Right-of-Way
As indicated on page 2 of the NOP, the Department currently owns the three parcels on which the County is proposing to implement this project. The NOP does not indicate whether the County expects to own the land at the time it approves the environmental document. If the Department will be landowner, then the Department needs to be involved in park planning, as well as in the environmental planning process. Please clarify whether and when the County intends to acquire these parcels from the Department.

In any case, the County will need to apply for an encroachment permit and/or enter into a cooperative agreement with the Department to proceed with work within State right-of-way. Please contact Ms. Julie Hsu at (510) 286-6462 for information regarding the encroachment permit application process. Since the Department will be a responsible agency and since we have knowledge of the locations recent history, we would like to be included in the early stages of environmental document preparation.

State Scenic Highway
State Route 116 in the project area is an officially designated state scenic highway. Therefore, it is the responsibility of the County and the Department to protect the scenic qualities of this highway. To ensure that cultural, biological and aesthetic resources are maintained within State right-of-way, the Department should be consulted during the preparation of the environmental document.

Focused Traffic Study

In addition, we recommend a focused traffic study be completed for the Guerne Hill Road/ Neely Road/ State Route (SR) 116 intersection. The study should include an estimate of the number of trips the proposed project will generate during weekday and weekend peak hours, and how these trips will be distributed through the intersection. An evaluation of vehicle storage should also be completed to determine the adequacy of existing vehicle storage and the need for additional storage on the approaches to the intersection. In addition, please provide sight distances for SR 116 at this intersection. The study should evaluate the proposed project's impact on pedestrian and bicycle facilities. We recommend the project provide facilities to allow pedestrians and bicyclists to avoid the illegal crossing on SR 116, which can potentially cause both safety and operation problems.

We look forward to working with you during preparation of the environmental document. Should you require further information or have any questions regarding this letter, please call Maija Cottle of my staff at (510) 286-5737.

Sincerely,

Timothy C. Sable

TIMOTHY C. SABLE
District Branch Chief
IGR/CEQA

c: State Clearinghouse

SONOMA COUNTY REGIONAL PARKS

JIM R. ANGELO
DIRECTOR

2300
County Center Drive
Suite 120A
Santa Rosa
CA 95403
Tel: 707 565-2041
Fax: 707 579-8247
www.sonoma-county.org/parks

March 18, 2004

Department of Transportation
Timothy C Sable, District Branch Chief
111 Grand Avenue
P. O. Box 23660
Oakland, CA 94623-0660

Dear Mr. Sable,

Thank you for taking the time to comment on our Notice of Preparation (NOP) for the Guerneville River Park project. We offer the following responses to the comments you made in your letter dated March 15, 2004.

Encroachment within State Route 116 Right-of-Way
The County is currently in negotiations to acquire the three (3) subject parcels from Caltrans. The County has been in discussions with Caltrans for several years regarding this issue, and had anticipated acquiring the parcels in March of 2003. Somehow the project files have been misplaced and some confusion as to the dispensation of these properties occurred. We are hoping to have all these issues resolved prior to completion of the environmental document, but definitely prior to development of the park. If any improvements are proposed that will encroach onto any Caltrans or County right of way, the appropriate permits will be applied for prior to any work commencing.

State Scenic Highway
We are aware that Highway 116 is a State Scenic Highway, and as such the environmental document and any proposed improvements will be subject to review by the regulatory agencies. The County is now in the process of hiring consultants to prepare botanical, wildlife, noise, and traffic studies to look at potential impacts to the site and surrounding area from development of a new park at this location. The County or its designees, will consult with your department during the preparation of their studies and the final environmental document. Copies of these reports will be included in the appendices of the final document.

Focused Traffic Study

We have hired Whitlock & Weinberger to prepare a focused traffic study of the project site and surrounding streets. All of the items included in the Focused Traffic Study of your letter have been included in the scope of services. I will have them contact Maija Cottle for any questions they may have, and to solicit comments on the scope of their contract.

We also look forward to working with your agency on the dispensation of these parcels, the preparation of the environmental document, and the development of the properties as a new river front park facility for the benefit and use of everyone.

Sincerely,

Mark Cleveland,
Park Planner II

cc: Michelle Julene, Environmental Specialist
Mike Wylie, Department Analyst

STATE OF CALIFORNIA ARNOLD SCHWARZENEGGER, *Governor*

CALIFORNIA STATE LANDS COMMISSION
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

PAUL D. THAYER, *Executive Officer*
(916) 574-1800 FAX (916) 574-1810
California Relay Service From TDD Phone **1-800-735-2922**
from Voice Phone **1-800-735-2929**

Contact Phone: **(916) 574-1814**
Contact FAX: **(916) 574-1885**

March 5, 2004

File Ref: SCH 2004022066

Ms. Nadell Gayou
The Resources Agency
901 P Street
Sacramento, CA 95814

Mr. Mark Cleveland, Park Planner II
Sonoma County Regional Parks
2300 County Center Drive, #120A
Santa Rosa, CA 95403

Dear Ms. Gayou and Mr. Cleveland:

Subject: Notice of Preparation (NOP) of the Draft Environmental Impact Report (Draft EIR) for the Guerneville River Park Project

Staff of the California State Lands Commission (CLSC) has reviewed the subject NOP. Under the California Environmental Quality Act (CEQA), the County is the Lead Agency and the CSLC is a Responsible and/or Trustee agency for any and all projects that could directly or indirectly affect sovereign lands, their accompanying Public Trust resources or uses, and the public easement in navigable waters.

As general background, the CSLC has jurisdiction and authority over all ungranted tidelands, submerged lands, and the beds of navigable rivers, sloughs, lakes, etc. The CSLC has an oversight responsibility for tide and submerged lands legislatively granted in trust to local jurisdictions (Public Resources Code Section 6301). All tide and submerged lands, granted or ungranted, as well as navigable rivers, sloughs, etc. are impressed with the Common Law Public Trust.

The Public Trust is a sovereign public property right held by the State or its delegated trustee for the benefit of all the people. This right limits the uses of these lands to waterborne commerce; navigation, fisheries, open space, recreation, or other recognized Public Trust purposes. A lease from the CSLC is required for any portion of a project extending onto state-owned sovereign lands, which are under its exclusive jurisdiction.

Ms. Nadell Gayou
Mr. Mark Cleveland
Page 2

The County intends to prepare a Draft EIR to address the three-phase development for the proposed picnic areas, boat portage, paths, landscaping, utilities, parking and vehicle access within the Guerneville River Park. Of concern to CSLC is the boat portage and any structure or structures that may be placed in the bed of or adjacent to the Russian River at this location. You mentioned in a phone call to our office on March 1st, that a boat launch site and/or facility might be incorporated in this project. As noted above, a lease from the CSLC is required for a project extending onto State-owned sovereign lands which would include the Russian River at this location. In this regard, please contact Susan Young, Public Land Management Specialist at (916) 574-1879.

This letter is not intended, nor shall it be construed as a waiver or limitation of any right, title, or interest of the State in any lands under the jurisdiction of the California State Lands Commission.

Sincerely,

Stephen L. Jenkins

Stephen L. Jenkins, Asst. Chief
Division of Environmental
Planning and Management

cc: Barbara Dugal
Susan Young

State of California – The Resources Agency
ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF FISH AND GAME
http://www.dfg.ca.gov

POST OFFICE BOX 47
YOUNTVILLE, CALIFORNIA 94599
(707) 944-5500

March 2, 2004

Ms. Michelle Julene
Mr. Mark Cleveland
Sonoma County Regional Parks
2300 County Center Drive, Suite 120A
Santa Rosa, CA 95403
Via Fax (707) 579-8247

Dear Ms. Julene and Mr. Cleveland:

Guerneville River Park Project
Notice of Preparation
Sonoma County, SCH #2004022066

Department of Fish and Game (DFG) personnel have reviewed the above-referenced Guerneville River Park Project's Notice of Preparation (NOP) for a draft Environmental Impact Report (DEIR). DFG is identified as a Trustee Agency pursuant to California Environmental Quality Act (CEQA), Section 15386 and is responsible for the conservation, protection and management of the State's biological resources.

The project is located along the south bank of the Russian River, below State Highway Route 116's two adjacent bridges (old and new) in the Town of Guerneville in western Sonoma County. The proposed park site is approximately 8.8 acres, of which approximately 5.0 acres are considered suitable for development.

The Sonoma County Regional Parks proposes to develop, in three phases over the period of several years, a passive regional park facility. The proposed park site is located on a recognized river flood plain terrace. The habitats described are riparian and open grass. Park facilities proposed are picnic areas, a small non-motorized river boat portage, and paved and gravel paths within the park. Restroom, shower, potable water, irrigation line, and electricity utilities are also being proposed.

Part of the proposed project area contains a two-acre mitigation site related to the California Department of Transportation Guerneville Bridge project. DFG will require that this mitigation area be addressed, which means conserved, as was previously designated in the bridge installation mitigation.

CEQA Guidelines, Section 15125(a), direct that knowledge of the regional setting is critical to an assessment of environmental impacts and that special emphasis should be placed on resources that are rare or unique to the region.

A complete assessment, as well as any necessary surveys, of the flora and fauna within and adjacent to the project area, with particular emphasis upon identifying endangered, threatened, and locally unique species and sensitive habitats, should be provided in the final CEQA document. Rare, threatened, and endangered species to be addressed should include all those which meet CEQA, Section 15380.

The final EIR document should be evaluated in regard to species distribution and potential impacts as disclosed by these biological presence/absence surveys. Necessary ways to minimize or otherwise avoid impacts would need to be disclosed in the final CEQA document. DFG is available to consult with the County on wildlife issues relating to the project implementation.

Focused species-specific surveys, conducted at the appropriate time of year and time of day when sensitive species are active or otherwise identifiable, should be completed. Acceptable species-specific survey procedures should be developed in consultation, if applicable, with DFG, U. S. Fish and Wildlife Service, and the National Marine Fisheries Service.

The assessment should identify any rare plants, following DFG's Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities (revised May 8, 2000). The Guidelines are available at www.dfg.ca.gov. DFG's California Natural Diversity Database in Sacramento should be contacted at (916) 324-3812 to obtain current information on any previously reported sensitive species and habitats.

Depending on biological surveys, a California Endangered Species Act (CESA) Permit must be obtained if the project has the potential to result in "take" of species of plants or animals listed under CESA, either during construction or over the life of the project. CESA Permits are issued to conserve, protect, enhance, and restore State listed threatened or endangered species and their habitats. Early consultation is encouraged, as significant modification to a project and mitigation measures may be required in order to obtain a CESA Permit. Issuance of a CESA Permit is subject to CEQA documentation; therefore, the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program.

For any activity that will divert or obstruct the natural flow, or change the bank (which may include associated riparian resources) of the Russian River, DFG may require a Streambed Alteration Agreement (SAA), pursuant to Section 1600 et seq. of the Fish and

Game Code. Issuance of SAAs are subject to CEQA. DFG, as a responsible agency under CEQA, will consider the local jurisdiction's (lead agency) EIR for the project. The final EIR should fully identify the potential impacts to the Russian River. This concerns the boat portage area and any proposed paved and gravel paths in the riparian area; adequate avoidance, mitigation, and any necessary monitoring and reporting commitments for completion of the SAA should be provided.

In reference to submitting the EIR, a cumulative effects analysis should be developed as described under CEQA Guidelines, Section 15130. DFG has commented on three Sonoma County Regional Park lower Russian River proposals within the past six months. Russian River park projects, including past, present, and anticipated future river park projects, should be included and analyzed in the EIR relative to their impacts on the river riparian wildlife habitat and plant communities.

The draft EIR must describe a reasonable range of feasible alternatives to the river park project that could feasibly attain most of the basic project objectives and would avoid or substantially lessen any of the environmental impacts of the proposed project. A range of EIR alternatives should be analyzed to ensure that these proposed alternatives are fully considered and evaluated. Alternatives which minimize or lessen impacts to riparian resources should be fully considered in implementing the project.

DFG appreciates the opportunity to comment on the NOP and wishes the County success in implementing the project. If you have questions or comments regarding this letter, contact Mr. Liam Davis, Environmental Scientist, at (707) 944-5529; or Mr. Scott Wilson, Habitat Conservation Supervisor, at (707) 944-5584.

Sincerely,

Robert W. Floerke
Regional Manager
Central Coast Region

cc: See next page

cc: Mr. Scott Morgan, Senior Planner
State Clearinghouse
Post Office Box 3044
Sacramento, CA 95812-3044

Mr. Jeffery Jahn, Fisheries Biologist
National Marine Fisheries Service
777 Sonoma Avenue, Room 325
Santa Rosa, CA 95404-6528

Ms. Jane Hicks, Branch Chief
U. S. Army Corps of Engineers
San Francisco District
333 Market Street
San Francisco, CA 94105-2197

COUNTY OF SONOMA
PERMIT AND RESOURCE MANAGEMENT DEPARTMENT
2550 Ventura Avenue, Santa Rosa, CA 95403
(707) 565-1900 FAX (707) 565-1103

March 3, 2004

Michelle Julene
Sonoma County Regional Parks
2300 County Center Dr. Suite 120a
Santa Rosa, CA 95403

Re: Guerneville River Park Project

Dear Michelle,

I am responding to the notice of preparation of an initial study for the above proposed project. As staff person for the Sonoma County Landmarks Commission, I review projects that may impact historic resources and when necessary, refer them to the Commission. This proposed project is adjacent to the old Guerneville Bridge, which is both a County landmark and listed on the National Register. A passive park located below the bridge is an appropriate use that should enhance the public's enjoyment of the bridge. Developing some type of historical information–kiosk or sign–might be appropriate for the historic setting. Otherwise, I don't see a need to refer this to the Landmarks Commission. If you have any questions or need any additional information please call me at 565-1934.

Sincerely,

Kathi Jacobs

Kathi Jacobs
Landmarks Commission staff

DEPARTMENT OF THE ARMY
SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS
333 MARKET STREET
SAN FRANCISCO, CALIFORNIA 94105-2197

APR 16 2004

REPLY TO

Regulatory Branch

SUBJECT: File No. 287220N

Ms. Michelle Julene
Sonoma County Regional Parks
2300 County Center Drive, Suite 120A
Santa Rosa, California 95403

Dear Ms. Julene:

This letter is in response to your request for comments on an Initial Study for the Guerneville River Park Project, located on an 8-acre parcel adjacent to the Russian River, between the State Highway 116 road and pedestrian bridges, in the City of Guerneville, Sonoma County, California.

Unless exempt by regulation, all proposed discharges of dredged or fill material occurring below the plane of ordinary high water in non-tidal waters of the United States and within the lateral extent of wetlands adjacent to these waters require Department of the Army authorization and the issuance of a permit under Section 404 of the Clean Water Act (33 U.S.C. § 1344). Waters of the United States generally include the territorial seas, all navigable waters, including waters subject to the ebb and flow of the tide, non-tidal interstate and intrastate waters, and their tributary waters, including lakes, ponds, rivers, streams, intermittent streams, and adjacent wetlands, the use, degradation, or destruction of which could affect interstate or foreign commerce.

Portions of the project, particularly the proposed boat portage, may occur within the jurisdictional purview of the Corps of Engineers (Corps). You are advised to prepare a delineation map of the project area and submit it to the Corps for verification. Upon receipt of this information, a definitive determination can be made on the requirement for a Department of the Army permit for the project. Information on the Regulatory Program, including permitting procedures and requirements, permit applications and instructions, and mitigation sequencing requirements, can be obtained on the following website:
http://www.spn.usace.army.mil/regulatory/.

You may refer any questions on this matter to Mr. Peter Straub of my staff at telephone 415-977-8443 or by e-mail at pstraub@spd.usace.army.mil. All correspondence should be addressed to the Regulatory Branch, North Section, referencing the file number at the head of this letter.

Sincerely,

Jane M. Hicks
Chief, North Section

Victoria Wikle
21905 Russian River Avenue
P.O. Box 151
Villa Grande, CA 95486

(707) 865-2474
<VictoriaWikle@usa.net>
fax: (707) 865-2475

Mr. Mark Cleveland
Sonoma County Regional Parks Dept.
2300 County Center Drive
Santa Rosa, CA 95403

Dear Mark,

I attended the Guerneville River Park conceptual meeting on Feb. 28th. I thought it was an excellent presentation. Also it was a lot of information to absorb and comment on at the time. I wished that I could have had a copy of your slide presentation available so that my note taking could have been more complete.

My comments on the project mostly relate to the vegetation. I trust that you will be using native and only native plants that are appropriate for Russian River riparian areas. I don't see that as a limiting factor but rather as an opportunity. Have you considered doing public education regarding appropriate native riparian vegetation as part of this project? It seems that the flood prone Guerneville River Park is an ideal location to demonstrate how plants can help stabilize the riverbank and prevent erosion while also creating habitat. Beyond being a good example, some means of conveying this information to visitors would be an invaluable addition to the park and the community.

Up and down the river there are so many invasive species in such profusion that some people think they are the native plants. I hope that Guerneville River Park could be used to demonstrate the native plants, tell why they are desirable and also inform people about the invasive exotics and why they are not desirable.

It was a pleasure to meet you at the meeting. Your enthusiasm for the project was evident. I hope to talk to you about the project again sometime.

If possible I'd love to have a copy of your presentation if it is available.

Sincerely yours,

Victoria

SONOMA
COUNTY
REGIONAL
PARKS

JIM R. ANGELO
DIRECTOR

2300
County Center Drive
Suite 120A
Santa Rosa
CA 95403
Tel: 707 565-2041
Fax: 707 579-8247
www.sonoma-county.org/parks

March 4, 2004

Victoria Wikle
P. O. Box 151
Villa Grande, CA 95486

Dear Victoria,

Thanks so much for your positive response to the park project and our presentation. We are enthusiastic about the prospect of developing this site for the benefit of the public.

I assure you that we generally try to use native species, especially in our more open space type parks and around sensitive biotic habitats, such as rivers and streams. We often work with Circuit Riders Productions, Inc, a non-profit restoration and nursery company for the propagation and planting of native shrubs for our parks. Whether educational / interpretive panels will be designed and installed at the park will depend upon available funding and the potential for vandalism. Many of the potential grants would require some educational component with the approval of funding.

Per your request I am including the slide handout form our presentation for your use. Hope it is helpful in the preparation of any comments you may wish to submit on the proposed project.

Sincerely,

Mark Cleveland,
Park Planner II

cc: Michelle Julene, Environmental Specialist

Enclosure;

Slide Show Handout

16590 Glenda Drive
Guerneville, CA 95446-9741
March 9, 2004

Mr. Mark Cleveland, Park Planner II
Sonoma County Regional Parks Department
2300 County Center Drive
Santa Rosa, CA 95403

RE: Proposed Guerneville River Park Project

Dear Mr. Cleveland:

I understand from the March 1 edition of the *Russian River Monthly* that your department is seeking public input on the project referenced above. On the whole, it seems like a very positive project. Truly public access to the river is a positive aspect, in my opinion.

There are three points I would like to see addressed as this project proceeds through the public review and CEQA process.

1. I am sure you are aware of the homeless situation in the Guerneville area. Whether it is a perceived notion or not, the presence of homeless persons can be a deterrent for general public use. Will this be addressed in the process? If so, how?

2. The street light globes on the old Guerneville Bridge seem to be constantly vandalized/broken. How will this be addressed at the new park? Will the new park offer greater security to the area?

3. Most importantly for my household, will the new park cut off the alternate access to the Drake Road neighborhood? There is an unpaved access to Riverlands Drive extending from the south end of the new Guerneville Bridge (Route 116). When Drake Road at the Pee-Wee Golf course is flooded, that unpaved access is the only way out for the entire Drake Road neighborhood. I see from the plans shown in the *Russian River Monthly* that access directly to Route 116 will be completely eliminated with the advent of the new park. Even if alternate access is allowed through the park, the main park access would be flooded like the Pee-Wee Golf course. While we all understand that flooding is a relatively uncommon occurrence, this access was used for two days just over two weeks ago. I could not have gotten to work without that access, not to mention the need

for access by emergency vehicles. I would like to see this access preserved or an alternate access developed that will not flood out right away.

I appreciate this opportunity to offer comments on this project. As I mentioned, I believe this will be a positive addition to the Guerneville area. Is there, or will there be, a website at which one could track the progress of this project? Please feel free to contact me at home at (707) 869-0736 or at my work number on the enclosed card should you have need to contact me.

Sincerely,

David D. Davis

David D. Davis, AICP

Enc.

SONOMA
COUNTY
REGIONAL
PARKS

JIM R. ANGELO
DIRECTOR

2300
County Center Drive
Suite 120A
Santa Rosa
CA 95403
Tel: 707 565-2041
Fax: 707 579-8247
www.sonoma-county.org/parks

March 12, 2004

Mr. Dale Davis, AICP
16590 Glenda Drive
Guerneville, CA 95446-9741

Subject: Proposed Guerneville River Park Project

Dear Mr. Davis,

First I want to thank-you for taking the time to respond to our proposal to develop a park on the south side of the Russian River at Highway 116. Often people don't take the time to comment or impart local knowledge and history that can ultimately result in a project that is more responsive to local needs. I lived in the Guerneville area for about 10 years, so I do have a general understanding of some of the issues. In response to your specific concerns, I offer the following;

1. The homeless population within the river area is a real concern to everyone. Although we are not proposing any solutions to this social issue, we are identifying the displacement of those people that are currently camping on this site illegally. The proposed park site will be a day-use only facility and the hours of operation will be sunrise to sunset. We are proposing the construction of the only public restroom in the Guerneville area as part of the project. We have developed several river parks in the last few years that have had the same issues with homeless populations. Steelhead Beach and Sunset Beach are two of our most recent projects. While displacement is always a difficult, we make every attempt to provide information to these groups and individuals on the availability of public services and shelters within the County.

2. The historic bridge and lighting are the responsibility of the Public Works department and are funded through the special lighting district. It is my understanding that these particular globe lights will be replaced with something more vandal resistant and therefore will improve the security on the bridge and within the park. We are not proposing any lighting within the park itself, as that can promote after hours use as much as it might provide additional security.

3. We do not intend blocking or otherwise closing off the access from Riverlands Drive to Highway 116. In fact we have identified that as a right turn lane for people leaving the park to alleviate some of the traffic on Drake Road. This is an existing legal easement that Caltrans has essentially paved from its connection at the Highway 116 bridge to the bottom of the slope, and we are not proposing any change to this use. We may have to put some sort of traffic control devices along this access to restrict vehicles from illegally entering the park during closure or after hours, but that would be the extent of our proposed project.

By commenting on the project, you will be included in any future mailings regarding public hearings for the proposed park development. We do generally include new park projects on our website, and when this one gets a little more defined, it will be added. I have included an 11 x 17 map of the Conceptual Plan with the understanding that this is only a proposed plan and is only an indication of uses we feel could be appropriate for the site.

Right now we are in the process of hiring all the consultants necessary to perform the appropriate studies to help us in preparing the environmental document. This will help us to identify the potential impacts of the proposed project and develop mitigations measures to address these impacts.

We agree that overall this will be a good project for the Guerneville area. Hope these responses helped alleviate your initial concerns and helped to clarify our proposed project.

Sincerely,

Mark Cleveland,
Park Planner II

Enc. 11 x 17 Conceptual Plan

cc; Michelle Julene, Environmental Specialist

Exhibit 4: CEQA Notice of Determination and Mitigated Negative Declaration

fax 824 565-3642

Creekside Inn & Resort
P.O. Box 2185
Guerneville, CA 95446

March 15, 2004

Sonoma County Regional Parks
2300 County Center Drive Ste 120a
Santa Rosa Ca 95403

Re: Guerneville River Park

To Whom It May Concern:

I am happy to see that the riverside park in Guerneville is one step closer to a reality, however I have some questions and some concerns.

As the property owner to the south of the park, I am concerned about disturbance of my guests by the group picnic area. I understand that there may be the possibility of an adjustment in the location. Would appreciate that.

I will appreciate the protection of the riparian vegetation in the creek and understand that there will be some interpretive signage which will let the public know how valuable that area is to fish and wildlife.

I do have concerns about the access to Hwy 116 from the park. It is a dangerous intersection. Perhaps the 25 mph sign needs to be placed before the curve for cars heading towards town.

I wonder what kind of showers are going to be placed in the restrooms and how they will be maintained.

I look forward to your response.

Sincerely,

Lynn Crescione

Lynn Crescione

SONOMA
COUNTY
REGIONAL
PARKS

JIM R. ANGELO
DIRECTOR

March 15, 2004

Creekside Inn & Resort
Attention: Lynn Crescione
P. O. Box 2185
Guerneville, CA 95446

Subject: Proposed Guerneville River Park Project

Dear Lynn,

First I want to thank-you for taking the time to attend our scoping meeting and respond to our proposal to develop a park on the south side of the Russian River at Highway 116. In response to our earlier telephone conversation, and to your specific concerns outlined in your letter dated March 15, 2004, I offer the following;

1. The group picnic area has been moved approximately 100 feet to the east to provide a larger buffer from your property to this activity.

2. Restoration / habitat area signs and some type of barrier will be installed along Pocket Canyon Creek to deter access into this area and minimize damage to the vegetation and subsequent erosion impacting water quality and fisheries. Riparian restoration or enhancement may also be included as part of the project based on our consultant's recommendations.

3. Caltrans and the Public Works Department both will review the plans for the development of the park site. If these agencies recommend the change in speed limits for Highway 116, or signs as part of the project, they will be included in the document.

4. Maintenance of the showers, if they are part of this project at all, will be performed by either the County or the Russian River Park & Recreation District. At this time we do not know the final arrangements for the long-term maintenance of this facility. As for the design of the showers, we have constructed several of these types of buildings at other parks and understand clearly the type of vandalism and other issues to expect.

2300
County Center Drive
Suite 120A
Santa Rosa
CA 95403
Tel: 707 565-2041
Fax: 707 579-8247

We agree that overall this will be a good project for the Guerneville area. Hope these responses helped alleviate your initial concerns and helped to clarify our proposed project.

Sincerely,

Mark Cleveland,
Park Planner II

cc; Michelle Julene, Environmental Specialist

w-trans

Whitlock & Weinberger
Transportation, Inc.

509 Seventh Street
Suite 101
Santa Rosa, CA 95401

voice 707.542.9500
fax 707.542.9590
web www.w-trans.com

Guerneville River Park Traffic Impact Study

for the County of Sonoma

May 3, 2004

Table of Contents

Page

Introduction and Summary 1

Study Parameters 2

Existing Conditions 6

Future Conditions 10

Conclusions and Recommendations 16

Study Participants and References 17

Figures

1 Study Area and Lane Configurations 3
2 Existing Traffic Volumes 9
3 Project Added Traffic Volumes 12
4 Future Traffic Volumes 13

Tables

1 Intersection Level of Service Criteria 4
2 Summary of Existing Level of Service Calculations 8
3 Trip Generation Summary 10
4 Peak-Hour Trip Distribution Assumptions 11
5 Summary of Future Level of Services Calculations 14

Appendices

A Level of Service Calculations

Introduction and Summary

Introduction

This report presents an analysis of the traffic impacts that would be expected from the proposed development of the Guerneville River Park in the Community of Guerneville in the County of Sonoma. With the completion of the third and final phase, the 8.8-acre Guerneville River Park project would provide parking, a restroom/shower building, a group picnic site, family picnic sites and a boat portage to launch small boats. The traffic study was completed in accordance with standard criteria, and is consistent with previous analyses and standard traffic engineering techniques. Operating conditions were evaluated during the weekday morning and weekend midday peak periods under four scenarios, Existing Conditions, Existing plus Project Conditions, Future Conditions and Future plus Project Conditions.

Summary

- The study area consists of the intersections of S.R. 116//River Road-Main Street, S.R. 116/Drake Road-Neeley Road and Drake Road/Drake Road Extension. Conditions during the weekday a.m. and weekend midday peak hour periods were analyzed. Currently the study intersections are operating acceptably at LOS C or better on all movements during both peak periods evaluated.

- The Guerneville River Park project is expected to generate approximately 20 weekday trips and 106 weekend trips, which includes five weekday p.m. peak hour trips and 32 weekend midday peak hour trips.

- The proposed project is expected to have a less than significant impact on the intersection operation at S.R. 116/River Road-Main Street, S.R. 116/Drake Road-Neeley Road and Drake Road/Drake Road Extension under both short and long term conditions.

- The project includes the conversion of the Drake Road/Drake Road Extension intersection to a four-way intersection with park traffic traveling to/from the north and east and through traffic to/from the south and east. With the added traffic, the traffic maneuvers and traffic conflicts would be better served by an all-way stop control. The level of traffic volumes are appropriate for this all-way stop control.

- The project includes the retention of the S.R. 116 right-turn exit only access north of the Neeley Road-Drake Road/S.R. 116 intersection. It appears that the grade is too steep to meet County's grade standards. If the connection does not meet grade standards, it is suggested that Guerneville River Park traffic be restricted with all traffic directed through the main access. This connection to S.R. 116 should remain open for flood evacuation and for access to an adjacent parcel.

- Sonoma County does not have parking standards for public parks, however, other Counties have adopted a standard of one parking stall for each 0.5-acre of developed park area. The project includes 44 standard parking stalls and nine boat trailer parking stalls. Therefore, the parking supply is adequate based on standards in other California Counties.

Study Parameters

Prelude

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

Project Profile

The proposed Guerneville River Park project is located in the unincorporated community of Guerneville and lies in the Russian River flood plain. The proposed park location is on a river terrace on the south side of the Russian River, below the Highway 116 bridges. The Russian River forms the northern boundary, Pocket Canyon Creek forms the western boundary, Drake Road/Drake Road extension forms the southern boundary and residential lots form the eastern boundary. The project site is shown in Figure 1.

Study Area

With the completion of the third and final phase of the Guerneville River Park the project location would be on both the east and west side of S.R. 116, north of Drake Road Extension and south of the Russian River. The study area consists of the project frontage on Drake Road Extension and "the new street to the north" as well as the intersections of S.R. 116//River Road-Main Street, S.R. 116/Drake Road-Neeley Road and Drake Road/Drake Road Extension.

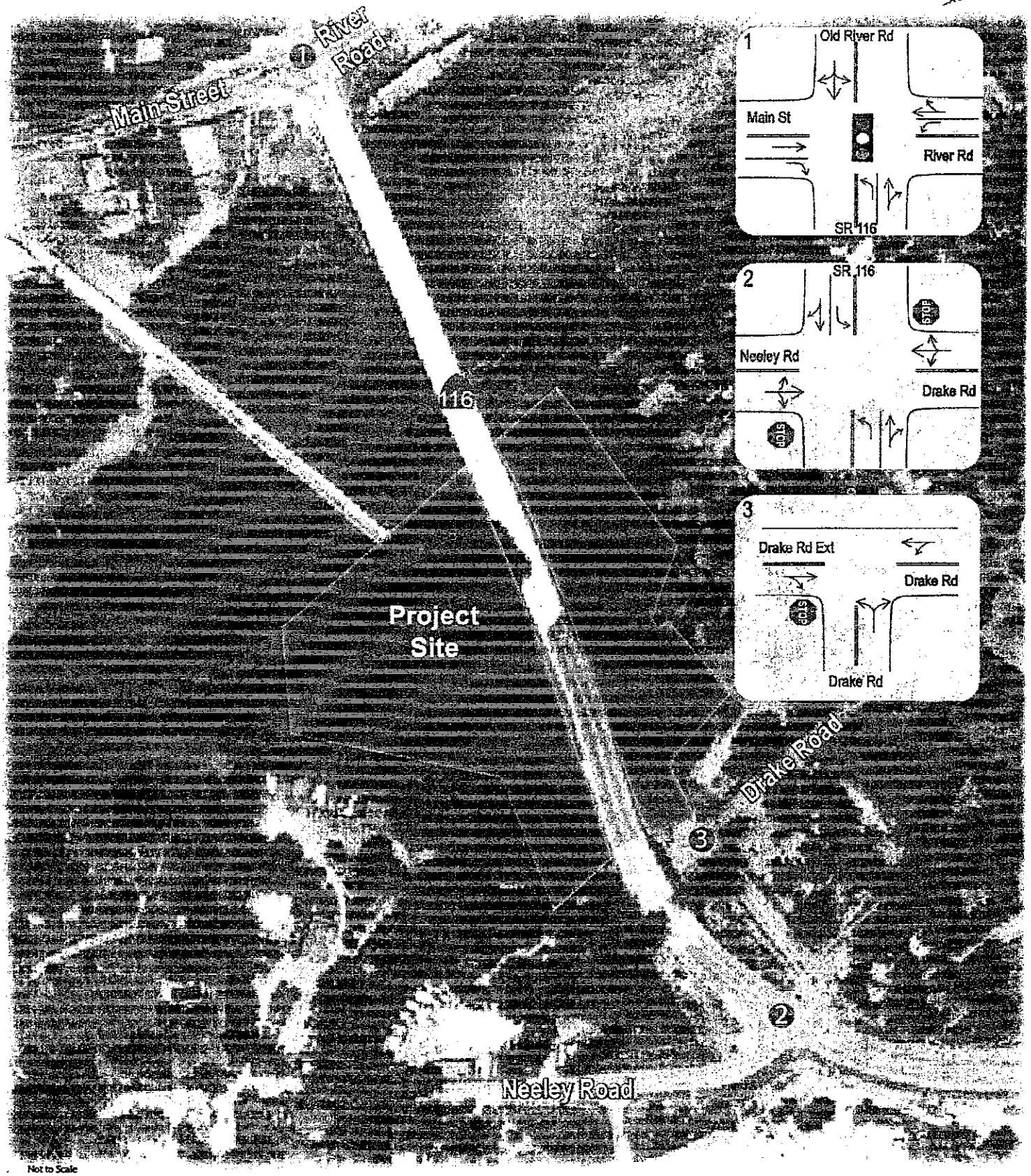
Study Period

Conditions during the weekday a.m. and weekend midday peak hour periods were analyzed. The weekday p.m. peak hour is the highest volume hour between 4:00 and 6:00 p.m., and typically captures the peak demand associated with trips home from school or work, while the weekday midday peak hour occurs between 11:00 a.m. and 1:00 p.m. and reflects peak weekend activity.

Study Scenarios

Four scenarios are evaluated in this study including Existing Conditions, Existing plus Project Conditions, Future Conditions, and Future plus Project Conditions. The Existing Conditions scenario provides an evaluation of current traffic operation based on data collected in the field and available in other planning documents. The Existing plus Project scenario indicates the potential traffic impacts which would be expected to occur with the addition of traffic from phase three of the proposed project to Existing volumes. Operation with the long-term growth in traffic expected with build out of the community of Guerneville under current zoning expectations is evaluated in the Future Conditions scenario. The impacts of adding project traffic to the anticipated Future volumes levels are addressed in the Future plus Project scenario.

w-trans



Guerneville River Park Traffic Impact Study

County of Sonoma

Figure 1

Study Area and Lane Configurations

SOX194.al 4/04

Intersection Level of Service Methodologies

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

The study intersections were analyzed using methodologies from the *Highway Capacity Manual*, Transportation Research Board, 2000. This source contains methodologies for various types of intersection control, all of which are related to a measurement of delay in average number of seconds per vehicle. The ranges of delay associated with the various levels of service are indicated in Table 1.

Table 1
Intersection Level of Service Criteria

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

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

The Levels of Service for the intersections with side street stop controls, or those which are "unsignalized," were analyzed using the unsignalized intersection capacity method from the *Highway Capacity Manual*. This method determines a level of service for each minor turning movement by estimating the level of average delay in seconds per vehicle. The movement with the highest level of delay is presented as the Worst Case Level of Service. The through movements on the main street are assumed to operate at free flow and a Level of Service A.

The study intersection of S.R. 116/River Road-Main Street was analyzed using the signalized methodology. This methodology is based on factors including traffic volumes, green time for each movement, phasing,

whether or not the signals are coordinated, truck traffic, and pedestrian activity. Average stopped delay in seconds per vehicle is used as the basis for evaluation in this LOS methodology.

Traffic Operation Standards

The County of Sonoma's adopted Level of Service (LOS) standard is contained in the *Sonoma County General Plan*, 1994. The following goal and objective from the Circulation and Transit section of the General Plan relate the County's Level of Service standard:

> **Goal CT-2**: Provide and maintain a highway system capacity to serve projected highway travel demand in 2005 at acceptable levels of service.
>
> **Objective CT-2.1**: Reduce congestion on the countywide highway system by maintaining a "C" level of service or better on designated **arterial** and **collector** roadways unless a lower level of service (exists at the time of the General Plan publication). A lower level of service is determined to be acceptable due to environmental or community values existing in some portions of the County, or if the project(s) which would cause the lower level of service has an overriding public benefit which outweighs the increased congestion that would result.

The County's existing LOS standard does not specifically apply to intersections, so County staff has developed additional criteria. Based on the draft policy, the following criteria were applied in this study.

An impact would be considered significant if:

- The 95th percentile queue length exceeds the turn lane storage capacity;
- Conditions change to cause an intersection to meet or exceed Caltrans signal warrant criteria;
- Traffic volumes increase to a level that meets or exceeds warrants for providing a turn lane on an intersection approach;
- An intersection is created or traffic is added to an existing intersection approach that has inadequate sight distance based on Caltrans criteria;
- An unsignalized or all-way stop controlled intersection is projected to operate at LOS E or F and the project results in increased delay or vehicle trips that exceed specified thresholds, except that this criteria does not apply to low volume roadways with 30 or fewer vehicles per hour on the minor approach;
- A road segment deteriorates to LOS D or worse and the project results in speed reductions that exceed specified thresholds; or
- Operation on a State Highway deteriorates to LOS D or worse as a result of project-added traffic. If the highway is already operating at LOS D or worse, the existing "measures of effectiveness" should be maintained.

Existing Conditions

Description of Study Area

The study area is shown in Figure 1. For the purposes of this study, it was assumed that S.R. 116 runs north-south while River Road, Main Street, Drake Road and Drake Road Extension run east-west.

The study area consists of the project frontage on Drake Road Extension and "the new street to the north" as well as the intersections of S.R. 116/River Road-Main Street, S.R. 116/Drake Road-Neeley Road and Drake Road/Drake Road Extension.

Roadways

S.R. 116 is a 2-lane north-south State Highway that runs perpendicular to River Road and Main Street. S.R. 116 has curb, gutter and sidewalk north of Drake Road on the west side of the bridge crossing the Russian River. South of the bridge it has 4 to 5-foot paved shoulders on both sides and two 12-foot travel lanes separated by a 2-way left turn lane which transitions into left-turn lanes to access Drake Road and Neeley Road. The estimated traffic volume on S.R. 116 is approximately 4,900 vehicles per day with 480 vehicles during the weekday p.m. peak hour and 500 vehicles during the weekend midday peak hour.

River Road-Main Street is a 2-lane arterial separated by a 2-way left turn lane that runs perpendicular to S.R. 116 with River Road to the east and Main Street to the west. *Main Street* has curb, gutter, sidewalks, and parking on both sides with two 12-foot travel lanes. The travel lanes on Main Street are separated by a 2-way left turn lane west of Armstrong Woods Road which transitions into left turn lanes at intersections. The estimated traffic volume on Main Street is approximately 9,820 vehicles per day with 900 vehicles during the weekday p.m. peak hour and 1,064 vehicles during the midday weekend peak hour.

River Road also has two 12-foot travel lanes with shoulder widths ranging from three to five feet, and no curb, gutter or sidewalk on either side of the street. The estimated traffic volume on River Road is approximately 12,515 vehicles per day with 1,165 vehicles during the weekday p.m. peak hour and 1,338 vehicles during the weekend midday peak hour. The posted speed limit on Main Street and River Road is 25 mph.

Drake Road is a narrow 2-lane collector street which runs parallel to S.R. 116 for approximately 250 feet before making a 90-degree turn to the right and continuing east parallel to River Road. Drake Road primarily serves residential uses together with "Pee-Wee Golf," a miniature golf course located on the south east corner of Drake Road/Drake Road Extension. The north-south section of Drake Road has a posted speed limit of 25 mph and angled curbs, gutters, and less than 1-foot of shoulder on both sides of the street. The east-west section of Drake Road has a posted speed limit of 30 mph, and no curbs, gutters, or sidewalks on either side of the street. The estimated traffic volume on Drake Road is approximately 1,800 vehicles per day with 153 vehicles during the weekday p.m. peak hour and 207 vehicles during the weekend midday peak hour.

Drake Road Extension is a 2-lane east west street which intersects Drake Road on the east side of S.R. 116 and runs under S.R. 116. Currently curb, gutter and sidewalks aren't provided on either side of the street, while 4-foot shoulders are present on the north and south side of the Drake Road Extension.

Intersections

1. *S.R. 116-Old River Road/River Road-Main Street* is a 4-way signalized intersection with permitted left-turn phasing on the northbound and southbound approaches of S.R. 116 and Old River Road. Permitted phasing allows drivers to turn left, but assigns the right-of-way to through traffic. The westbound approach of River Road has protected/permitted phasing, which allows left turning traffic to turn left before giving through traffic the right-of-way. The lane configuration on the northbound S.R. 116 approach consists of a left-turn lane and a shared through/right-turn lane while the southbound approach of Old River Road consists of one lane which serves all movements. The eastbound approach of Main Street has a right-turn lane and a through lane, while the westbound approach of River Road has a left-turn lane and a shared through/right-turn lane.

2. *S.R. 116/Drake Road-Neeley Road* is a 4-way intersection with stop signs on the eastbound and westbound Drake Road and Neeley Road approaches. A flare on the westbound approach allows right-turn access to Drake Road for vehicles traveling northbound on S.R. 116, while a left-turn lane provides access for southbound vehicles.

3. *Drake Road/Drake Road Extension* is currently a "Tee" intersection with a stop sign on the eastbound Drake Road Extension approach. Through traffic on Drake Road has the right-of-way while making a 90-degree turn at the intersection.

These intersection lane and traffic control details are shown in Figure 1.

Collision History

The collision histories for the study intersections were reviewed to determine any safety trends. Collision rates were calculated based on data obtained through the California Highway Patrol and published in their SWITRS reports.

Using the records for 2000-2002, it was found that five collisions were reported at or within 150 feet of S.R. 116-Old River Road/River Road-Main Street. The associated collision rate for this intersection is 0.33 collisions per million vehicle entering the intersection (c/mve). Average collision rates statewide published by Caltrans in *1999 Accident Data on California State Highways* indicate that the average rate for a rural four legged signalized intersection is 0.70 c/mve.

During the same period two collisions were reported at or within 150 feet of S.R. 116/Drake Road-Neeley Road, translating to a collision rate of 0.31 c/mve. The average collision rate published by Caltrans for a rural 4-legged intersection with side street stop controls is 0.33 c/mve.

No collisions were reported at Drake Road/Drake Road Extension.

The collision rates at all of the study intersections are lower than the statewide average for similar types of intersection, so are within a range that would generally be considered acceptable. Based on the collision history review, no significant safety issues were identified in the study area.

Existing Conditions

The Existing Conditions scenario provides an evaluation based on actual current traffic volumes during the weekday p.m. peak period and the weekend midday peak period. Counts for the study intersections were obtained between Thursday, March 11, and Monday, March 22, 2004. Existing traffic volumes are shown in Figure 2.

Currently the study intersections are operating acceptably at LOS C or better on all movements during both peak periods evaluated. A summary of the level of service calculations is contained in Table 2 and copies of the calculations are provided in Appendix A.

Table 2
Summary of Existing Intersection Level of Service Calculations

Intersection *Approach*	Existing Conditions				Existing plus Project			
	Weekday PM Peak		Weekend Midday Peak		Weekday PM Peak		Weekend Midday Peak	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. S.R. 116/River Rd-Main St	14.6	B	22.3	C	14.6	B	22.6	C
2. S.R. 116/Drake Rd-Neeley Rd								
Southbound Left-Turn	*7.7*	*A*	*7.7*	*A*	*7.7*	*A*	*7.8*	*A*
Westbound approach	*10.5*	*B*	*10.6*	*B*	*10.5*	*B*	*10.9*	*B*
Eastbound approach	*15.6*	*C*	*15.5*	*C*	*15.7*	*C*	*16.7*	*C*
3. Drake Rd/Drake Rd Extension								
Northbound Approach	*7.3*	*A*	*7.4*	*A*	*7.1*	*A*	*7.1*	*A*
Southbound Approach	~	~	~	~	*7.2*	*A*	*7.3*	*A*
Eastbound Approach	*8.6*	*A*	*0.0*	*A*	*6.6*	*A*	*6.6*	*A*
Westbound Approach	~	~	~	~	*7.8*	*A*	*7.8*	*A*

Notes: Delay is in average number of seconds per vehicle
LOS= Level of Service

w-trans

Guerneville River Park Traffic Impact Study

County of Sonoma

Figure 2
Existing Traffic Volumes

SOX194.al 4/04

Future Conditions

Project Description

The proposed 8.8-acre Guerneville River Park project consists of 55 parking spaces, a restroom/shower building, a group picnic site, family picnic sites and a boat portage to launch small boats. Primary access to the project would be via Drake Road Extension. A secondary boat launch access point will be via the addition of a new street with a stop sign control located to the north of the existing intersection at Drake Road/ Drake Road Extension, making it a 4-legged intersection. A right-turn exit only driveway accessing S.R. 116 will be constructed on the west side of the new street approximately 300 feet north of Drake Road/Drake Road Extension. As part of the project, Drake Road Extension will be widened and re-striped from 24 feet to 28 feet in width, which will allow for two 12-foot travel lanes and a 4-foot shoulder on the north side of the road. It should be noted that project analysis was based on the completion of all three phases of the proposed Guerneville River Park project.

Project Trip Generation

For purposes of estimating the number of vehicle trips which the proposed future uses would be expected to generate, *Trip Generation*, 7th Edition, Institute of Transportation Engineers (ITE), 2003, was used. This publication is a standard reference used by jurisdictions throughout the country, and is based on actual trip generation studies performed at numerous locations in areas of various populations.

The Guerneville River Park project is expected to generate approximately 20 weekday trips and 106 weekend trips, which includes five weekday p.m. peak hour trips and 32 weekend midday peak hour trips. The trip generation of the project is summarized in Table 3.

Table 3
Trip Generation Summary

Land Use	Size	Weekday		Weekday P.M. Peak Hour				Weekend		Weekend Midday Peak Hour			
		Rate	Trips	Rate	Trips	In	Out	Rate	Trips	Rate	Trips	In	Out
City Park	8.8 acres	2.28	20	0.59	5	2	3	12.14	106	3.6	32	15	17

Trip Distribution

The distribution for the project trips was based on current travel patterns at the study intersections together with likely vehicle trip destinations. Vehicle trips generated by the development of the Guerneville River Park project were distributed evenly between the two project access points. The trip distribution characteristics applied are shown in Table 4.

Table 4
Peak Hour Trip Distribution Assumptions

Origin/Destination	Percent Distribution	Weekday P.M. Peak Trips	Weekend Midday Peak Trips
S.R. 116 – South of Drake Road	20%	1	7
Main Street – West of S.R. 116	45%	2	14
River Road – East of S.R. 116	35%	2	11
Total	**100%**	**5**	**32**

Existing plus Project Conditions

Upon the addition of project-related traffic to the study intersections, there is expected to be virtually no change in operating conditions from what currently exists, with all intersection movements remaining at LOS C or better and experiencing increases in average delay of less than one second. The Project added traffic volumes are shown on Figure 3. A summary of Existing plus Project intersection Levels of Service is provided in Table 2, and copies of the calculations are provided in Appendix A.

The project includes the conversion of the Drake Road/Drake Road Extension intersection to a four-way intersection with park traffic traveling to/from the north and east and through traffic to/from the south and east. The heaviest traffic volume approaches would still be the northbound and westbound legs of the intersection. However, with the additional traffic generated by the park, an all-way stop control may better serve the vehicle maneuvers and conflicts. Therefore, the intersection level of service conditions for this location with the project have been evaluated with the lower capacity all-way stop control.

Future Conditions

Future traffic volumes for the study area are not currently available from the traffic model under development by the County, so a growth factor was used to generate future traffic volumes. Growth of 2 percent per year over a 10-year period was assumed. This translates to a growth factor of 1.22 for the 10-year horizon of 2014. This growth factor was applied to all movements at S.R. 116/Drake Road-Neeley Road, Drake Road/Drake Road Extension and S.R. 116/River Road-Main Street in order to present a conservative analysis.

Under the projected future traffic volumes, all intersection movements are expected to continue operating acceptably at LOS C or better for both peak periods. Future volumes are shown in Figure 4. A summary of the Level of Service calculations is provided in Table 5, and copies of the calculations are provided in Appendix A.

w-trans

Guerneville River Park Traffic Impact Study

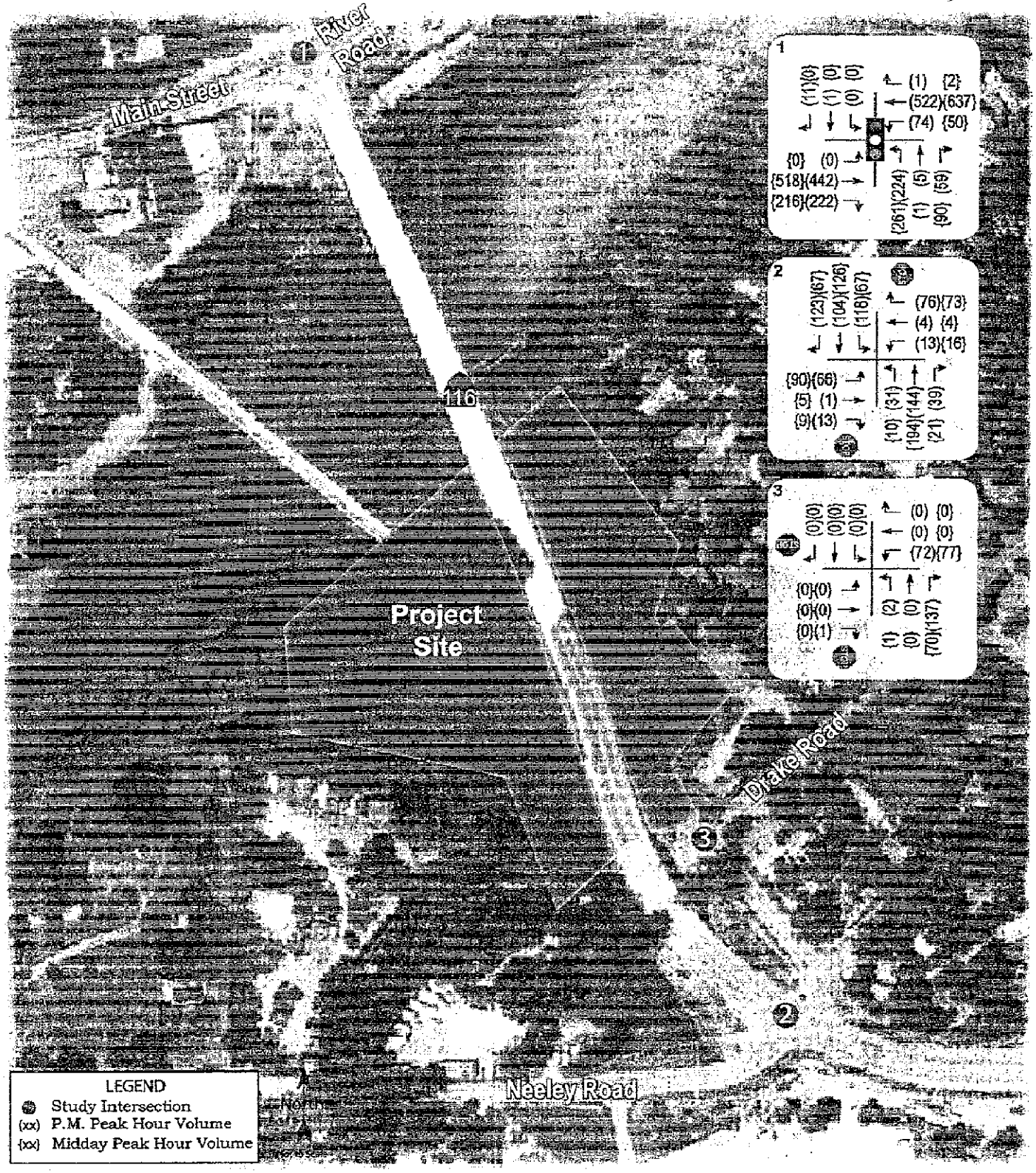
County of Sonoma

Figure 3

Project Added Traffic Volumes

SOX194.ai 4/04

w-trans



Guerneville River Park Traffic Impact Study

County of Sonoma

Figure 4
Future Traffic Volumes

SOX194.ai 4/04

Table 5
Summary of Future Level of Service Calculations

Intersections *Approach*	Future Conditions				Future plus Project			
	Weekday PM Peak		Weekend Midday Peak		Weekday PM Peak		Weekend Midday Peak	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. S.R. 116/River Rd-Main St	23.0	C	27.0	C	23.1	C	27.4	C
2. S.R. 116/Drake Rd-Neeley Rd								
Southbound Left-Turn	*7.8*	*A*	*7.8*	*A*	*7.8*	*A*	*7.8*	*A*
Westbound Approach	*11.3*	*B*	*11.1*	*B*	*11.4*	*B*	*11.4*	*B*
Eastbound Approach	*19.6*	*C*	*17.9*	*C*	*19.8*	*C*	*19.4*	*C*
3. Drake Rd/Drake Rd Extension								
Northbound Approach	*7.4*	*A*	*7.4*	*A*	*7.1*	*A*	*7.0*	*A*
Southbound Approach	~	~	~	~	*7.2*	*A*	*7.2*	*A*
Eastbound Approach	*8.7*	*A*	*0.0*	*A*	*6.7*	*A*	*6.6*	*A*
Westbound Approach	~	~	~	~	*7.9*	*A*	*7.8*	*A*

Notes: Delay is in average number of seconds per vehicle
LOS = Level of Service

Future plus Project Conditions

Project-generated trips were added to the projected future volumes to determine Future plus Project Conditions for a horizon year of 2014. Under these potential Future plus Project volumes, all intersection movements are expected to continue operating acceptably at LOS C or better for both peak periods evaluated. Since no movements are projected to operate below LOS C, the project's impacts on the study intersections are less-than-significant. The Future plus Project operating conditions are summarized in Table 5, and the calculations are provided in Appendix A.

Pedestrian and Bicycle Facilities

The study area roadways and intersections offer minimal shoulders and no sidewalks or crosswalks for routes serving the project site, except for the signalized intersection of S.R. 116/ River Road-Main Street, which has crosswalks on the northbound, southbound and eastbound approaches and sidewalks on both sides of Main Street and on the west side of S.R. 116 over the bridge. As part of the project Drake Road Extension will be widened and re-striped from 24 feet to 28 feet in width, which will allow for two 12-foot travel lanes and a 4-foot shoulder on the north side of the road for pedestrian and bicycle access to the park.

Access Evaluation and On-site Circulation

Site access issues were evaluated to determine if the facility would provide adequate circulation, room for turning movements and parking facilities. The primary access point is via Drake Road Extension, which is an existing road to the west of Drake Road. A secondary access point for boat launching purposes will be via a new road to the north of the intersection of Drake Road/Drake Road Extension.
The schematic site plan has been evaluated to ensure that adequate turning radii is available and that sufficient storage is provided for queued vehicles at the boat launch. Based on the initial details, it appears that the site would provide a 100-foot diameter turnaround at the boat launch. The 100-foot diameter turnaround would provide sufficient maneuvering room for movement of articulated vehicles such as trucks and motor homes with a boat trailer.

The project includes the retention of the S.R. 116 right-turn exit only access north of the Neeley Road-Drake Road/S.R. 116 intersection. The access which would connect with the new road to the boat launch are would primarily serve vehicles with boat trailers. The grade of the connection and the ability of trucks carrying boat trailers traveling on this grade may be an issue.

Parking

Sonoma County does not have parking standards for public parks, however, other Counties have adopted a standard of one parking stall for each 0.5-acre of developed park area. Based on this standard the 5 acres of developed land for the proposed Guerneville River Park project would require ten parking stalls. As proposed, the project includes 44 standard parking stalls and nine boat trailer parking stalls. Therefore, the parking supply is adequate based on standards in other California Counties. The adequacy of the storage supply for boat launching vehicle should be determined by County Parks.

Conclusions and Recommendations

- The Guerneville River Park project is anticipated to generate an average of 20 weekday vehicle trips and 106 weekend vehicle trips, including five trips during the weekday evening peak hour (two in and three out) and 32 during the weekend midday peak hour (15 in and 17 out).

- The proposed project is expected to have a less than significant impact on the intersection operation at S.R. 116/River Road-Main Street, S.R. 116/Drake Road-Neeley Road and Drake Road/Drake Road Extension.

- Since the intersection of Drake Road/Drake Road Extension would be converted to a four-way intersection with park traffic traveling to/from the north and east and through traffic to/from the south and east, the traffic maneuvers and traffic conflicts would be better served by an all-way stop control. The level of traffic volumes are appropriate for this all-way stop control.

- Pedestrians and bicyclists would be served by the widened and re-striped of Drake Road Extension from 24 feet to 28 feet in width, which will allow for two 12-foot travel lanes and a 4-foot shoulder on the north side of the road for access to the park.

- Since vehicles with boat trailers would be the primary users, the S.R. 116 right-turn exit only access driveway off of the new road must meet the County's grade Standards. It appears that the grade is too steep to meet County's grade standards. If the connection does not meet grade standards, it is suggested that Guerneville River Park traffic be restricted with all traffic directed through the Drake Road/Drake Road Extension intersection. The access should remain open for flood evacuation from Riverside Drive and for access to an adjacent parcel.

- The project includes 44 standard parking stalls and nine boat trailer parking stalls. The parking supply is adequate based on standards in other California Counties.

Study Participants and References

Study Participants

Principal in Charge:	Steve Weinberger, P.E., P.T.O.E.
Project Planner:	Chris Helmer
Graphics:	Debbie Dunn
Report Review:	Dalene Whitlock, P.E., P.T.O.E.

References

Highway Capacity Manual, Transportation Research Board, 2000
Trip Generation, 7th Edition, Institute of Transportation Engineers, 2003
Sonoma County General Plan
Sonoma County Zoning Ordinance
1999 Accident Data on California State Highways, Caltrans
SOX194

Appendix A

Level of Service Calculations

PM Peak Hour - Existing Conditions
Guerneville River Park
County of Sonoma

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

Intersection #1 Main Street-River Road/SR 116-Old River Road

Cycle (sec): 100 Critical Vol./Cap. (X): 0.396
Loss Time (sec): 4 (Y+R = 4 sec) Average Delay (sec/veh): 14.6
Optimal Cycle: 19 Level Of Service: B

Street Name:	SR 116-Old River Road						Main Street-River Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	0 1	0	0 0	0 1	0	0 1	0 0	1	1 0	0 1	0
Volume Module: >> Count Date: 22 Mar 2004 << 4:00-5:00												
Base Vol:	184	4	48	0	1	9	0	362	182	61	428	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	184	4	48	0	1	9	0	362	182	61	428	1
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:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	198	4	52	0	1	10	0	389	196	66	460	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	198	4	52	0	1	10	0	389	196	66	460	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	198	4	52	0	1	10	0	389	196	66	460	1
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.76	0.86	0.86	1.00	0.88	0.88	1.00	1.00	0.85	0.95	1.00	1.00
Lanes:	1.00	0.08	0.92	0.00	0.10	0.90	0.00	1.00	1.00	1.00	0.99	0.01
Final Sat.:	1444	126	1512	0	167	1503	0	1900	1615	1805	1896	4
Capacity Analysis Module:												
Vol/Sat:	0.14	0.03	0.03	0.00	0.01	0.01	0.00	0.20	0.12	0.04	0.24	0.24
Crit Moves:	****										****	
Green/Cycle:	0.35	0.35	0.35	0.00	0.35	0.35	0.00	0.52	0.52	0.61	0.61	0.61
Volume/Cap:	0.39	0.10	0.10	0.00	0.02	0.02	0.00	0.39	0.23	0.12	0.40	0.40
Delay/Veh:	25.2	22.1	22.1	0.0	21.4	21.4	0.0	14.7	13.3	8.8	10.2	10.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.2	22.1	22.1	0.0	21.4	21.4	0.0	14.7	13.3	8.8	10.2	10.2
HCM2kAvg:	6	1	1	0	0	0	0	7	3	1	7	7

MD Peak Hour - Existing Conditions
Guerneville River Park
County of Sonoma

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

Intersection #1 Main Street-River Road/SR 116-Old River Road

Cycle (sec): 100 Critical Vol./Cap. (X): 0.454
Loss Time (sec): 4 (Y+R = 4 sec) Average Delay (sec/veh): 22.3
Optimal Cycle: 36 Level Of Service: C

Street Name:	SR 116-Old River Road						Main Street-River Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	0 1	0	0 0	1! 0	0	0 1	0 0	1	1 0	0 1	0
Volume Module: >> Count Date: 20 Mar 2004 << 12:00-1:00												
Base Vol:	214	1	74	0	0	0	0	425	177	41	522	2
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	214	1	74	0	0	0	0	425	177	41	522	2
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:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	229	1	79	0	0	0	0	454	189	44	558	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	229	1	79	0	0	0	0	454	189	44	558	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	229	1	79	0	0	0	0	454	189	44	558	2
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	0.85	0.95	1.00	1.00
Lanes:	1.00	0.01	0.99	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.99	0.01
Final Sat.:	1619	22	1597	0	1900	0	0	1900	1615	1805	1891	7
Capacity Analysis Module:												
Vol/Sat:	0.14	0.05	0.05	0.00	0.00	0.00	0.00	0.24	0.12	0.02	0.29	0.29
Crit Moves:	****										****	
Green/Cycle:	0.20	0.20	0.20	0.00	0.00	0.00	0.00	0.34	0.34	0.76	0.76	0.76
Volume/Cap:	0.70	0.25	0.25	0.00	0.00	0.00	0.00	0.70	0.34	0.05	0.39	0.39
Delay/Veh:	44.0	34.0	34.0	0.0	0.0	0.0	0.0	32.1	25.1	5.6	4.3	4.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.0	34.0	34.0	0.0	0.0	0.0	0.0	32.1	25.1	5.6	4.3	4.3
HCM2kAvg:	9	2	2	0	0	0	0	13	4	0	6	6

PM Existing — Thu Apr 15, 2004 08:49:02 — Page 5-1

PM Peak Hour - Existing Conditions
Guerneville River Park
County of Sonoma

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Drake Road-Neeley Road/SR 116

Average Delay (sec/veh): 4.6 Worst Case Level Of Service: C[15.6]

Street Name:	SR 116						Drake Road-Neeley Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0	1 0		1 0 0	1 0		0 0	1! 0	0	0 0	1! 0	0
Volume Module: >> Count Date: 11 Mar 2004 << 5:00 - 6:00 pm												
Base Vol:	25	118	32	97	85	101	54	1	11	11	3	62
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	25	118	32	97	85	101	54	1	11	11	3	62
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:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	27	125	34	103	90	107	57	1	12	12	3	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	27	125	34	103	90	107	57	1	12	12	3	66
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	197	xxxx	xxxxx	159	xxxx	xxxxx	579	562	144	551	598	142
Potent Cap.:	1387	xxxx	xxxxx	1433	xxxx	xxxxx	429	439	909	448	418	911
Move Cap.:	1387	xxxx	xxxxx	1433	xxxx	xxxxx	369	400	909	411	381	911
Volume/Cap:	0.02	xxxx	xxxx	0.07	xxxx	xxxx	0.16	0.00	0.01	0.03	0.01	0.07
Level Of Service Module:												
Queue:	0.1	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	7.6	xxxx	xxxxx	7.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	410	xxxxx	xxxx	740	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.6	xxxxx	xxxxx	0.4	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	15.6	xxxxx	xxxxx	10.5	xxxxx
Shared LOS:	*	*	*	*	*	*	*	C	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			15.6			10.5		
ApproachLOS:	*			*			C			B		

Traffix 7.6.0115 (c) 2004 Dowling Assoc. Licensed to W-TRANS, Santa Rosa, CA

MD Existing — Thu Apr 15, 2004 08:48:11 — Page 5-1

MD Peak Hour - Existing Conditions
Guerneville River Park
County of Sonoma

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Drake Road-Neeley Road/SR 116

Average Delay (sec/veh): 4.7 Worst Case Level Of Service: C[15.5]

Street Name:	SR 116						Drake Road-Neeley Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0	1 0		1 0 0	1 0		0 0	1! 0	0	0 0	1! 0	0
Volume Module: >> Count Date: 20 Mar 2004 << 12:00-1:00												
Base Vol:	8	159	17	55	103	55	74	4	7	13	3	60
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	159	17	55	103	55	74	4	7	13	3	60
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:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	9	180	19	62	117	62	84	5	8	15	3	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	9	180	19	62	117	62	84	5	8	15	3	68
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	179	xxxx	xxxxx	199	xxxx	xxxxx	516	490	140	486	511	190
Potent Cap.:	1409	xxxx	xxxxx	1385	xxxx	xxxxx	473	482	904	495	469	857
Move Cap.:	1409	xxxx	xxxxx	1385	xxxx	xxxxx	416	457	904	468	445	857
Volume/Cap:	0.01	xxxx	xxxx	0.04	xxxx	xxxx	0.20	0.01	0.01	0.03	0.01	0.08
Level Of Service Module:												
Queue:	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	7.6	xxxx	xxxxx	7.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	437	xxxxx	xxxx	727	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.8	xxxxx	xxxxx	0.4	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	15.5	xxxxx	xxxxx	10.6	xxxxx
Shared LOS:	*	*	*	*	*	*	*	C	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			15.5			10.6		
ApproachLOS:	*			*			C			B		

Traffix 7.6.0115 (c) 2004 Dowling Assoc. Licensed to W-TRANS, Santa Rosa, CA

PM Existing plus Project Thu Apr 15, 2004 08:49:58 Page 7-1

PM Peak Hour - Existing plus Project Conditions
Guerneville River Park
County of Sonoma

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

Intersection #2 Drake Road-Neeley Road/SR 116

Average Delay (sec/veh): 4.7 Worst Case Level Of Service: C[15.7]

Street Name:	SR 116						Drake Road-Neeley Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0	0 1	0	1 0	0 1	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module: >> Count Date: 11 Mar 2004 << 5:00 - 6:00 pm												
Base Vol:	25	118	32	97	85	101	54	1	11	11	3	62
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	25	118	32	97	85	101	54	1	11	11	3	62
Added Vol:	0	0	0	2	0	0	0	0	0	1	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	25	118	32	99	85	101	54	1	11	12	3	64
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:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	27	125	34	105	90	107	57	1	12	13	3	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	27	125	34	105	90	107	57	1	12	13	3	68
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	197	xxxx	xxxxx	159	xxxx	xxxxx	584	566	144	555	602	142
Potent Cap.:	1387	xxxx	xxxxx	1433	xxxx	xxxxx	426	437	909	445	416	911
Move Cap.:	1387	xxxx	xxxxx	1433	xxxx	xxxxx	364	397	909	408	378	911
Volume/Cap:	0.02	xxxx	xxxx	0.07	xxxx	xxxx	0.16	0.00	0.01	0.03	0.01	0.07
Level Of Service Module:												
Queue:	0.1	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	7.6	xxxx	xxxxx	7.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	405	xxxxx	xxxx	734	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.6	xxxxx	xxxxx	0.4	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	15.7	xxxxx	xxxxx	10.5	xxxxx
Shared LOS:	*	*	*	*	*	*	*	C	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			15.7			10.5		
ApproachLOS:	*			*			C			B		

Traffix 7.6.0115 (c) 2004 Dowling Assoc. Licensed to W-TRANS, Santa Rosa, CA

MD Existing plus Project Thu Apr 15, 2004 08:49:27 Page 7-1

MD Peak Hour - Existing plus Project Conditions
Guerneville River Park
County of Sonoma

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

Intersection #2 Drake Road-Neeley Road/SR 116

Average Delay (sec/veh): 5.1 Worst Case Level Of Service: C[16.7]

Street Name:	SR 116						Drake Road-Neeley Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0	0 1	0	1 0	0 1	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module: >> Count Date: 20 Mar 2004 << 12:00-1:00												
Base Vol:	8	159	17	55	103	55	74	4	7	13	3	60
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	159	17	55	103	55	74	4	7	13	3	60
Added Vol:	0	0	3	12	0	0	0	0	0	3	0	14
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	159	20	67	103	55	74	4	7	16	3	74
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:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	9	180	23	76	117	62	84	5	8	18	3	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	9	180	23	76	117	62	84	5	8	18	3	84
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	179	xxxx	xxxxx	203	xxxx	xxxxx	553	520	148	515	540	191
Potent Cap.:	1409	xxxx	xxxxx	1381	xxxx	xxxxx	447	463	904	473	451	855
Move Cap.:	1409	xxxx	xxxxx	1381	xxxx	xxxxx	382	435	904	444	424	855
Volume/Cap:	0.01	xxxx	xxxx	0.05	xxxx	xxxx	0.22	0.01	0.01	0.04	0.01	0.10
Level Of Service Module:												
Queue:	0.0	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	7.6	xxxx	xxxxx	7.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	404	xxxxx	xxxx	717	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.9	xxxxx	xxxxx	0.5	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	16.7	xxxxx	xxxxx	10.9	xxxxx
Shared LOS:	*	*	*	*	*	*	*	C	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			16.7			10.9		
ApproachLOS:	*			*			C			B		

Traffix 7.6.0115 (c) 2004 Dowling Assoc. Licensed to W-TRANS, Santa Rosa, CA

PM Existing plus Project Fri Apr 23, 2004 12:29:38 Page 8-1

PM Peak Hour - Existing plus Project Conditions
Guerneville River Park
County of Sonoma

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

Intersection #3 Drake Road/Drake Road Extension

Cycle (sec): 100 Critical Vol./Cap. (X): 0.142
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 7.3
Optimal Cycle: 0 Level Of Service: A

Street Name:	Drake Rd				Boat Launch				Drake Rd Ext				Drake Rd			
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Lanes:	0	0	1!	0 0	0	0	1	0 0	0	0	0	0 1	1	0	0	0 0
Volume Module: >> Count Date: 17 Mar 2004 << 5:00-6:00																
Base Vol:	2	0	112		0	0	0		0	0	1		59	0	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	2	0	112		0	0	0		0	0	1		59	0	0	
Added Vol:	1	1	0		0	2	0		0	0	1		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	3	1	112		0	2	0		0	0	2		59	0	0	
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:	0.81	0.81	0.81		0.81	0.81	0.81		0.81	0.81	0.81		0.81	0.81	0.81	
PHF Volume:	4	1	139		0	2	0		0	0	2		73	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	4	1	139		0	2	0		0	0	2		73	0	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	4	1	139		0	2	0		0	0	2		73	0	0	
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:	0.03	0.01	0.96		0.00	1.00	0.00		0.00	0.00	1.00		1.00	0.00	0.00	
Final Sat.:	26	9	977		0	840	0		0	0	949		801	0	0	
Capacity Analysis Module:																
Vol/Sat:	0.14	0.14	0.14		xxxx	0.00	xxxx		xxxx	xxxx	0.00		0.09	xxxx	xxxx	
Crit Moves:	****					****					****		****			
Delay/Veh:	7.1	7.1	7.1		0.0	7.2	0.0		0.0	0.0	6.6		7.8	0.0	0.0	
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:	7.1	7.1	7.1		0.0	7.2	0.0		0.0	0.0	6.6		7.8	0.0	0.0	
LOS by Move:	A	A	A		*	A	*		*	*	A		A	*	*	
ApproachDel:		7.1				7.2				6.6				7.8		
Delay Adj:		1.00				1.00				1.00				1.00		
ApprAdjDel:		7.1				7.2				6.6				7.8		
LOS by Appr:		A				A				A				A		

Traffix 7.6.0115 (c) 2004 Dowling Assoc. Licensed to W-TRANS, Santa Rosa, CA

MD Existing plus Project Fri Apr 23, 2004 12:06:39 Page 8-1

MD Peak Hour - Existing plus Project Conditions
Guerneville River Park
County of Sonoma

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

Intersection #3 Drake Road/Drake Road Extension

Cycle (sec): 100 Critical Vol./Cap. (X): 0.107
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 7.4
Optimal Cycle: 0 Level Of Service: A

Street Name:	Drake Rd				Boat Launch				Drake Rd Ext				Drake Road			
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	
Lanes:	0	0	1!	0 0	0	0	1	0 0	0	0	0	0 1	1	0	0	0 0
Volume Module: >> Count Date: 20 Mar 2004 << 12:00-1:00																
Base Vol:	1	0	57		0	0	0		0	0	0		63	0	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	1	0	57		0	0	0		0	0	0		63	0	0	
Added Vol:	7	8	0		0	9	0		0	0	8		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	8	8	57		0	9	0		0	0	8		63	0	0	
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:	0.72	0.72	0.72		0.72	0.72	0.72		0.72	0.72	0.72		0.72	0.72	0.72	
PHF Volume:	11	11	79		0	12	0		0	0	11		87	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	11	11	79		0	12	0		0	0	11		87	0	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	11	11	79		0	12	0		0	0	11		87	0	0	
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:	0.11	0.11	0.78		0.00	1.00	0.00		0.00	0.00	1.00		1.00	0.00	0.00	
Final Sat.:	105	105	747		0	834	0		0	0	966		813	0	0	
Capacity Analysis Module:																
Vol/Sat:	0.11	0.11	0.11		xxxx	0.01	xxxx		xxxx	xxxx	0.01		0.11	xxxx	xxxx	
Crit Moves:	****					****					****		****			
Delay/Veh:	7.1	7.1	7.1		0.0	7.3	0.0		0.0	0.0	6.6		7.8	0.0	0.0	
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:	7.1	7.1	7.1		0.0	7.3	0.0		0.0	0.0	6.6		7.8	0.0	0.0	
LOS by Move:	A	A	A		*	A	*		*	*	A		A	*	*	
ApproachDel:		7.1				7.3				6.6				7.8		
Delay Adj:		1.00				1.00				1.00				1.00		
ApprAdjDel:		7.1				7.3				6.6				7.8		
LOS by Appr:		A				A				A				A		

Traffix 7.6.0115 (c) 2004 Dowling Assoc. Licensed to W-TRANS, Santa Rosa, CA

PM Future — Thu Apr 15, 2004 08:50:45 — Page 4-1

PM Peak Hour - Future Conditions
Guerneville River Park
County of Sonoma

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

Intersection #1 Main Street-River Road/SR 116-Old River Road

Cycle (sec): 100 — Critical Vol./Cap. (X): 0.473
Loss Time (sec): 4 (Y+R = 4 sec) — Average Delay (sec/veh): 23.0
Optimal Cycle: 39 — Level Of Service: C

Street Name:	SR 116-Old River Road						Main Street-River Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	0 1	0	0 0	0 1	0	0 1	0 0	1	1 0	0 1	0
Volume Module: >> Count Date: 22 Mar 2004 << 4:00-5:00												
Base Vol:	184	4	48	0	1	9	0	362	182	61	428	1
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	224	5	59	0	1	11	0	442	222	74	522	1
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	236	5	62	0	1	12	0	465	234	78	550	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	236	5	62	0	1	12	0	465	234	78	550	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	236	5	62	0	1	12	0	465	234	78	550	1
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.76	0.86	0.86	1.00	0.88	0.88	1.00	1.00	0.85	0.95	1.00	1.00
Lanes:	1.00	0.08	0.92	0.00	0.10	0.90	0.00	1.00	1.00	1.00	0.99	0.01
Final Sat.:	1440	126	1512	0	167	1503	0	1900	1615	1805	1896	4
Capacity Analysis Module:												
Vol/Sat:	0.16	0.04	0.04	0.00	0.01	0.01	0.00	0.24	0.14	0.04	0.29	0.29
Crit Moves:	****										****	
Green/Cycle:	0.23	0.23	0.23	0.00	0.23	0.23	0.00	0.34	0.34	0.73	0.73	0.73
Volume/Cap:	0.73	0.18	0.18	0.00	0.03	0.03	0.00	0.73	0.43	0.09	0.39	0.39
Delay/Veh:	43.9	31.5	31.5	0.0	30.3	30.3	0.0	33.4	26.3	6.2	5.1	5.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.9	31.5	31.5	0.0	30.3	30.3	0.0	33.4	26.3	6.2	5.1	5.1
HCM2kAvg:	10	2	2	0	0	0	0	14	6	1	6	6

Traffix 7.6.0115 (c) 2004 Dowling Assoc. Licensed to W-TRANS, Santa Rosa, CA

MD Future — Thu Apr 15, 2004 08:50:21 — Page 4-1

MD Peak Hour - Future Conditions
Guerneville River Park
County of Sonoma

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

Intersection #1 Main Street-River Road/SR 116-Old River Road

Cycle (sec): 100 — Critical Vol./Cap. (X): 0.546
Loss Time (sec): 4 (Y+R = 4 sec) — Average Delay (sec/veh): 27.0
Optimal Cycle: 62 — Level Of Service: C

Street Name:	SR 116-Old River Road						Main Street-River Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	0 1	0	0 0	1! 0	0	0 1	0 0	1	1 0	0 1	0
Volume Module: >> Count Date: 20 Mar 2004 << 12:00-1:00												
Base Vol:	214	1	74	0	0	0	0	425	177	41	522	2
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	261	1	90	0	0	0	0	518	216	50	637	2
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	275	1	95	0	0	0	0	546	227	53	670	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	275	1	95	0	0	0	0	546	227	53	670	3
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	275	1	95	0	0	0	0	546	227	53	670	3
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	0.85	0.95	1.00	1.00
Lanes:	1.00	0.01	0.99	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.99	0.01
Final Sat.:	1619	22	1597	0	1900	0	0	1900	1615	1805	1891	7
Capacity Analysis Module:												
Vol/Sat:	0.17	0.06	0.06	0.00	0.00	0.00	0.00	0.29	0.14	0.03	0.35	0.35
Crit Moves:	****										****	
Green/Cycle:	0.20	0.20	0.20	0.00	0.00	0.00	0.00	0.34	0.34	0.76	0.76	0.76
Volume/Cap:	0.85	0.30	0.30	0.00	0.00	0.00	0.00	0.85	0.41	0.06	0.47	0.47
Delay/Veh:	56.6	34.5	34.5	0.0	0.0	0.0	0.0	40.6	25.9	7.3	4.7	4.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	56.6	34.5	34.5	0.0	0.0	0.0	0.0	40.6	25.9	7.3	4.7	4.7
HCM2kAvg:	12	3	3	0	0	0	0	18	6	0	8	8

Traffix 7.6.0115 (c) 2004 Dowling Assoc. Licensed to W-TRANS, Santa Rosa, CA

PM Future — Thu Apr 15, 2004 08:50:45 — Page 5-1

PM Peak Hour - Future Conditions
Guerneville River Park
County of Sonoma

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Drake Road-Neeley Road/SR 116

Average Delay (sec/veh): 5.2 Worst Case Level Of Service: C[19.6]

Street Name:	SR 116						Drake Road-Neeley Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0 1 0			1 0 0 1 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module: >> Count Date: 11 Mar 2004 << 5:00 - 6:00 pm												
Base Vol:	25	118	32	97	85	101	54	1	11	11	3	62
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	31	144	39	118	104	123	66	1	13	13	4	76
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	32	152	41	125	109	130	69	1	14	14	4	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	32	152	41	125	109	130	69	1	14	14	4	80
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	239	xxxx	xxxxx	193	xxxx	xxxxx	701	680	174	667	724	172
Potent Cap.:	1340	xxxx	xxxxx	1393	xxxx	xxxxx	356	376	875	375	354	877
Move Cap.:	1340	xxxx	xxxxx	1393	xxxx	xxxxx	293	334	875	337	315	877
Volume/Cap:	0.02	xxxx	xxxx	0.09	xxxx	xxxx	0.24	0.00	0.02	0.04	0.01	0.09
Level Of Service Module:												
Queue:	0.1	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	7.8	xxxx	xxxxx	7.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	331	xxxxx	xxxx	673	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.0	xxxxx	xxxxx	0.5	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	19.6	xxxxx	xxxxx	11.3	xxxxx
Shared LOS:	*	*	*	*	*	*	*	C	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			19.6			11.3		
ApproachLOS:	*			*			C			B		

Traffix 7.6.0115 (c) 2004 Dowling Assoc. Licensed to W-TRANS, Santa Rosa, CA

MD Future — Thu Apr 15, 2004 08:50:21 — Page 5-1

MD Peak Hour - Future Conditions
Guerneville River Park
County of Sonoma

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Drake Road-Neeley Road/SR 116

Average Delay (sec/veh): 5.1 Worst Case Level Of Service: C[17.9]

Street Name:	SR 116						Drake Road-Neeley Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0 1 0			1 0 0 1 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module: >> Count Date: 20 Mar 2004 << 12:00-1:00												
Base Vol:	8	159	17	55	103	55	74	4	7	13	3	60
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	10	194	21	67	126	67	90	5	9	16	4	73
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	10	204	22	71	132	71	95	5	9	17	4	77
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	10	204	22	71	132	71	95	5	9	17	4	77
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	203	xxxx	xxxxx	226	xxxx	xxxxx	585	555	168	552	580	215
Potent Cap.:	1381	xxxx	xxxxx	1354	xxxx	xxxxx	425	442	882	448	429	830
Move Cap.:	1381	xxxx	xxxxx	1354	xxxx	xxxxx	366	416	882	419	403	830
Volume/Cap:	0.01	xxxx	xxxx	0.05	xxxx	xxxx	0.26	0.01	0.01	0.04	0.01	0.09
Level Of Service Module:												
Queue:	0.0	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	7.6	xxxx	xxxxx	7.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	387	xxxxx	xxxx	686	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.1	xxxxx	xxxxx	0.5	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	17.9	xxxxx	xxxxx	11.1	xxxxx
Shared LOS:	*	*	*	*	*	*	*	C	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			17.9			11.1		
ApproachLOS:	*			*			C			B		

Traffix 7.6.0115 (c) 2004 Dowling Assoc. Licensed to W-TRANS, Santa Rosa, CA

```
PM Future                    Thu Apr 15, 2004 08:50:45                    Page 6-1
-----------------------------------------------------------------------------------
                      PM Peak Hour - Future Conditions
                      Guerneville River Park
                      County of Sonoma
-----------------------------------------------------------------------------------
                      Level Of Service Computation Report
                 2000 HCM Unsignalized Method (Base Volume Alternative)
***********************************************************************************
Intersection #3 Drake Road/Drake Road Extension
***********************************************************************************
Average Delay (sec/veh):       0.1   Worst Case Level Of Service:        A[  8.7]
***********************************************************************************
Street Name:     Drake Road       Drake Road       Drake Road Ext.     Boat Launch
Approach:       North Bound      West Bound        East Bound         South Bound
Movement:       L  -  T  -  R    L  -  T  -  R     L  -  T  -  R       L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled       Stop Sign          Stop Sign
Rights:          Include          Include          Include            Include
Lanes:          0  1  0  0  0    0  0  1  0  0    0  0  0  0  1       0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 17 Mar 2004 << 5:00-6:00
Base Vol:        2  112    0      0   59    0      0    0    1       0    0    0
Growth Adj:   1.22 1.22 1.22   1.22 1.22 1.22   1.22 1.22 1.22    1.22 1.22 1.22
Initial Bse:     2  137    0      0   72    0      0    0    1       0    0    0
User Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00    1.00 1.00 1.00
PHF Adj:      0.90 0.90 0.90   0.90 0.90 0.90   0.90 0.90 0.90    0.90 0.90 0.90
PHF Volume:      3  152    0      0   80    0      0    0    1       0    0    0
Reduct Vol:      0    0    0      0    0    0      0    0    0       0    0    0
Final Vol.:      3  152    0      0   80    0      0    0    1       0    0    0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:   4.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   6.2 xxxxx xxxx xxxxx
FollowUpTim:   2.2 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:    80 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx    80  xxxx xxxx xxxxx
Potent Cap.: 1531 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   986  xxxx xxxx xxxxx
Move Cap.:   1531 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   986  xxxx xxxx xxxxx
Volume/Cap:  0.00 xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  0.00  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Queue:        0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   0.0 xxxxx xxxx xxxxx
Stopped Del:  7.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   8.7 xxxxx xxxx xxxxx
LOS by Move:    A    *    *    *    *    *    *    *    A    *    *    *
Movement:     LT - LTR - RT  LT - LTR - RT  LT - LTR - RT  LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:  0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd StpDel:  7.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     A    *    *    *    *    *    *    *    *    *    *    *
ApproachDel:     xxxxxx          xxxxxx          8.7          xxxxxx
ApproachLOS:       *               *             A              *
```

Traffix 7.6.0115 (c) 2004 Dowling Assoc. Licensed to W-TRANS, Santa Rosa, CA

```
MD Future                    Thu Apr 15, 2004 08:50:21                    Page 6-1
-----------------------------------------------------------------------------------
                      MD Peak Hour - Future Conditions
                      Guerneville River Park
                      County of Sonoma
-----------------------------------------------------------------------------------
                      Level Of Service Computation Report
                 2000 HCM Unsignalized Method (Base Volume Alternative)
***********************************************************************************
Intersection #3 Drake Road/Drake Road Extension
***********************************************************************************
Average Delay (sec/veh):       0.1   Worst Case Level Of Service:        A[  7.4]
***********************************************************************************
Street Name:     Drake Road       Drake Road       Drake Road Ext.     Boat Launch
Approach:       North Bound      West Bound        East Bound         South Bound
Movement:       L  -  T  -  R    L  -  T  -  R     L  -  T  -  R       L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled       Stop Sign          Stop Sign
Rights:          Include          Include          Include            Include
Lanes:          0  1  0  0  0    0  0  1  0  0    0  0  1! 0  0       0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Mar 2004 << 12:00-1:00
Base Vol:        1   57    0      0   63    0      0    0    0       0    0    0
Growth Adj:   1.22 1.22 1.22   1.22 1.22 1.22   1.22 1.22 1.22    1.22 1.22 1.22
Initial Bse:     1   70    0      0   77    0      0    0    0       0    0    0
User Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00    1.00 1.00 1.00
PHF Adj:      0.90 0.90 0.90   0.90 0.90 0.90   0.90 0.90 0.90    0.90 0.90 0.90
PHF Volume:      1   77    0      0   85    0      0    0    0       0    0    0
Reduct Vol:      0    0    0      0    0    0      0    0    0       0    0    0
Final Vol.:      1   77    0      0   85    0      0    0    0       0    0    0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:   4.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:   2.2 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:    85 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: 1524 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   1524 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  0.00 xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Queue:        0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Stopped Del:  7.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *    *    *    *    *    *    *    *    *    *    *
Movement:     LT - LTR - RT  LT - LTR - RT  LT - LTR - RT  LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx    0 xxxxx  xxxx xxxx xxxxx
SharedQueue:  0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd StpDel:  7.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     A    *    *    *    *    *    *    *    *    *    *    *
ApproachDel:     xxxxxx          xxxxxx          xxxxxx          xxxxxx
ApproachLOS:       *               *               *               *
```

Traffix 7.6.0115 (c) 2004 Dowling Assoc. Licensed to W-TRANS, Santa Rosa, CA

PM Peak Hour - Future plus Project Conditions
Guerneville River Park
County of Sonoma

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

Intersection #1 Main Street-River Road/SR 116-Old River Road

Cycle (sec): 100 Critical Vol./Cap. (X): 0.474
Loss Time (sec): 4 (Y+R = 4 sec) Average Delay (sec/veh): 23.1
Optimal Cycle: 39 Level Of Service: C

Street Name:	SR 116-Old River Road						Main Street-River Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	0	1 0	0 0	0	1 0	0 1	0	0 1	1 0	0	1 0
Volume Module: >> Count Date: 22 Mar 2004 << 4:00-5:00												
Base Vol:	184	4	48	0	1	9	0	362	182	61	428	1
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	224	5	59	0	1	11	0	442	222	74	522	1
Added Vol:	1	0	1	0	0	0	0	0	1	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	225	5	60	0	1	11	0	442	223	75	522	1
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	237	5	63	0	1	12	0	465	235	79	550	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	237	5	63	0	1	12	0	465	235	79	550	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	237	5	63	0	1	12	0	465	235	79	550	1
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.76	0.86	0.86	1.00	0.88	0.88	1.00	1.00	0.85	0.95	1.00	1.00
Lanes:	1.00	0.08	0.92	0.00	0.10	0.90	0.00	1.00	1.00	1.00	0.99	0.01
Final Sat.:	1440	124	1512	0	167	1503	0	1900	1615	1805	1896	4
Capacity Analysis Module:												
Vol/Sat:	0.16	0.04	0.04	0.00	0.01	0.01	0.00	0.24	0.15	0.04	0.29	0.29
Crit Moves:	****										****	
Green/Cycle:	0.23	0.23	0.23	0.00	0.23	0.23	0.00	0.34	0.34	0.73	0.73	0.73
Volume/Cap:	0.73	0.18	0.18	0.00	0.03	0.03	0.00	0.73	0.43	0.10	0.40	0.40
Delay/Veh:	43.9	31.5	31.5	0.0	30.2	30.2	0.0	33.5	26.4	6.7	5.2	5.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.9	31.5	31.5	0.0	30.2	30.2	0.0	33.5	26.4	6.7	5.2	5.2
HCM2kAvg:	10	2	2	0	0	0	0	14	6	1	6	6

MD Peak Hour - Future plus Project Conditions
Guerneville River Park
County of Sonoma

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

Intersection #1 Main Street-River Road/SR 116-Old River Road

Cycle (sec): 100 Critical Vol./Cap. (X): 0.552
Loss Time (sec): 4 (Y+R = 4 sec) Average Delay (sec/veh): 27.4
Optimal Cycle: 63 Level Of Service: C

Street Name:	SR 116-Old River Road						Main Street-River Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	0	1 0	0 0	1!	0 0	0 1	0	0 1	1 0	0	1 0
Volume Module: >> Count Date: 20 Mar 2004 << 12:00-1:00												
Base Vol:	214	1	74	0	0	0	0	425	177	41	522	2
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	261	1	90	0	0	0	0	518	216	50	637	2
Added Vol:	8	0	6	0	0	0	0	0	7	5	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	269	1	96	0	0	0	0	518	223	55	637	2
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	283	1	101	0	0	0	0	546	235	58	670	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	283	1	101	0	0	0	0	546	235	58	670	3
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	283	1	101	0	0	0	0	546	235	58	670	3
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	0.85	0.95	1.00	1.00
Lanes:	1.00	0.01	0.99	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.99	0.01
Final Sat.:	1619	20	1599	0	1900	0	0	1900	1615	1805	1891	7
Capacity Analysis Module:												
Vol/Sat:	0.17	0.06	0.06	0.00	0.00	0.00	0.00	0.29	0.15	0.03	0.35	0.35
Crit Moves:	****										****	
Green/Cycle:	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0.34	0.34	0.75	0.75	0.75
Volume/Cap:	0.85	0.31	0.31	0.00	0.00	0.00	0.00	0.85	0.43	0.07	0.47	0.47
Delay/Veh:	56.6	34.2	34.2	0.0	0.0	0.0	0.0	41.3	26.2	7.5	4.9	4.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	56.6	34.2	34.2	0.0	0.0	0.0	0.0	41.3	26.2	7.5	4.9	4.9
HCM2kAvg:	13	3	3	0	0	0	0	18	6	1	8	8

PM Future plus Project Thu Apr 15, 2004 08:51:41 Page 7-1

PM Peak Hour - Future plus Project Conditions
Guerneville River Park
County of Sonoma

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

Intersection #2 Drake Road-Neeley Road/SR 116

Average Delay (sec/veh): 5.2 Worst Case Level Of Service: C[19.8]

Street Name:	SR 116						Drake Road-Neeley Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0	0 1	0	1 0	0 1	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module: >> Count Date: 11 Mar 2004 << 5:00 - 6:00 pm												
Base Vol:	25	118	32	97	85	101	54	1	11	11	3	62
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	31	144	39	118	104	123	66	1	13	13	4	76
Added Vol:	0	0	0	2	0	0	0	0	0	1	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	31	144	39	120	104	123	66	1	13	14	4	78
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	32	152	41	127	109	130	69	1	14	15	4	82
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	32	152	41	127	109	130	69	1	14	15	4	82
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	239	xxxx	xxxxx	193	xxxx	xxxxx	706	684	174	671	729	172
Potent Cap.:	1340	xxxx	xxxxx	1393	xxxx	xxxxx	353	374	875	373	352	877
Move Cap.:	1340	xxxx	xxxxx	1393	xxxx	xxxxx	290	331	875	334	313	877
Volume/Cap:	0.02	xxxx	xxxx	0.09	xxxx	xxxx	0.24	0.00	0.02	0.05	0.01	0.09
Level Of Service Module:												
Queue:	0.1	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	7.8	xxxx	xxxxx	7.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	327	xxxxx	xxxx	667	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.0	xxxxx	xxxxx	0.5	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	19.8	xxxxx	xxxxx	11.4	xxxxx
Shared LOS:	*	*	*	*	*	*	*	C	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			19.8			11.4		
ApproachLOS:	*			*			C			B		

Traffix 7.6.0115 (c) 2004 Dowling Assoc. Licensed to W-TRANS, Santa Rosa, CA

MD Future plus Project Thu Apr 15, 2004 08:51:12 Page 7-1

MD Peak Hour - Future plus Project Conditions
Guerneville River Park
County of Sonoma

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

Intersection #2 Drake Road-Neeley Road/SR 116

Average Delay (sec/veh): 5.6 Worst Case Level Of Service: C[19.4]

Street Name:	SR 116						Drake Road-Neeley Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0	0 1	0	1 0	0 1	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module: >> Count Date: 20 Mar 2004 << 12:00-1:00												
Base Vol:	8	159	17	55	103	55	74	4	7	13	3	60
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	10	194	21	67	126	67	90	5	9	16	4	73
Added Vol:	0	0	3	12	0	0	0	0	0	3	0	14
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	194	24	79	126	67	90	5	9	19	4	87
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	10	204	25	83	132	71	95	5	9	20	4	92
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	10	204	25	83	132	71	95	5	9	20	4	92
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	203	xxxx	xxxxx	229	xxxx	xxxxx	619	584	168	578	607	217
Potent Cap.:	1381	xxxx	xxxxx	1351	xxxx	xxxxx	404	426	882	430	414	828
Move Cap.:	1381	xxxx	xxxxx	1351	xxxx	xxxxx	338	397	882	399	385	828
Volume/Cap:	0.01	xxxx	xxxx	0.06	xxxx	xxxx	0.28	0.01	0.01	0.05	0.01	0.11
Level Of Service Module:												
Queue:	0.0	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	7.6	xxxx	xxxxx	7.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	358	xxxxx	xxxx	677	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.3	xxxxx	xxxxx	0.6	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	19.4	xxxxx	xxxxx	11.4	xxxxx
Shared LOS:	*	*	*	*	*	*	*	C	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			19.4			11.4		
ApproachLOS:	*			*			C			B		

Traffix 7.6.0115 (c) 2004 Dowling Assoc. Licensed to W-TRANS, Santa Rosa, CA

PM Peak Hour - Future plus Project Conditions
Guerneville River Park
County of Sonoma

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

Intersection #3 Drake Road/Drake Road Extension

Cycle (sec): 100 Critical Vol./Cap. (X): 0.156
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 7.4
Optimal Cycle: 0 Level Of Service: A

Street Name:	Drake Rd			Boat Launch			Drake Rd Ext			Drake Rd		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1 0	0	0 0	0 0	1	1 0	0 0	0
Volume Module: >> Count Date: 17 Mar 2004 << 5:00-6:00												
Base Vol:	2	0	112	0	0	0	0	0	1	59	0	0
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	2	0	137	0	0	0	0	0	1	72	0	0
Added Vol:	1	1	0	0	2	0	0	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	1	137	0	2	0	0	0	2	72	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	4	1	152	0	2	0	0	0	2	80	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	1	152	0	2	0	0	0	2	80	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	4	1	152	0	2	0	0	0	2	80	0	0
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:	0.02	0.01	0.97	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00
Final Sat.:	25	7	975	0	833	0	0	0	937	796	0	0
Capacity Analysis Module:												
Vol/Sat:	0.16	0.16	0.16	xxxx	0.00	xxxx	xxxx	xxxx	0.00	0.10	xxxx	xxxx
Crit Moves:	****				****				****	****		
Delay/Veh:	7.1	7.1	7.1	0.0	7.2	0.0	0.0	0.0	6.7	7.9	0.0	0.0
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:	7.1	7.1	7.1	0.0	7.2	0.0	0.0	0.0	6.7	7.9	0.0	0.0
LOS by Move:	A	A	A	*	A	*	*	*	A	A	*	*
ApproachDel:	7.1				7.2			6.7			7.9	
Delay Adj:	1.00				1.00			1.00			1.00	
ApprAdjDel:	7.1				7.2			6.7			7.9	
LOS by Appr:	A				A			A			A	

MD Peak Hour - Future plus Project Conditions
Guerneville River Park
County of Sonoma

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

Intersection #3 Drake Road/Drake Road Extension

Cycle (sec): 100 Critical Vol./Cap. (X): 0.104
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 7.4
Optimal Cycle: 0 Level Of Service: A

Street Name:	Drake Rd			Boat Launch			Drake Rd Ext			Drake Rd		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1 0	0	0 0	0 0	1	1 0	0 0	0
Volume Module: >> Count Date: 20 Mar 2004 << 12:00-1:00												
Base Vol:	1	0	57	0	0	0	0	0	0	63	0	0
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	1	0	70	0	0	0	0	0	0	77	0	0
Added Vol:	7	8	0	0	9	0	0	0	8	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	8	70	0	9	0	0	0	8	77	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	9	9	77	0	10	0	0	0	9	85	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	9	77	0	10	0	0	0	9	85	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	9	9	77	0	10	0	0	0	9	85	0	0
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:	0.10	0.09	0.81	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00
Final Sat.:	92	90	782	0	839	0	0	0	973	818	0	0
Capacity Analysis Module:												
Vol/Sat:	0.10	0.10	0.10	xxxx	0.01	xxxx	xxxx	xxxx	0.01	0.10	xxxx	xxxx
Crit Moves:			****		****				****	****		
Delay/Veh:	7.0	7.0	7.0	0.0	7.2	0.0	0.0	0.0	6.6	7.8	0.0	0.0
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:	7.0	7.0	7.0	0.0	7.2	0.0	0.0	0.0	6.6	7.8	0.0	0.0
LOS by Move:	A	A	A	*	A	*	*	*	A	A	*	*
ApproachDel:	7.0				7.2			6.6			7.8	
Delay Adj:	1.00				1.00			1.00			1.00	
ApprAdjDel:	7.0				7.2			6.6			7.8	
LOS by Appr:	A				A			A			A	

PM Existing Thu Apr 15, 2004 08:49:02 Page 6-1

PM Peak Hour - Existing Conditions
Guerneville River Park
County of Sonoma

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Drake Road/Drake Road Extension

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: A[8.6]

Street Name:	Drake Road			Drake Road			Drake Rd Ext.			Boat Launch		
Approach:	North Bound			West Bound			East Bound			South Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1	0	0 0	0 0	1	0 0	0 0	0	0 1	0 0	0	0 0
Volume Module: >> Count Date: 17 Mar 2004 << 5:00-6:00												
Base Vol:	2	112	0	0	59	0	0	0	1	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	112	0	0	59	0	0	0	1	0	0	0
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:	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
PHF Volume:	2	139	0	0	73	0	0	0	1	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	2	139	0	0	73	0	0	0	1	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	73	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	73	xxxx	xxxx	xxxxx
Potent Cap.:	1539	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	994	xxxx	xxxx	xxxxx
Move Cap.:	1539	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	994	xxxx	xxxx	xxxxx
Volume/Cap:	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	xxxx
Level Of Service Module:												
Queue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.0	xxxxx	xxxx	xxxxx
Stopped Del:	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	8.6	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	A	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			8.6			xxxxxx		
ApproachLOS:	*			*			A			*		

Traffix 7.6.0115 (c) 2004 Dowling Assoc. Licensed to W-TRANS, Santa Rosa, CA

MD Existing Thu Apr 15, 2004 08:48:11 Page 6-1

MD Peak Hour - Existing Conditions
Guerneville River Park
County of Sonoma

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Drake Road/Drake Road Extension

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: A[7.4]

Street Name:	Drake Road			Drake Road			Drake Road Ext.			Boat Launch		
Approach:	North Bound			West Bound			East Bound			South Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1	0	0 0	0 0	1	0 0	0 0	1!	0 0	0 0	0	0 0
Volume Module: >> Count Date: 20 Mar 2004 << 12:00-1:00												
Base Vol:	1	57	0	0	63	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	57	0	0	63	0	0	0	0	0	0	0
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:	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
PHF Volume:	1	79	0	0	87	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	1	79	0	0	87	0	0	0	0	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	87	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	1521	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	1521	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
Queue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

Traffix 7.6.0115 (c) 2004 Dowling Assoc. Licensed to W-TRANS, Santa Rosa, CA

PM Existing plus Project Thu Apr 15, 2004 08:49:58 Page 6-1

PM Peak Hour - Existing plus Project Conditions
Guerneville River Park
County of Sonoma

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

Intersection #1 Main Street-River Road/SR 116-Old River Road

Cycle (sec): 100 Critical Vol./Cap. (X): 0.396
Loss Time (sec): 4 (Y+R = 4 sec) Average Delay (sec/veh): 14.6
Optimal Cycle: 19 Level Of Service: B

Street Name:	SR 116-Old River Road						Main Street-River Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	0 1	0	0 0	0 1	0	0 1	0 0	1	1 0	0 1	0
Volume Module: >> Count Date: 22 Mar 2004 << 4:00-5:00												
Base Vol:	184	4	48	0	1	9	0	362	182	61	428	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	184	4	48	0	1	9	0	362	182	61	428	1
Added Vol:	1	0	1	0	0	0	0	0	1	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	185	4	49	0	1	9	0	362	183	62	428	1
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:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	199	4	53	0	1	10	0	389	197	67	460	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	199	4	53	0	1	10	0	389	197	67	460	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	199	4	53	0	1	10	0	389	197	67	460	1
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.76	0.86	0.86	1.00	0.88	0.88	1.00	1.00	0.85	0.95	1.00	1.00
Lanes:	1.00	0.08	0.92	0.00	0.10	0.90	0.00	1.00	1.00	1.00	0.99	0.01
Final Sat.:	1444	123	1512	0	167	1503	0	1900	1615	1805	1896	4
Capacity Analysis Module:												
Vol/Sat:	0.14	0.03	0.03	0.00	0.01	0.01	0.00	0.20	0.12	0.04	0.24	0.24
Crit Moves:	****										****	
Green/Cycle:	0.35	0.35	0.35	0.00	0.35	0.35	0.00	0.52	0.52	0.61	0.61	0.61
Volume/Cap:	0.40	0.10	0.10	0.00	0.02	0.02	0.00	0.40	0.24	0.12	0.40	0.40
Delay/Veh:	25.1	22.1	22.1	0.0	21.4	21.4	0.0	14.9	13.4	8.6	10.2	10.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.1	22.1	22.1	0.0	21.4	21.4	0.0	14.9	13.4	8.6	10.2	10.2
HCM2kAvg:	6	1	1	0	0	0	0	7	3	1	7	7

Traffix 7.6.0115 (c) 2004 Dowling Assoc. Licensed to W-TRANS, Santa Rosa, CA

MD Existing plus Project Thu Apr 15, 2004 08:49:27 Page 6-1

MD Peak Hour - Existing plus Project Conditions
Guerneville River Park
County of Sonoma

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

Intersection #1 Main Street-River Road/SR 116-Old River Road

Cycle (sec): 100 Critical Vol./Cap. (X): 0.460
Loss Time (sec): 4 (Y+R = 4 sec) Average Delay (sec/veh): 22.6
Optimal Cycle: 36 Level Of Service: C

Street Name:	SR 116-Old River Road						Main Street-River Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	0 1	0	0 0	1! 0	0	0 1	0 0	1	1 0	0 1	0
Volume Module: >> Count Date: 20 Mar 2004 << 12:00-1:00												
Base Vol:	214	1	74	0	0	0	0	425	177	41	522	2
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	214	1	74	0	0	0	0	425	177	41	522	2
Added Vol:	8	0	6	0	0	0	0	0	7	5	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	222	1	80	0	0	0	0	425	184	46	522	2
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:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	237	1	85	0	0	0	0	454	197	49	558	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	237	1	85	0	0	0	0	454	197	49	558	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	237	1	85	0	0	0	0	454	197	49	558	2
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	0.85	0.95	1.00	1.00
Lanes:	1.00	0.01	0.99	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.99	0.01
Final Sat.:	1619	20	1599	0	1900	0	0	1900	1615	1805	1891	7
Capacity Analysis Module:												
Vol/Sat:	0.15	0.05	0.05	0.00	0.00	0.00	0.00	0.24	0.12	0.03	0.29	0.29
Crit Moves:	****										****	
Green/Cycle:	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0.34	0.34	0.75	0.75	0.75
Volume/Cap:	0.71	0.26	0.26	0.00	0.00	0.00	0.00	0.71	0.36	0.06	0.39	0.39
Delay/Veh:	43.7	33.7	33.7	0.0	0.0	0.0	0.0	32.5	25.4	5.3	4.5	4.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.7	33.7	33.7	0.0	0.0	0.0	0.0	32.5	25.4	5.3	4.5	4.5
HCM2kAvg:	9	2	2	0	0	0	0	13	5	0	6	6

Traffix 7.6.0115 (c) 2004 Dowling Assoc. Licensed to W-TRANS, Santa Rosa, CA

GUERNEVILLE RIVER PARK INITIAL STUDY NOISE SECTION SONOMA COUNTY, CALIFORNIA

July 20, 2004

Prepared for:

Justin Witt
Brelje & Race
5570 Skylane Boulevard
Santa Rosa, CA 95403

Prepared by:

Michael S. Thill
Richard B. Rodkin, PE

ILLINGWORTH & RODKIN, INC.
Acoustics • Air Quality
505 Petaluma Boulevard South
Petaluma, CA 94952
(707) 766-7700

Job No.: 04-047

INTRODUCTION

This study evaluates the potential for noise impacts resulting from development of the Guerneville River Park project proposed south of the Russian River below Highway 116. The project would provide access to the Russian River for activities such as boating or picnicking. The study evaluates the compatibility of the project with respect to the noise environment at the project site and the potential noise impacts resulting from the construction and operation of the proposed project. This report includes a setting section outlining the fundamentals of environmental acoustics, applicable noise regulations and guidelines, and the results of the noise monitoring survey. The impacts and mitigation measures section identifies the potential impacts resulting from the project and presents mitigation measures that would reduce identified noise impacts to less-than-significant levels.

SETTING

Fundamentals of Acoustics

Noise may be defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. The objectionable nature of sound could be caused by its *pitch* or its loudness. *Pitch* is the height or depth of a tone or sound, depending on the relative rapidity (frequency) of the vibrations by which it is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. *Loudness* is intensity of sound waves combined with the reception characteristics of the ear. Intensity may be compared with the height of an ocean wave in that it is a measure of the amplitude of the sound wave.

In addition to the concepts of pitch and loudness, there are several noise measurement scales which are used to describe noise in a particular location. *A decibel (dB)* is a unit of measurement which indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a ten-fold increase in acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more intense, etc. There is a relationship between the subjective noisiness or loudness of a sound and its intensity. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities. Technical terms are defined in Table 1.

There are several methods of characterizing sound. The most common in California is the *A-weighted sound level or dBA.* This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Representative outdoor and indoor noise levels in units of dBA are shown in Table 2. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This energy-equivalent sound/noise descriptor is called L_{eq}. The most common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration.

TABLE 1 Definitions of Acoustical Terms Used in this Report

Term	Definitions
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micro Pascals (or 20 micro Newtons per square meter), where 1 Pascal is the pressure resulting from a force of 1 Newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micro Pascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and Ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, Leq	The average A-weighted noise level during the measurement period. The hourly Leq used for this report is denoted as dBA $L_{eq[h]}$.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 pm to 10:00 pm and after addition of 10 decibels to sound levels in the night between 10:00 pm and 7:00 am.
Day/Night Noise Level, Ldn or DNL	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 pm and 7:00 am.
Ln Values L_{02}, L_{08}, L_{25}, L_{50}	The A-weighted noise levels that are exceeded 2%, 8%, 25%, and 50% of the time during the measurement period.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

TABLE 2 Typical Noise Levels in the Environment

Common Outdoor Noise Source	Noise Level (dBA)	Common Indoor Noise Source
	120 dBA	
Jet fly-over at 300 meters		Rock concert
	110 dBA	
Pile driver at 20 meters	100 dBA	
		Night club with live music
	90 dBA	
Large truck pass by at 15 meters		
	80 dBA	Noisy restaurant
		Garbage disposal at 1 meter
Gas lawn mower at 30 meters	70 dBA	Vacuum cleaner at 3 meters
Commercial/Urban area daytime		Normal speech at 1 meter
Suburban expressway at 90 meters	60 dBA	
Suburban daytime		Active office environment
	50 dBA	
Urban area nighttime		Quiet office environment
	40 dBA	
Suburban nighttime		
Quiet rural areas	30 dBA	Library
		Quiet bedroom at night
Wilderness area	20 dBA	
Most quiet remote areas	10 dBA	Quiet recording studio
Threshold of human hearing	0 dBA	Threshold of human hearing

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about plus or minus 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends upon the distance the receptor is from the noise source. Close to the noise source, the models are accurate to within about plus or minus 1 to 2 dBA.

Since the sensitivity to noise increases during the evening and at night -- because excessive noise interferes with the ability to sleep -- 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The *Community Noise Equivalent Level, CNEL,* is a measure of the cumulative noise exposure in a community, with a 5 dB penalty added to evening (7:00 pm - 10:00 pm) and a 10 dB addition to nocturnal (10:00 pm - 7:00 am) noise levels. The *Day/Night Average Sound Level,* L_{dn}, is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during this three-hour period are grouped into the daytime period.

Regulatory Background

The State of California and Sonoma County have established guidelines and policies regarding environmental noise. These guidelines and policies are designed to provide direction with regard to compatible development, reduce the potential for noise and land use compatibility conflicts, and reduce the effects of noise resulting from a proposed project on surrounding land uses. The California Environmental Quality Act (CEQA) contains guidelines to evaluate the significance of environmental noise effects attributable to a proposed project. These guidelines do not specifically quantify what would be considered a substantial noise increase or what constitutes a significant noise impact, but rely on the standards presented by local agencies for guidance. The Noise Element of the Sonoma County General Plan sets forth the specific policies and standards to guide development and protect people from exposure to excessive noise.

State CEQA Guidelines. CEQA asks whether the proposed project would result in:

- Exposure of persons to or generation of noise levels in excess of standards established in the local General Plan or Noise Ordinance, or applicable standards of other agencies?

- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

- For a project located within an airport land use plan or where such a plan has not been adopted within two miles of a public airport, public use airport, or within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

Sonoma County General Plan

The Noise Element of the Sonoma County General Plan sets forth policies to protect people from exposure to excessive noise. A site exposed to a noise level exceeding 60 L_{dn} is considered "noise impacted". If the source of noise affecting a residential area is an adjacent property, rather than a transportation source, then the noise limits set forth in Table NE-2 of the General Plan, shown in Table 3, determine if a property is "noise impacted".

TABLE 3
Noise Element of the Sonoma County General Plan (Table NE-2)

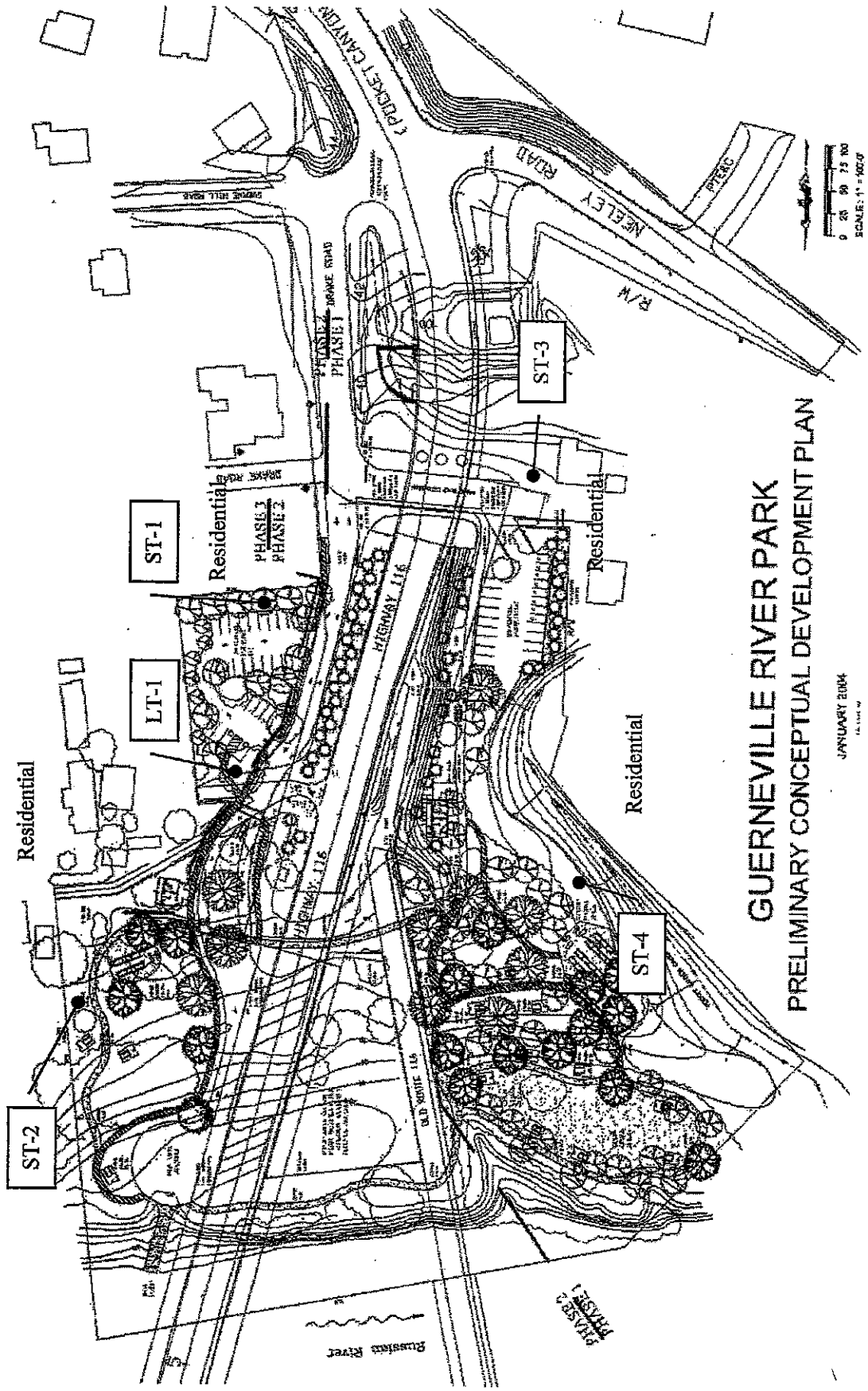
		Maximum Exterior Noise Level Standards, dBA	
Category	Cumulative Duration of Noise Event in any One-Hour Period	Daytime 7 AM to 10 PM	Nighttime 10 PM to 7 AM
1	30-60 Minutes	50	45
2	15-30 Minutes	55	50
3	5-15 Minutes	60	55
4	1-5 Minutes	65	60
5	0-1 Minute	70	65

The Table NE-2 standards establish a baseline, continuous noise exposure limit of 50 dBA for the daytime and 45 dBA for the nighttime. Implementing these standards utilizing other time intervals requires relating them to common noise metrics. The proposed project would be a daytime use; therefore, the following discussion presents the daytime noise level metrics only. For a sound that lasts up to one minute out of one hour, the level must be 70 dBA or lower. One minute is approximately 2 percent of an hour; therefore the L_{02} must be 70 dBA or lower. For a sound level that lasts up to 5 minutes out of an hour, or 8 percent of the time (L_{08}), the level cannot exceed 65 dBA. For a sound that lasts up to 15 minutes out of an hour, or 25 percent of the time (L_{25}), the level cannot exceed 60 dBA. For a sound that lasts up to 30 minutes out of an hour (L_{50}), the level cannot exceed 55 dBA. The maximum level is also limited to 70 dBA.

Existing Noise Environment

Figure 1 shows the project site and surrounding areas. The Guerneville River Park project site is located along the south bank of the Russian River below the Highway 116 bridges. The Russian River is the site's northernmost boundary, and Drake Road and the Drake Road extension forms the site's southernmost boundary. Residential land uses border the project site to the west and east. The noise environment at the project site results primarily from vehicular traffic along the

Figure 1 – Project Site and Noise Monitoring Locations



local roadway network (e.g., Highway 116 and Drake Road).

A noise monitoring survey was conducted from April 9, 2004 to April 13, 2004, to quantify the existing noise environment at the project site and near adjacent noise-sensitive residential receivers. One long-term noise measurement and four-short-term noise measurements were conducted during the noise monitoring survey. The long-term noise measurement was conducted to document the existing noise level trend over a 24-hour period generated by vehicular traffic along Highway 116. The short-term noise measurements were conducted in areas representative of adjacent residential land uses near the perimeter of the proposed project site. Noise measurement locations are shown on Figure 1.

The long-term noise measurement (LT-1) was conducted approximately 115 feet from the center of the northbound travel lane of Highway 116. The noise monitor documented traffic noise levels in hourly intervals over an approximate four-day period. Hourly average noise levels during daytime hours (7:00 a.m. to 10:00 p.m.) typically ranged from about 46 dBA to 56 dBA L_{eq} while nighttime (10:00 p.m. to 7:00 a.m.) hourly average noise levels generally ranged from about 37 dBA to 52 dBA L_{eq}. The calculated L_{dn} noise level (day-night average) ranged from 53 dBA to 55 dBA during the noise monitoring period. Noise levels were lowest on Easter Sunday, April 11, 2004. Typical, non-holiday, weekday and weekend noise levels ranged from about 54 to 55 dBA L_{dn}. The data collected at Site LT-1 are summarized in Figure 2.

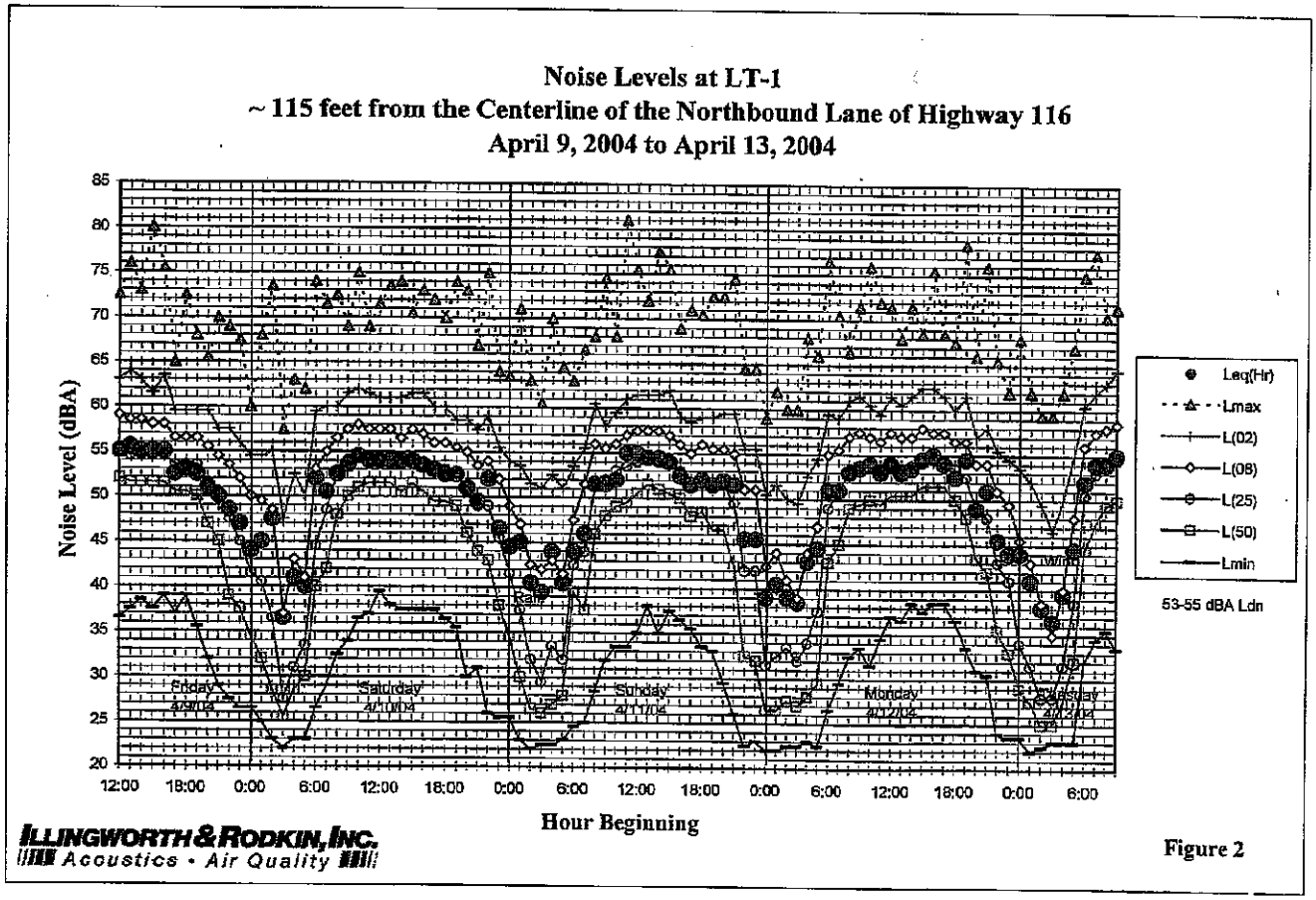


Figure 2

Short-term noise measurements (ST-1 through ST-4) were conducted in areas representative of adjacent residential land uses near the perimeter of the proposed project site. Two of the four short-term noise measurements (ST-1 and ST-2) were conducted on Friday, April 9, 2004, between 11:00 a.m. and 1:00 p.m. The remaining two short-term noise measurements (ST-3 and ST-4) were conducted on Tuesday, April 13, 2004, between 9:00 a.m. and 10:00 a.m. Table 3 summarizes the results of these noise measurements.

TABLE 3: SUMMARY OF NOISE MEASUREMENTS

Location	Measured Noise Level (in dBA)					Noise Sources
	L_{dn}[1]	L_{eq}[2]	L_{10}	L_{50}	L_{90}	
LT-1: ~ 115 ft. from the center of northbound Highway 116. April 9, 2004 to April 13, 2004	53-55	--	--	--	--	Highway 116
ST-1: ~ 125 ft. from the center of northbound Highway 116 at common property line with nearest residential receiver to south. (11:50 am to 12:00 pm, 4/9/04)	51-53	54	57	52	44	Highway 116 Drake Road
ST-2: ~ 145 ft. from the center of northbound Highway 116 near common property line with nearest residential receiver to east. (12:10 am to 12:20 pm, 4/9/04)	50-52	52	56	50	44	Highway 116
ST-3: ~ 75 ft. from the center of southbound Highway 116 near residential receivers to southwest. (9:20 am to 9:30 am, 4/13/04)	51-53	53	57	52	45	Highway 116 Drake Road
ST-4: ~ 250 ft. from the center of northbound Highway 116 at common property line with nearest residential receiver to south. (11:50 am to 12:00 pm, 4/9/04)	43-45	45	48	44	40	Highway 116

[1] Calculated at location LT-1 based on collected noise data and estimated at short-term locations.
[2] Measured Leq during a 10-minute period during the morning and afternoon.

IMPACTS AND MITIGATION MEASURES

Significance Criteria

Appendix G of the CEQA Guidelines states that a project would normally be considered to have a significant impact if the resulting noise levels conflict with adopted environmental standards or plans, if persons are exposed to excessive groundborne vibration or groundborne noise, if noise levels generated by the project would substantially increase existing noise levels on a permanent

or temporary basis, or if persons would be located within two miles of a public or private airport and exposed to excessive noise levels.

CEQA and Sonoma County do not define what noise level increase would be considered "substantial". As such, a significant noise impact would result if the L_{dn} would increase by more than 3 dBA where future noise levels with the project would be 60 dBA L_{dn} or greater. A 3 dBA increase is considered a substantial increase in noise environments exceeding 60 dBA L_{dn}, the "noise impact" threshold. A 3 dBA change in noise levels is commonly agreed upon as a just perceptible change outside of a laboratory environment. Where existing noise levels are less than 60 dBA L_{dn}, and would remain less than 60 dBA L_{dn} with the project, a 5 dBA increase would be considered significant. A somewhat higher noise level increase can occur in quieter noise environments without generating a significant noise impact. A 5 dBA change in noise levels is commonly agreed upon as a regularly noticeable change. These criteria are based on several historical studies regarding human perception of noise level changes and the percentage of the population that would be "highly annoyed" as a result of a noise level increase. The significance criteria presented above are typical for identifying noise impacts resulting from a project and these criteria have been used in numerous studies of similar scope.

Summary of Impacts

Would the Project result in...	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X		
exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?				X
a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		X		
for a project located within an airport land use plan or where such a plan has not been adopted within two miles of a public airport, public use airport, or within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X

Impact 1 Exposure or generation of noise levels in excess of local standards.

The project site is located in a noise environment consisting primarily of vehicular traffic noise from Highway 116. Noise levels throughout the park site would be less than 60 dBA L_{dn} and the site would not be considered noise impacted as defined in the Sonoma County Noise Element of the General Plan. Daytime hourly average noise levels would generally range from about 45 dBA L_{eq} to 56 dBA L_{eq} throughout the park site and would be compatible with the proposed use.

Vehicles would access the proposed park from Drake Road and the Drake Road Extension. Phase I of the project would construct a parking lot at the southwest portion of the project site adjacent to residential land uses off of the Drake Road Extension. Phase III of the project would construct a 24 vehicle parking lot at the southeast portion of the project site and immediately adjacent to residential land uses located off of Drake Road. Approximately eight to ten vehicle trips would be expected to access the proposed lots during the peak traffic hours between 11:00 a.m. and 2:00 p.m. Noise from these vehicles accessing the parking area was modeled with the Caltrans L_{eq}V2 traffic noise model. During peak-hour conditions, noise from project-generated vehicles would be about 44 dBA Leq or about 9 to 10 decibels below ambient noise levels generated by Highway 116 and Drake Road at the nearest residential receivers to the parking lot access roadways. The addition of project generated traffic accessing the parking lots would increase existing noise levels by 1 dBA or less. Although each vehicle passby would be audible at the nearest receivers, the overall increase in hourly noise levels would not be perceptible.

Noise occurring in the proposed parking lots would be clearly audible above existing ambient noise levels and could at times exceed the noise level performance standards established by Table NE-2 in the Sonoma County Noise Element. Noise generated by normal activities within the parking lot would be introduced into the existing noise environment at the nearest residential receptors with the operation of the project. Noise would be generated by vehicles circulating within the lot, engine starts, door slams, and by the sound of human voices. Typically, the sound of a passing car at 15 mph, engine starts, and door slams ranges from 55 dBA to 65 dBA at 25 feet. Noise data contained in Illingworth & Rodkin, Inc's files indicates that maximum noise levels from sources such as door slams, engine starts, idling of diesel powered vehicles, motorcycles, shouting, radios, etc. could occasionally generate noise levels in excess of 70 dBA L_{max}.

The noise level standards presented in Table NE-2 are enforced at the residential property line. The Phase I parking lot on the west side of Highway 116 and the Phase III parking lot on the east side of Highway 116 are proposed approximately 25 feet from the nearest residential property lines. Typical noise levels generated by activities in the parking lots would generally range from about 55 to 65 dBA. The range of noise levels associated with common parking lot activities would generally comply with the standards presented in Table NE-2. There is the possibility that, given the proximity of the parking lots to the nearest residential receivers, intermittent sound levels could potentially exceed this standard. However, it is expected that sound levels

exceeding 70 dBA L_{max} would only occur on occasion and during daylight hours.

Group picnic areas and family picnic sites are proposed along the Russian River in areas adjoining existing residences west and east of the project site. The majority of picnic sites are proposed on the west portion of the project site. Ten family picnic sites and an open grass area are proposed about 300 feet from the nearest residence west of Pocket Creek Canyon, and a large group picnic area is proposed approximately 200 feet from the nearest residence. Typical daytime ambient noise levels at residences west of Pocket Canyon Creek are approximately 45 dBA L_{eq} (ST-4). Three family picnic sites and a small group picnic area are proposed on the east portion of the project site, approximately 70 to 100 feet from residences to the east. Typical noise levels during daytime hours, generated by vehicular traffic, are approximately 52 dBA L_{eq} (ST-3) at the nearest receivers east of the site.

Sources of noise at the family picnic sites and the group picnic areas are expected to be typical of other parks, including voices from children and adults playing and conversing, radios or portable CD players, etc. Noise levels at the smaller family sites would be expected to be lower than the group picnic areas at the nearest residences given the increased distance and smaller gathering of people. However, noise from activities at the picnic areas could at times be audible above existing noise levels generated by vehicular traffic along Highway 116. For instance, a large gathering of people having a sack race could generate noise levels above the Table NE-2 standards, especially during periods of excitement, yelling, laughter, etc. It is not expected that noise from the family picnic sites would generally exceed the standard presented in table NE-2 of the Sonoma County Noise Element.

The project anticipates that 24 to 40 reservations would be made per year for the large group picnic area (75 to 150 people), and 24 to 36 reservations would be made per year for the small group picnic area (25 to 50 people)[1]. The large group picnic area would be located about 200 feet from the nearest residence. The small group picnic area is proposed about 50 feet from the nearest residential property line. During group events sounds would generally be audible above ambient noise levels at the nearest neighbors to the west and east. If groups of people congregate immediately adjacent to the residential neighbors, then it is possible that noise levels would intermittently exceed the noise level limits set forth in Table NE-2 of the Sonoma County Noise Element. At a distance of 200 feet from a large group of people, an hourly L_{eq} noise level of 60 dBA could be expected. Similar or slightly higher noise levels would be expected from smaller groups of people located closer to adjacent residential property lines. Amplified music could also generate noise levels in excess of the NE-2. However, any such exceedance of the standard would be during daylight hours, generally during late morning and afternoon hours.

Mitigation Measures

To reduce noise levels generated by the project to generally comply with the standards in Table NE-2, the following measures should be included in the design of the project.

---

[1] E-mail correspondence between Mark Cleveland and Justin Witt, March 24, 2004.

- Construct a solid six foot noise barrier at the perimeter of the parking areas to interrupt the line of sight from adjacent residential land uses to the parking lot. Approximately 5 to 8 decibels of noise reduction from maximum noise levels generated in the parking lots would be expected. To be an effective noise barrier, the proposed fence must be constructed solidly over the face and at the base of the barrier. Openings or gaps between barrier materials or the ground substantially decrease the effectiveness of a noise barrier. Suitable materials for barrier construction should have a minimum surface weight of 3 lbs./ft.^{2} (such as one-inch thick wood, masonry block, concrete, or metal). The proposed barrier should be located as shown on Figure 2. With the proposed barrier, sounds would occasionally be heard at nearest residential land uses, but noise levels would not normally exceed existing maximum levels without the project or Table NE-2 limits. Additionally, day-night average noise levels would not substantially increase at existing receivers as a result of noise generated in the proposed parking lots. With the proposed barriers, the noise impact would be mitigated to a less-than-significant level.

- Install signage in the parking areas to encourage visitors to be considerate of the neighbors.

- Amplified music (including portable radios and boom-boxes) should be controlled to the point where they are not audible at existing residences bordering the project site.

Impact 2 Substantial Permanent Noise Level Increase.

Finding: Less Than Significant Impact

Traffic generated by the project would not cause noise levels to substantially increase on the roadways serving the site. The project would generate a slight increase in vehicular traffic in the area approximately 8 to 10 vehicles per hour during the peak traffic hours. Project traffic will access the site from Highway 116 via Drake Road. Noise levels along these local roadways may increase slightly as a result of project traffic, however, traffic volumes would have to double to yield substantial noise increases. The relatively low traffic volumes associated with the project would result in a less-than-significant noise impact.

Impact 3 Substantial Temporary Noise Level Increase.

Finding: Less Than Significant Impact with Mitigation Incorporation

The construction of the project would temporarily increase noise levels in the immediate vicinity of the project site. The construction of the project would occur over a three month period. Construction is planned weekdays only, during daytime hours. No construction would occur on weekends or holidays. With appropriate construction time limits, noise suppression techniques, and the relatively short construction duration, noise generated by the construction activity would

not generate significant adverse impacts. With the incorporation of standard construction measures, the impact would be considered less than significant.

Noise impacts resulting from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise generating activities, and the distance between construction noise sources and noise sensitive receptors. Construction activities generate considerable amounts of noise, especially during the demolition phase and the construction of project infrastructure when heavy equipment is used.

The highest maximum noise levels generated by project construction would typically range from about 90 to 98 dBA at a distance of 50 feet from the noise source[1]. Typical hourly average construction generated noise levels are about 81 dBA to 89 dBA measured at a distance of 50 feet from the center of the site during busy construction periods[2]. Construction generated noise levels drop off at a rate of about 6 dBA per doubling of distance between the source and receptor. Shielding provided by buildings or terrain result in much lower construction noise levels at distant receptors.

Given the proximity of adjacent residential land uses to the construction activities, all phases of project construction, especially demolition and the construction of project infrastructure, would exceed the ambient noise environment at these adjacent receptors, and may interfere with normal activities during busy construction periods.

Typically, construction projects of this scale do not generate significant noise impacts when standard construction noise control measures are enforced at the project site and when the duration of the noise generating construction period is limited to one construction season (typically one year) or less. Construction noises associated with projects of this type are disturbances that are necessary for the benefit of the community. Reasonable regulation of the hours of construction, as well as regulation of the arrival and operation of heavy equipment and the delivery of construction materials, are necessary to protect the health and safety of persons, promote the general welfare of the community, and maintain the quality of life.

Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise sensitive land uses, or when construction durations last over extended periods of time. Limiting the hours when construction can occur to daytime hours is often a simple method to reduce the potential for noise impacts. In areas immediately adjacent to construction, controls such as constructing temporary noise barriers and utilizing "quiet" construction equipment can also reduce the potential for noise impacts.

---

[1] Handbook of Noise Control, Cyril M. Harris, 1979.
[2] U.S.E.P.A., Legal Compilation on Noise, Vol. 1, p. 2-104, 1973.

Mitigation Measures

The following measures should be implemented at the construction site to reduce the effects of construction noise on adjacent residential land uses:

- Noise-generating activities at the construction site or in areas adjacent to the construction site associated with the project in any way should be restricted to the hours 7:00 a.m. to 7:00 p.m., Monday through Friday. No construction activities should occur on Saturdays, Sundays, or holidays except in emergencies or by special arrangement.

- Equip all internal combustion engine driven equipment with intake and exhaust mufflers which are in good condition and appropriate for the equipment.

- Unnecessary idling of internal combustion engines should be strictly prohibited.

- Avoid staging of construction equipment within 200 feet of residences and locate all stationary noise-generating construction equipment, such as air compressors and portable power generators, as far practical from existing noise sensitive receptors. Construct temporary barriers (e.g., temporary plywood screens) to screen stationary noise generating equipment when located in areas adjoining noise sensitive land uses.

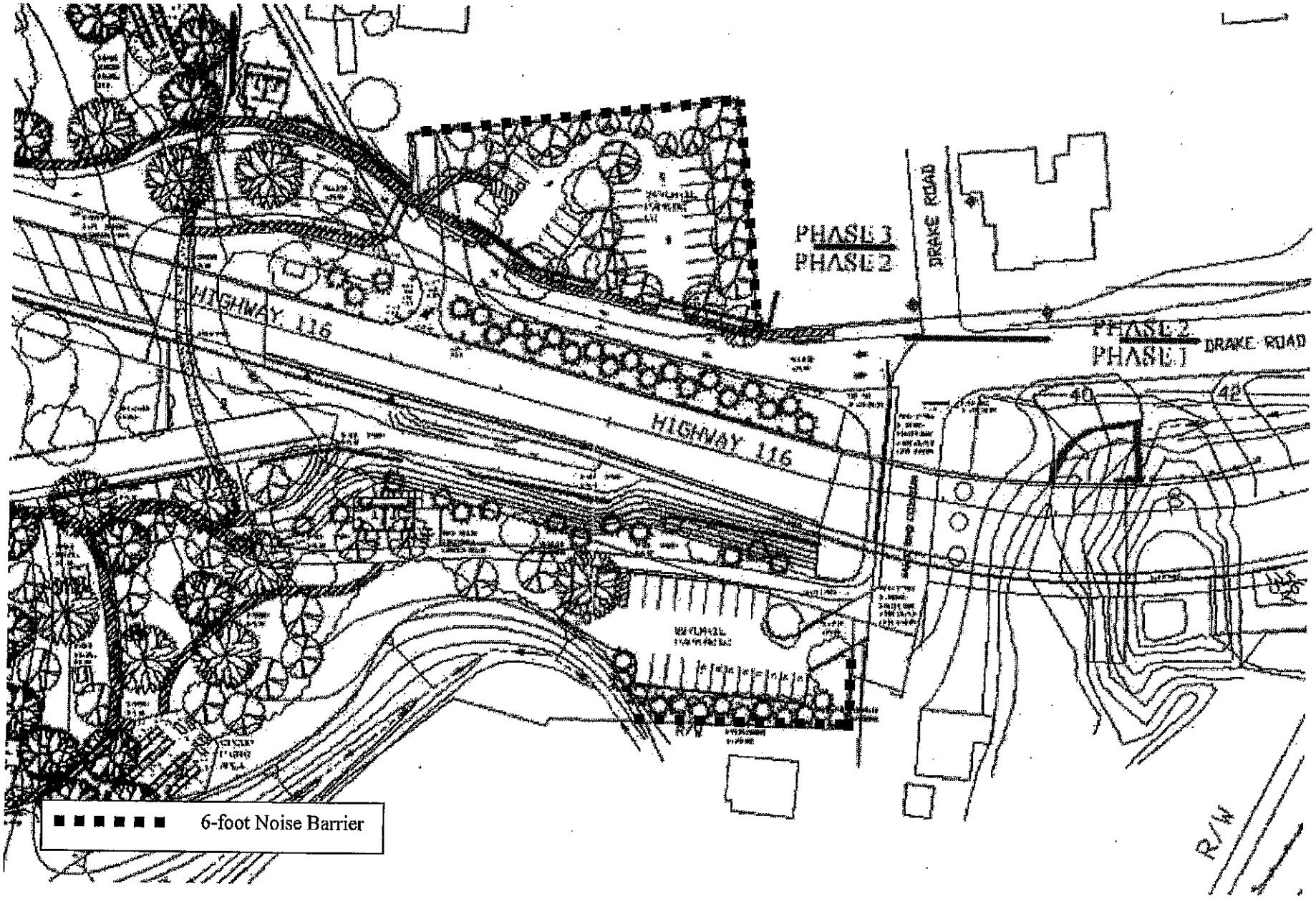
- Utilize "quiet" air compressors and other stationary noise sources where technology exists.

- Control noise from construction workers' radios to the point where they are not audible at existing residences bordering the project site.

- Notify adjacent residents to the project site of the construction schedule in writing.

- Designate a "noise disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and would require that reasonable measures warranted to correct the problem be implemented. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule. (The contractor should be responsible for designating a noise disturbance coordinator and providing construction schedule notices).

Figure 2 – Proposed Noise Barrier Locations



Wildlife Research Associates

Trish and Greg Tatarian
1119 Burbank Avenue
Santa Rosa, CA 95407
Ph: 707.544.6273 Fax: 707.544.6317
http://home.pacbell.net/tatarian.html
tatarian@pacbell.net

May 13, 2004

Mr. Mark Cleveland
Sonoma County Regional Parks Department
2300 County Center Drive, #120-A
Santa Rosa, CA 95403

RE: Wildlife Habitat Assessment – Guerneville River Park - Final

Dear Mark,

The following is a letter report describing the results of our habitat assessment of the property located at Highway 116 and the Russian River in the unincorporated community of Guerneville, in western Sonoma County, California. This assessment was conducted specifically to address the California Environmental Quality Act (CEQA) criteria for analyzing project effects on biological issues. The potential for special status animal species is addressed in this report.

SITE DESCRIPTION

The irregularly-shaped 8.8-acre project site is bounded by the Russian River on the north, Pocket Canyon Creek on the west, private lands on the east and Drake Road on the south. Highway 116 and the old Route 116 Bridge, now a footbridge, run through the middle of the project site. The project area is located in Section 32 of the Camp Meeker and Guerneville 7.5-minute topographic quadrangles, within Township 8N and Range 9W (Latitude 38° 30' 1" and Longitude 122° 59' 40") (Figure 1). Surrounding areas of use consist of residential, recreation, camping and a small commercial development, with the majority of the area inclusive of the Russian River.

In 1992 Caltrans constructed the concrete Highway (HWY) 116 Bridge over the Russian River, which encompassed three parcels (APN – 071-170-013, 071-170-014, and 071-160-057) (Cleveland, pers. com.). A total of 0.35 acres of riparian vegetation was removed and replanted on both the north and south banks of the river at a 1.4:1 ratio (Caltrans 1991). The mitigation area was planted with native tree species under the outer portions of the HWY 116 Bridge and the foot bridge, within the 15 to 20-foot construction zone beyond the dripline (Caltrans 1991). The mitigation area within the proposed project site is fenced with chain link and will be monitored for five years.

Approximately 5 acres of the 8.8-acre site are proposed for development of a public park, which will include grading for vehicle access and parking on the east side of the bridge, along with a small restroom, group and family picnic sites, and a launch and portage area for small boats. Swimming, floating and shore fishing access would be limited to the single proposed portage area located on the east side of the park due to the steep river banks within the site. The west side of the park, which will be connected to the east side by gravel paths, will include a small outdoor stage, group and family picnic sites, and a restroom/shower facility. After the monitoring period of the mitigation plantings is complete a gravel pedestrian path will be

placed within the planted area to connect both areas of the park. Parking will be located on the southeast and southwest portion of the site.

No grading will occur along the banks of Pocket Canyon Creek and a setback from the channel of between 25 feet and 50 feet will be created using fencing. No trees within Pocket Canyon will be removed. No trees with a diameter larger than 4-6 inches will be removed as a result of the project.

METHODS

Information on special-status animal species was compiled through a review of the California Natural Diversity Data Base (CNDDB 2004) for the Cazadero, Guerneville, Duncan Mill and Camp Meeker 7.5-minute topographic quadrangles, the CDFG's Special Animals List (CDFG 2004a), State and Federally Listed Endangered and Threatened Animals of California (CDFG 2004b) and the USFWS list of special-status animals for Sonoma County (USFWS 2004).

Trish Tatarian, ecologist, along with Jane Valerius, botanist, conducted a one-half-day survey on March 23, 2004 from 0930 to 1230. Walking transects were conducted within the proposed project area, and on-site vegetation was evaluated for special-status amphibians, nesting bird habitat and potential bat roosting habitat. The reconnaissance-level site visit was intended only as an initial evaluation of on-site and adjacent habitat types, and no special status species surveys were conducted as part of this effort. Photos are included in Appendix A.

EXISTING CONDITIONS

The project area is located within the North Coast Bioregion (Welsh 1994). This bioregion is located within the northwestern portion of California and encompasses the rivers and drainages that flow into the Pacific Ocean (Welsh 1994). Habitats within this bioregion include both mesic (moist) habitats, such as freshwater marsh, and xeric (dry) habitats, such as chaparral, and are typical of a mesic Mediterranean type climate. Annual winter precipitation has averaged 40 inches over the past 200 years (Welsh 1994).

The Guerneville River Park project area is located on the south bank of the Russian River and north of Mays Canyon, in the western portion of the Russian River. Topographically, the project site is located within the river floodplain, with elevations ranging between approximately 40 feet above sea level at Drake Road in the south, and 16 feet above sea level at the banks of the Russian River.

Pocket Canyon Creek, a tributary to the Russian River, occurs on the western portion of the site and has its headwaters located 1.87 miles southeast. This 2.47 mile long tributary also receives water from the surrounding residential development near Guerneville, located uphill from the site on the northeastern corner. The area of tributary adjacent to the study area is deeply channeled, with banks approximately 10-15 feet in height with a 100% canopy cover.

Wildlife Habitats

The value of a site to wildlife is influenced by a combination of the physical and biological features of the immediate environment. Species diversity is a function of diversity of abiotic and biotic conditions and is greatly affected by human use of the land. The wildlife habitat quality of an area, therefore, is ultimately determined by the type, size, and diversity of vegetation communities present and their degree of disturbance. Wildlife habitats are typically distinguished by vegetation type, with varying combinations of plant species providing different resources for use by wildlife. The following is a discussion of the wildlife species supported by the on-site habitats, as described by *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer 1989).

Redwood (*Sequoia sempervirens*) habitat occurs along Pocket Canyon Creek and may support amphibian species such as Pacific chorus frog (*Pseudacris regilla*), ensatina (*Ensatina eschscholtzii*) and slender

salamander (*Batrachoseps attenutatus*), while other species, such as striped skunk (*Mephits mephitis*), may use the tributary for foraging and as a movement corridor. Bird species potentially nesting in the redwood habitat include California towhee (*Pipilo crissalis*), scrub jay (*Aphelocoma coerulescens*), and spotted towhee (*Pipilo maculatus*), among others.

Many of the larger trees, such as cottonwood (*Populus fremontii*), located on the site could provide potentially suitable day-roost habitat for individual tree-roosting bat species, such as Western red bat (*Lasiurus blossevillii*), or hoary bat (*Lasiurus cinereus*), and could also possibly provide night-roost habitat for individuals of other bat species that day-roost in cavities or crevices, such as Yuma myotis (*Myotis yumanensis*), pallid bat (*Antrozous pallidus*), a California Special Concern species, and Brazilian free-tailed bat (*Tadarida brasiliensis*), and others.

Cliff swallows (*Petrochelido pyrrhonota*) are nesting under the east side of the cement HWY 116 Bridge. More than 15 nests were observed at the time of the survey. Other species observed on site include American crow (*Corvus brachyrhynchos*), turkey vulture (*Cathartes aura*), western scrub jay (*Aphelocoma californica*), American robins (*Turdus migratorius*), raccoon (*Procyon lotor*) tracks, feral cat (*Felis catus*), and opossum (*Didelphis virginiana*).

An aquatic survey was conducted in September 2003, and several centrarchid fish were observed, including juvenile small mouth bass (*Micropterus dolomieu*), largemouth bass (*Micropterus salmoides*), tule perch (*Hysterocarpus traski*), and America shad (*Alosa sapidissima*) were observed (Cook, pers. comm.).

Movement Corridors

Wildlife movement includes migration (i.e., usually one way per season), inter-population movement (i.e., long-term genetic flow) and small travel pathways (i.e., daily movement corridors within an animal's territory). While small travel pathways usually facilitate movement for daily home range activities such as foraging or escape from predators, they also provide connection between outlying populations and the main corridor, permitting an increase in gene flow among populations.

These linkages among habitat types can extend for miles between primary habitat areas and occur on a large scale throughout California. Habitat linkages facilitate movement among populations located in discrete areas and populations located within larger habitat areas. The mosaic of habitats found within a large-scale landscape results in wildlife populations that consist of discrete sub-populations comprising a large single population, which is often referred to as a meta-population. Even where patches of pristine habitat are fragmented, such as occurs with coastal scrub, the movement between wildlife populations is facilitated through habitat linkages, migration corridors and movement corridors. Depending on the condition of the corridor, genetic flow between populations may be high in frequency, thus allowing high genetic diversity within the population, or may be low in frequency. Potentially low frequency genetic flow may lead to complete isolation, and if pressures are strong, potential extinction (McCullough 1996; Whittaker 1998).

Pocket Canyon Creek and the Russian River both provide movement corridors for aquatic species.

SPECIAL STATUS BIOLOGICAL RESOURCES

Certain vegetation communities, and plant and animal species are designated as having special status due to their overall rarity, endangerment, restricted distribution, and/or unique habitat requirements. In general, special status is a combination of these factors that leads to the designation of a species as sensitive. The Federal Endangered Species Act (FESA), outlines the procedures whereby species are listed as endangered or threatened and established a program for the conservation of such species and the habitats in which they occur. The California Endangered Species Act (CESA) amends the California Fish and Game Code to protect species deemed to be locally endangered and essentially expands the number of species protected under the FESA.

Special Status Communities

Riparian habitats, such as the Fremont cottonwood community on-site, are considered to be sensitive and declining resources by several regulatory agencies including the CDFG and the USFWS. Impacts to wetlands are specifically addressed by the CDFG Code §§1600 *et seq*. and fall under the jurisdiction of the § 404 permit process. The Clean Water Act regulates dredge and fill operation that are enforced by the U.S. Army Corps of Engineers (ACE) and U.S. Environmental Protection Agency (EPA). The ACE also exerts jurisdiction over "waters of the U.S." which include territorial seas, tidal waters, and non-tidal waters in addition to wetlands and drainages that support wetland vegetation, exhibit ponding or scouring, show obvious signs of channeling, or have discernible banks and high water marks. Wetlands and riparian areas can serve significant biological functions by providing nesting, breeding, foraging, and spawning habitat for a wide variety of resident and migratory wildlife species.

An average setback of 50 feet from the centerline of the creek will result in no impacts to the riparian corridor of the creek.

Special Status Animal Species

Special-status animal species include those listed by the USFWS (2004) and the CDFG (2004c, 2004d). The USFWS officially lists species as either Threatened or Endangered, and as candidates for listing. Additional species receive federal protection under the Bald Eagle Protection Act *(e.g.*, bald eagle, golden eagle), the Migratory Bird Treaty Act (MBTA) and state protection under CEQA Section 15380(d). In addition, many other species are considered by the CDFG to be species of special concern; these are listed in Remsen (1978), Williams (1986), and Jennings and Hayes (1994). Although such species are afforded no official legal status, they may receive special consideration during the planning stages of certain development projects. The CDFG further classifies some species under the following categories: "fully protected", "protected fur-bearer", "protected amphibian", and "protected reptile". The designation "protected" indicates that a species may not be taken or possessed except under special permit from the CDFG; "fully protected" indicates that a species can be taken for scientific purposes by permit only.

A total of 34 special status animal species were evaluated for their potential to occur within the study area, based on: 1) review of the CNDDB, 2) the "Special Animals" list (CDFG 2004a) that includes those wildlife species whose breeding populations are in serious decline, and 3) the habitat present on-site. See Appendix A for a list of the species evaluated. Several species are considered to have a high potential to be present within the study area based on the habitats present but will not be disturbed as part of the project, i.e. habitat will not be removed. These species are discussed below. Species that have no likelihood to occur on the site but are prominent in today's regulatory environment are also discussed below.

Bats:
Several of the trees located on-site appear to provide suitable habitat for colonial day-roosting bats, based on the trunk diameter and the presence of cavities. Individual day-roosting tree-roosting bats could also potentially roost in the foliage or bark of the larger trees on the site. However, no large trees are proposed for removal during this project; therefore, no mitigation is required.

The HWY 116 Bridge has several weep holes located underneath the bridge that may provide roosting habitat for several special status bat species Figure 2 and 3). See Impacts and Mitigation Measures below for further discussion.

Nesting Birds
Several trees provide suitable nesting habitat for various passerines (perching birds), such as Allen's hummingbird, rufous hummingbird, and raptors (birds of prey), such as American kestrel and Cooper's

hawk. No evidence of ground nesting birds was observed and none are likely to occur based on the high level of disturbance. See Impacts and Mitigation Measures below for further discussion.

A known nesting osprey is located 4.25 miles downstream at Duncan's Mills (CNDDB 2004). The entire length of the Russian River is used for foraging. However, the proposed construction area is out of view of the nest tree, and the distance is too great to cause disturbance to this nesting pair.

Amphibians
California red-legged frogs have been reported 0.7 miles northeast of Bridgehaven, at the mouth of the Russian River, approximately 7.2 miles southwest of the project site (CNDDB 2004). No movement corridors occur to connect the two areas. No CRF have been reported in Pocket Canyon Creek. Based on the presence of centrarchids, no amphibians are expected to breed in this portion of the river.

Foothill yellow-legged frog have been reported in Austin Creek, approximately 4 miles north of Guerneville, Green Valley Creek, approximately 2 miles west of Graton and Porter Creek, approximately 5.5 miles east at Rio Dell (CNDDB 2004). No movement corridors occur to connect the two areas. No CRF have been reported in Pocket Canyon Creek.

Fish
Russian river tule perch has been reported from Dry Creek, 5.5 miles east of Guerneville (CNDDB 2004). No suitable habitat, pools greater than 1 meter in depth, occur within Pocket Canyon Creek adjacent to the proposed project site. No additional damming of the Russian River will occur as a result of this project. Therefore, no impacts are expected to occur to this species.

Gualala roach has been reported 0.5 mi south of Cazadero, approximately 5 miles northwest of the proposed project site (CNDDB 2004). Based on the limited number of reported locations of this species, and the lack of presence during fish surveys in 2003, no impacts are expected to occur to this species.

Invertebrates
California freshwater shrimp have been reported in Austin Creek, approximately 4 miles north of Guerneville, Green Valley Creek, approximately 2 miles west of Graton, and Redwood Creek, located 3 miles west of Sebastopol (CNDDB 2004). No suitable habitat for this species occurs in Pocket Canyon Creek based on the lack of undercut banks and high velocity of the winter flows, as evidenced by the steep sided banks.

IMPACTS AND MITIGATION MEASURES

This section summarizes the potential temporary biological impacts from construction activities within the study area. The analysis of these impacts is based on a single reconnaissance-level survey of the study area, a review of existing databases and literature, and personal professional experience with biological resources of the region. Potential impacts to special-status biotic resources, namely to individual special-status animal species may occur from the proposed project. Mitigations for these biological impacts are provided below.

Impact 1: There is potential that ground disturbance and construction underneath the HWY 116 Bridge could impact special status bat species potentially roosting in the weep holes of the bridge. Impacts could prevent exiting from the roost due to disturbance, such as noise (operation of generators or other machinery in proximity to or beneath weep holes, night construction preventing roost exiting) or poisoning of the roost (diesel exhaust rising into the holes, fuming material stored in close proximity to the holes). The following mitigation measures reduce this impact to less-than-significant.

Mitigation Measure Alternative 1: To avoid "take" of bats during ground disturbance the following are recommended:

- Emergence surveys are to be conducted by a qualified bat biologist. If no bats are observed emerging from the holes in the bridge no further action is required.
- If bats are observed emerging from the holes in the bridge during emergence surveys, construction under the bridge may be delayed until August when bats may be safely evicted by a bat biologist from the holes.
- If bats are present and construction under the bridge cannot be delayed until after bat eviction in August, no staging areas shall be placed underneath the HWY 166 Bridge, no exhaust fumes shall be allowed to rise into the weep holes, no idling machines are allowed in proximity to the weep holes, and no work at night would be allowed near the bridge.

Mitigation Measure Alternative 2:

- If no surveys are conducted and presence assumed, construction under the bridge shall be delayed until after bat eviction in August. If construction cannot be delayed, no staging areas shall be placed underneath the HWY 166 Bridge, no exhaust fumes shall be allowed to rise into the weep holes, no idling machines are allowed in proximity to the weep holes, and no work at night would be allowed near the bridge.

Following these mitigation measures will reduce impacts to bats to less-than-significant levels.

Impact 2: The proposed project could result in disturbance of potential raptor nesting habitat on the project site, (no focused surveys for nesting raptors have been conducted to determine presence or absence). Disturbance during the nesting season may result in the potential nest abandonment and mortality of young, resulting in "take" of individuals.

Mitigation Measure 2: To avoid "take" and/or further evaluate presence or absence of raptors, all of the following measures are recommended:

- Grading or removal of potential nesting trees should be conducted outside the nesting season, which occurs between approximately February 15 and August 15.
- A pre-construction nesting bird survey of the trees within the project area shall be performed by a qualified biologist. If no nesting birds are observed no further action is required and grading may occur within one week of the survey to prevent "take" of individual birds that may have begun nesting after the survey.
- If birds are observed nesting on-site after February 15 it should be assumed that they are nesting adjacent to the site. The CDFG Central Coast Regional office allows grading to occur if nesting birds are observed on-site, providing that a 200-foot buffer zone is created around the observed nest to prevent disturbance and ultimately "take" of young. Once the young have fledged away from the nest, construction may take place within the buffer zone.

Following these mitigation measures will reduce take to nesting raptors to less-than-significant.

Impact 3: Passerines not listed under CESA or FESA (including cliff swallows (*Petrochelido pyrrhonota*), black phoebe (*Sayornis nigricans*), and mourning dove (*Zenaida macroura*)) but protected under the MBTA maybe impacted from the removal of potential nesting habitat in the planted trees proposed for removal, although no focused surveys for nesting passerines have been conducted. Disturbance during the nesting season may result in the potential nest abandonment and mortality of young.

Mitigation Measure 3: To avoid "take" and/or further evaluate presence or absence of passerines, the following measures are recommended:

- Grading or removal of nesting trees should be conducted outside the nesting season, which occurs between approximately February 15 and August 15.
- If grading before February 15 is infeasible and groundbreaking must occur within the breeding season, a pre-construction nesting bird survey of the grasslands and adjacent trees shall be performed by a qualified biologist. If no nesting birds are observed no further action is required and grading shall occur within one week of the survey to prevent "take" of individual birds that may have begun nesting after the survey.
- If birds are observed on-site after February 15 the nesting tree shall be identified and a buffer of 75 feet shall be placed around the nesting tree. No disturbance shall occur within the buffer area until after the young have fledged, as determined by bird surveys by a qualified biologist, or after the nesting season.
- Nesting bird surveys for raptors and passerines may occur at the same time, after February 15.

Following these mitigation measures will reduce take to nesting birds to less-than-significant.

Please call if you have any questions about this report.

Sincerely,

Trish Tatarian

Trish Tatarian

REFERENCES

CALIFORNIA DEPARTMENT OF FISH AND GAME (CDFG). 1999. LIST OF CALIFORNIA TERRESTRIAL NATURAL COMMUNITIES RECOGNIZED BY THE NATURAL DIVERSITY DATA BASE. NATURAL HERITAGE DIVISION. JANUARY.

CALIFORNIA DEPARTMENT OF FISH AND GAME (CDFG). 2004A. SPECIAL ANIMALS. NATURAL DIVERSITY DATA BASE, WILDLIFE AND HABITAT DATA ANALYSIS BRANCH. JANUARY.

CALIFORNIA DEPARTMENT OF FISH AND GAME (CDFG). 2004B. STATE AND FEDERALLY LISTED ENDANGERED AND THREATENED ANIMALS OF CALIFORNIA. NATURAL DIVERSITY DATA BASE, WILDLIFE AND HABITAT DATA ANALYSIS BRANCH. JANUARY.

CALIFORNIA NATURAL DIVERSITY DATA BASE (CNDDB). 2004. REPORTED OCCURRENCES FOR THE GUERNEVILLE, DUNCAN MILL, CAMP MEEKER AND CAZADERO 7.5-MINUTE TOPOGRAPHIC QUADRANGLES. WILDLIFE CONSERVATION DIVISION. SACRAMENTO, CALIFORNIA . APRIL 7.

CALIFORNIA DEPARTMENT OF FISH AND GAME (CDFG). 1988B. CALIFORNIA'S WILDLIFE - AMPHIBIANS AND REPTILE. VOLUME I. CALIFORNIA DEPARTMENT OF FISH AND GAME. EDITORS, ZEINER, D.C., W.F. LAUDENSLAYER, JR., AND K.E. MAYER.

HICKMAN, J.C. 1993. THE JEPSON MANUAL: HIGHER PLANTS OF CALIFORNIA. UNIVERSITY OF CALIFORNIA PRESS, BERKELEY, CALIFORNIA. 1400 PP.

JENNINGS, M.R. AND M.P. HAYES. 1994. AMPHIBIAN AND REPTILE SPECIES OF SPECIAL CONCERN IN CALIFORNIA. PREPARED FOR THE CALIF. DEPT. OF FISH AND GAME INLAND FISHERIES DIV. RANCHO CORDOVA, CALIF. NOVEMBER 1. 255 PP.

MAYER, K.E. AND W. F. LAUDENSLAYER, JR. EDS. 1988. A GUIDE TO WILDLIFE HABITATS OF CALIFORNIA. CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION. SACRAMENTO. 166 PP.

MCCULLOUGH, D. 1996. METAPOPULATIONS AND WILDLIFE CONSERVATION. ISLAND PRESS. 429PP.

REMSEN, H.V. 1988. BIRD SPECIES OF SPECIAL CONCERN IN CALIFORNIA: AN ANNOTATED LIST OF DECLINING OR VULNERABLE BIRD SPECIES. CALIFORNIA DEPARTMENT OF FISH AND GAME, THE RESOURCES AGENCY.

SAWYER, J.O. AND T. KEELER-WOLF. 1995. A MANUAL OF CALIFORNIA VEGETATION. CALIFORNIA NATIVE PLANT SOCIETY, SACRAMENTO. 471 PP.

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS). 1991. FINAL ENVIRONMENTAL IMPACT REPORT ON THE GUERNEVILLE BRIDGE ON ROUTE 116 IN SONOMA COUNTY, CALIFORNIA. EA #289710. PP-56-58.

STEBBINS, R. C. 1985. A FIELD GUIDE TO WESTERN REPTILES AND AMPHIBIANS. HOUGHTON MIFFLIN COMPANY.

TOBIN, D.P. 2001. INVENTORY OF RARE AND ENDANGERED VASCULAR PLANTS OF CALIFORNIA. CALIFORNIA NATIVE PLANT SOCIETY, SACRAMENTO, CALIFORNIA. SPECIAL PUBLICATION NO. 1, SIXTH ED. 384 PP.

U.S. FISH AND WILDLIFE SERVICE (USFWS). 2004. THREATENED AND ENDANGERED SPECIES SYSTEM (TESS) CANDIDATE SPECIES AS OF 4/7/2004.

WELSH, H. 1994. BIOREGIONS: AN ECOLOGICAL AND EVOLUTIONARY PERSPECTIVE AND A PROPOSAL FOR CALIFORNIA. CALIFORNIA FISH AND GAME (80) 3:97-124.

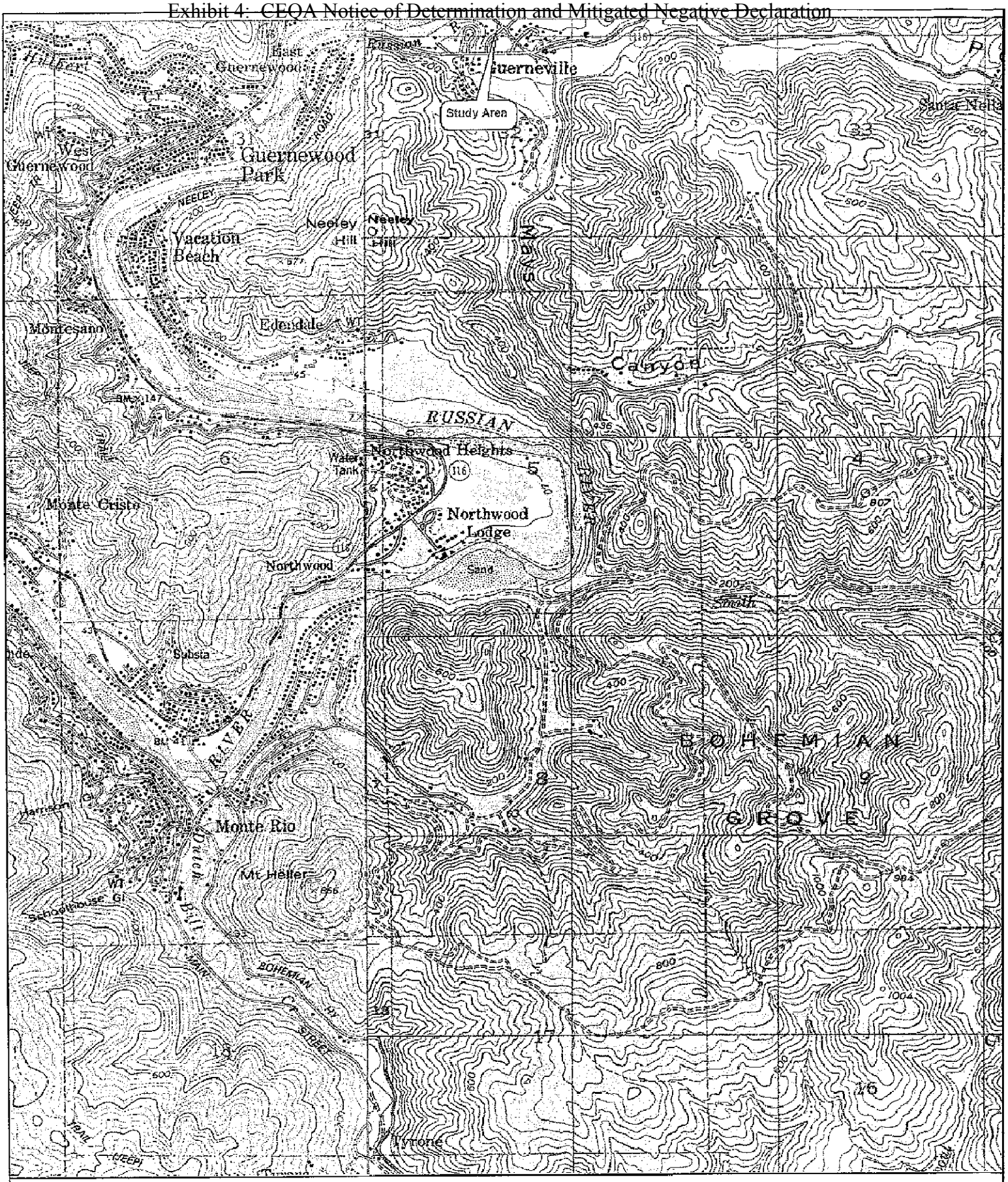
WHITTAKER, R. 1998. ISLAND BIOGEOGRAPHY: ECOLOGY, EVOLUTION AND CONSERVATION. OXFORD UNIVERSITY PRESS. 285PP.

WILLIAMS, D.F. 1986. MAMMALIAN SPECIES OF SPECIAL CONCERN IN CALIFORNIA. CALIFORNIA DEPARTMENT OF FISH AND GAME. WILDLIFE MANAGEMENT DIVISION ADMINISTRATIVE REPORT 86-1. 112 PP.

PERSONAL COMMUNICATIONS

CLEVELAND, M. PARK PLANNER II - SONOMA COUNTY REGIONAL PARKS. PERSONAL COMMUNICATION WITH TRISH TATARIAN. MARCH 30, 2004.

COOK, D. WILDLIFE BIOLOGIST - SONOMA COUNTY WATER AGENCY. PERSONAL COMMUNICATION WITH TRISH TATARIAN. MARCH 8, 2004.



Name: CAMP MEEKER
Date: 5/13/2004
Scale: 1 inch equals 2000 feet

Location: 038° 28' 26.71" N 122° 59' 36.26" W
Caption: Figure 1 - Study Area Location

Copyright (C) 2002, Maptech, Inc.

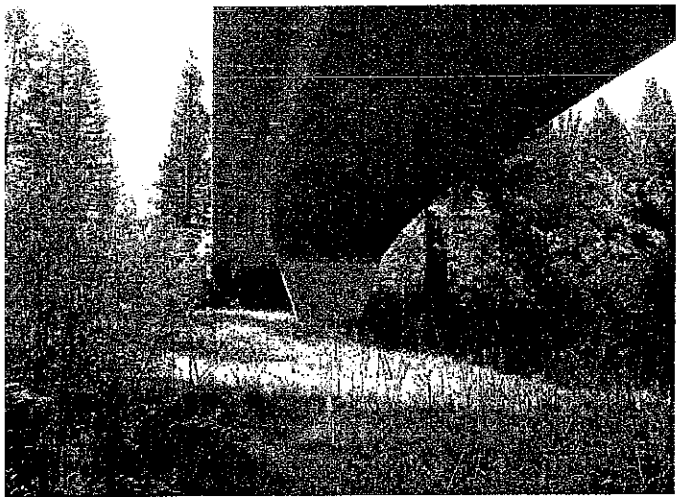


Fig. 2. Looking south underneath HWY 116.

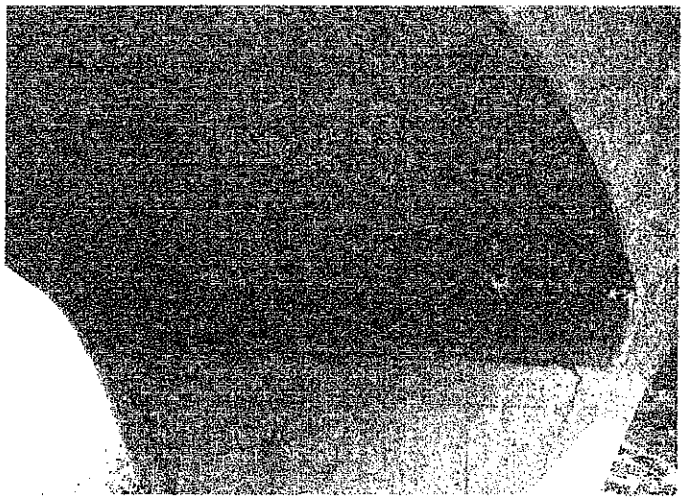


Fig. 3. Weep holes in HWY 116 Bridge.

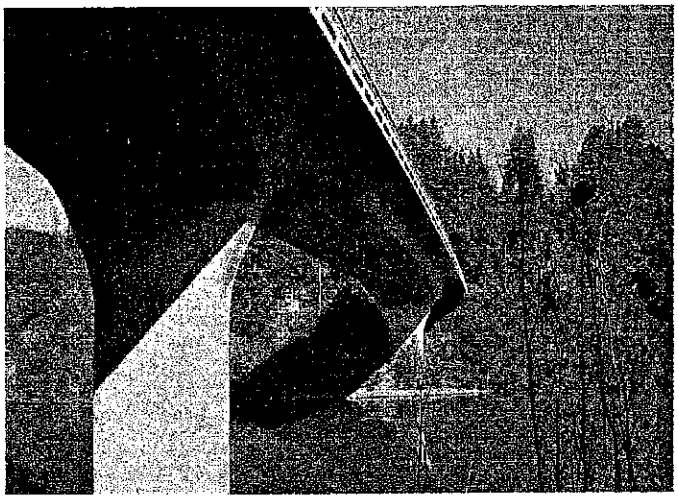


Fig. 4. HYW 116 looking north.

Fig. 5. Looking southeast to Pocket Canyon Creek.

APPENDIX A

POTENTIALLY-OCCURRING SPECIAL-STATUS WILDLIFE SPECIES AT THE PROPOSED GUERNEVILLE RIVER PARK PROJECT SITE

Scientific Name Common Name	Status USFWS/ CDFG	Habitat Affinities and Reported Localities in the Project Area	Occurrence Potential
Invertebrates			
Danaus plexippus monarch butterfly	-/*	Roosts during winter migration in dense stands of large trees such as eucalyptus and Monterey pines that provide shelter from the wind. Roosts in groves close to nectar and water sources.	Moderate: suitable habitat occurs for winter roosting
*Hydrochara ricksecker*i Ricksecker's water scavenger beetle	SC/-	This aquatic species has been recorded in lakes, lagoons and vernal pools. Members of this Family (Hydrophilidae) are scavengers whose larvae are predaceous. Nothing is known about the habits specific to this taxon.	None: no suitable habitat present
Speyeria zerene myrtleae Myrtles silverspot	FE/-	Restricted to the coastal fog belt of Point Reyes area. Larval food plant thought to be Viola adunca.	None: no suitable habitat present
Syncaris pacifica California freshwater shrimp	FE/CE	Prefers shallow pools away from the main stream flow with undercut banks with exposed roots. Endemic to Marin, Sonoma and Napa counties. Found in low elevation, low gradient streams with moderate to heavy riparian canopy cover.	None: no suitable habitat present
Lytta molesta Molestan blister beetle	SC/-	Requires permanent water.	None: no suitable habitat present
Fish			
Hysterocarpus traski pomo Russian River tule perch	FSC/CSC	Require clear flowing water with abundant cover and >1 m pools, in tributaries to the Russian River.	None: no suitable habitat present
Lavinia symmetricus parvipinnis Gualala roach	FSC/CSC	Found only in Austin Creek, 0.5 mi S of Cazadero.	None: no suitable habitat present
Onchorhynchus kisutch Coho salmon - Central California Coast ESU	FT/SE	The Central California Coast ESU occurs from Punta Gorda, in northern California, to the San Lorenzo River, in Santa Cruz County, and includes coho salmon populations from several tributaries of San Francisco Bay (eg. Corta Madera and Mill Valley Creek).	None: no suitable breeding habitat
Onchorhynchus mykiss steelhead - Central California Coast ESU	FT/-	Requires beds of loose, silt-free, coarse gravel for spawning. Also needs cover, cool water and sufficient dissolved oxygen. Occurs in 3 tributaries to Monterey Bay (Pajaro, Salinas and Carmel Rivers), in the small streams of the Big Sur Coast and small intermittent streams in San Luis Obispo County, south to Point Conception.	None: no suitable breeding habitat
Amphibians			
Rana aurora aurora Northern red-legged frog		Range occurs from northern Sonoma County to British Columbia. Inhabit perennial and ephemeral streams with quiet waters and dense emergent vegetation.	None: no suitable breeding habitat
Rana aurora draytonii California red-legged frog	FT/CSC	Prefers semi-permanent and permanent stream pools, ponds and creeks with emergent and/or riparian vegetation. Occupies upland areas especially during the wet winter months.	None: no suitable breeding habitat
Rana boylii foothill yellow-legged frog	SC/CSC	Inhabits permanent, flowing stream courses with a cobble substrate and a mixture of open canopy riparian vegetation.	None: no suitable breeding habitat

APPENDIX A

POTENTIALLY-OCCURRING SPECIAL-STATUS WILDLIFE SPECIES AT THE PROPOSED GUERNEVILLE RIVER PARK PROJECT SITE

Emys marmorata marmorata western pond turtle	SC/CSC	Prefers permanent, slow-moving creeks, streams, ponds, rivers, marshes and irrigation ditches with basking sites and a vegetated shoreline. Requires upland sites for egg-laying.	None: no suitable breeding habitat
Birds			
Accipiter cooperi Cooper's hawk	MB/CSC	Nests primarily in deciduous riparian forests. May also occupy dense canopied forests from gray pine-oak woodland to ponderosa pine. Forages in open woodlands.	Moderate: suitable nesting habitat present
Accipiter striatus sharp-shined hawk	MB/CSC	Dense canopy pine or mixed conifer forest and riparian habitats. Water within one mile required.	Moderate: suitable nesting habitat present
Brachyramphus marmoratus Marbled murrelet	FT/SE	Nests in old growth forests and can migrate up to 20 miles inland. This species nests in mature conifer forests with open crown canopies or slopes to provide easy access, and large limbs in trees such as Douglas-fir, western hemlock, Sitka spruce, coastal redwood and mountain hemlock.	None: no suitable nesting habitat
Chaetura vauxi Vaux's swift	-/-/CSC	Nests in tree cavities in redwood and Douglas firs woodlands with nests in large hollow trees and snags.	None: no suitable nesting habitat
Dendroica petechia brewsteri California yellow warbler	MB/CSC	Nests in riparian areas dominated by willows, cottonwoods, sycamores or alders and in mature chaparral. May also inhabit oak and coniferous woodlands and urban areas near stream courses.	None: no suitable nesting habitat
Empidonax difficilis Pacific-slope flycatcher	SC, MB/CSC	Found in a variety of habitats including cliff, conifer, forest, hardwood, mixed, and woodland. Nests along streams, in tree cavities, in cliffs, crotch of branch, earth banks, or buildings.	None: no suitable nesting habitat
Pandion haliaetus Osprey	-/CSC	Nests on top of snags and trees on a large stick nest (up to 6 feet in diameter)	None: no suitable nesting habitat
Riparia riparia Bank swallow	FSC/-	Nests in banks along rivers, excavating hollow for nests	None: no suitable nesting habitat
Selasphorus rufus Rufous hummingbird	SC, MB/-	Nests in chaparral, coniferous forest, scrub habitats and riparian habitats. Nests are placed on a downward drooping structure.	Moderate: suitable nesting habitat
Selasphorus sasin Allen's hummingbird	SC, MB/-	Nests in wooded areas, meadows, or thickets along shaded streams, on a branch low down on stem, although placement height varies between 10 inches and 90 feet.	Moderate: suitable nesting habitat
Strix occidentalis caurina northern spotted owl	FT, MB/-	Dense coniferous and hardwood forest, shaded, steep sided canyons.	None: no suitable nesting habitat
Mammals			
Antrozous pallidus pallid bat	-/CSC	Day roosts include rock outcrops, mines, caves, hollow trees, buildings and bridges. Recent research suggests high reliance on tree roosts	Moderate: suitable roost habitat on site

APPENDIX A

POTENTIALLY-OCCURRING SPECIAL-STATUS WILDLIFE SPECIES AT THE PROPOSED GUERNEVILLE RIVER PARK PROJECT SITE

Arborimus pomo red tree vole	SC/CSC	Inhabits old growth, North Coast coniferous forests, redwood forests, and montane hardwood coniferous forests. Is found in the North Coast fog belt from Oregon to Sonoma County. Feeds almost exclusively on Douglas fir needles.	None: no suitable habitat
Bassaricus astutus ringtail	SC/CSC	Most commonly found in riparian habitats, but also in canyon and rocky slopes and chaparral. Nests in downed logs, hollow trees, snags, cavities and rocky areas. Usually not further than 0.5 miles from permanent water.	None: no suitable habitat
Cerorhinca monocerata Rhinoceros auklet		Found at Arched Rock, offshore, 1 km S of Goat Rock.	None: no suitable nesting habitat
Corynorhinus townsendii townsendii Townsend's big-eared bat	-/CSC	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. Most commonly associates with mesic sites. Highly sensitive to human disturbances; a single visit by humans can cause bats to abandon roosts.	Moderate: suitable roost habitat on site
Myotis ciliolabrum small-footed myotis bat	SC/-	Roosts in caves, mine tunnels, crevices in rocks and buildings, generally near forested areas. Feeds low among trees or over shrubs.	Moderate: suitable roost habitat on site
Myotis evotis long-eared bat	SC/-	Day roosts in hollow trees under exfoliating bark, and crevices in rock outcrops. Found roosting under bark of small black oaks in northern California. Found throughout California	Moderate: suitable roost habitat on site
Myotis thysanodes fringed myotis bat	SC/-	Roosts in colonies in caves, cliffs and attics of old buildings. Will also use trees as day roosts.	Moderate: suitable roost habitat on site
Myotis volans long-legged myotis	SC/-	Day roosts in hollow trees, particularly large diameter snags or live trees with lightning scars. Habitat usually defined by montane coniferous forests, pinyon-juniper, and Joshua tree woodland habitats.	Moderate: suitable roost habitat on site
Myotis yumanensis Yuma myotis bat	SC/-	Roosts colonially in cares, tunnels and buildings. Inhabits arid regions.	Moderate: suitable roost habitat on site

FEDERAL DESIGNATIONS

FE = listed as Endangered by the Federal Government
FT = listed as Threatened by the Federal Government
FPE = proposed as Endangered by the Federal Government
FPT = proposed as Threatened by the Federal Government
SC[1] = Species of Concern
MB = migratory non-game birds of management concern to the USFWS; protected under the Migratory Bird Treaty Act.

CALIFORNIA DEPT. OF FISH AND GAME DESIGNATIONS

CE = Listed as Endangered by the State of California
CT = Listed as Threatened by the State of California
CPE = Proposed for listing as Endangered
CSC = California Special Concern species
CFP = Fully protected under the Cal. Fish and Game Code.
CP = Protected Species under Cal. Code of Regulations.

FINAL
SPECIAL STATUS PLANT SURVEY REPORT AND OPPORTUNITIES AND CONSTRAINTS ANALYSIS FOR THE GUERNEVILLE RIVER PARK PROJECT GUERNEVILLE, SONOMA COUNTY, CA

Prepared for:

Sonoma County Regional Parks Department
2300 County Center Drive, Suite 120A
Santa Rosa, CA 95403
Attn: Mark Cleveland, Project Manager

Prepared by:

Jane Valerius
Environmental Consulting
152 Weeks Way
Sebastopol, CA 95472
Tel: (707) 824-4327

June 21, 2004

DRAFT
SPECIAL STATUS PLANT SURVEY REPORT FOR THE GUERNEVILLE RIVER PARK PROJECT GUERNEVILLE, SONOMA COUNTY, CALIFORNIA
June 21, 2004

INTRODUCTION

The Sonoma County Regional Parks Department is proposing to create a park facility in the unincorporated community of Guerneville in west central Sonoma County. The project site is located within the Russian River floodplain. The Russian River forms the northern boundary of the site, Pocket Canyon Creek forms the western boundary, Drake Road/Drake Road extension forms the southern boundary, and residential lots form the eastern boundary of the study area. The study area consists of approximately 8.8 acres, however only 5 acres will be developed for recreational use.

METHODS

Surveys for special-status plants were conducted for the Guerneville River Park project area. As of the date of this report, the project area was surveyed on March 23, April 12 and May 28, 2004. A June survey was determined to not be necessary as the project site lacks habitat for species that could occur within freshwater marshes and swamps. Special status plant species would flower June or later would occur in that habitat type. Since this habitat type is lacking within the project area, it was determined that further surveys were not warranted. The flowering period for all of the potential special status plants that could occur within the project area was covered in the March to May surveys.

A list of special-status plant species that could potentially occur on the site was developed and reviewed prior to the site visits. The list was developed using the a search of the California Natural Diversity Data Base (CNDDB) for the Guerneville, Camp Meeker, Cazadero and Duncan Mills USGS quadrangles and the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants of California for Sonoma County.

Surveys were conducted in accordance with the California Department of Fish and Game guidelines. The surveys were conducted at the time of year when special status and locally significant plants that could potentially occur on the site were both evident and identifiable. Surveys were floristic in nature, where every plant that was observed was identified to species, subspecies, or variety as applicable. A reasonably thorough coverage of the site was conducted by walking transects across the study area.

RESULTS

Background:

The proposed park is located on a river terrace on the south side of the Russian River below the Highway 116 bridges. Vegetation communities within the project area include mixed evergreen forest, mixed riparian forest, second growth redwood forest and its tributaries and small areas of non-native annual grassland. The regional topography consists of steeply sloped tributary valleys descending from nearby coastal mountains to floodplain terraces. The terraces adjacent to the river support vacation resorts, agriculture, businesses, residential and recreational uses. Included within the project area is a Caltrans mitigation area for the construction of the new highway 116 bridge across the Russian River. This mitigation area was planted with riparian trees and shrubs that are fenced and protected. Additional trees and shrubs were planted outside of this mitigation area. These trees may be impacted by the proposed park development plan.

Special Status Plant Surveys:

Table 1 provides a list of plant species that have been observed on the site based on the March, April and May 2004 surveys. Attachment A provides a list of special status plants that could potentially occur within the project area based on the presence of potential habitat. A June survey was determined to not be necessary as the project site lacks habitat for species that could occur within freshwater marshes and swamps. Special status plant species would flower June or later would occur in that habitat type. Since this habitat type is lacking within the project area, it was determined that further surveys were not warranted. The flowering period for all of the potential special status plants that could occur within the project area was covered in the March to May surveys. No special status plants were observed within the project area during the March to May surveys.

Six special status plants were initially identified as having the potential to occur within the project area based on a search of the CNDDB. These six species area: Sonoma alopecurus (*Alopecurus aequalis* var. *sonomensis*); Napa false indigo (*Amorpha californica* var. *napensis*), Baker's manzanita (*Arctostaphylos bakeri* ssp. *bakeri*); holly-leaved ceanothus (*Ceanothus purpureus*); bristly sedge (*Carex comosa*); and thin-lobed horkelia (*Horkelia tenuiloba*). Potential habitat does occur within the project area for Sonoma alopecurus in the form of riparian scrub and for bristly sedge in the form of grasslands. However, the project area does not have any freshwater marsh and swamp type habitat as Russian River within the project area does not support any emergent wetland vegetation. No habitat occurs within the project area for Napa false indigo, Baker's manzanita, holly-leaved ceanothus or thin-lobed horkelia and these species were not observed within the project area.

OPPORTUNITIES AND CONSTRAINTS

Weed Control:

Three non-native weedy plants species occur within the project area. These are French broom (*Genista monspessulana*), bull thistle (*Cirsium vulgare*), and English ivy (*Hedera helix*). The project would benefit by removal and eradication of these invasive, weedy plants. It is recommended that a weed control program be implemented as part of the park development and habitat restoration program for the Guerneville River Park. Some of these plants may be removed as part of the park development and others may require on-going control. Because of the sensitive nature of the park and proximity to the Russian River and Pocket Canyon Creek, it is recommended that these and other weeds be removed using mechanical means. If herbicides are used, a herbicide must be recommended by a licensed pest control advisor and must be a chemical that will not adversely impact aquatic life. Herbicides can be applied using a wick application so that the herbicide touches only the particular plant and does not spread or get sprayed onto other, native plants and does not become toxic to wildlife or people in the area.

Erosion Control:

The proposed boat launch/river access area should be protected from erosion using best management practices. These could include the use of erosion control fabric and/or seeding an herbaceous seed mixture and installation of riparian tree and shrub species to stabilize the slopes. All plant used for erosion control and restoration must be native plants that are adapted to the site conditions.

Another area that needs slope protection through erosion control is an eroded area near the junction of Pocket Canyon Creek and the Russian River. This area is bare with exposed roots. It appears that that this area might be used by people as access to the creek. This area would benefit from erosion protection. Since this area has not been identified as a potential river access point, some fencing to discourage use of this area as well as protecting it from further erosion is recommended.

U. S. Army Corps of Engineers Wetlands and Waters of the U.S.:

The U. S. Army Corps of Engineers (Corps) responded in a letter dated April 16, 2004 to a request for comments on an Initial Study for the Guerneville River Park Project. The Russian River qualifies as a water of the U.S. as it is a navigable river and therefore meets the definition of a waters of the U.S. Since this portion of the Russian River is not tidal, the Corps has jurisdiction under Section 404 of the Clean Water Act. The Corps takes jurisdiction over the ordinary high water mark of freshwater (non-tidal) waters.

A formal delineation has not been conducted for the project and may or may not be required. It appears that the boat launch/river access site has the potential to encroach upon the ordinary high water mark of the Russian River. The Corps has recommended that a delineation be conducted and submitted for their verification. Once the Corps' jurisdiction has been verified, it will be possible to determine if there will be any direct impacts to waters of the U.S. No wetlands will be impacted as this area of the Russian River does not support any emergent or other wetland vegetation.

To determine USACE jurisdiction over "waters of the US," Mr. Mark Cleveland and Ms. Michelle Julene with the Regional Parks conducted a site visit on April 27, 2004 to visually determine the OHWM of the Russian River within the project area. The OHWM determined to be 16 feet above sea level.

If the boat launch/river access will impact within the ordinary high water mark of the Russian River, then it will be necessary to obtain a permit from the Corps for the work to be conducted within their jurisdiction. A permit authorization from the Corps also requires that the applicant obtain a 401 water quality certification from the Regional Water Quality Control Board.

A Streambed Alteration Agreement from the California Department of Fish and Game will also be required for any work along the bed or bank of the Russian River or Pocket Canyon Creek.

Impacts to Riparian Forest:

The project will potentially impact some riparian forest at the boat launch area and proposed gravel pathways along the Russian River. If any native tree and shrub species are removed, the project should first make every effort to avoid any impacts. If impacts cannot be avoided, the Regional Parks Department should replace the loss of any native trees and shrubs as a 3:1 replacement to loss ratio. The following measures, which were included in the Windsor Riverfront Park Project Mitigated Negative Declaration, should also be adopted for the Guerneville River Park Project:

- *The Regional Parks Department will design, construct, and operate proposed improvements to avoid impacts to the riparian forest, including riparian understory, to the maximum extent possible.*

- *The Regional Parks Department will replace the permanent loss of mixed riparian forest habitat on-site at a minimum ratio of 3:1 (replacement to loss) to create a high quality willow riparian habitat. The Regional Parks Department will coordinate on-site mixed riparian forest mitigation with the appropriate regulatory agencies, such as the California Department of Fish and Game.*

Tree Removal:

Several trees will likely be impacted by the development of some areas for parking, restroom and other improvements. This may require their removal, relocation, and/or replacement. The following or similar measures, which were included in the Windsor Riverfront Park Project Mitigated Negative Declaration, should also be adopted for the Guerneville River Park Project:

- *The Regional Parks staff will clearly identify trees that will require removal for development on construction drawings. The contractor will be required to clearly mark in the field the trees that will be removed for improvements.*

- *Regional Parks staff will clearly identify the protected perimeter of any native trees on the construction drawings. The protect perimeter is defined in Sonoma County Ordinance No. 4014 as the tree dripline.*

- *The contractor will be required to place temporary protective fencing at the outermost edge of the protected perimeter of each tree or group of trees to be protected. Protective fencing will be placed prior to commencement of construction and will remain in place until all construction related activities are complete. The contractor will be required to avoid disturbance within the protected perimeter during construction of the proposed project. Construction related activities including storing equipment, chemicals, spoil materials, trash, parking vehicles or equipment, may not take place within the protective fencing.*

- *The contractor will be required to perform all tree trimming and branch removal in accordance with the International Society of Arborists Tree Pruning Guidelines, adopted in 1995. These standards require that: (a) branches are cut cleanly, utilizing pruning shears, loppers, or a fine tooth saw that cuts on the pull stroke; (b) branches are cut just outside the branch bark ridge or at the callus shoulder, and at a point of junction with another branch to avoid leaving a limb section without live leaf support; (c) climbing spurs cannot be worn when performing work on any tree; and (d) trees will not be "headed".*

- *Regional Parks staff may require a certified arborist to be on-site to direct pruning cuts on large limbs and to ensure that necessary pruning cuts are made to balance the weight of the tree.*

- *The contractor will be required to report any damage to protected trees that occurs during, or as a result of, project construction to Regional Parks staff. If a protected tree is damaged so that it cannot be preserved in a healthy state, the tree will be replaced in accordance with the Arboreal Value Chart included in Sonoma County Ordinance No. 4014.*

Table 1

List of plant species noted during surveys conducted on March 23 and April 12, and May 28, 2004 at the Guerneville River Park Project Area.

Scientific Name	Common Name
Acer circinatum	Vine maple
Acer negundo	Box elder
Agrostis sp.	Bent grass
Alnus rhombifolia	White alder
Anthemis cotula	Dog fennel
Artemisia douglasiana	Mugwort
Avena barbata	Slender wild oats
Brassica nigra	Black mustard
Bromus diandrus	Rip-gut brome
Bromus hordeaceus	Soft chess
Carex densa	Dense sedge
Cercis occidentalis	Redbud
Chamaescyce ocellata	Chamaescyce
Cirsium vulgare	Bull thistle
Conyza canadensis	Horseweed
Cornus sericea	Dogwood
Cynodon dactylon	Bermuda grass
Cynosurus echinatus	Dog-tail grass
Cyperus eragrostis	Umbrella sedge
Dactylis glomerata	Orchard grass
Daucus carota	Queen Anne's lace
Elymus glaucus	Blue wildrye
Erigeron sp.	Fleabane-ornamental
Erodium botrys	Broadleaf filaree
Eschscholzia californica	California poppy
Festuca arundinacea	Tall fescue
Foeniculum vulgare	Fennel
Galanthus nivalis	Common snowdrop
Genista monspessulana	French broom
Geranium dissectum	Cut-leaf geranium
Geranium molle	Dove's-foot geranium
Hedera helix	English ivy
Heteromeles arbutifolia	Toyon
Holodiscus discolor	Oceanspray
Hordeum brachyantherum	Meadow barley
Hordeum marinum ssp. *gussoneanum*	Mediterranean barley
Hordeum murinum ssp. *leporinum*	Hare barley
Juglans california ssp. *hindsii*	Northern California black walnut
Juncus balticus	Baltic rush
Juncus patens	Rush
Lactuca serriola	Prickly lettuce

Table 1

List of plant species noted during surveys conducted on March 23 and April 12, and May 28, 2004 at the Guerneville River Park Project Area.

Scientific Name	Common Name
Lolium multiflorum	Annual ryegrass
Lotus purshianus	Spanish clover
Marah fabaceus var. *fabaceus*	Wild cucumber, manroot
Medicago polymorpha	Bur clover
Melilotus sp.	Sweet clover
Melissa officinalis	Lemon balm
Mentha pulegium	Penney-royal
Myosotis latifolia	Forget-me-not
Oxalis pes-caprae	Bermuda buttercup
Paspalum dilitatum	Dallis grass
Phalaris aquatica	Harding grass
Picris echioides	Bristly ox-tongue
Plantago lanceolata	English plantain
Plantago major	Common plantain
Platanus racemosa	Sycamore
Poa annua	Annual bluegrass
Polypogon monsepliensis	Rabbits foot grass
Populus fremontii	Fremont's cottonwood
Prunus sp.	Fruit tree
Pseudotsuga menziesii	Douglas fir
Pteridium aquilinum	Bracken fern
Pyracantha sp.	Pyracantha
Raphanus sativus	Wild radish
Ribes sanguineum	Fed flowering currant
Rubus discolor	Himalayan blackberry
Rubus parviflorus var. *parviflorus*	Thimbleberry
Rubus ursinus	California blackberry
Rumex crispus	Curly dock
Rumex pulcher	Fiddle dock
Salix laevigata	Red willow
Salix lasiandra	Yellow willow
Salix lasiolepsis	Arroyo willow
Scrophularia californica	California bee plant
Senecio vulgaris	Groundsel
Sequia sempervirens	Coast redwood
Sonchus asper	Sow thistle
Sonchus oleraceus	Sow thistle

Table 1

List of plant species noted during surveys conducted on March 23 and April 12, and May 28, 2004 at the Guerneville River Park Project Area.

Scientific Name	Common Name
Taraxacum officinale	Dandelion
Torilis arvensis	Hedge parsley
Toxicodendron diversilobum	Poison oak
Tragopogon porrifolius	Salsify
Trifolium hirtum	Rose clover
Trifolium sp.	Clover
Umbellularia californica	California bay laurel
Vicia sativa	Spring vetch
Vinca major	Periwinkle
Vulpia myuros	Rattail fescue
Wisteria sp.	Wisteria

Attachment A:

Special status plant species that could potentially occur within the Guerneville River Park project area based on the presence of potential habitat and a review of the California Natural Diversity Data Base and the California Native Plant Society's Inventory of Rare and Endangered Plants of California. June 21, 2004.

Scientific Name **Common Name**	**Status: Federal/ State/CNPS**	**Flowering Period**	**Habitat and Notes**
Alopecurus aequalis var. *sonomensis* Sonoma alopecurus	FE/-/L1B	May-July	Freshwater marshes and swamps, riparian scrub. **Not seen during surveys. Typical habitat not present.**
Arctopstaphylos bakeri ssp. *bakeri* Baker's manzanita	-/CR/L1B	February-April	Broad-leaved upland forest, chaparral, often on serpentinite. **Not seen during surveys – habitat not present in project area.**
Amorpha california var. *napensis* Napa false indigo	-/-/L1B	April-June	Broad-leaved upland forest, chaparral, cismontane woodland. **Not seen during surveys – habitat not present in project area.**
Astragalus tener var. *tener* Alkali milkvetch	-/-/L1B	March-June	Playas, grasslands (adobe clay), vernal pools (alkaline). **Not seen during surveys. Typical habitat not present.**
Blennosperma bakeri Sonoma sunshine	FE/CE/L1B	March-May	Mesic grasslands and vernal pools. **Not seen during surveys.**
Calamagrostis bolanderi Bolander's reed grass	-/-/L1B	May-August	Freshwater marshes and swamps. **Not seen during surveys. Habitat not present.**
Calamagrostis crassiglumis Thurber's reed grass	-/-/L2	May-July	Freshwater marshes and swamps. **Not seen during surveys. Habitat not present.**
Campanula californica Swamp harebell	-/-/L1B	June-October	Meadows, freshwater marshes and swamps. **Not seen during surveys. Habitat not present.**
Carex albida *White sedge*	FE/CE/L1B	May-July	Wet meadows and marshes. Endemic to Sonoma County. **Not seen during surveys. Habitat not present.**
Carex buxbaumii Buxbaum's sedge	-/-/L4	March-August	Meadows, freshwater marshes and swamps. **Not seen during surveys. Habitat not present.**
Carex californica California sedge	-/-/L2	May-August	Meadows, margins of freshwater marshes and swamps. **Not seen during surveys. Habitat not present.**
Carex comosa Bristly sedge	-/-/L2	May-September	Marshes and swamps, lake margins, grasslands. **Not seen during surveys. Habitat not present.**
Castilleja ulignosa Pitkin Marsh Indian paintbrush	-/CE/L1A	June-July	Freshwater marshes and swamps. **Not seen during surveys. Habitat not present.**

Attachment A:

Special status plant species that could potentially occur within the Guerneville River Park project area based on the presence of potential habitat and a review of the California Natural Diversity Data Base and the California Native Plant Society's Inventory of Rare and Endangered Plants of California. June 21, 2004.

Scientific Name **Common Name**	**Status: Federal/ State/CNPS**	**Flowering Period**	**Habitat and Notes**
Ceanothus purpureus Holly-leaved ceanothus	-/-/L1B	February-June	Chaparral, rocky, volcanic soils. **Not seen during surveys – habitat not present in project area.**
Dirca occidentalis Western leatherwood	-/-/L1B	January-April	Riparian woodland/mesic. **Not seen during surveys.**
Downingia pusilla Dwarf downingia	-/-/L2	March-May	Grasslands (mesic), vernal pools. **Not seen during surveys.**
Eleocharis parvula Small spikerush	-/-/L4	June-September	Marshes and swamps. **Not seen during surveys. Habitat not present.**
Elymus californicus California bottle-brush grass	-/-/L4	May-November	Riparian woodland. **Not seen during surveys.**
Fritillaria liliacea Fragrant fritillary	SOC/-/L1B	February-April	Grassland, often serpentinite. **Not seen during surveys.**
Hemizonia congesta ssp. *leucocephala* Hayfield tarplant	-/-/L1B	April-October	Grasslands. **Not seen during surveys.**
Horkelia tenuiloba Thin-lobed horkelia	-/-/L1B	May-July	Coastal scrub, chaparral, sandy soils, mesic openings. **Not seen during surveys. Typical habitat not present in project area.**
Lasthenia burkei Burke's goldfields	FE/CE/L1B	April-June	Meadows (mesic), vernal pools. **Not seen during surveys. Typical habitat not present.**
Lilium maritimum Coast lily	-/-/L1B	May-July	Freshwater marshes and swamps. **Not seen during surveys. Habitat not present.**
Limnanthes vinculans Sebastopol meadowfoam	FE/CE/L1B	April-May	Meadows, grasslands, vernal pools/ vernally mesic. **Not seen during surveys. Typical habitat not present.**
Linanthus acicularis Bristly linanthus	-/-/L4	April-July	Grasslands. **Not seen during surveys.**
Micropus amphibolus Mt. Diablo cottonweed	-/-/L4	April-May	Grasslands. **Not seen during surveys.**
Navarretia leucocephala ssp. *bakeri* Baker's navarretia	-/-/L1B	May-July	Grasslands, vernal pools. **Not seen during surveys.**
Perideridia gairdneri ssp. *gairdneri* Gardner's yampah	SOC/-/L4	June-October	Grasslands, vernal pools/mesic. **Not seen during surveys. Typical habitat not present.**
Plagiobothrys mollis var. *vestitus* Petaluma popcorn-flower	SOC/-/L1A	June-July	Grasslands (mesic). This plant is presumed extinct. **Not seen during surveys. Not likely to occur.**

Attachment A:

Special status plant species that could potentially occur within the Guerneville River Park project area based on the presence of potential habitat and a review of the California Natural Diversity Data Base and the California Native Plant Society's Inventory of Rare and Endangered Plants of California. June 21, 2004.

Scientific Name **Common Name**	**Status: Federal/ State/CNPS**	**Flowering Period**	**Habitat and Notes**
Pleuropogon hooverianus North coast semaphore grass	-/CR/L1B	May-August	Meadows, freshwater marshes and swamps. **Not seen during surveys. Typical habitat not present.**
Potentilla hickmanii Hickman's cinquefoil	FE/CE/L1B	April-August	Meadows (vernally mesic), freshwater marshes and swamps. **Not seen during surveys. Habitat not present.**
Ranunculus lobbii Lobb's aquatic buttrcup	-/-/L4	March-May	Grasslands, vernal pools/mesic. **Not seen during surveys.**
Rhynchospora californica California beaked-rush	-/-/L1B	July-August	Meadows, marshes and swamps. **Not seen during surveys. Habitat not present.**
Rhynchospora capitellata Brownish beaked-rush	-/-/L2	July-August	Medows, marshes and swamps. **Not seen during surveys. Habitat not present.**
Rhynchospora globularis var. *globularis* Round-headed beaked-rush	-/-/L2	July-August	Freshwater marshes and swamps. **Not seen during surveys. Habitat not present.**
Sidalcea oregana ssp. *valida* Kenwood Marsh checkerbloom	FE/CE/L1B	June-September	Freshwater marshes and swamps. **Not seen during surveys. Habitat not present.**
Stellaria littoralis Beach starwort	-/-/L4	March-July	Marshes and swamps. **Not seen during surveys. Habitat not present.**
Tracyina rostrata Beaked tracyina	-/-/L1B	May-June	Grasslands. **Not seen during surveys.**
Trifolium amoenum Showy Indian Clover	FE/-/L1B	April-June	Grasslands (sometimes serpentinite). **Not seen during surveys.**
Trifolium depauperatum var. *hydrophilum* Saline clover	-/-/L1B	April-June	Marshes and swamps, grasslands (mesic, alkaline), vernal pools. **Not seen during surveys. Typical habitat not present.**

Status:
- PE: Federally listed as potentially endangered.
- FE: Federally listed as endangered.
- SOC: Federally listed as a Species of Concern (SOC).
- CE: State listed as endangered.
- CR: State listed as rare.
- L1B: CNPS list of plants rare, threatened, or endangered in California and elsewhere.
- L1A: CNPS list of plants presumed extinct in California.
- L2: CNPS list of plants rare, threatened or endangered in California, but more common elsewhere.
- L3: CNPS list of plants about which more information is needed.
- L4: CNPS list of plants of limited distribution – a watch list.

An Archaeological Survey for the Guerneville River Park Guerneville, Sonoma County, California

Prepared by:

Sue-Ann Schroder, B.A.
and
Thomas M. Origer, M. A.

Tom Origer & Associates
Post Office Box 1531
Rohnert Park, California 94927
(707) 584-8200

Prepared for:

Mark Cleveland
Sonoma County Regional Parks
2300 County Center Drive, Suite 120A
Santa Rosa, CA 95403

April 23, 2004

ABSTRACT

Tom Origer & Associates conducted an archaeological survey of an 8.8-acre parcel along the south bank of the Russian River below the Highway 116 bridges, Guerneville, Sonoma County. The study was requested and authorized Sonoma County Regional Parks to meet the requirements of an environmental review for the proposed Guerneville River Park.

This study included archival research at the Northwest Information Center, Sonoma State University (NWIC File No. 03-723), examination of the library and files of Tom Origer & Associates, field inspection of the project location, and consultation with the Native American community. Field survey found no prehistoric or historic-period cultural resources. Documentation pertaining to this study is on file at the offices of Tom Origer & Associates (File No. 04-29S).

Synopsis

Project:	Guerneville River Park
Location:	South bank of Russian River under Highway 116 bridges, Guerneville
Quadrangles:	Guerneville and Camp Meeker 7.5' series
Study Type:	Intensive survey
Scope:	8.8 acres
Finds:	None

CONTENTS

ABSTRACT	i
Synopsis	i
INTRODUCTION	1
REGULATORY CONTEXT	1
Resource Definitions	2
Significance Criteria	2
PROJECT SETTING	3
Study Location and Description	3
Cultural Setting	3
STUDY PROCEDURES	5
Archival Study Procedures	5
Field Survey Procedures	6
STUDY FINDINGS	6
Archival Study Findings	6
Field Survey Findings	6
RECOMMENDATIONS	7
Known Resources	7
Accidental Discovery	7
SUMMARY	7
MATERIALS CONSULTED	8

FIGURES

Figure 1. Project vicinity	1
Figure 2. Study location	4

INTRODUCTION

This report describes an archaeological survey conducted for the proposed Guerneville River Park. Sonoma County Regional Parks requested and authorized the study to meet environmental review requirements. The study area consists of an 8.8-acre parcel located in the community of Guerneville, in west-central, Sonoma County (Figure 1). Documentation pertaining to this study is on file at Tom Origer & Associates (File No. 04-29S).

REGULATORY CONTEXT

The California Environmental Quality Act (CEQA) requires that cultural resources be considered during the environmental review process. This is accomplished by an inventory of resources within a study area and by assessing the potential that cultural resources could be affected by development.

This cultural resources survey was designed to satisfy environmental issues specified in the CEQA and its guidelines (Title 14 CCR §15064.5) by: (1) identifying all cultural resources within the project area; (2) offering a preliminary significance evaluation of the identified cultural resources; (3) assessing resource vulnerability to effects that could arise from project activities; and (4) offering suggestions designed to protect resource integrity, as warranted.

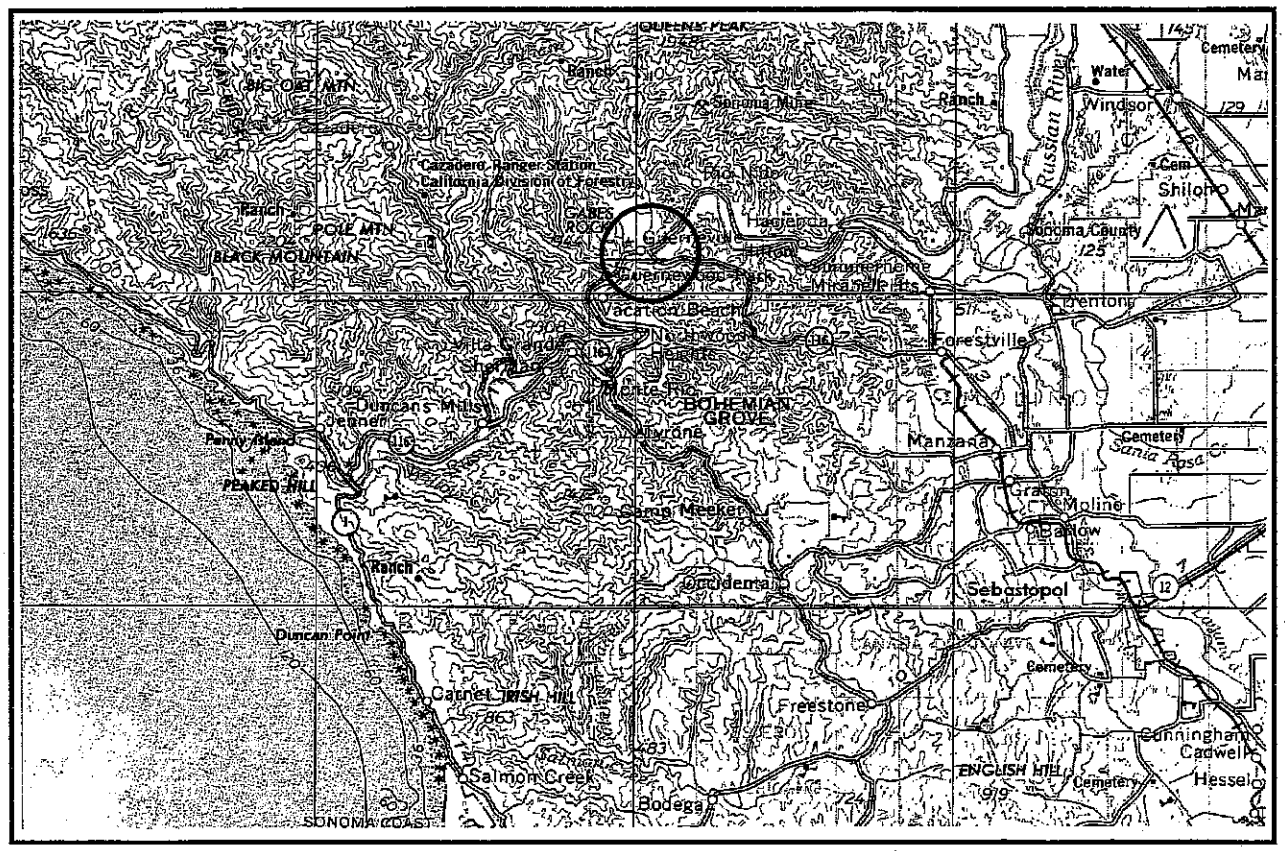


Figure 1. Project vicinity (adapted from the 1970 Santa Rosa 1:250,000-scale USGS map).

Resource Definitions

Cultural resources are classified by the State Office of Historic Preservation (OHP) as sites, buildings, structures, objects and districts, and each is described by OHP (1995) as follows.

> **Site.** A site is the location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself possesses historic, cultural, or archaeological value regardless of the value of any existing structure.
>
> **Building.** A building, such as a house, barn, church, hotel, or similar construction, is created principally to shelter any form of human activity. "Building" may also be used to refer to a historically and functionally related unit, such as a courthouse and jail, or a house and barn.
>
> **Structure.** The term "structure" is used to distinguish from buildings those functional constructions made usually for purposes other than creating human shelter.
>
> **Object.** The term "object" is used to distinguish from buildings and structures those constructions that are primarily artistic in nature or are relatively small in scale and simply constructed. Although it may be, by nature or design, movable, an object is associated with a specific setting or environment.
>
> **District.** A district possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development.

Significance Criteria

When a project might affect a cultural resource, the project proponent is required to conduct an assessment to determine whether the effect may be one that is significant. Consequently, it is necessary to determine the importance of resources that could be affected. The importance of a resource is measured in terms of criteria for inclusion on the California Register of Historical Resources (Public Resources Code §5024.1; Title 14 CCR, §4850.3) listed below. A resource may be important if it meets any one of the criteria below, or if it is already listed on the California Register of Historical Resources or a local register of historical resources.

An important historical resource is one which:

1. That are associated with events that have made a significant contribution to the broad patterns of our history; or

2. That are associated with the lives of persons significant in our past; or

3. That embody the distinct characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

4. That have yielded or may be likely to yield, information important in prehistory or history.

The California Office of Historic Preservation (OHP) suggests that all resources over 45 years old be recorded for inclusion in the OHP filing system (OHP 1995:2), although professional judgement is urged in determining whether a resource warrants documentation.

PROJECT SETTING

Study Location and Description

The study area is located along the south bank of the Russian River below the Highway 116 bridges, as shown on the Guerneville and Camp Meeker, California 7.5' USGS topographic quadrangles (Figure 2). It consists of an 8.8-acre parcel situated within Russian River floodplain. The relatively flat terrain gently slopes towards the Russian River.

Soils are of the Yolo series (Miller 1972:Sheets 63). Yolo soils are well-drained loams found on alluvial fans and flood plains. When uncultivated, these soils support the growth of annual and perennial grasses, forbs, wild berry vines, shrubs, and scattered oak trees (Miller 1972:88). Historically, parcels with these soils have been used for agricultural purposes, especially for orchards and vineyards.

The project's proximity to the Russian River would have provided seasonal aquatic resources, with soils that could have supported a variety of plants that in turn could have served as food and cover for animals. The presence of these natural attributes suggests that the study area could have been a desirable place for prehistoric occupants of the region to live or gather resources.

Cultural Setting

Archaeological evidence indicates that human occupation of California began at least 12,000 years ago (Fredrickson 1984:506). Early occupants appear to have had an economy based largely on hunting, with limited exchange, and social structures based on the extended family unit. Later, milling technology and an inferred acorn economy were introduced. This diversification of economy appears to be coeval with the development of sedentism and population growth and expansion. Sociopolitical complexity and status distinctions based on wealth are also observable in the archaeological record, as evidenced by an increased range and distribution of trade goods (e.g., shell beads, obsidian tool stone), which are possible indicators of both status and increasingly complex exchange systems.

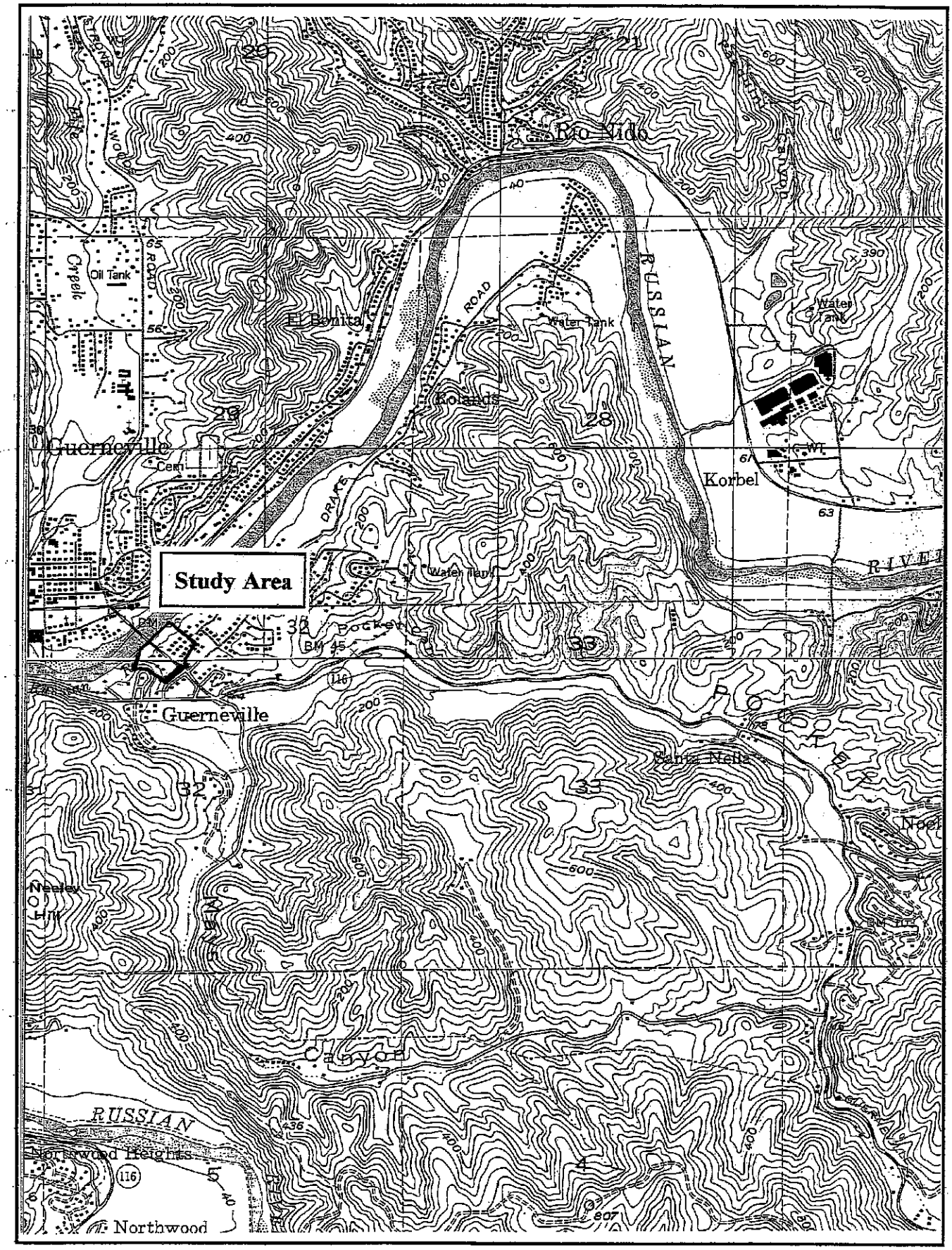


Figure 2. Study location (adapted from the USGS Guerneville 1997 and Camp Meeker 1971 7.5' maps).

At the time of European settlement, the study area was situated in an area controlled by the Southern Pomo (Barrett 1908; McLendon and Oswalt 1978). The Southern Pomo were hunter-gatherers who lived in rich environments with large carrying capacities that allowed for dense populations with complex social structures (Barrett 1908; Kroeber 1925). They settled in large, permanent villages about which were distributed seasonal camps and task-specific sites. Primary village sites were occupied continually throughout the year and other sites were visited in order to procure particular resources that were especially abundant or available only during certain seasons. Sites often were situated near fresh water sources and in ecotones where plant life and animal life were diverse and abundant. For more information about the Pomo see Bean and Theodoratus (1978), Kniffen (1939), and Stewart (1943).

Historically, the study area is situated within the lot #39 portion of the *Rancho El Molino* (General Land Office [GLO] 1857, 1864 and 1869). This tract of land was granted to Juan Bautista Roger Cooper, Mariano G. Vallejo's brother-in-law-in 1836. Logging was a major economic pursuit in this area and the nearby town of Guerneville, which developed around the sawmill established by George Guerne in the mid-1800s. Later, summer tourism reinvigorated the Russian River area.

STUDY PROCEDURES

Archival Study Procedures

Archival research included examination of the library and project files at Tom Origer & Associates. A review (NWIC File No. 03-723) was completed of the archaeological site base maps and records, survey reports, and other materials on file at the Northwest Information Center (NWIC), Sonoma State University, Rohnert Park. Sources of information included but were not limited to the current listings of properties on the National Register of Historic Places, California Historical Landmarks, California Register of Historical Resources, and California Points of Historical Interest as listed in the Office of Historic Preservation's *Historic Property Directory* (OHP 2003).

The Office of Historic Preservation has determined that structures in excess of 45 years of age should be considered potentially important historical resources, and former building and structure locations could be potentially important historic archaeological sites. Archival research included an examination of historical maps to gain insight into the nature and extent of historical development in the general vicinity, and especially within the study area. Maps ranged from hand-drawn maps of the 1800s (e.g., GLO) to topographic maps issued by the United States Geological Survey (USGS).

In addition, ethnographic literature that describes appropriate Native American groups, county histories, and other primary and secondary sources were reviewed. Sources reviewed are listed in the "Materials Consulted" section of this report.

Field Survey Procedures

The senior author completed an intensive field survey on April 21, 2004. The ground was examined by walking in a zigzag fashion within corridors about 15 to 20 meters wide. Visibility was generally poor, but in areas surrounding the paths was good. Annual grasses and brush were the chief hindrances. A hoe was used, as necessary, to clear small patches of vegetation so that the soil could be inspected.

Based on the results of the prefield research, it was anticipated that prehistoric and historic-period cultural resources could be found within the study area. Prehistoric archaeological site indicators expected to be found in the region include but are not limited to: obsidian and chert flakes and chipped stone tools; grinding and mashing implements such as slabs and handstones, and mortars and pestles; and locally darkened midden soils containing some of the previously listed items plus fragments of bone, shellfish, and fire affected stones. Historic period site indicators generally include: fragments of glass, ceramic, and metal objects; milled and split lumber; and structure and feature remains such as building foundations and discrete trash deposits (e.g., wells, privy pits, dumps).

STUDY FINDINGS

Archival Study Findings

Archival research indicated that there are no recorded archaeological sites within the study area. Previous surveys in the area found no archaeological sites that extend into the current study area (Archaeological Consulting and Research Services 1975, Carey & Co. 1998; Gross1984, Kelly 1989, Rondeau 1984, Origer 2003). However, the older Guerneville Bridge (Bridge No. 20-91) was determined eligible for the National Register of the Historic Places (Kelly 1989). There are no other local, state, or federally recognized historic properties within or near the study area (OHP 2003; Sonoma County Planning Department 1984; State of California Department of Parks and Recreation 1976).

Review of the ethnographic literature for this area found that Barrett (1908:214) discusses a reported village site at the town of Guerneville. One of Barrett's informants refers to the village of *ciyo'le* at Guerneville while other informants have stated that the vicinity of Guerneville was uninhabited.

Review of historical maps found no buildings depicted within the study area prior to 1954 (Bell and Heymans 1888; Bowers 1867; GLO 1857, 1864, 1869; McIntire and Lewis 1908; Peugh 1934; Reynolds and Proctor 1898; Thompson 1877; USGS 1954, 1955).

Field Survey Findings

No prehistoric-period archaeological resources were discovered within the study area. Remains of what looks to be a brick barbecue were located in the southwest portion of the

survey area, between the black-top walking path and the drainage, this structure, while an indication of recent historical period use of the area, is not archaeologically significant.

RECOMMENDATIONS

Known Resources

No important archaeological resources were discovered within the study area and no resource-specific recommendations are warranted. However, there is the possibility that buried resources could be present. The procedures described below should be followed if accidental discoveries are made during development.

Accidental Discovery

There is the possibility that buried archaeological deposits could be present, and accidental discovery could occur. In keeping with the CEQA guidelines, if archaeological remains are uncovered, work at the place of discovery should be halted immediately until a qualified archaeologist can evaluate the finds (§15064.5 [f]). Prehistoric archaeological site indicators include: obsidian and chert flakes and chipped stone tools; grinding and mashing implements (e.g., slabs and handstones, and mortars and pestles); bedrock outcrops and boulders with mortar cups; and locally darkened midden soils. Midden soils may contain a combination of any of the previously listed items with the possible addition of bone and shell remains, and fire affected stones. Historic period site indicators generally include: fragments of glass, ceramic, and metal objects; milled and split lumber; and structure and feature remains such as building foundations and discrete trash deposits (e.g., wells, privy pits, dumps).

The following actions are promulgated in the CEQA Guidelines Section 15064.5(d) and pertain to the discovery of human remains. If human remains are encountered, excavation or disturbance of the location must be halted in the vicinity of the find, and the county coroner contacted. If the coroner determines the remains are Native American, the coroner will contact the Native American Heritage Commission. The Native American Heritage Commission will identify the person or persons believed to be most likely descended from the deceased Native American. The most likely descendent makes recommendations regarding the treatment of the remains with appropriate dignity.

SUMMARY

Tom Origer & Associates conducted an archaeological survey of for an 8.8-acre parcel along the south bank of the Russian River below the Highway 116 bridges, Guerneville, Sonoma County. The study was requested and authorized by Sonoma County Regional Parks. No archaeological sites or isolated artifacts were found during this study.

MATERIALS CONSULTED

Archaeological Consulting and Research Services
1975 *Report of Archaeological Research and Field Reconnaissance of the Locations of Two Proposed Modifications of State Route 116. 04-Son-116 – 04204 – 152301. 3.12.* Document S-204 on file at the Northwest Information Center, Rohnert Park.

Barrett, S.
1908 *The Ethno-Geography of the Pomo and Neighboring Indians.* University of California Publications in American Archaeology and Ethnology Vol. 6, No. 1. University of California Press, Berkeley.

Bean, L. and D. Theodoratus
1978 Western Pomo and Northeast Pomo. In *California*, edited by R. Heizer, pp. 289-305, Handbook of North American Indians, Vol. 8, W. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Bell and Heymans
1888 Map of Sonoma County. Bell and Heymans, San Francisco.

Bowers, A.
1867 *Map of Sonoma County, California.* 2nd edition. A. Bowers.

Carey & Co., Inc.
1998 *Historic Architecture Survey, Guerneville, Monte Rio, and Rio Nido, Sonoma County, California.* Document on file at the Northwest Information Center, Rohnert Park.

Fredrickson, D.
1984 The North Coastal Region. In *California Archaeology*, edited by M. Moratto. Academic Press, San Francisco.

General Land Office
1857 Plat of the Molino Rancho. Department of the Interior, Washington, D.C.

1864 Survey Plat for T8N/R10W, MDBM. Department of the Interior, Washington, D.C.

1869 Survey Plat for T8N/R10W, MDBM. Department of the Interior, Washington, D.C.

Gross, R.
1984 *Historic Properties Survey Report: Proposed Replacement of Russian River Bridge No. 20-91 and modifications of Adjacent Roadways at Guerneville, Sonoma County 04-SON-116, 12.1/12.7.* Document S-6604 on file at the Northwest Information Center, Rohnert Park

Hoover, M., H. Rensch, E. Rensch, W. Abeloe
1966 *Historic Spots in California.* 3rd edition. Stanford University Press. Stanford.

Hoover, M., H. Rensch, E. Rensch, W. Abeloe, and D. Kyle
1990 *Historic Spots in California.* 4th edition, Stanford University Press. Stanford.

Kelly, M.
1989 *Negative Archaeological Survey Report Addendum #1. 04-Son-116. 12.1/12.7. 04232.* Document S-11381 on file at the Northwest Information Center, Rohnert Park

Kniffen, F.
1939 *Pomo Geography.* University of California Publications in American Archaeology and Ethnology, Vol. 36. Berkeley.

Kroeber, A.
1925 *Handbook of the Indians of California.* Bureau of American Ethnology, Bulletin 78, Smithsonian Institution, Washington, D.C.

McIntyre and Lewis
1908 Official Map of the County of Sonoma, California.

McLendon, S. and R. Oswalt
1978 Pomo: Introduction. In *California*, edited by R. Heizer, pp. 274-288. Handbook of North American Indians, Vol. 8, W. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Meighan, C.
1955 *Archaeology of the North Coast Ranges, California.* Reports of the University of California Archaeological Survey No. 30. University of California, Berkeley.

Miller, V.
1972 *Soil Survey of Sonoma County, California.* U.S. Department of Agriculture in cooperation with the University of California Agricultural Experiment Station.

Moratto, M.
1984 *California Archaeology.* Academic Press, San Francisco.

Office of Historic Preservation
1995 *Instructions for Recording Historic Resources.* Office of Historic Preservation, Sacramento.

2003 *Historic Property Directory.* Office of Historic Preservation, Sacramento.

Origer, T. and Vicki R. Beard
2003 *A Cultural Resources Survey of the Redwood Grove RV Park, 16140 Neely Road, Guerneville, Sonoma County, California.* Document on file at the Northwest Information Center, Rohnert Park

Reynolds, W. and T. Proctor
1898 *Illustrated Atlas of Sonoma County, California.* Reynolds and Proctor, Santa Rosa.

Rondeau, R.
1984 Negative Archaeological Survey Report for the construction of a new bridge across the Russian River. Document S-6440 on file at the Northwest Information Center, Rohnert Park

Sonoma County Planning Department
1984 *Sonoma County Landmarks.* Sonoma County Planning Department, Santa Rosa.

Soule, William E.
1979 *Cultural Resource Survey Report, Application 25939, of the Trefethen Property, Healdsburg, California.* Document S-1620 on file at the Northwest Information Center, Rohnert Park.

State of California Department of Parks and Recreation
1976 *California Inventory of Historic Resources.* Department of Parks and Recreation, Sacramento.

Stewart, O.
1943 *Notes on Pomo Ethnogeography.* University of California Publications in American Archaeology and Ethnology Vol. 40, No. 2. University of California Press, Berkeley.

Thompson, T.H. & Co.
1877 *Historical Atlas Map of Sonoma County, California.* T.H. Thompson & Co., Oakland.

United States Geological Survey
1954 Camp Meeker 7.5' map. Geologic Survey, Washington, D.C.

1955 Guerneville 7.5' map. Geologic Survey, Washington, D.C.

1971 Camp Meeker 7.5' map (photorevision of 1954 edition). Geologic Survey, Washington, D.C.

1973 Guerneville 7.5' map (photoinspection of 1955 edition). Geologic Survey, Washington, D.C.

MITIGATION MONITORING PROGRAM

Guerneville River Park

Pursuant to Section 21081.6 of the State CEQA Guidelines,[1] the mitigation measures listed in the Proposed Mitigation Monitoring Program (MMP) are to be implemented as part of the proposed project. The Proposed MMP identifies the time at which each mitigation measure is to be implemented and the person or department responsible for implementation. The initials of the designated responsible person will indicate completion of their portion of the mitigation measure. Regional Parks' Environmental Specialist or Park Planner's signature on the Certification of Compliance will indicate complete implementation of the Proposed MMP.

The mitigation measures included in the Proposed MMP are considered conditions of approval of the proposed project. Regional Parks agrees to implement the mitigation measures proposed in the MMP. Implementation of the mitigation measures included in the Proposed MMP is expected to avoid, minimize, rectify, reduce, or compensate potentially significant impacts to a less than significant level.

TIME OF IMPLEMENTATION

Project Design:	The mitigation measure will be incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.
Construction:	The mitigation measure will be implemented during construction.
Post Construction:	The mitigation measure will be implemented after project construction.

RESPONSIBLE PERSONS AND DEPARTMENTS

Regional Parks' Environmental Specialist and Project Planner will be responsible for the overall implementation of the MMP. Generally, Regional Parks' Environmental Specialist and Project Planner will sign off on the mitigation measures included in the MMP. Periodically, staff of other County departments or regulatory agencies will be involved in the implementation of specific mitigation measures. In these instances, the staff, department, or agency will be identified in the MMP.

CERTIFICATION OF COMPLIANCE

Regional Parks' Environmental Specialist and Park Planner will be responsible for providing signatures on the Certification of Compliance. The Certification of Compliance is a double-check to ensure that the MMP was fully implemented.

RECORD KEEPING

Regional Parks' Environmental Specialist and Project Planner will maintain the records of the MMP. When the MMP is fully implemented, the original signed copy will be maintained in the official Project Binder.

1 California Code of Regulations Title 14.

CERTIFICATION OF COMPLIANCE

Complete the Certification of Compliance after mitigation measures have all been initialed. Use this Certification of Compliance to ensure the full implementation of each mitigation measure.

Design

Regional Parks' Environmental Specialist and/or the Project Planner has reviewed the project design, the plans, and the contract special provisions to verify that designated mitigation measures have been incorporated.

_____

Regional Parks staff signature & job title *Date*

☐	BR1	Biological	☐	BR6	Biological	☐	HM1	Haz Mat
☐	BR2	Biological	☐	CR1	Cult. Resources	☐	HM2	Haz Mat
☐	BR3	Biological	☐	CR2	Cult. Resources	☐	N1	Noise
☐	BR4	Biological	☐	CR3	Cult. Resources	☐	N2	Noise
☐	BR5	Biological	☐	GS1	Soils			

Construction

Regional Parks' Environmental Specialist and/or the Project Planner has verified that designated mitigation measures were implemented during construction.

_____

Regional Parks staff signature & job title *Date*

☐	BR1	Biological	☐	CR1	Cult. Resources
☐	BR2	Biological	☐	CR2	Cult. Resources
☐	BR4	Biological	☐	CR3	Cult. Resources
☐	BR5	Biological	☐	GS1	Soils
☐	BR6	Biological	☐	N2	Noise

Post-Construction

Regional Parks' Environmental Specialist and/or the Project Planner has verified that designated mitigation measures were implemented after construction. Mitigation measures pertaining to maintenance activities have been forwarded to the Regional Parks maintenance department.

_____

Regional Parks staff signature & job title *Date*

☐	BR2	Biological
☐	BR3	Biological
☐	BR5	Biological
☐	BR6	Biological
☐	NI	Noise

AIR QUALITY

AQ1 *Project plans and specifications shall require that the contractor control dust generated by construction vehicles and equipment during all phases of construction. Dust shall be controlled by spraying water. Vehicles and equipment shall be maintained in good operating order and turned off when not in use to minimize exhaust emissions.*

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction by having a qualified staff person present during ground disturbing work.

Initials *Date*

BIOLOGICAL RESOURCES

BR1 *To avoid take of bats during ground disturbance the following measures shall be implemented:*

- *Emergence surveys shall be conducted prior to construction by a qualified bat biologist. If no bats are observed emerging from the holes in the bridge no further action is required.*
- *If bats are observed emerging from the holes in the bridge during emergence surveys, construction under the bridge shall be delayed until August when bats may be safely evicted by a bat biologist from the holes.*
- *If bats are present and construction under the bridge cannot be delayed until after bat eviction in August, no staging areas shall be placed underneath the Highway 116 Bridge, no exhaust fumes shall be allowed to rise into the weep holes, no idling machines shall be allowed in proximity to the weep holes, and no work at night shall be allowed near the bridge.*

As an alternative mitigation, if no surveys are conducted and bat presence is assumed, construction under the bridge shall be delayed until after bat eviction in August. If construction cannot be delayed, emergence surveys shall be required.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction by ensuring that emergence surveys have been conducted or by having a qualified staff person present during ground construction work under the Highway 116 bridge.

Initials *Date*

BR2 *Regional Parks will design, construct, and operate proposed improvements to avoid impacts to the riparian forest, including riparian understory, to the maximum extent possible. Where avoidance is not possible, Regional Parks will replace the permanent loss of mixed riparian forest habitat on-site at a minimum ratio of 3:1 (replacement to loss) to create a high quality willow riparian habitat. Regional Parks will coordinate on-site mixed riparian forest mitigation with the appropriate regulatory agencies, such as the CDFG and USACE.*

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction by having a qualified staff person present during ground disturbing work.

Initials *Date*

Post-Construction: Regional Parks staff will verify that the mitigation measure is implemented after construction by inspecting and monitoring any replacement planting for a period of five years.

Initials *Date*

BR3 *If any elements of the final design of the River Park fall below the OHWM, visually estimated at the 16 foot NGVD elevation, Regional Parks will submit a request for a jurisdictional determination to the USACE. It the USACE determines that project elements are within its jurisdiction, Regional Parks will apply for Section 404 Certification from the USACE and Section 401 Certification from the Regional Board.*

Implementation & Monitoring

Project Design: Regional Parks staff will obtain Section 401 and 404 Certification prior to any construction within the ordinary high water mark.

Initials *Date*

Post-Construction: Regional Parks staff will ensure that any mitigation measures associated with Section 401 and 404 Certification permit issuance is complied with.

Initials *Date*

BR4 *To avoid take and/ or further evaluate presence or absence of raptors, all of the following measures shall be implemented:*

- *Grading in the vicinity of or removal of potential nesting trees shall be conducted outside the nesting season, which occurs between approximately March 15 and July 31.*
- *A pre-construction nesting raptor survey of the trees within the project area shall be performed by a qualified biologist. If no nesting raptors are observed no further action is required and grading may occur within one week of the survey to prevent take of individual raptors that may have begun nesting after the survey.*
- *If raptors are observed nesting on-site after March 15, it shall be assumed that they are nesting adjacent to the site. The CDFG Central Coast Regional office allows grading to occur if nesting raptors are observed on-site, providing that a 200-foot buffer zone is created around the observed nest to prevent disturbance and ultimately take of young. Once the young have fledged away from the nest, construction may take place within the buffer zone.*
- *Nesting bird surveys for raptors and passerines may occur at the same time, after February 15.*

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

_____

Initials *Date*

Construction: Regional Parks staff will verify that appropriate surveys have occurred or that construction will occur outside of the nesting period.

_____

Initials *Date*

Post-Construction: Regional Parks staff will verify that the mitigation measure is implemented after construction by inspecting the project site during routing park monitoring and maintenance and noting surface conditions.

_____

Initials *Date*

BR5 *To avoid take and/ or further evaluate presence or absence of passerines, the following measures shall be implemented:*

- *Grading or removal of nesting trees shall be conducted outside the nesting season, which occurs between approximately March 15 and July 31.*
- *If grading before March 15 is infeasible and groundbreaking must occur within the breeding season, a pre-construction nesting passerine survey of the grasslands and adjacent trees shall be performed by a qualified biologist. If no nesting passerines are observed no further action is required and grading shall occur within one week of the survey to prevent take of individual passerines that may have begun nesting after the survey.*
- *If passerines are observed on-site after March 15, the nesting tree shall be identified and a buffer of 75 feet shall be placed around the nesting tree. No disturbance shall occur within the buffer area until after the young have fledged, as determined by passerine surveys by a qualified biologist, or after the nesting season.*
- *Nesting bird surveys for raptors and passerines may occur at the same time, after February 15.*

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that appropriate surveys have occurred or that construction will occur outside of the nesting period.

Initials *Date*

Post-Construction: Regional Parks staff will verify that the mitigation measure is implemented after construction by inspecting the project site during routing park monitoring and maintenance and noting surface conditions.

Initials *Date*

BR6 *Regional Parks will clearly identify trees that will require removal for development on construction drawings. The contractor will be required to clearly mark in the field the trees that will be removed for improvements. Regional Parks will clearly identify the protected perimeter of any native trees on the construction drawings. The protect perimeter is defined in Sonoma County Ordinance No. 4014 as the tree dripline. The following measures will be followed during construction of the project:*

- *The contractor shall be required to place temporary protective fencing at the outermost edge of the protected perimeter of each tree or group of trees to be protected. Protective fencing will be placed prior to commencement of construction and will remain in place until all construction related activities are complete. The contractor will be required to avoid disturbance within the protected perimeter during construction of the proposed project. Construction related activities including storing equipment, chemicals, spoil materials, trash, parking vehicles or equipment, shall not take place within the protective fencing.*
- *The contractor shall be required to perform all tree trimming and branch removal in accordance with the International Society of Arborists Tree Pruning Guidelines, adopted in 1995. These standards require that: (a) branches are cut cleanly, utilizing pruning shears, loppers, or a fine tooth saw that cuts on the pull stroke; (b) branches are cut just outside the branch bark ridge or at the callus shoulder, and at a point of junction with*

another branch to avoid leaving a limb section without live leaf support; (c) climbing spurs cannot be worn when performing work on any tree; and, (d) trees will not be "headed".

- *Regional Parks staff may require a certified arborist to be on-site to direct pruning cuts on large limbs and to ensure that necessary pruning cuts are made to balance the weight of the tree.*
- *The contractor shall be required to report any damage to protected trees that occurs during, or as a result of, project construction to Regional Parks staff. If a protected tree is damaged so that it cannot be preserved in a healthy state, the tree will be replaced in accordance with the Arboreal Value Chart included in Sonoma County Ordinance No. 4014.*

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

_____

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction by having a qualified staff person present during work adjacent to protected trees.

_____

Initials *Date*

Post-Construction: Regional Parks staff will verify that the mitigation measure is implemented after construction by inspecting and monitoring any replacement planting for a period of five years.

_____

Initials *Date*

BR7 *Replace vegetation removed during construction activities that is not protected by Ordinance 4014. Specifically, replace non-protected trees removed in kind at a 3:1 ration. Disturbed areas will be reseeded with a native seed mix.*

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction by having a qualified staff person present direct replanting.

Initials *Date*

Post-Construction: Regional Parks staff will verify that the mitigation measure is implemented after construction by inspecting and monitoring any replacement planting for a period of five years.

Initials *Date*

BR8 *Trees to be removed for construction of the Guerneville River Park will be retained on-site as near as possible to the downed location. Downed tree retention will provide additional wildlife habitat.*

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction by having a qualified staff person direct placement of downed trees.

Initials *Date*

CULTURAL RESOURCES

CR1 *The project plans and specifications shall provide that in the event prehistoric-era or historic-era archaeological site indicators are unearthed during the course of grading, excavation and/or trenching, all ground disturbing work in the vicinity of the discovery shall cease and all exposed materials shall be left in place. Prehistoric-era archaeologic site indicators could include chipped chert and obsidian tools and tool manufacture waste flakes, grinding implements such as mortars and pestles, and locally darkened soil containing the previously mentioned items as well as fire altered stone and dietary debris such as bone and shellfish fragments. Historic-era archaeologic site indicators could include items of ceramic, glass and metal, and features such as structural ruins, wells and pits containing such artifacts. After cessation of excavation, the contractor shall immediately contact Regional Parks. Regional Parks shall contact a qualified professional archaeologist immediately after the find. Such archaeologist shall conduct an evaluation of significance of the site, and assess the necessity for appropriate mitigation. The contractor shall not resume construction activities until authorization to proceed is received from Regional Parks.*

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction by having a qualified staff person present during ground disturbing work.

Initials *Date*

CR2 *The project plans and specifications shall provide that in the event paleontological site indicators are unearthed during the course of grading, excavation and/or trenching, all ground disturbing work in the vicinity of the discovery shall cease and all exposed materials shall be left in place. After cessation of excavation, the contractor shall immediately contact Regional Parks. Regional Parks shall contact a qualified professional geologist or paleontologist immediately after the find. Such consultant shall conduct an evaluation of significance of the site, and assess the necessity for appropriate mitigation. The contractor shall not resume construction activities until authorization to proceed is received from Regional Parks.*

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction by having a qualified staff person present during ground disturbing work.

Initials *Date*

CR3 *If human remains are encountered during grading, excavation or trenching, all construction activity shall cease and the contractor shall immediately contact Regional Parks and the Sonoma County Coroner's Office. If the remains are determined by the Coroner's Office to be of Native American origin, the Native American Heritage Commission shall be contacted and the procedures outlined in CEQA §15064.5(e) shall be implemented by Regional Parks or their designee.*

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

_____

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction by having a qualified staff person present during ground disturbing work.

_____

Initials *Date*

GEOLOGY & SOILS

GS1 *Erosion control measures that follow Best Management Practices shall be incorporated into the plans and specifications. The Bay Area Regional Water Quality Control Board publishes an Erosion and Sediment Control Field Manual which describes such practices. Specifically, the project shall preserve existing vegetation where possible, and use a stabilized construction access way. Additionally, silt fences and straw bale barriers will be utilized during rainfall events to prevent offsite erosion.*

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction by having a qualified staff person check implementation of specified erosion control measures.

Initials *Date*

HAZARDS/HAZARDOUS MATERIALS

HM1 *The contractor will be required to prepare, submit, and implement a spill prevention plan for any construction of the proposed project. The contractor will be required to store all flammable liquids be in compliance with the Sonoma County Fire Code and section 7-1.01G of the Caltrans Standard Specification (or the functional equivalent) for the protection of surface waters. The contractor shall be required to follow the provisions of §5163 through §5167 of the General Industry Safety Orders (California Code of Regulations, Title 8) to protect the project area from being contaminated by accidental release of any hazardous materials. If hazardous materials are encountered during construction, the contractor shall halt construction immediately, notify Regional Parks, and implement remediation in accordance with the project specifications and applicable requirements of the North Coast Regional Water Quality Control Board. Disposal of all hazardous materials shall be in compliance with current California hazardous waste disposal laws.*

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Pre-construction: Regional Parks staff will verify that the mitigation measure is implemented by reviewing and approving the spill prevention plan submitted by the contractor.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction.

Initials *Date*

HM2 *The contractor will be required to dispose of petroleum-based products in accordance with applicable laws and regulations. If a spill should occur, the contractor will be required to immediately call 9-1-1 and report the spill to the appropriate authority. The contractor will be prohibited from conducting vehicle and equipment repair and maintenance on-site.*

Sonoma County Regional Parks Department operations and maintenance crews will be required to dispose of petroleum-based products in accordance with applicable laws and regulations. If a spill should occur, Regional Parks staff will immediately call 9-1-1 and report the spill to the appropriate authority. Regional Parks staff will be prohibited from conducting vehicle and equipment repair and maintenance on-site.

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction.

Initials *Date*

Post-construction: Regional Parks staff will verify that the mitigation measure is implemented during maintenance activities.

Initials *Date*

HM3 *The contractor will be required to conduct inspections and maintenance, according to current regulations, of portable toilet facilities used during construction. The contractor will be required to conduct routine waste removal to ensure that effluent spills are avoided or minimized.*

Regional Parks staff or agent will be required to conduct inspections and maintenance, according to current regulations, of portable toilet facilities used during project operation. Regional Parks staff or agent will ensure that routine waste removal is conducted so that effluent spills are avoided or minimized.

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction.

Initials *Date*

Post-construction: Regional Parks staff will verify that the mitigation measure is implemented during maintenance activities.

Initials *Date*

HM2 *The project plans and specifications shall require that construction vehicles and equipment have appropriate exhaust systems and/or spark-arresting devices installed.*

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

NOISE

N1 *To reduce noise levels generated by the project to generally comply with the standards in Table NE-2, the following measures should be included in the design of the project. Noise barriers or earth berms are not feasible mitigation measures because the project is located in a floodway or floodplain area. Therefore, the following alternative procedures are designed to reduce the potential for violations of NE-2, however even with the proposed strategies, noise levels could occasionally exceed the County's noise limits. The intent of these measures is to reduce the potential for exceedances as much as is practical.*

- *Install signage in the parking areas to encourage visitors to be considerate of the neighbors, including the use of portable radios and boom-boxes. Park rules prohibit excessively loud and/or amplified music.*

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Post-Construction: Regional Parks staff will verify that the mitigation measure is implemented after construction during routing park monitoring and responding to noise complaints.

Initials *Date*

N2 *The following measures should be implemented at the construction site to reduce the effects of construction noise on adjacent residential land uses:*

- *Noise-generating activities at the construction site or in areas adjacent to the construction site associated with the project in any way should be restricted to the hours 7:00 a.m. to 7:00 p.m., Monday through Friday. No construction activities should occur on Saturdays, Sundays, or holidays except in emergencies or by special arrangement.*
- *Equip all internal combustion engine driven equipment with intake and exhaust mufflers which are in good condition and appropriate for the equipment.*
- *Unnecessary idling of internal combustion engines should be strictly prohibited.*
- *Avoid staging of construction equipment within 200 feet of residences and locate all stationary noise-generating construction equipment, such as air compressors and portable power generators, as far practical from existing noise sensitive receptors. Construct temporary barriers (e.g., temporary plywood screens) to screen stationary noise generating equipment when located in areas adjoining noise sensitive land uses.*
- *Utilize "quiet" air compressors and other stationary noise sources where technology exists.*
- *Control noise from construction workers' radios to the point where they are not audible at existing residences bordering the project site.*
- *The contractor shall notify adjacent residents to the project site of the construction schedule in writing.*
- *Designate a "noise disturbance coordinator," the Regional Parks Department Project Manager, who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and would require that reasonable measures warranted to correct the problem be implemented. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule.*

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

_____

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction and respond to noise complaints.

_____

Initials *Date*

Appendix H

Mitigated Negative Declaration Public Review Period

Introduction

The California Environmental Quality Act (CEQA) requires public notice and review of the proposed Mitigated Negative Declaration, including the Initial Study. The public review period for the proposed Riverfront Park Project Mitigated Negative Declaration, Initial Study, and Master Plan was between August 10 – September 10, 2004. The Regional Parks Department mailed postcard notification to all parties on the project mailing list to notify interested parties of the public review period in addition to filing a Notice of Completion with the State Clearinghouse, Office of Planning and Research. The Notice of Intent to adopt a Mitigated Negative Declaration was filed with the Sonoma County Clerk.

This Appendix H is added to the Guerneville River Park Initial Study document. It includes a summary of the comments received during the public review period, Regional Parks Department responses to those comments, and copies of the actual written correspondence received during the public review period. In this Appendix, the term "document" refers to the Initial Study and Proposed Negative Declaration.

CEQA requires that comments on the proposed Negative Declaration be considered before approving a project, but does not require the Lead Agency to prepare formal responses to comments on the proposed Negative Declaration. This Appendix is being provided to the Sonoma County Board of Supervisors so that it may be considered along with the Initial Study and Proposed Negative Declaration prior to approving the project, in accordance with the requirements of the California Environmental Quality Act (CEQA).[1] The purpose of this Appendix is to document the determination of the Regional Parks Department that none of the comments received associated with the Guerneville River Park Initial Study and Proposed Negative Declaration would affect the conclusion that there are no potential significant environmental effects or would result in significant changes to the document.

The only change to the Initial Study is to remove the shower from the proposed restroom/shower building. The restroom is still proposed. This change would not result in potential significant environmental effects that have not already been analyzed in the document.

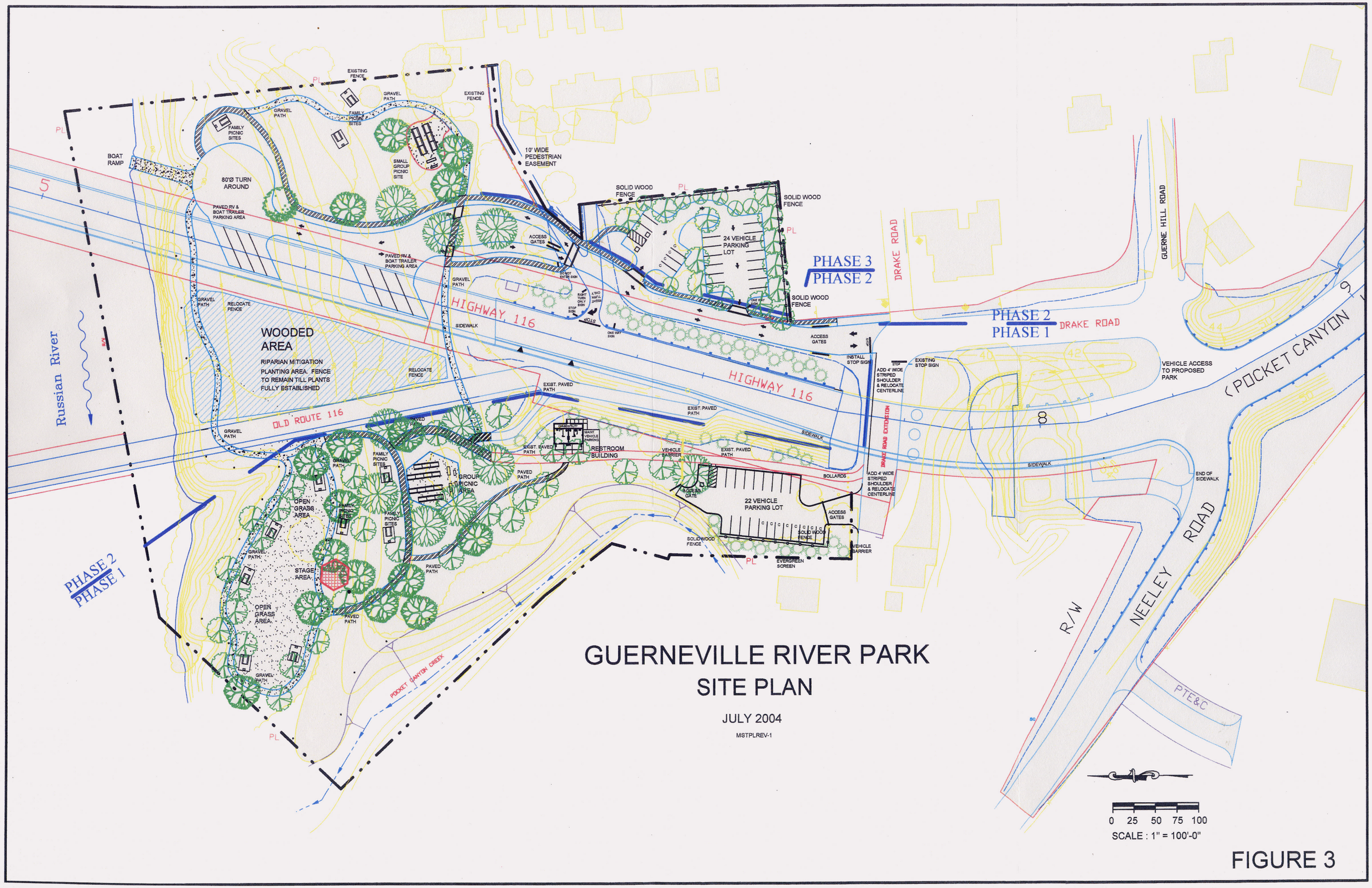
Comment Letters Received (attached)

Terry Roberts, State Clearinghouse F-7
Robert W. Floerke, CA Department of Fish & Game H-9
Timothy C. Sable, CalTrans H-11
Captain Dave Sederholm, Sonoma County Sheriff's Department H-13
Lisa Posternak, Sonoma County Permit & Resource Management H-14
Helen Prielipp H-15
Terri Costerouse H-16
David D. Davis H-17
Lynn Crescione H-18
Michael G. Miller H-19

Form Letters

Total of 25 sent. Some signatures are not fully legible, so names are not listed here.
All form letters received are reproduced in this Appendix. ..... H-20 - 44

[1] CEQA Guidelines Section 15074. Public Resources Code Section 21091(f).


GUERNEVILLE RIVER PARK
SITE PLAN
JULY 2004
MSTPLREV-1
FIGURE 3
SCALE : 1" = 100'-0"
0 25 50 75 100
Russian River
HIGHWAY 116
OLD ROUTE 116
DRAKE ROAD
GUERNE HILL ROAD
POCKET CANYON
NEELEY ROAD
R/W
PTE&C
POCKET CANYON CREEK
PHASE 3
PHASE 2
PHASE 2
PHASE 1
PHASE 2
PHASE 1
WOODED AREA
RIPARIAN MITIGATION PLANTING AREA. FENCE TO REMAIN TILL PLANTS FULLY ESTABLISHED
BOAT RAMP
80'Ø TURN AROUND
PAVED RV & BOAT TRAILER PARKING AREA
FAMILY PICNIC SITES
SMALL GROUP PICNIC SITE
GROUP PICNIC AREA
GRAVEL PATH
EXISTING FENCE
RELOCATE FENCE
10' WIDE PEDESTRIAN EASEMENT
SOLID WOOD FENCE
24 VEHICLE PARKING LOT
22 VEHICLE PARKING LOT
ACCESS GATES
SIDEWALK
EXIST. PAVED PATH
PAVED PATH
RESTROOM BUILDING
VEHICLE BARRIER
BOLLARDS
EVERGREEN SCREEN
INSTALL STOP SIGN
EXISTING STOP SIGN
ADD 4' WIDE STRIPED SHOULDER & RELOCATE CENTERLINE
VEHICLE ACCESS TO PROPOSED PARK
END OF SIDEWALK
OPEN GRASS AREA
STAGE AREA
PL