United States Department of Agriculture (USDA), Animal Plant Health Inspection Service (APHIS)

National Ornamentals Research Site Dominican University of California (NORS-DU)

San Rafael, California

Environmental Assessment (EA) December 2009

FINAL

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Prepared by:

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United States Department of Agriculture (USDA), Animal Plant Health Inspection Service (APHIS)

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San Rafael, California

Environmental Assessment (EA) DECEMBER 2009

FINAL

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United States Department of Agriculture (USDA),

Animal Plant Health Inspection Service (APHIS)

National Ornamentals Research Site

Dominican University of California (NORS-DU)

San Rafael, California
FINAL

Environmental Assessment (EA)
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EXECUTIVE SUMMARY

An Environmental Assessment (EA) has been conducted to evaluate environmental impacts arising from the construction of two proposed National Ornamentals Research Sites at Dominican University of California (NORS-DU) campus. This EA was completed in accordance with the National Environmental Policy Act (NEPA) of 1969 (Public Law [P.L.] 90-190, 42 U.S. Code [U.S.C.] 4321 et seq.), as amended in 1975 by P.L. 94-83 and the regulations established by the Council on Environmental Quality (CEQ) (40 Code of Federal Regulations [CFR] 1500-1508) (CEQ, 2009) and the United States Department of Agriculture (USDA).

Based on the analysis of baseline conditions and the anticipated impacts associated with the Proposed Action, this EA concludes that no significant impacts to the environmental conditions of the Dominican University campus and/ or the surrounding community will result from the proposed construction. In accordance with the findings of this EA and relevant executive orders and requirements, it is anticipated that a Finding of No Significant Impact (FONSI) shall be issued regarding U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service's (APHIS) intent to complete the plans set forth in the Proposed Project.

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USDA APHIS, NORS-DU

Final Environnemental Assessment

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H CEQA Exemptions from the California Department of Food and Agriculture

List of Acronyms

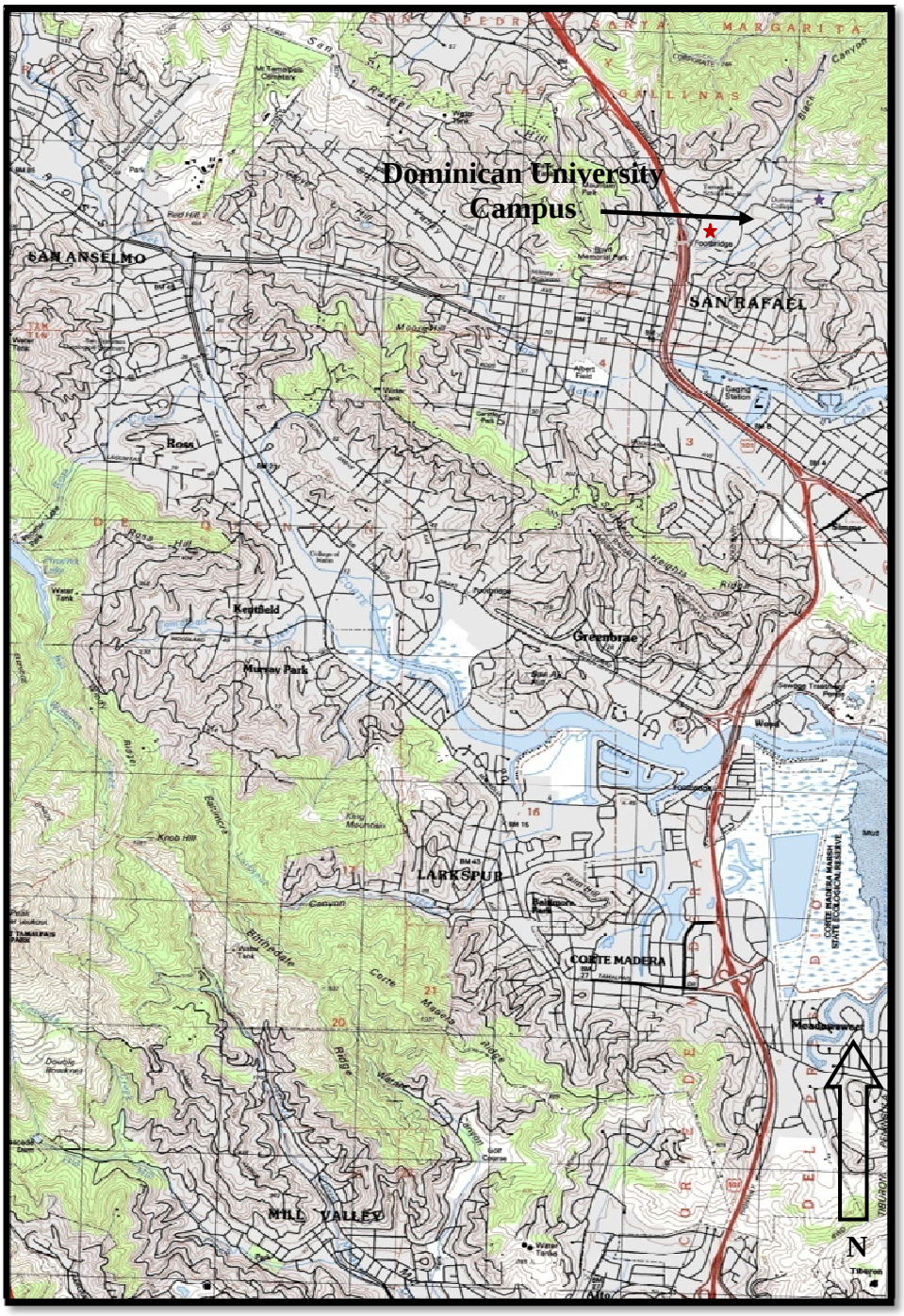
Air Resource Board	ARB
Animal Plant Health Inspection Service	APHIS
Association of Bay Area Governments	ABAG
Bay Area Air Quality Management District	BAAQMD
before the present	B.P.
Best Management Practice	BMP
California Department of Fish and Game	CDFG
California Department of Food and Agriculture	CDFA
California Division of Mines and Geology	CDMG
California Environmental Quality Act	CEQA
Categorical Exclusion	CX
California Natural Diversity Database	CNDDB
Clean Air Act	CAA
Clean Water Act	CWA
Code of Federal Regulations	CFR
Community Environmental Response Facilitation Act	CERFA
Comprehensive Environmental Response, Compensation, and Liability Act	CERCLA
Department of the Interior	DOI
Dominican University	DU
Environmental Assessment	EA
Environmental Impact Statement	EIS
Events Management Office	EMO
Events Management Plan	EMP
Executive Order	E.O.
Federal Emergency Management Agency	FEMA
Federal Endangered Species Act	FESA
Federal Insecticide, Fungicide, and Rodenticide Act	FIFRA
Finding of No Significant Impact	FONSI
Flood Insurance Rate Map	FIRM
Health and Safety Code	H&SC
mean sea level	MSL
Milligram per cubic meter	mg/m^3
most-likely-decedents	MLD

Municipal solid waste	MSW
National Ambient Air Quality Standards	NAAQS
National Environmental Policy Act	NEPA
National Oceanic and Atmospheric Administration	NOAA
National Ornamental Research Sites	NORS
National Ornamental Research Sites at Dominican University	NORS-DU
National Pollutant Discharge Elimination System	NPDES
Native American Heritage Commission	NAHC
Notice of Intent	NOI
Occupational Safety & Health Act	OSHA
Particulate matter	PM
Parts per million	ppm
Planned Development	PD
Regional Water Quality Control Board	RWQCBS
Resource Conservation and Recovery Act	RCRA
Safe Drinking Water Act	SDWA
San Rafael Fire Department	SRFD
Sound Level, day-night average	Ldn
Special Needs Request	SNR
State Historic Preservation Office	SHPO
State Water Resources Control Board	SWRCB
sudden oak death	SOD
Superfund Amendments and Reauthorization Act	SARA
Total Maximum Daily Load	TMDL
Toxic Substances Control Act	TSCA
Traffic Management Plan	TMP
United State Department of Agriculture	USDA
United States Fish and Wildlife Service	USFWS
Weighted decibel measurement	dBA

1. INTRODUCTION

Dominican University of California is an independent university of Catholic heritage located on 80 wooded acres in San Rafael, (Marin County), California, 12 miles north of the Golden Gate Bridge (50 Acacia Avenue, San Rafael, California, 94901), see Figure 1.1 and 1.2 for campus vicinity map and campus map.

The United State Department of Agriculture (USDA), Animal Plant Health Inspection Service (APHIS) in coordination with Dominican University (DU) of California are planning two separate National Ornamental Research Sites at Dominican University (NORS-DU) both with the same mission of researching plant pathogens and pests at the Dominican College Campus in San Rafael, California. Two sites have been selected and are identified as Upper Deer Park and Forest Meadows. The Upper Deer Park site is north east of the main campus, and is described as a woodland area backed by a gently west facing slope that rises to a steep slope, and then to a ridge (Dominican, 1997). Upper Deer Park is split into three areas (See Figure 1.3- Upper Deer Park Site Layout and Figures 1.3 and 1.4: Upper Deer Park Site photos), Area 1 and Area 2 are planned to be developed first. Area 3 would be developed as needed once the research program is functional and a need for expansion is determined. Upper Deer Park is bordered by an intermittent stream which is a tributary of Sisters Creek that runs during the rainy season. Area 1 is approximately .25 acres; the area is topped with local grasses and weeds, and is bordered by eucalyptus and bay trees.

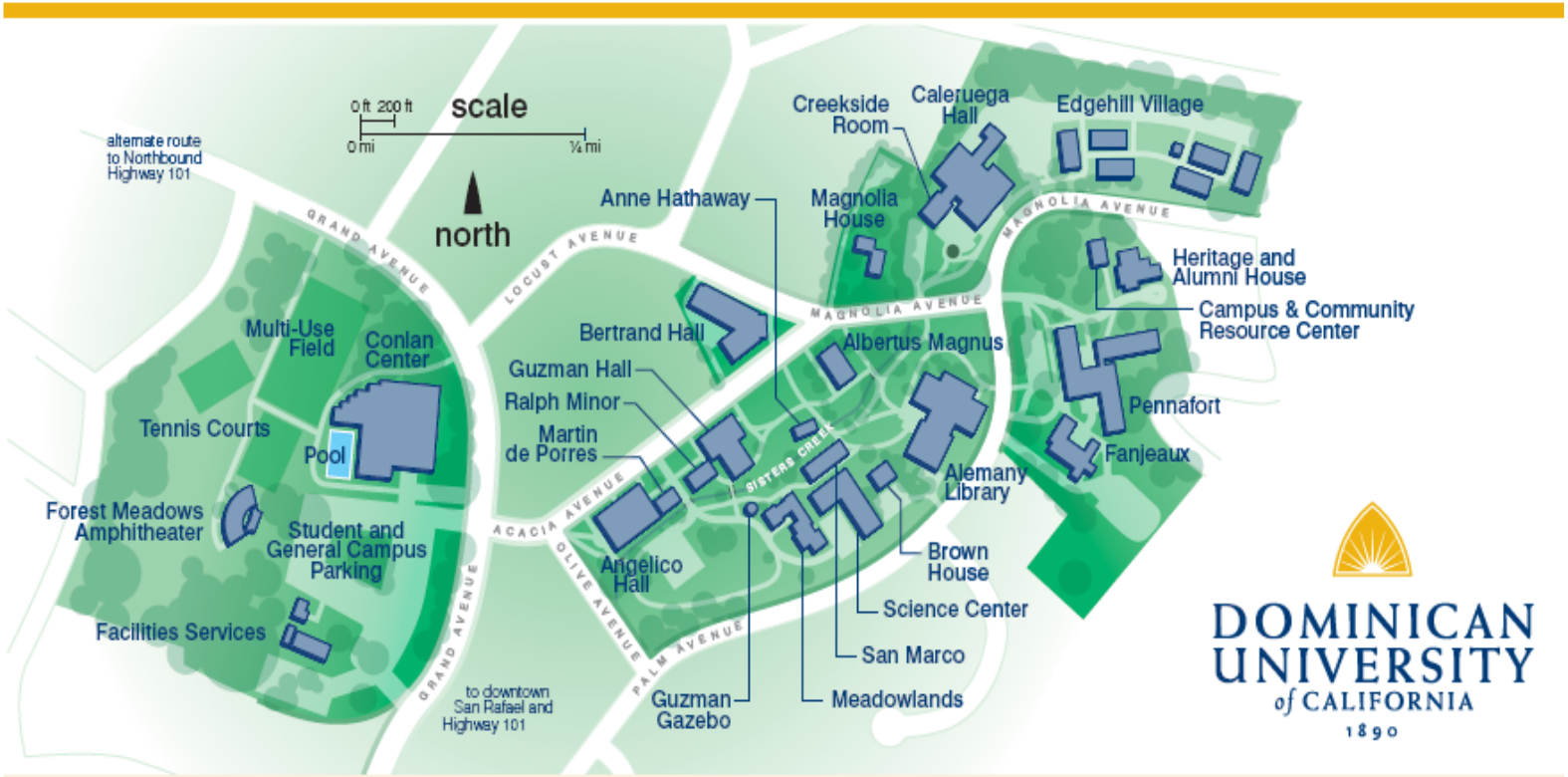


Approximate Scale: 1:24,000

Source:

USCS 7.5 Minute Topographic Map, San Rafael Quadrangle, 1993

Figure 1.1: NORS-DU Vicinity Map Lat: 37.9800/ Long: 122.5139	LEGEND: ★ Upper Deer Park Site ★ Forest Meadow Site



Academic Affairs	Guzman Hall	Campus Ministry	Pennafort Hall	Guzman Lecture Hall	Guzman Hall	Public Relations	Guzman Hall
Academic Support Services	Bertrand Hall	Career Services	Campus and Community Resource Center	Gymnasium	Conlan Center	Purchasing	Bertrand Hall
Admissions	Bertrand Hall	Chapel	Pennafort Hall	Health Center	Bertrand Hall	Registrar	Bertrand Hall
Alumni Relations	Guzman Hall	Chilly's Café	Caleruega Hall	Housing Office (Residential Life)	Pennafort Hall	Residence Halls	Edgehill Village, Fanjeaux, Meadowlands, and Pennafort
Annual Fund	Guzman Hall	Computer Labs	Alemany Library	Human Resources	Bertrand Hall	Security Desk	Bertrand Hall
Art Gallery	Alemany Library	Counseling Services	Bertrand Hall	Information Technology	Alemany Library	Shield Room	Caleruega Hall
School of Arts and Sciences	Guzman Hall	Creekside Room	Caleruega Hall	Institutional Advancement	Guzman Hall	Student Life	Anne Hathaway
ASDUC (Associated Students of Dominican University of California)	Fanjeaux Hall	Deliveries	Bertrand Hall	Mail Services	Bertrand Hall	Suzuki School of Music	Angelico Hall
Athletics Offices	Conlan Center	School of Education	Bertrand Hall	Marketing	Guzman Hall	Swimming Pool	Conlan Center
Bon Appétit	Caleruega Hall	ELS Language Centers	Pennafort Hall	Nursing Labs	Martin de Porres and Ralph Minor	Teaching and Learning Center	Bertrand Hall
Bookstore	Fanjeaux Hall	Events Management	Facilities Services	Photocopying	Bertrand Hall		
School of Business and Leadership	Bertrand Hall	Financial Aid	Bertrand Hall	President	Guzman Hall		
Business Services	Bertrand Hall	Fitness Center	Conlan Center	Provost	Guzman Hall		

See reverse for regional maps, directions, and parking.

Figure 1.2: Dominican University Campus Map

Areas 1 and 2 have were historically used by the university as a place to store excess soil from various campus projects which has caused the topography of the areas to be somewhat uneven and sloped. Area 1 slopes gently upward to the bordering west facing slope. Area 2, approximately .26 acres, broken into two wide and low mounds separated by a shallow natural ditch that water washes through during rain events. Like Area 1, Area 2 is topped with local grasses and weeds, and is bordered by eucalyptus and bay trees. Area three is behind and slightly to the left of Area 2, accessible by walking through Area 2. Area 3 is approximately .36 acres and is sunken below the natural elevation of the site. Area 3 is more densely topped with local grasses and weeds and is slightly more wooded then Areas 1 and 2. Because of its lower elevation which makes natural drainage of the site difficult, site access, and its more dense vegetative cover, Area 3 is considered now for future expansion site if it is needed.

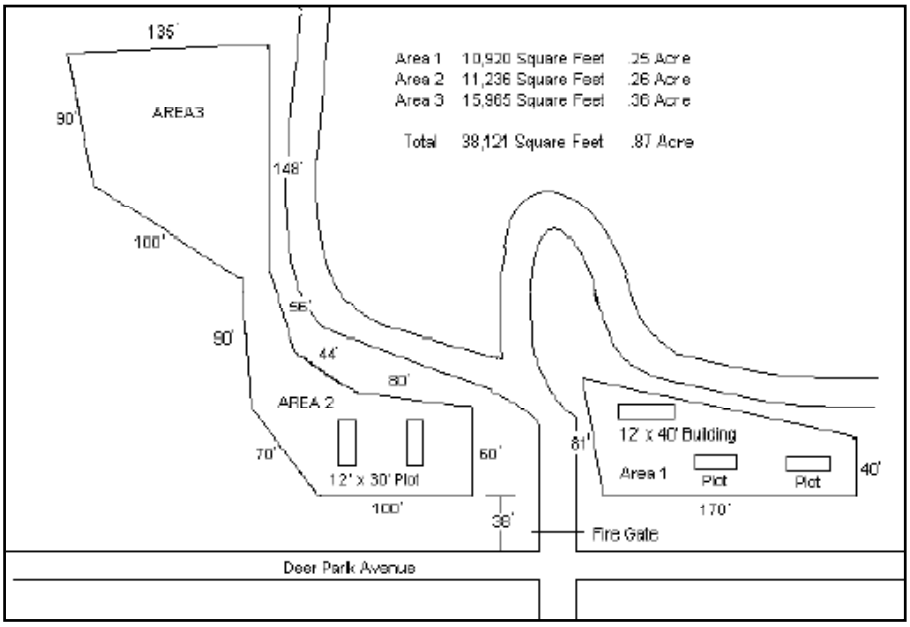


Figure 1.3: Upper Deer Park Site Plan[1]

[1] Site plans for the Upper Deer Park Location are still evolving. The area of disturbance for each of the three areas that makes up the site is accurate but the number and orientation of test rows is still being finalized.

Figure 1.4: Upper Deer Park Site, Area 1

Figure 1.5: Upper Deer Park Site, Area 2

The Forest Meadows site is located in the central part of the campus, approximately .75 miles from the Upper Deer Park site (Figures 1.6 and 1.7). The site is relatively flat, located in an open field adjacent to the Dominican University Amphitheater, bordering Colman Elementary School, and a section of Black Canyon Creek which only carries flowing water during the rainy season. Pre-existing on the site is an old nursery overhang that is supported by cemented posts (six by five) and covered with a black nursery shade that reduces sunlight by 50%. The existing facility will be modified to accommodate several test beds and expanded by an adjacent covered area to meet the capacity needs of the study (Figure 1.8, Site Layout). Forest Meadows would be the first of the two NORS-DU project sites to be developed since the existing nursery cover is already in place. The site is vegetated by local grasses and weeds as well as with eucalyptus and bay trees. The site is anticipated to function as part of the NORS-DU project for approximately three years at which time the site is expected to be decommissioned and become part of Dominican University's recreational field project. At that time, all of the research for the NORS-DU site will be transferred over to the Upper Deer Park site (Areas 1 and 2) and possibly spur the development of Area 3.

Figure 1.6: Forest Meadows Site, Existing Structure

Figure 1.7: Forest Meadows, Area for the Second Nursery Row

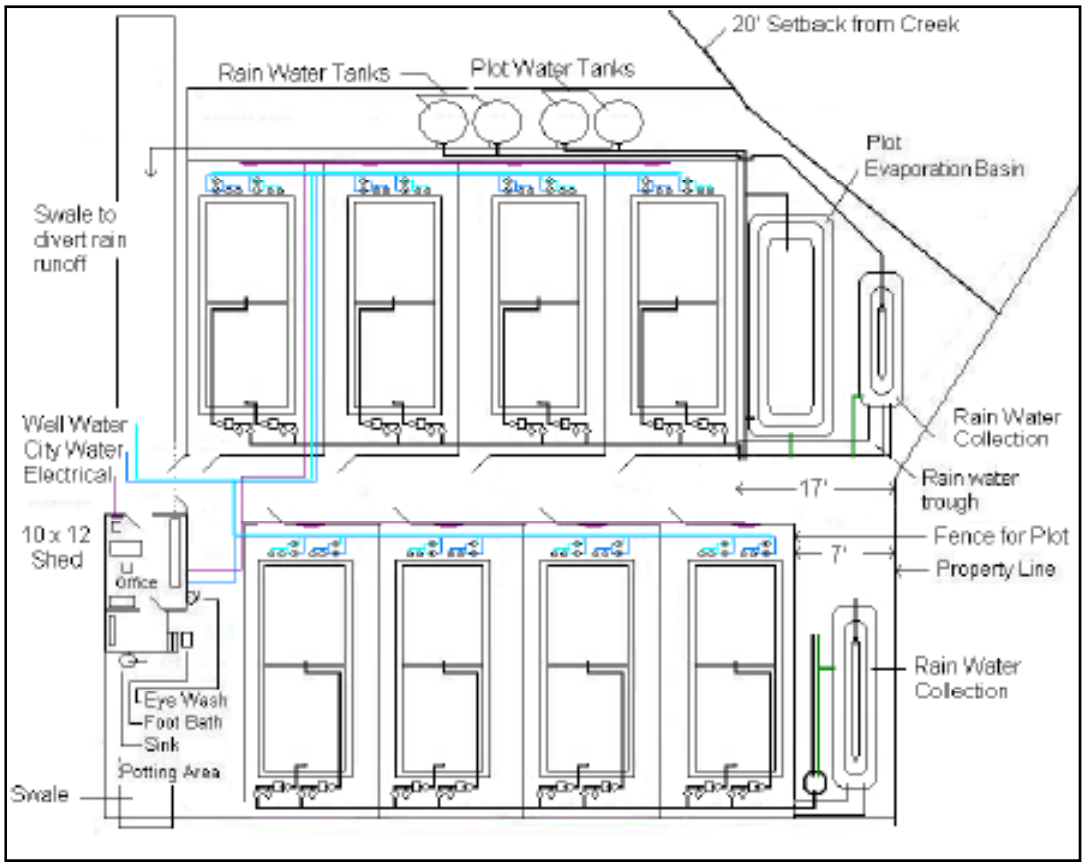


Figure 1.8: Forest Meadows, Site Layout[2]

Dominican has a century-long reputation for excellence in scholarship, research, and community outreach. The University offers more than 60 academic programs that reflect the diversity and creativity of the faculty and students. With more than 2,100 graduate and undergraduate students, and a student to faculty ratio of 11:1, Dominican is able to successfully blend personal direction associated with smaller schools with the academic resources of a larger university. Student enrollment for 2007-2008 was 2,125 total: 1,495 Undergraduates and 630 Graduates. The University currently offers more than 30 undergraduate and graduate degrees, with an emphasis on the arts and sciences (Dominican, 2009).

The NORS-DU is part of Dominican University's future plans for enhancing its science programs. The university has already begun to put their plans in motion with the completion of the new 35,000 square foot Science Center. Students and faculty members began using

[2] The Forest Meadows Site layout may be subject to change. The area of disturbance has been determined, but the orientation of the nursery rows and the number of nursery rows is still being finalized.

Dominican's new Science Center in August 2007 for grant- supported research projects related to stem cells, breast cancer and sudden oak death (*Phytophthora ramorum*) (NORS-DU, Proposed Project). This is a two-story facility that houses classrooms and more the 30 teaching, research, and computer technology labs.

Complimenting the new Science Center, Dominican University in cooperation with USDA APHIS the National Ornamentals Research Site (NORS-DU), a secure site modeled to simulate a commercial nursery for the purpose of performing pest and disease studies on nursery stock. This simulated setting allows for studies to be conducted on the epidemiology and behavior of pathogens and pests in a "real world" environment, while at the same time ensuring high level safeguards to reduce the possibility of the escape of pathogens and pests. Research scientists from the national and international community will be encouraged to submit proposals for research work at this site. These sites would provide (1) valuable data that will aid in reducing the long range spread of sudden oak death (and other plant pests and pathogens) through infested nursery stock shipments, (2) validation of established and the development of new Best Management Practices (BMP's) for nursery stock production, (3) new treatment or remediation options for soil, water and plant materials to exclude, contain and eradicate sudden oak death and other plant pathogens and pests, (4) valuable epidemiological data on new and emerging pests and pathogens on ornamentals, and (5) provide outreach though reporting results of studies and by engaging students in the research activities.

1.1 Environmental Review

As with all Federal agencies, USDA APHIS must comply with the National Environmental Policy Act (NEPA) of 1969, which requires that all actions that are carried out, funded, or approved by the Federal Government be evaluated in accordance with 40 Code of Federal Regulations (CFR) 1500.2. NEPA provides the framework for evaluating the environmental consequences of an action, and defines the decision-making process used to evaluate the action.

The lowest level of NEPA review is a Categorical Exclusion (CX), which documents that the proposed project has no significant environmental effects on the project area and meets the criteria for a class of actions that have been previously determined not to require further review (43 CFR Section 1508.4, Categorical Exclusions, Nov. 29, 1978).

An EA is a concise public document that serves to provide evidence of the environmental impacts of a Proposed Project. To aid in decision-making, the assessment includes an evaluation of alternatives to the proposed action, and concludes with one of two findings: a

Finding of No Significant Impact (FONSI), meaning that the action will not cause any significant harm to the environment, or a Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS).

An EIS is the highest level of NEPA review. An EIS must be prepared when an EA concludes that significant environmental impacts are anticipated, or when it is uncertain whether environmental impacts will be significant. An EIS may also be initiated without first conducting an EA if it is clear from the outset that significant environmental effects are likely.

Environmental Assessment was determined to be the appropriate environmental document for the NORS-DU project (hereafter referred to as the Proposed Project or NORS-DU). The discussion in this EA of the environmental effects of the Proposed Action and Alternatives reflects the generalized environmental effects of the implementation the project associated with the implementation of NORS-DU.

1.2 Project Goals

The goal of this project is to build and develop a research nursery site to complete studies of pathogenic plant organisms on ornamental nursery stock under the same conditions as are found in commercial nurseries. Best Management Practices (BMP's) of nursery sanitation will be observed.

2. PURPOSE AND NEED

Sudden Oak Death has become a major threat to plant species in both natural and nursery settings. SOD is a relatively new pathogen to the U.S. and causes death or decline in certain forest tree hosts and persists as a foliar pathogen in forest hosts and in ornamental nursery stock, which is uncharacteristic of most *Phytophthoras* found in nurseries. Specifically the concern is to the Appalachian Mountain area of the southern and eastern U.S. This area is considered to be at high risk for SOD establishment as identified by the United States Fish and Wildlife Service (USFWS) risk maps. Plants produced in the nursery industry were found to be infected with sudden oak death (*Phytophthora ramorum*- here after SOD or Sudden Oak Death*)* and in 2004 it became a national issue when a major nursery was found positive for sudden oak death after it had shipped potentially infested plants to nurseries in 39 states.

During the mid 1990's Tan oak (*Lithocarpus densiflorus)* were found to be dying in Mill Valley, Marin County, California from an unknown pathogen. In 2001, the pathogen, sudden oak death (*Phytophthora ramorum),* was identified as the causal agent of the disease. In 2002, the USDA

established quarantine regulations on the movement of firewood, greenwaste, etc. in the interest of preventing the spread of sudden oak death (SOD) to other forest environments.

SOD was eventually found to be causing damage to the forest landscape in the San Francisco Bay Area as far south as Monterey and north to Mendocino County. A diseased tree was found in Lake County, a spot location in Humboldt County, and a spot location in Curry County, Oregon. However, the problem was exacerbated when SOD was found outside of the natural forest environment and in California camellia nursery stock. It was initially believed to be associated with *Camellia* spp. in ornamental nurseries within the quarantine/infected area until it was found in a California Central Valley nursery, also infecting camellia nursery stock. It was soon found to be infecting camellia in additional nurseries outside of the quarantine area. Additionally, the nursery inadvertently shipped thousands of possibly infected camellias throughout the continental U.S. Other states in the west and south were concerned with SOD because of the possible impact to their native oak environments.

In response, the USDA APHIS established quarantines to regulate nursery stock movement in order to prevent the movement of SOD via nursery stock. Canada also initiated a higher level of regulation on imported nursery stock due to the risk of SOD. Federal and state regulations now affect nurseries in the states of California, Oregon, and Washington. SOD has moved from a single state issue to an international issue as SOD has been identified in British Columbia, Canada nurseries. A European race of SOD was identified as well. The primary impact of SOD has been on the U.S. nursery industry and the U.S. forest environment. These industries impact the economies of many states; primarily because the west coast nurseries are a major source of nursery stock to other states. The concern over SOD movement is apparent with other states due to discovery of the pathogen in and around nurseries in several southern states and by the recent submission of a Special Needs Request (SNR) to the USDA. The SNR would allow the states to institute more stringent regulations on the movement of nursery stock from infested states to protect the SNR signatory States. The USDA needs specific research on SOD and nursery stock to allay or validate the concerns of the non-infested SOD states and if needed to strengthen the federal SOD regulations.

In the past, the behavior of the pathogen has been studied primarily in laboratory conditions or small scale field studies. However, it is critical to understand the nature of this disease under typical nursery conditions. There is a need for more research on latency period, on mitigation measures to reduce or eliminate repeat infections at positive nursery sites which would lead to eradication or sufficient mitigation that would not allow movement of the pathogen. Due to the

continued fear of spread through ornamental host plants, additional, more stringent regulations are being sought by concerned states. Research to answer these questions and others at the NORS-DU proposed research site would aid USDA APHIS in developing new control or mitigation measures.

The research site will allow for realistic plant growth and development conditions to examine the spread and mitigation of SOD and other nursery pests and pathogens. Furthermore, this site would allow for the study of disease epidemiology, pests and pathogens with safe guards in place to prevent the spread of the pests and pathogens into the surrounding environment.

2.1. Funding

The NORS-DU project would be solely funded by USDA Farm Act Funds. Approximately one million dollars has been reportedly allocated to date.

3. PROPOSED ACTION AND ALTERNATIVES

This section describes the Proposed Project for the NORS-DU, and the potential environmental impacts under consideration. A No Action Alternative is also considered, in addition to the Proposed Project. Descriptions of these two alternatives are given below:

3.1. The Proposed Action

The Proposed Project is split into two different sites, Forest Meadows, which would be developed first, and Upper Deer Park, which would be developed after the rainy season in 2010. The sites would consist of nursery test beds designed to simulate real-life nursery conditions.

Forest Meadows. The current plan for the Forest Meadows site consists of two fenced areas with over-hanging shades to house four test beds each (nursery rows) (see Figure 1.8-Forest Meadows Site Layout). Nursery Row 1 would utilize the existing nursery shading structure shading four test beds in a row, approximately three feet apart. The structure would be covered by a sun-blocking shade material that reduces the amount of light by 50%. This material would also be used as outside walls around the exterior of the structure, and inside the structure to separate the test beds. This material would reduce the risk of water splash spreading between the beds and to the area surrounding the nursery rows while at the same time allowing air to circulate. Nursery Row 2 would accommodate the a shade overhang by erecting a temporary fence forming a perimeter around four test beds. The shade material would be strung up to cover the nursery row as well as wrap the perimeter and section off the individual beds. The two nursery rows would be separated by a 12x90 foot aisle.

The test beds are designed to facilitate various types of research in simulated commercial nursery settings. The following elements would be included in the research areas:

- Physical screened fencing separations between the test beds to prevent spread between plots and into the surrounding area.
- Foot baths at egress and ingress of each site.
- Cleaning and disinfestations apparatus' to disinfect nursery materials, tools, piping systems etc.
- Ground barriers designed to capture all runoff and rain water from the site and a piping system that contains the water and transfers it to 2,500 gallon holding tanks where it is treated before it is released. See figure Appendix A for diagrams of the piping systems.

- Piping system to capture all drained irrigation water from each test bed that pipes the water to an evaporation pond for testing then into 2,500 gallon holding tanks where the water is treated before it is released.
- Fencing around each site to provide security from unauthorized entry and protection from deer.

All laboratory equipment necessary would also be installed to identify and research various plant pests and pathogens in a secure environment. A small, temporary shed (10x12 feet) would be used to house office equipment, and provide protected storage for chemicals, documents, and supplies used in the site. The building would open up into a covered porch that would be utilized for changing shoes/boots and contain the footbaths positioned on the ingress and egress of the research area. The footbath area opens into an open space that is fenced in by perimeter fencing and would contain the potting area and lead into the two nursery row areas separated by the 12x90 ft aisle. The test beds each have screened doors that would open into this aisle area. The water supplied to each bed is a combination of well water and water provided by the City of San Rafael, Marin Municipal Water District. The piping system (see Appendix A) is also equipped with an emergency overflow connection that drains all water in each site to the local sewer in the case of a flood event. The entire site would be wired with electricity provided by Pacific Gas & Electric and would be equipped with high pressures sodium bulbs if additional light is needed in addition to natural light. Because the University is attempting to recreate an actual nursery setting, the nursery beds will not be lit at night. The entire Forest Meadows research site would be approximately 9890 sq. ft.

Upper Deer Park. Upper Deer Park is split in to three areas (see Figure 1.5). Areas 1 and 2 are the first to be developed, simultaneously. The actual orientation and number of test beds that each area will hold is to be determined. Two different committees will have input on this site, the Neighborhood Committee (Four by Four Committee) and the Ornamental Research Site Nursery Committee. The Four by Four Committee will have input on the site from an aesthetic prospective; the site borders the campus property line facing a residential housing tract, the Four by Four Committee is made up of four representatives from the neighborhood and four campus staff members that represent the residents in close proximity to the campus. The Ornamental Research Site Nursery Committee will be comprised of nursery practitioners, researchers, university staff, etc., and will be responsible for the layout of the beds and the design of the individual areas. The Forest Meadows site will be used as a test site- to see how the site layout works and how the community reacts to the project. Once the layout of the site is

determined, the test beds in Upper Deer Park will be equipped with the same water drainage and piping system that has been designed for Forest Meadows (See Appendix A) that ensures no contamination or spread of the test pathogen within the nursery rows or outside of the nursery row area. The Upper Deer Park Site is set to begin after the rainy season in 2010. Area 3 will be developed only on an as needed basis. Areas 1 & 2 are more suited for the project because they are oriented and sloped for natural drainage of the beds without any mechanical assistance. Area 3 is at a lower elevation and would require a pump in order to drain the water would be from the test bed areas to the storage tanks where the water is treated before it is released.

Upper Deer park is located in a semi clear section of a woodland area. Several immature eucalyptuses would need to be removed, and no mature trees will be disturbed. Area 1 is approximately .25 acres (see Figure 3.1) and will contain test plots, and a portable structure approximately 12 x40 sq. ft. and may be hooked to a sewer system for restroom facilities. Areas 1 and 2 are separated by a fire road that continues up slope also bordering Areas 2 and 3. To make Areas 2 and 3 more accessible during the rainy season, the University plans lay a concrete pipe in the culvert that bisects Area 2 and fill over it so it can be driven across to access Area 3. Flowing water from storm events would drain into Sisters Creek as it does naturally without limiting access to Areas 2 and 3 during the rainy season. Sisters Creek runs parallel to the roads that border Areas 1, 2, and 3. Area 2 will contain test bed sites, no other and structures (i.e. portable sheds etc.). Area 3 (see Figure 3.2) is a sunken site that is also bordered by Sisters Creek. It is not as accessible as Areas 1 and 2 so it will be developed in the future based on need.

Figure 3.1: Upper Deer Park Site, Area 1, Immature Eucalyptus

Figure 3.2: Upper Deer Park Site, Area 3

3.1.1. Project Phasing:

The tentative project schedule is below (Table 3.1). Forest Meadows is the first site that will be opened (October 26, 2009). The rest of the schedule is tentative, dependent on permit processing and weather constraints.

Table 3.1- Tentative Project Schedule:

Phase	Description	Start	Complete
Forest Meadows: Phase 1	Nursery Row 1: break ground.	August 2, 2009	October 26, 2009
Forest Meadows: Phase 2	Nursery Row 2: break ground.	November 2, 2009	December 1, 2009
Upper Deer Park Phase 1	Areas 1 & 2: Break Ground.	April, 2009 (End of Rainy Season)	TBD
Upper Deer Park: Phase 2	Area 3: Break Ground	Need TBD.	

3.2 The No Action Alternative

Under the No Action Alternative, development would cease at the research sites. Dominican University would continue to operate with their facilities and laboratories that currently exist today. Research regarding Sudden Oak Death would be moved to an alternative site (unknown).

4. REGULATORY SETTING AND AFFECTED ENVIRONMENT

This section presents an overview of the existing site conditions and characteristics at Dominican University in San Rafael, California and the surrounding area. The subsections focus the discussion of the affected environment into the context of the several areas of potential impact. Current conditions as described herein are considered, for the purposes of this EA, to be the baseline condition of the campus. Impacts associated with the Proposed Project and the No Action Alternative will be weighed against these baseline conditions. The analysis of potential impacts is presented in Section 5.

In an effort to accurately assess baseline environmental conditions, the following sources are a sample of information and resources that were reviewed:

- Natural areas maps.
- Historic site maps.
- Floodplain maps.
- National Wetlands Inventory (NWI).
- Federal Communications Commission (FCC) and Federal Aviation Administration (FAA) maps.
- Environmental databases for coverage of the study area.
- United State EPA website for current regulatory requirements.
- Council on Environmental Quality website for current regulatory requirements.

Appendix B of this EA consolidates much of this source documentation in the NORS-DU NEPACheck®.

In addition, the following State and Federal agencies were contacted for consultation purposes and to collect additional, pertinent information:

- United States Fish and Wildlife Service.
- California Department of Fish and Game.
- Office of Historic Preservation, California Department of Parks and Recreation.
- Dominican University.
- USDA, APHIS.

The following elements of this Section identify and discuss the various environmental resources that could be affected by the Proposed Project. These are broadly classed as elements of either the Human Environment (Section 4.1) or the Natural Environment (Section 4.2). Each of these broad classifications is further divided into topical subsections specific to a particular resource. Each subsection then addresses both the regulatory setting and the baseline condition of the affected environment.

4.1. Human Environment

4.1.1. Land Use

Regulatory Setting

Dominican University of California is planned with regards to the Dominican University Master Plan documents: the Dominican University Master Use Permit UP97-45 and Master Design Review Permit ED97-146 (Appendix C- Dominican University Master Plan Documents). Dominican University is also considered in the City of San Rafael General Plan 2020 (San Rafael, 2006). The City of San Rafael General Plan (General Plan) discusses Dominican University under the Neighborhood Economy and Culture Element, section NH-94, Neighborhood Design Element section NH-96 and in the Neighborhood Circulation Element Section NH-99.

Dominican University Master Use Permit (Conditions for Use Permit): Details the planned future projects for Dominican University, and their respective phasing and approval requirements. This plan establishes the continued authority and responsibilities of the Events Management Plan (EMP) and the establishment of the Events Management Office (EMO). The permit also lists traffic mitigation obligations of the University from the City and requires the establishment of a neighborhood based Advisory Committee. The permit activation and timeline are also included in the permit text.

Dominican University Master Design Review Permit (Conditions for Environmental and Design Review Permit): The Master Environmental and Design Review Permit establishes design standards and guidelines for structures, parking facilities, and landscaping. This permit covers the four phase Dominican College Master Design Project for the campus.

Affected Environment

The Dominican University of California Campus is located in San Rafael in Marin County, California. The campus is surrounded by residential neighborhoods and is within walking distance from San Rafael's town center, and a few miles from the Marin Civic Center. Many

natural areas border San Rafael such as Sausalito, Muir Woods, Stinson Beach, Mt. Tamalpais, and Point Reyes National Seashore.

The campus itself has 31 buildings which include classrooms, research centers, administration, recreation center (Conlan Center), and campus housing. In addition the campus boasts a full size swimming pool, tennis courts, a multi-use field (soon to be expanded), and the Forest Meadows Amphitheater that features Shakespeare in the Park shows every summer (See Figure 1.2- Dominican University Campus Map). The campus is beautifully landscaped with flora from all around the world. See Appendix D for the Dominican University Master Plant List.

The University was founded in 1890 by the Dominican Sisters of San Rafael, who still reside on campus. Dominican curriculum has more than 60 programs of study and has over 2,000 graduate and undergraduate students and a student to faculty ratio of 11:1.

4.1.2 Local Community

Regulatory Setting

NEPA established that the Federal Government use all practicable means to ensure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings [42 USC 4331(b) (2)] (NEPA, 1969). Federal agencies, in their implementation of NEPA [23 USC 109(h)] direct that final decisions regarding projects are made in the best overall public interest. This requires taking into account adverse environmental impacts, such as destruction or disruption of human-made resources, community cohesion, and the availability of public facilities and services.

Affected Environment

Dominican's 80-acre wooded campus is open with no fenced boundary or property line in most areas. The University is surrounded by residential neighborhoods and Colman Elementary school. Employment on campus is comprised of 78 full-time faculty, 267 part-time faculty[3]. The student body is made up of 1,495 undergraduate and 630 graduate students with a total enrollment of 2,125 students (Dominican, 2009).

The Proposed Project is not growth-inducing and is located within the boundaries of the Dominican University campus. Two faculty members have been hired to support the research

[3] Annual Survey of Colleges 2008, College Profile, Dominican University of California. 2008. Retrieved by Michelle Wegener September 27, 2009. http://www.collegedata.com/cs/data/college/college_pg05_tmpl.jhtml?schoolId=875

program. During the life of the program, researchers and industry specialists will temporarily visit the campus to assist in research of plant pathogens and disease.

The City of San Rafael

The City of San Rafael occupies 22 square miles, consisting of 17 square miles of land and five sq. miles of water and tidelands. The City is part of Marin County California, located 17 miles north of San Francisco. The 2000 census estimates the city has a population of 58,363 residents (San Rafael, 2006a). The City has 19 parks that total 141 acres (excludes open space locations). San Rafael also supports three recreational centers, nine child care centers, and one baseball stadium.

Major economic drivers in San Rafael are a mix of high-tech, financial and insurance companies. Entertainment, retail and the service industry are also major employers. Major private sector employers in San Rafael include: Kaiser Permanente, Autodesk, Comcast, Safeway, Macy's, Dominican University of California, Managed Health Network, Guide Dogs for the Blind, Wells Fargo Bank, Ghilotti Bros. Inc., and Longs Drugs. Major public sector employers include: County of Marin, San Rafael City Schools, Golden Gate Transit, PG&E, and the City of San Rafael (San Rafael, 2006b).

The median income for a household in the city[4] is estimated at $67,789 and $85,495 is the median income for a family. The per capita income for the city was $35,762. 10.2% of the population and 5.6% of families were below the poverty line.

San Rafael is served by the San Rafael City School District. Dixie School District also operates some public elementary and middle schools in the city. The San Rafael City School District supports 12 public schools: 7 elementary schools, two middle schools, and three high schools. The Dixie School District supports four public schools: three elementary schools and one middle school. The City of San Rafael supports a total of 16 public schools in the city limits.

4.1.3 Utilities/Public and Emergency Services

Regulatory Setting

The following utility providers serve the Dominican University campus:

- Electricity: Pacific Gas & Electric.
- Gas: Pacific Gas & Electric.

4 US Census, American Factfinder. 2000. Retrieved by Michelle Wegener September 12, 2009. http://factfinder.census.gov/home/saff/main.html?_lang=en

- Water: Marin Municipal Water District.
- Sewer Service: Marin Sanitary Service.
- Cable: Comcast Cable.

Dominican University works with the city and county for fire and emergency services. Security on campus is contracted out to a private security company. The nearest hospital serving Dominican University is Marin General Hospital located 2.4 miles from the campus. The City of San Rafael is served by one police station (1.4 miles from Dominican University) and one police substation. The Campus is served by the San Rafael Fire Department located 1.6 miles away.

Affected Environment

The Proposed Project does not include the construction of permanent facilities on the campus; therefore, utility requirements would be minimal. Electricity for the Proposed Project would surround the test beds to accommodate work when natural daylight is not sufficient. Water from the City as well as well water would be connected to the nursery rows at both sites to provide water for irrigation and other nursery activities. As previously described, all water used or runoff within the nursery rows at both the Forest Meadows and the Upper Deer Park sites would be drained, contained, and decontaminated before its discharge in a designated field area near the research site. Emergency sewer drains will be installed in the case of a 500-year flood as an emergency mitigation so that overflowed contaminated water within the research site would not overflow into the surrounding areas, endangering the natural vegetation. A temporary restroom is being contemplated for the Upper Deer Park Site to accommodate researchers working in the area. The accommodation would be prefabricated and temporary in nature. An existing sewer line runs adjacent to the Upper Deer Park site, so tie-in to this line is accessible and it would be able to accommodate the additional capacity. The Proposed Project would not require the relocation of any existing utilities nor would it cause the need for additional utilities to accommodate the needs of the new sites. Since the Proposed Project is not growth inducing, the current hired campus security, and City fire and emergency medical response departments would be sufficient to continue to provide service to the Dominican University campus, its employees, and its facilities. No additional emergency response staff would be necessary.

4.1.4 Traffic and Transportation

Regulatory Setting

The Dominican College Campus Parking/Traffic Management Plan (TMP) was prepared in May 1996. This plan sets forth the measures that Dominican College would undertake to ensure that the traffic and parking impacts of scheduled campus activities would be accommodated with the available parking supply constraint. This report was referenced in the 1997 Dominican College Campus Development Plan EIR. This TMP is valid for the purposes of this EA, as only two additional employees were hired as a result of this project; the additional parking added for the Dominican College Campus Development Plan would be sufficient to accommodate the proposed project.

Traffic and Transportation on the Dominican University Campus is regulated by the Dominican College Campus Development Plan (UP-97-45), the Conditions for Environmental and Design Review Permit, Dominican College Master Plan (ED-97-146)[5], the Dominican College campus Parking/Traffic Management Plan (1996), and the Traffic and Parking Management Plan, Appendix C of the Dominican Neighborhood Events Management Plan.

The Dominican University Parking/Transportation Management Plan was developed to comply with the recommendations and regulations provided in the City of San Rafael General Plan 2020.

Affected Environment

Regional access to Dominican University is provided primarily by US-101 via the Lincoln Avenue exit, less than a mile from the campus. US-101 is the only major route providing regional access to Dominican University. The campus is connected by several local roadways[6]:

- *Grand Avenue*: A two-lane minor arterial that runs parallel to and east of US-101. Grand Avenue intersects Mission Avenue, Belle Avenue, Jewell Avenue, Acacia Avenue, and Linden Lane. Parallel parking is permitted on both sides of the street with the exception of Forest Meadows grounds area where parking on the west side of Grand Avenue is perpendicular. Access to the Forest Meadows site is off of Grand Avenue. Parking for

[5] See Appendix B for the Dominican University Master Planning Documents.

[6] (Dominican, 1997) Dominican College Campus Development Plan, Environmental Impact Report. March 1997.

this site would be most conveniently found in the Student and General Campus Parking lot.

- *Acacia Avenue:* Acacia is a two lane road which connects Grand Avenue and Magnolia Avenue. The portion between Olive and magnolia is owned and maintained by north the Sisters of St. Dominic and Dominican College, the remainder is publicly owned and maintained. Parallel parking is permitted on both sides of the street. Handicapped parking spaces are located on the south side of the privately maintained portion of Acacia Avenue. Acacia Avenue runs through the center part of the campus and is access to the campus's main administration buildings.
- *Magnolia Avenue:* Magnolia Avenue is a two-lane road that serves both the campus and the neighboring residential areas. Parallel parking is permitted on portions of Magnolia where marked. There is a small paved parking pad on the north side of the road approximately 50 yards from its intersection with Palm Avenue. Magnolia Avenue leads into Deer Park Avenue, access to the Upper Deer Park site.
- *Palm Avenue:* Palm Avenue runs along the south east portion of campus and directly feeds into Magnolia Avenue. Palm is a two-lane road which runs between a residential area and the campus. Parking is permitted along Palm Avenue where designated.
- *Locust Avenue:* Locust is a two-lane collector street which connects the residential area and the campus to Grand Avenue. Locust feeds directly into Magnolia at the same intersection as Acacia Avenue.

Parking

As a result of the Dominican College Campus Development Plan, Dominican added 92 parking spaces which brings the campus to a total of 1,039 parking spaces for its 2,100 students and 342 faculty members (75% of the faculty is hired on a part time basis). Ratio of parking spaces to students/faculty is .42 to 1. As previously mentioned, the proposed project only requires two additional employees to be added to the Dominican University faculty therefore, no additional parking spaces would be required.

Transit

There are several transit choices for commuters to the Dominican University Campus:

Mass Transit:

- Golden Gate Transit runs buses and ferries that will take you from points in Marin County to San Francisco. Buses run throughout the county, with a main hub in downtown San Rafael, just a few blocks from campus. A Golden Gate Transit bus station is located on campus at the corner of Grand Avenue and Acacia Avenue.
- To access San Francisco a bus can be taken to and from the ferry station at Larkspur Landing 3.6 miles from Dominican University. Ferries frequently depart for San Francisco from Larkspur. 415-455-2000 from 6 a.m. - 8 p.m. Mon-Fri, 7 a.m. - 8 p.m. Sat-Sun, or visit http://www.goldengate.org for schedules. (Dominican, 2008).

Pedestrian Circulation: There are several pedestrian routes through the Dominican Campus:

- Academic Core- The primary pedestrian routes within the Academic Core follow the Sister Creek Corridor and Acacia Avenue. Secondary routes run between the buildings. Yellow School crossings currently existing on the north and east legs of Locust Avenue/Magnolia Avenue, the west and south legs of Magnolia Avenue/Acacia Avenue and midblock on Acacia Avenue.
- Forest Meadows- Existing pedestrian pathways connect the parking areas to the sports fields and the amphitheater. Black Canyon Creek is crossed by two pedestrian bridges, one at the multi-use field and down just south of the amphitheater. A dirt path leads from behind the amphitheater area to the Forest Meadows site (proposed project). There are yellow school crossings on the north and east legs of the Grand Avenue/Acacia Avenue intersection, the east and south legs of Grand Avenue/Locust Avenue and on the north, east, and west legs of Grand Avenue/Jewell Street.
- Residential Area- Pedestrian paths currently connect the residence halls of Pennafort and Fanjeauz across Palm Avenue to the library and other academic buildings. Caleruega Hall is connected to the rest of the campus through an open plaza on Magnolia Avenue. Yellow school crossings exist on the north and south legs of Magnolia/Palm Avenues (Dominican, 1997a).

The Dominican College Campus Development Plan EIR includes plans for additional pedestrian paths to be included in each phase of its future development.

Bicycle Circulation: Although there are currently no dedicated bicycle facilities in the Dominican College, the campus has Class II bike routes on Grand Avenue for students and faculty

commuting to and from campus as well as a number of pathways within the campus area that allow for bicycle traffic.

The proposed project would not affect on-site circulation which would remain unchanged from the current roadway operating conditions. The research sites will be primarily accessed by two golf carts, one assigned to the head researcher and one to the nursery manager for their use in accessing the site. These golf carts would run off of electricity and would not add additional traffic on the campus while in operation. It has been estimated that two to three plant deliveries to the campus would be made from off-site per year. These deliveries would be made by trucks. Since the deliveries would be so seldom, the trucks would not have a substantial effect campus circulation.

4.1.5 Visual/Aesthetics

Regulatory Setting

NEPA establishes that the Federal government uses all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* and culturally pleasing surroundings [42 USC 4331(b) (2)] (NEPA**, 1969).** The Conditions for City of San Rafael issued Environmental and Design Review Permit (ED-97-146) includes design guidelines (form, line, color and texture) for all new construction so that buildings are compatible with the surrounding environment. A neighborhood advisory committee made up of four neighborhood representatives and four campus representatives provides feedback on proposed projects as well. While this committee has no permitting authority, the University values its positive relationship with the surrounding community, solicits their feedback, and considers it in campus based decisions.

The Dominican College Campus Development Plan EIR (Dominican, 1997b) developed a Sensitivity Level and Appropriate Dominance Matrix (Figure 4.1):

Table 4.1- Sensitivity Level and Appropriate Dominance Matrix

Sensitivity Level	Appropriate Visual Dominance
Low	Dominant: Project dominates the landscape. Project elements are strong—they stand out against the setting and attract attention away from the surrounding landscape. Form, light and color contrast with existing elements.
Moderate	Co-Dominant: The project co-dominates the surrounding area. Project elements are moderate—they are prominent within the setting and attract attention equally with other landscape features. Project generally must borrow from naturally established form, line, color, and texture so that visual characteristics are compatible with their surroundings.
High	Subordinate: Project is visibly subordinate. Element contrasts are weak- they can be seen but do not attract attention. Project must generally repeat form, kind, color, and texture of its surroundings.
Maximum	Not evident: Project is generally not visually evident. Element contrasts are not visible or perceived. Project changes in the characteristics of size, amount, intensity, pattern, etc. should not be evident.

Source: Dominican College Campus Development Plan EIR, 1997

Since the Proposed Project is a temporary research site and will not include elements of a permanent structure (roof, windows, walls, etc.) it is not anticipated that the project would need to undergo formal architectural design review. Keeping in mind the beauty and natural look of the Dominican University Campus, both the Forest Meadows site and the Upper Deer Park site would be developed to blend with the surrounding campus environment. The University will work with the City of San Rafael and the Neighborhood Advisory Committee in regards to the aesthetic development of both sites.

Affected Environment

The Dominican University Campus is well landscaped with year round vegetation, green lawns and local, and exotic plant species (see Appendix D- Master Plant List). The campus prides itself on the variety of plant species it supports (over 400 species) from all over the world, as

they make a colorful mix that compliments the natural beauty of the area. The majority of the campus is comprised of mature wooded areas with few open grass areas outside of planned recreational areas. The campus is open, meaning there is no perimeter fence that close access to the surrounding neighborhoods. Because of its location, nestled in the Marin hills, there are no real long range views of the areas surrounding the campus. The campus boundary extends up the steep slope near the Upper Deer Park site that, if hiked this area would provide scenic views of the surrounding landscape, but due to the steepness of the slope and accessibility of the area, these views are rarely witnessed.

There are several historic buildings on the campus. The architecture has a mix of style reflecting Spanish colonial, Victorian, French Chateau, California Bungalow styles, as well as more modern looking facilities that blend a mix of characteristics but are not historic in age. The University was mindful of the surrounding natural habitat in the design and uses color schemes and textures for their more modern facilities so that they blend well with the surrounding area and surrounding architecture. All new construction or renovation of campus facilities must undergo design review to be permitted under the Master Environmental and Design Review Permit for Dominican University. Architectural standards pertaining to form, line, color, and texture are determined on a project by project basis that's takes the projects location, use, and visibility into consideration when determining its design requirements.

4.1.6 Cultural and Historic Resources (Historic and Prehistoric)

Regulatory Setting

NEPA requires that all Federal projects must comply with Section 106 of the National Historic Preservation Act of 1966, as amended. The Native American Graves Protection and Repatriation Act (NAGPRA) and its implementing regulations contain many specialized terms and requirements, and apply to United States museums and Federal agencies. Federal agencies also have special NAGPRA responsibilities when Native American human remains and items are discovered on Federal and tribal lands.

Affected Environment

A letter was sent to the State Historic Preservation Office (SHPO) requesting information on any historic sites in the project vicinity. No response has been received to date (see Appendix E, Cultural Resources Correspondence, for copies of the letter). It was confirmed by Eddie Dominguez, Environmental Quality Services Officer, Department of the Interior, Bureau of

Indian Affairs, that there are no recognized tribes in Marin County[7]. A records search was also conducted that referenced the following sources:

- National Register of Historic Places
- California Historic Landmarks, Office of Historic Preservation
- Park Service; Advisory Council on Historic Preservation
- Office of Historic Preservation, Department of Parks & Recreation
- Indian Religious Sites (Indian Reservations Map, USGS)
- Department of the Interior-Bureau of Indian Affairs
- National Association of Tribal Historic Preservation Officers

Prehistoric

During Prehistoric times the San Rafael region was located within the domain of Coast Miwok tribal groups. Native populations occupied Marin County as early as 500 years before the present (B.P.), with the Coast Miwok being the most recent indigenous inhabitants prior to European contact.

The Dominican College Campus Development Plan, Environmental Impact Report (Dominican, 1997c) references three archeological reports prepared for the EIR:

- Archaeological Field Inspection and Auger Boring for Perimeter Determination at Archaeological Site MRN-254, Dominican College, San Rafael, California, by David Chavez & Associates.
- Memorandum of Understanding Concerning the Method of Evaluation and Mitigation of Impacts to Archaeological Site MRn-254, Dominion College, San Rafael California, November 1995, by Holman & Associates.
- Initial Report of Findings for Archaeological Text Excavations at MRN-254, Dominican College, April 1996, by Holman & Associates.

Holman and Associates conducted a field reconnaissance of the Campus plan area (EIR project area) and a previously recorded prehistoric archaeological site (Mrn-254), a prehistoric midden

[7] Correspondence between Eddie Dominguez, Environmental Quality Services Officer, Department of the Interior, Bureau of Indian Affairs, and Michelle Wegener. September 17, 2009 at 2:30pm.

was confirmed. The site, located in the Forest Meadows area of Dominican University was first recorded in 1907 by U.C. Berkeley archaeologist N.C. Nelson. The general location of this site is the parking lot of what is now the Student and General Parking area by the Conlan Center and the Forest Meadows Amphitheater. Subsurface auger boring program was constructed by Holman and Associates in 1994 that resulted in the verification of site boundaries and midden deposit depths. In 1996, Holman and Associates accomplished test excavations at Mrn-254 using excavation procedures that were coordinated with the Federated Coast Miwok Tribal Council a Novato-based Native American organization that is recognized by the Native American Heritage Commission (NAHC) in Sacramento as most-likely-decedents (MLD). According to the initial report[8] approximately 15 cubic meters of midden were excavated, and sufficient amounts of cultural materials were retrieved. Impacts to this site were mitigated by a parking lot design that was a result of a cooperated effort between the University, Holman and Associates and Federate Coast Miwok Tribal Council representatives.

Further investigation by Holman and Associates identified two additional locations of potential archaeological sensitivity:

- At the corner of Palm and Olive Avenues, within the Academic Core area.
- An area near the Residence Hall and parking lot site.

A records search was conducted for the project area (Appendix B: EDR NEPACheck) and no areas considered Federal or State Historic Areas were identified on campus.

Historic

Native American Tribes

As previously discussed, the Coast Miwok tribal groups inhabited the San Rafael Region as early as 500 BP. Today, there are no federally recognized Indian tribes in Marin County[9]. Since no federally recognized Indian tribes reside in Marin County, no formal Native American Consultation was initiated. A search of online databases for information on Native American religious sites yielded no results related to Dominican University Campus.

8 Initial Report of Findings for Archaeological Text Excavations at MRN-254, Dominican College, April 1996, by Holman & Associates.

9 Telephone correspondence between Eddie Dominguez, Environmental Quality Services officer, Department of the Interior and Michelle Wegener on September 17th, 2009 at 2:30 pm.

Campus History

Dominican College of San Rafael was officially founded in 1915. Plans for Dominican were begun with a charter obtained in 1890. It was not until 1915 that the sisters opened a two-year liberal arts junior college for women., located in the main convent where an elementary and high school were also established. In 1918, Dominican began accepting female resident students and began its four-year liberal arts program. The school's curriculum started with traditional courses in Latin, German, English compositions, chemistry and history but grew to include diverse courses in philosophy, psychology, math, botany, Greek and art history. Although evolving at a time when women were mainly still working in the home, Dominican offered a scholastically strong curriculum that did not include cooking and sewing. The University of California assisted Dominican in developing its curriculum and allowed some of their professors to teach there part-time. One of these professors was Dr Ralph Minor, Dean of the school of Optometry at Berkeley who established Dominican's physics department and designed Ralph Minor Hall. In 1922, the State Board of Education authorized the college to award teaching credentials. In 1926, it was the first Catholic College in the West to be listed in the Association of American Universities. In 1966 the American Association of Colleges for Teacher Education presented the College with a distinguished achievement award for its excellence in teacher education. In 1950, the coeducational graduate school was opened. In 1969, the running of Dominican College was reverted from the sisters to the college board of directors. A minority group of sisters remained on the board. The University became Co-ed in 1972 as the communities need for a four-year coed college grew (Dominican, 1997c).

Historical Sites

Two sites listed in the National Register of Historic Places are located approximately a half mile from the Forest Meadows research site, The Robert Dollar Estate located at 1408 Mission Avenue, San Rafael, California and the Boyd House located at 1125 B Street, San Rafael, California. Both the Dollar Estate and the Boyd House are located off of the Dominican University Campus and out of the area of potential effect. For a listing of these sites and a map depicting their locations, please see Appendix B- NEPACheck®. Neither of these sites are within the boundaries of the Dominican University campus and none would be impacted by the Proposed Action (Dominican, 1997c).

4.2 Natural Environment

4.2.1 Water Quality, Wetlands, and Floodplains

Regulatory Setting

Water Quality

The Clean Water Act

The primary federal law governing water quality is the Clean Water Act (CWA) of 1972, as amended. This act provides for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. The CWA emphasizes technology-based (end-of-pipe) control strategies and requires discharge permits to use public resources for waste discharge. The Act also limits the amount of pollutants that may be discharged and requires wastewater to be treated with the best treatment technology economically achievable regardless of receiving water conditions.

Section 401 of the CWA requires a water quality certification from the State Water Resources Control Board (SWRCB) or from a Regional Water Quality Control Board (RWQCB) when water is discharged into an existing waterway or when the project requires a CWA Section 404 permit to dredge or fill within waters of the United States. The Section 401 water quality certification attests to the acceptability of the resultant water quality in the affected waterway.

The 1987 amendments to the CWA included Section 402(p), which established a framework for regulating municipal and industrial storm water discharges, which includes the requirements for a National Pollutant Discharge Elimination System (NPDES) permit for the discharge of any pollutant into waters of the United States. The amendment also provides a framework for regulating storm water runoff from construction sites. On November 16, 1990, the U.S. EPA published final regulations that established requirements for storm water permits.

In 1998, Section 303(d) was amended to the CWA, requiring the state to identify and maintain a list of water bodies that do not meet water quality standards and implement a Total Maximum Daily Load (TMDL) program for impaired water bodies.

The RWQCB has permit authority over “non-point source” discharges to natural receiving waters. Any construction project of five acres or larger requires a NPDES General Construction Activity Stormwater Permit. Such permits must meet all applicable provisions of Section 301 and 402 of the Clean Water Act.

Wetlands

Wetlands and other waters are protected under many laws and regulations. The CWA (33 U.S.C. 1344) is the primary law regulating wetlands and waters. The CWA regulates the discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the CWA, a three-parameter approach is used that includes the presence of hydrophytic (i.e., aquatic) vegetation, wetland hydrology, and hydraulic soils (i.e., soils subject to saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the CWA.

Under Section 404 of the CWA, no discharge of dredged or fill material can be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The United States Army Corps of Engineers (USACE), with oversight by the EPA, is charged with upholding and issuing permits for the Section 404 program.

The Executive Order for the Protection of Wetlands (Executive Order [E.O.] 11990) (USEPA, 2009a) also regulates the activities of Federal agencies with regard to wetlands. This Executive Order states that a federal agency cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds (1) that there is no practicable alternative to the construction, and (2) the proposed project includes all practicable measures to minimize harm.

Floodplain

E.O. 11988 (Floodplain Management) (USEPA, 2009b) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative.

In order to comply, the following must be analyzed:

- The practicability of alternatives to any longitudinal encroachments.
- Risks of the action.
- Impacts on natural and beneficial floodplain values.
- Support of incompatible floodplain development.

- Measures to minimize floodplain impacts and to preserve/restore any beneficial floodplain values affected by the project.

The base floodplain is defined as “the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year.” An encroachment is defined as “an action within the limits of the base floodplain.”

Affected Environment

Water Quality

Dominican University is part of the San Pablo Bay Watershed system. San Pablo Bay Watershed contains part of six counties: Contra Costa, Marin, Napa, San Francisco, Solano, and Sonoma Counties. Black Canyon Creek and Sisters Creek both are contained in the San Rafael sub-watershed (see Figure 4.1- Major Streams and Watersheds of East Marin). There is no data specific to the water quality indicators for Sisters or Black Canyon Creeks but the State has listed all urban streams in the San Rafael City-Centered Corridor as impaired by the pesticide Diazinon, and San Pablo Bay as impaired by metals. Richardson Bay is identified as impaired by pathogens, while Tomales Bay is listed as impaired by metals (mercury), and excess sediment, nutrients, and pathogens. Walker Creek is impaired by metals, sediment, and nutrients while Lagunitas Creek is listed for sediment, nutrients, and pathogens. Pollutant levels are probably caused by urban and agricultural runoff. Watershed Management Plans that are under way and in some location have been completed including Tomales Bay, Bolinas Lagoon, and Marin County. Marin County is refining its first Watershed Management Plan, which describes and maps local watersheds, and prescribes actions for maintaining and improving watershed health countywide (Marin, 2007).

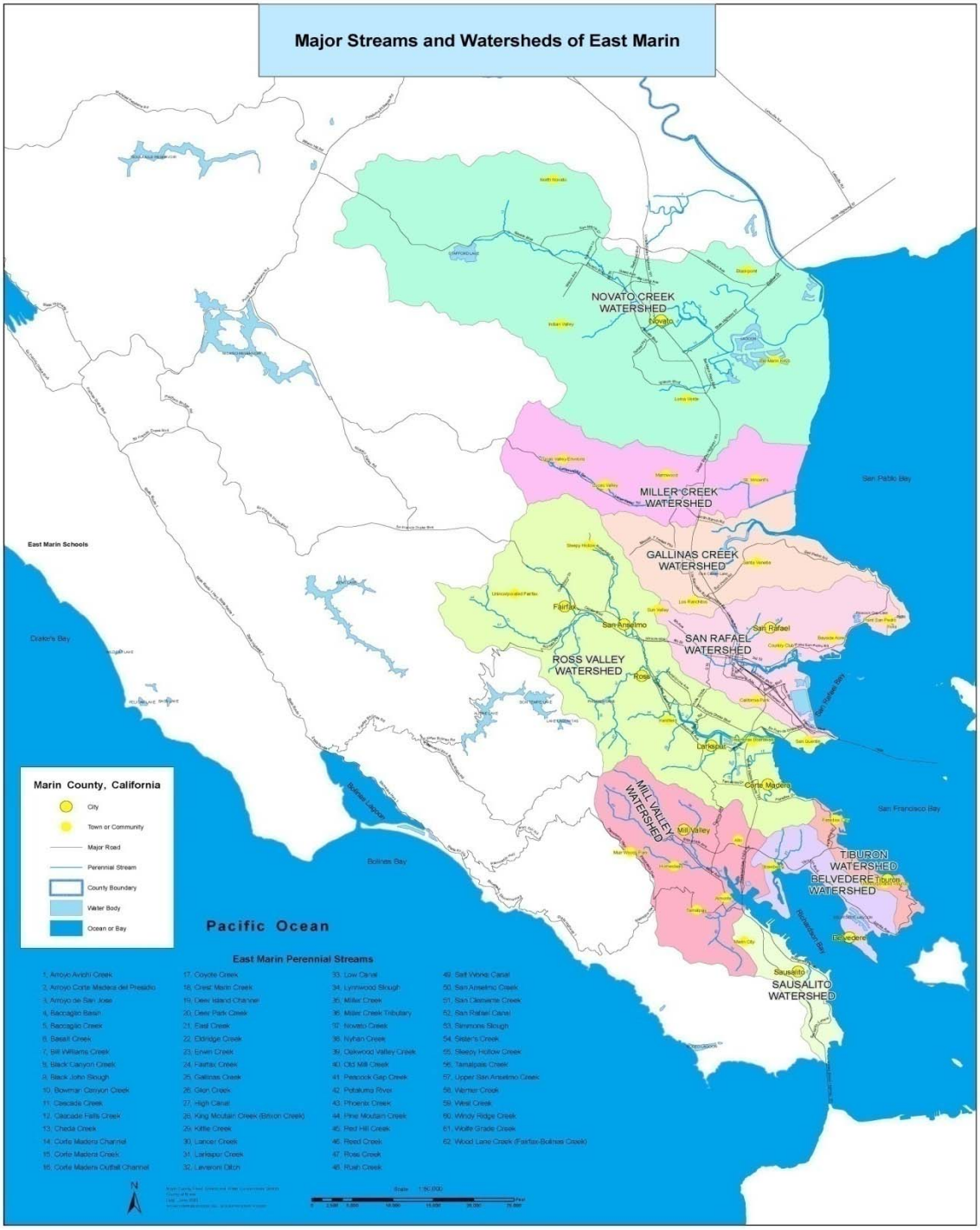


Figure 4.1: Major Streams and Watersheds of East Marin

Regional Hydrology

The Dominican Campus occupies approximately 55 acres of gently sloping alluvial and colluvial deposits, located northeast of downtown San Rafael and east of Highway 101. Mean annual rainfall in the study area is 30 inches. The raining season is historically November to April[10]. Regional surface water drains toward the south-southwest, entering the highway 101 drainage systems south of the Lincoln Avenue exit and eventually the tidal reach of San Rafael Creek and San Rafael Bay. Approximately 21.5 acres comprising Forest Meadows drain to Black Canyon Creek. The remaining 33.6 acres, consisting of the Academic Core 14.4 acres and residential Area (19.2 acres), drain to an unnamed former tributary of Black Canyon Creek, commonly known on campus as Sisters Creek. At the Watt Avenue storm drain system inlet, Black Canyon Creek encompasses 49.5 acres of predominantly steep, wooded hillslopes and transitional alluvial fan and floodplain deposits; the sister Creek watershed at Olive Avenue encompasses 241 acres of moderately steep to steep uplands and similar, transitional valley floor sediments. Its local outlet to the City of San Rafael storm drain system is located in a private backyard, just east of the intersection of Watt and Grand Avenues, at the campus entrance (Dominican, 1997).

Elevations in the study area range from roughly 40 feet at the Watt Avenue culvert entrance on Black Canyon Creek to 1,058 feet on Hind Peak, in the headwaters of Sisters Creek. Aside from the campus ground which occupy the more gently sloping portion of the watersheds, hillside and low density residential are the dominate watershed land uses. Low density resident predominates north of Forest Meadows and south of the remaining campus lands, while hillside residential is the most common use to the north-northeast of the main campus. The area east of the campus east of Deer Park Avenue (Upper Deer Park Project site) remains in undeveloped woodland.

Storm Water/Erosion Control

The Marin Countywide Plan has a goal to reduce impervious surfaces county wide. The Bay Area Stormwater Management Agencies Association has found that studies evaluating stream

[10] Mean Annual Precipitation Depth-Duration Frequency Data for the San Francisco Bay Region, California, S.E. Rantz, U.S. Geological Survey Open-File Report, 1971).

and wetland health consistently show that significant water quality impacts begin with impervious land coverage levels as low as 10%. With impervious land coverage over 30%, impacts on streams and wetlands become more severe and degradation is almost unavoidable without special measures. Impervious surfaces in Marin approach that 10% threshold. The Association of Bay Area Governments (ABAG) reports in its Projections 2003 that 10.1% of all land in Marin was developed in 2000 (compared with 4.4% in Napa County and 7.7% in Sonoma County) (ABAG, 2009).

For projects subject to discretionary review, the applicant may be required, as appropriate, to submit a pre-and post-project hydrology and hydraulic report detailing the amount of new impervious surface area and accompanying surface runoff from all improvement areas, including driveways — with a goal of zero increase in runoff (no net increase in peak off-site runoff). The applicant may be required to participate in a peak stormwater runoff management program developed pursuant to the new Program. In order to decrease stormwater runoff, the feasibility of developing a peak stormwater management program shall be evaluated to provide mitigation opportunities such as removal of impervious surface or increased stormwater detention in the watershed.

Wetlands

The USFWS, an agency within the Department of the Interior (DOI), has responsibilities to identify, inventory, and map the nation's wetlands. A search of National Wetland Inventory Maps produced by USFWS identified one wetland area within a one-mile radius of the Dominican University Campus (EDR, 2009- Appendix B of this document).

While a wetland area appears within one mile of the Dominican Campus, the Proposed Project would not encroach upon or disturb the identified wetland area.

Floodplains The Federal Emergency Management Agency (FEMA) has responsibilities to map the nation's floodplains, and produces Flood Insurance Rate Maps (FIRMs) identifying flood risks. The Dominican University Campus lies within the 500-year flood zone[11].

[11] EDR NEPACheck® searched the Federal Emergency Management Agency (FEMA) Flood Zone Data for 100 and 500 year flood zones. The Dominican University Campus is located in a 500 year flood zone (Appendix B- NEPACheck, Flood Plain Map).

4.2.2 Geology and Soils

Regulatory Setting

For geologic and topographic features, a key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects “outstanding examples of major geological features” that must be considered during design and construction of Federal projects.

Affected Environment

Over the years, the Dominican University Campus has been studied by a number of geologists, information from these reports was used in the (Dominican, 1997) and relevant information has been compiled here as well.

Campus Topography

The campus lies in a small valley that gently slopes southwest in eastern San Rafael. The Forest Meadows area is gently sloping to the south-southwest with elevations ranging from approximately 75 feet to 60 feet above mean sea level (MSL). The Academic Core of the campus also slopes south-southwest with elevations ranging from 90- 70 feet MSL. The Residential Area that includes the undeveloped area of the Upper Deer Park site has more variable topography. Upper Deer Park is located in the southern undeveloped portion of this area and has moderately steep to steep topography, with elevations ranging from 140 to 240 feet MSL. The Upper Deer Park Site is located at the base of the moderately steep slope elevated above Deer Park Road due to the addition of soils stockpiled from around the campus.

The valley that Dominican University lies in is underlain by colluvial and alluvial sediments derived from the surrounding hills (Dominican EIR, 1997d). The major drainage flowing in to the valley is Black Canyon Creek, a seasonal stream that flows through the central part of the Forest Meadows. Sisters Creek, listed as an unnamed tributary, is a seasonal stream that runs through the central part of the Residential Area and the Academic Core. Creek alterations have occurred throughout the campus due to development. The amphitheater in Forest Meadows is constructed over a culverted section of Black Canyon Creek (see figure 4.2 for a picture of a culvert on Black Canyon Creek).

Regional Geology

The Dominican Campus is located in California’s Coast Range Geomorphic Province that is characterized by complexity folded and faulted bedrock of the Jurassic-Cretaceous age (65 to 190 million years old). Through geologic time these sedimentary, igneous and metamorphic rocks have been up lifted, faulted, sheared, and extensively altered. Northwest trending

mountain ridges have been modified over more recent geologic time by soil development, erosion, and mass wasting (e.g. land sliding) (Dominican EIR, 1997d).

Within the Coast Ranges, the upper areas of the valleys are characterized by the accumulation of colluvial deposits. These unconsolidated deposits consist of fragments of rock, sands, and silty to clayey soils that have moved down slope by gravity from the adjacent hill slopes and ridges. The lower parts of the valleys are filled with alluvial deposits of gravels, sands, silts, and clays deposited by streams and rivers.

Site Geology

Regional slope stability mapping by the California Division of Mines and Geology[12] indicate that almost all of the campus is in the most stable category. However, there are areas along Locust Avenue (along the boundary of the residential area, adjacent to the Upper Deer Park Site) where there is lower stability along the steep banks of this reach of Sisters Creek, apparently related to creek erosion or down cutting.

Figure 4.2: Culvert on Forest Meadows Section of Black Canyon Creek

12 California Division of Mines and Geology, Preliminary Fault Activity Map of California, CDMG Open File Report OFR-92-03. 1992.

Soils

The Forest Meadows Area is underlain by alluvial soils consisting of sands, silts, and gravels. Underlying the sandy silt is a medium dense to dense sandy gravel. The gravels range from angular to rounded in shape and from one-quarter inch to greater than two inches in size. The gravels vary in fines content but are generally cohesionless. The gravels are between five and 30 feet thick and are in turn underlain by medium dense to dense silty sand. The soils developed on the valley floor are of the Tocaloma Series[13] .

Groundwater

Groundwater was encountered during drilling in some of the borings for the now-built Recreation Center. The groundwater depth ranged from nine to 28 feet below the ground surface. Miller Pacific reported the groundwater was deeper in the borings drilled closer to Black Canyon Creek. During the wet season it is likely that the groundwater will be shallower (Miller Pacific, 1995).

Faulting and Seismicity

The California Division of Mines and Geology (CDMG) updated their fault maps in 1994 of the Marin region and identified active faults. The Proposed Project is not located in an active fault zone.

[13] Soil Survey of Marin County California, Soil Conservation Service (now resource Conservation Service), U.S. Department of Agriculture, 1977.

4.2.3 Solid and Hazardous Materials and Wastes

Regulatory Setting

Hazardous Materials and Wastes

Hazardous materials and hazardous wastes are regulated by many state and federal laws. These include not only specific statutes governing hazardous materials and wastes themselves, but also a variety of laws regulating air and water quality, human health, and land use.

The primary federal laws regulating hazardous materials and wastes are the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986, (USEPA, 2009e) and the Resource Conservation and Recovery Act of 1976 (RCRA) (USEPA, 2009f).

The purpose of CERCLA, which is often referred to as Superfund, is to clean up orphaned or abandoned sites contaminated by hazardous substances, such that public health and welfare are not compromised. The Superfund Amendments and Reauthorization Act of 1986 (SARA) (USEPA, 2009g) made several important changes and additions to the CERCLA program, including the following:

- Stressed the importance of permanent remedies and innovative treatment technologies in cleaning up hazardous waste sites.
- Required Superfund actions to consider the standards and requirements found in other State and Federal environmental laws and regulations.
- Provided new enforcement authorities and settlement tools.
- Increased State involvement in every phase of the Superfund program.
- Increased the focus on human health problems posed by hazardous waste sites.
- Encouraged greater citizen participation in making decisions on how sites should be cleaned up.
- Increased the size of the trust fund.

RCRA provides for “cradle to grave” regulation[14] of hazardous materials and hazardous wastes. RCRA, which amended the Solid Waste Disposal Act of 1965, set national goals for:

[14] While RCRA handles many regulatory functions of hazardous and non-hazardous waste, arguably its most notable provisions regard the Subtitle C program which tracks the progress of hazardous wastes from their point of generation, their transport, and their treatment and/or disposal. Due to the extensive tracking elements at all points of the life of the hazardous waste, the overall process has become known as the "cradle to grave" system.

- Protecting human health and the environment from the potential hazards of waste disposal.
- Conserving energy and natural resources.
- Reducing the amount of waste generated.
- Ensuring that wastes are managed in an environmentally-sound manner.

EPA hazardous waste management regulations are codified at 40 CFR 260-282. Most states have enacted laws and promulgated regulations that are at least as stringent as the federal regulations. Furthermore, the statute authorizes states to carry out many of the functions of RCRA through their own hazardous waste programs (and state laws), if such programs have been approved (authorized) by the EPA (USEPA, 2008).

Other federal laws with implications for hazardous materials and wastes include:

- Atomic Energy Act.
- Community Environmental Response Facilitation Act (CERFA) of 1992.
- Clean Water Act (CWA).
- Clean Air Act (CAA).
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).
- Occupational Safety & Health Act (OSHA).
- Safe Drinking Water Act (SDWA).
- Toxic Substances Control Act (TSCA).

Additionally, E.O. 12088, Federal Compliance with Pollution Control, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

Non-Hazardous Wastes

RCRA also provides the general guidelines for non- hazardous waste management. The RCRA regulations for non-hazardous wastes are contained in 40 CFR 239-259, regulations for solid waste (USEPA, 2009f). These include regulations for the following:

- Requirements for State Permit Program determination.

The program exacts stringent bookkeeping and reporting requirements on generators, transporters, and operators of treatment, storage and disposal facilities handling hazardous waste.

- Separation for Materials Recovery Guidelines.
- Procurement guidelines for products containing recovered materials.
- Guidelines for states regarding the development and implementation of state solid waste management plans.
- Classification criteria for solid waste disposal facilities.
- Municipal solid waste (MSW) landfill criteria.

The most environmentally sound management of MSW is achieved when these approaches are implemented according to EPA's preferred order: source reduction first, recycling and composting second, and disposal in landfills or waste combustors last.

County of Marin/City of San Rafael Solid and Hazardous Wastes and Materials Handling

Approximately 18 solid waste sites exist in Marin County, the majority of which are closed. The only active disposal site in the county is Redwood Landfill, located north of Novato. The closure date of this landfill site was anticipated to be 2039 but it may reach its capacity as early as 2019. Proposed expansion plans may extend its life to as late as 2051, depending on the alternative selected. Other active solid waste sites include a materials recovery facility, a large-volume transfer station, and a composting facility. Additional composting operations and facilities are anticipated to open in the county in the future. Solid waste collection is administered by 22 agencies, each of which uses one of five private haulers (Marin, 2009).

The Marin County Hazardous and Solid Waste Joint Powers Authority implements a household hazardous waste program for all of Marin except the City of Novato, with a permanent collection facility in San Rafael and a periodic collection event in West Marin. The City of San Rafael operates its own hazardous waste and material program, separate from the rest of Marin County.

Affected Environment

Dominican University, like most universities uses a number of hazardous substances, mainly in the college's chemistry building, Albertus Magnus. A list of hazardous chemicals (as defined by the Cal-OSHA and the San Rafael Fire Department [SRFD]) currently used in Albertus Magnus is available for review at the City of San Rafael Planning Department[15]. The SRFD requires user

[15] List of Hazardous Chemicals in Albertus Magnus", letter from Jodi Sanchez, Dominican College to Jeff Bialek, undated.

of hazardous materials to apply for a yearly permit and have a hazardous materials management plan on file. Dominican College's Hazardous Materials Management plan is #96-6023 and is available at the SRFD.

Cal-OSHA requires that Dominican College train lab workers in lab safety and develop and use a Chemical Hygiene Plan (29 CFR 1910.1450). This plan covers topics such as transporting chemicals, reading Material Safety Data Sheets, monitoring chemicals, and instructions in the case of chemical spills. The College keeps a copy of the Chemical Hygiene Plan and training records available for review by Cal-OSHA.

Neither the development of Upper Deer Park or Forest Meadows will require the exposure, handling, removal, addition, use or application of hazardous wastes or materials. The Proposed Project entails the development of two temporary research sites neither of which are part of existing facilities or located on an area known to have or historically to have had or held hazardous wastes or materials.

4.2.4 Air Quality

Regulatory Setting

The Clean Air Act is the federal regulation that provides the basis for regulating releases of pollutants to the atmosphere. Different provisions of the CAA apply depending on where the emitting source is located, which pollutants are being emitted, and in what amounts. The CAA requires EPA to establish ambient air quality standards for certain "criteria" pollutants including ground level ozone, particulate matter (PM), carbon monoxide, sulfur dioxide, lead, and nitrogen dioxide. These standards are set forth in EPA's National Ambient Air Quality Standards (NAAQS) (Table 4.2) and are available at http://www.epa.gov/air/criteria.html (USEPA, 2009h).

Table 4.2- National Ambient Air Quality Standards

	Primary Standards		Secondary Standards	
Pollutant	**Level**	**Averaging Time**	**Level**	**Averaging Time**
Carbon Monoxide	9 ppm (10 mg/m^3)	8-hour [(1)]	None	
	35 ppm (40 mg/m^3)	1-hour [(1)]		
Lead	0.15 µg/m^3 [(2)]	Rolling 3-Month Average	Same as Primary	
	1.5 µg/m^3	Quarterly Average	Same as Primary	
Nitrogen Dioxide	0.053 ppm (100 µg/m^3)	Annual (Arithmetic Mean)	Same as Primary	
Particulate Matter (PM_{10})	150 µg/m^3	24-hour [(3)]	Same as Primary	
Particulate Matter ($PM_{2.5}$)	15.0 µg/m^3	Annual [(4)] (Arithmetic Mean)	Same as Primary	
	35 µg/m^3	24-hour [(5)]	Same as Primary	
Ozone	0.075 ppm (2008 std)	8-hour [(6)]	Same as Primary	
	0.08 ppm (1997 std)	8-hour [(7)]	Same as Primary	
	0.12 ppm	1-hour [(8)]	Same as Primary	
Sulfur Dioxide	0.03 ppm	Annual (Arithmetic Mean)	0.5 ppm (1300 µg/m^3)	3-hour [(1)]
	0.14 ppm	24-hour [(1)]		

(USEPA, 2009h)

(1) Not to be exceeded more than once per year.

(2) Final rule signed October 15, 2008.
(3) Not to be exceeded more than once per year on average over 3 years.
(4) To attain this standard, the 3-year average of the weighted annual mean PM2.5 concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m3.
(5) To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m3 (effective December 17, 2006).
(6) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm. (effective May 27, 2008)
(7) (a) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.08 ppm.

(b) The 1997 standard—and the implementation rules for that standard—will remain in place for implementation purposes as EPA undertakes rulemaking to address the transition from the 1997 ozone standard to the 2008 ozone standard.

[8] (a) The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is ≤ 1.

(b) As of June 15, 2005 EPA has revoked the 1-hour ozone standard in all areas except the fourteen 8-hour ozone nonattainment Early Action Compact (EAC) Areas. For one of the 14 EAC areas (Denver, CO), the 1-hour standard was revoked on November 20, 2008. For the other 13 EAC areas, the 1-hour standard was revoked on April 15, 2009.

Local Regulations

San Rafael (Marin County) is part of the Bay Area Air Quality Management District (BAAQMD). The California Legislature created the BAAQMD in 1955 as the first regional air pollution control agency in the country, recognizing that air emissions overflow political boundaries. The nine counties of the San Francisco Bay Area form a regional air basin, sharing common geographical features and weather patterns, and therefore similar air pollution burdens, which cannot be addressed by counties acting on their own.

The Bay Area Air Quality Management District is the public agency entrusted with regulating stationary sources of air pollution in the nine counties that surround San Francisco Bay: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, southwestern Solano, and southern Sonoma counties. Air quality policies of the BAAQMD follow Federal and State air quality guidelines for carbon monoxide, ozone, nitrogen dioxide, sulfur dioxide, and total suspended particulates for management of locally generated pollutants.

Affected Environment

Climate

San Rafael (San Francisco Bay Area- project region) has a Mediterranean climate, with mild winter lows seldom reaching the freezing mark (highs are in the mid 50s°F/lows are in mid 40s F). In the summer highs are around the low 80s F°, lows are around the mid 50s F. The National Weather Service reports that August is usually the warmest month and January as the coldest month. Total annual precipitation averages 34.29 inches (871 mm). The rainy season is from November to early April. Rain is rare outside of this period and it is normal to receive no rain in June, July, August, and September. (NWS, 2007).

Dominican University (located in San Rafael) is at the eastern portion of Marin County, adjacent to the northern portion of San Francisco Bay. Wind flow is typically from the south. Since the

area is influenced by moderate winds, air pollution potential is fairly low much of the year. However, during late fall and winter a buildup of carbon monoxide and particulate levels can occur during to the lighter winds and colder temperatures. Smog levels are potentially high during summertime heat waves.

The BAAQMD currently attains national air quality standards for PM. Therefore, BAAQMD is not required to develop a PM plan at this time. U.S EPA lowered the 24-hour PM 2.5 standard from 65 µg/m 3 to 35 µg/m 3 in 2006. EPA is required to designate the attainment status of the Bay Area for the new standard by December of 2009. A plan for the new national standard would then be prepared if the region is designated nonattainment (BAAQMD, 2009).

BAAQMD has adopted a PM Implementation Schedule, per the requirements of Senate Bill (SB) 656, as discussed below. In 2003 the California Legislature enacted SB 656 (SB 656, Sher); codified as Health and Safety Code (H&SC) section 39614. This legislation seeks to reduce public exposure to PM 10 and PM 2.5 and to make progress toward attainment of State and national PM 10 and PM 2.5 standards. SB 656 required ARB, in consultation with local air quality districts, to develop and adopt a list of the most readily available, feasible, and cost-effective control measures that could be used by the California Air Resource Board (ARB) and air districts to reduce particulate matter. The bill required the ARB and air districts to adopt implementation schedules for appropriate ARB and air district measures.

To comply with SB 656, BAAQMD reviewed the list of 103 potential PM control measures prepared by the ARB and developed a Particulate Matter Implementation Schedule 26 which was adopted by the District’s Board of Directors on November 16, 2005.

Although the ambient air quality in Marin is high, the County recognizes that Marin benefits from its upwind location relative to prevailing wind conditions in the Bay Area. The County should seek to reduce pollution generated by land uses and transportation. Air pollution has the potential to particularly affect "sensitive receptors" like hospitals and schools and air quality should be considered when locating these types of facilities (BAAQMD, 2009).

Sources of Air Pollution

Sources of air pollution near the Dominican Campus are automobiles; primarily on Highway 101 and the roadways leading to Highway 101 near the college. There are not any major stationary air pollution sources located near the college.

Sensitive Receptors

There are several sensitive receptors in the area, Coleman Elementary School which is adjacent to the Dominican campus (sharing a fence line with the Forest Meadow Site) as well as the surrounding residential areas. While average residential neighborhoods are not formally considered sensitive, the campus in nestled in a residential area of San Rafael and the Upper Deer Park site is across the road from a residential neighborhood.

4.2.5 Noise

General Noise Parameters

In the City of San Rafael's General Plan 2020, noise is described as sound, being the result of the vibration of an objects, which is transmitted through the air in waves that in turn vibrate the eardrum. Sound is measured in a logarithmic scale using unites called decibels (dB). Since the human ear does not hear all sounds equally, a special weighted decibel measurement (dBA) is used to simulate human hearing.

Ldn (Sound Level, day-night average) is the average dBA sound level during a 24-hour day. Sound levels during the night are weighted over those during daylight hours, by adding ten decibels to actual sound levels during the period from 10 pm to 7am to recognize the increased annoyance factor related to noise at night. Examples of typical sound levels are shown in Table 4.3.

The outdoor noise environment throughout the U.S. varies considerably. Outdoor day-night average (Ldn) sound levels can be as low as 30-40 dBA (Ldn) in the wilderness and as high as 85-90 dBA (Ldn) in noisy industrial urban areas. In San Rafael, Ldn levels in residential areas are as low as 45 dBA (Ldn) in quiet valleys shielded from major roads and as high as 65-75 dBA (Ldn) along highways and major roads. The Dominican campus is nestled in the residential area of San Rafael, but is not completely shielded from the noise of Highway 101.

Table 4.3 Noise Meter		
Common Outdoor Activities	**Noise Level**	**Common Indoor Activities**
	— 110	Rock band
Jet fly-over at 1000 feet		
	— 100	
Gas lawn mower at 3 feet		
	— 90 —	
Diesel truck at 50 feet at		Food blender at 3 feet
	— 80 —	Garbage disposal at 3 feet
Noisy urban area,		
Gas lawn mower, 100	**— 70 —**	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	**— 60 —**	
		Large business office
Quiet urban daytime	**— 50 —**	Dishwasher in next room
Quiet urban nighttime	**— 40 —**	Theater, large conference
Quiet suburban nighttime		
	— 30 —	Library
Quiet rural nighttime		Bedroom at night
	— 20 —	
		Broadcast/recording studio
	— 10 —	
Lowest threshold of	**— 0 —**	Lowest threshold of human
human hearing		hearing

Source: BMT

Regulatory Setting

Federal

In the past, EPA coordinated all federal noise control activities through its Office of Noise Abatement and Control. In 1981, the Administration at that time concluded that noise issues were best handled at the state or local government level. As a result, the primary responsibility for regulating noise was shifted to state and local governments. The Noise Control Act of 1972 and the Quiet Communities Act of 1978, however, were not rescinded by Congress and remain in effect today, although essentially unfunded (USEPA, 2009b).

Marin County, California:

The Noise Element of the Marin Countywide plan includes objectives, policies, and implementation programs which fall in one of two categories: (1) locating and designing new development to minimize exposure of residents and workers to excessive noise levels, and (2) maintaining acceptable noise levels in existing developed areas. Policies in the first category include guidelines for noise levels for residential, commercial, and industrial development. These guidelines establish the following threshold outdoor noise levels at which an acoustical analysis must be performed: 60 decibels (dBA) Ldn for residential developments, 65 dBA Ldn for office and commercial developments, and 70 dBA Ldn for industrial developments. Policies in the second category include standards for maintaining acceptable noise levels in areas with existing residential, commercial, industrial, and institutional uses. New developments will be analyzed for their impacts on these existing uses. (Marin, 2007a) County Community Development Agency.

City of San Rafael

The City of San Rafael General Plan 2020 sets forth guidelines related to noise in the community. The Dominican College Campus Development Plan EIR (Dominican, 1997) references these standards in its analysis as well. Key criteria for maintaining acceptable noise levels identified in the General Plan 2020 include the following (San Rafael, 2006):

- Exterior noise standard for backyards and or common usable outdoor areas in new residential development is up to Ldn of 60 dBA. (General Plan 2020, N-2)
- Planning and design of new development to minimize noise impacts- includes Noise Mitigation (N-3a) suggestions.
- Design nonresidential development to minimize noise impacts on neighboring uses. New non-residential development shall not increase noise levels in a residential district by more than Ldn 3dBA or create noise impacts that would increase noise levels to more than Ldn 60 dBA at the property line of the noise receiving use (N-4a)
- Required nuisance noise mitigation for activities such as construction (N-10c)

Affected Environment

Noise measurements were taken for the Dominican College Campus Development Plan (Dominican, 1997) at six sites around the campus. Site Three was located in the open space

slightly northwest of the Forest Meadows site. The Ldn at that time was 56. The Upper Deer Park Site can be best represented by the measurement taken at Site Six of the EIR. This site is located on Locust Avenue in the residential area a few blocks west from the Upper Deer Park Site. The Ldn at this location was 52. Since the noise measurements were taken in 1997, the Campus Development Plan has moved forward. It can be inferred that the noise levels in the area have increased slightly but not significantly as the Campus Development Plan is regulated by the City of San Rafael's Noise Regulations in the General Plan 2020 which state strict guidelines for nominal noise increases as a result of construction activities. Observations from a site visit in September 2009 found the noise levels stated in the 1997 EIR to be accurate.

4.2.6 Biological Resources

The biological resources on the Dominican University Campus were determined by reviewing available information on resources in the area including:

- EDR NEPACheck® for the NORF-DU Project (now NORS-DU Project), this includes a search of a variety of sources such as USFW, CNDDB, CDFG, etc., please see Appendix B.
- The Dominican College Campus Development Plan EIR, 1997
- Dominican University Master Plant list
- California Fish and Game Website
- County Of Marin General Plan
- City of San Rafael General Plan 2020

A general field review was also conducted in September 2009. This review included interviews with the Grounds Manager and the Associate Director of Facilities for Dominican University.

Plants

Regulatory Setting

USFWS and the California Department of Fish and Game (CDFG) share regulatory responsibility for the protection of special-status plant species in the State of California. Special-status species are selected for protection because they are rare and/or subject to population and habitat declines. Special status is a general term for species that are afforded varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as

endangered or threatened under the Federal Endangered Species Act (FESA). The regulatory requirements for FESA can be found at 16 USC 1531, etc. seq. See also 50 CFR 402[16].

Affected Environment

Vegetation on campus reflects the extent of past development and is dominated by non-native ornamental landscaping and groves of eucalyptus trees. An exception to this is a portion of Black Canyon Creek in Forest Meadows which supports a dense cover of coast live oak. Individual native trees are scattered elsewhere throughout the campus.

Overall, the Dominican University Campus has a very landscaped and maintained look. Lush mowed lawns and exotic plant species populate the core campus areas. In the less utilized areas of campus, and along Sisters and Black Canyon Creeks the University has tried to maintain the natural, native species populations (See Appendix D for the Dominican University Master Plan List), These areas are significantly less landscaped.

Dominate Vegetation in the Forest Meadows Site Area: The location of the Forest Meadows site had been previously been utilized as an old nursery site. The site area was previously cleared of trees and brush leaving bare soil covered by a sparse layer of wood chips in some areas with some patches of non-native grasses. Surrounding the site is a mix of California bay and coast live oak around the bank areas of Black Canyon Creek; eucalyptus (*Eucalyptus* spp.) and live oak, populating the outer fringe of the bank areas and on the grounds. Periwinkle (*Vinca major*), French broom (*Cytisus monspessulanus*), and black wood acacia (*Acacia melanoxylon)* amongst several other species are also present (Figures 4.3 and 4.4).

16 Federal Register, 50 CFR Part 402 Joint Counterpart Endangered Species Act Section 7 Consultation Regulations; Final Rule. 2004. Retrieved by Michelle Wegener September 16, 2009. http://www.fws.gov/endangered/pdfs/Consultations/Pest/PestFinal_Rule.pdf

Figure 4.3- Forest Meadows

Figure 4.4- Forest Meadows- Black Canyon Creek Bed

Dominate Vegetation in the Upper Deer Park Site Area: The Upper Deer Park site is primarily eucalyptus groves with a few pockets of native forest cover and trees. The areas where the nursery rows are proposed to be placed is clear as the area has been historically used for the storage of excess soils removed from around the campus due to various construction and landscaping activities. The open areas are covered in vegetative patches, dense leaf beds and sparse grass cover. The only exposed soil areas mark the fire road that is used to access this part of the campus for general fire control maintenance (See figures 4.5 and 4.6).

Figure 4.5 – Upper Deer Park – View of Area 1

Figure 4.6- Upper Deer Park- Area 3 View

Animals

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The USFWS, the National Oceanic and Atmospheric Administration (NOAA) and CDFG are responsible for implementing these laws in the state of California. This section discusses potential impacts associated with wildlife not listed or proposed for listing under the FESA. Species listed or proposed for listing are discussed later.

Federal laws and regulations pertaining to wildlife include the following:

- National Environmental Policy Act.
- Migratory Bird Treaty Act.
- Fish and Wildlife Coordination Act.

Affected Environment

Wildlife habitat on the campus includes forest and riparian corridors, eucalyptus groves, landscaping and structures, and small areas of grassland (Dominican, 1997). Wildlife commonly associated with the areas forest habitat includes: dusky-footed woodrat, deer mouse, western flycatcher, chestnut-backed chickadee, plain titmouse, Hutton vireo. Wilson warbler, Orange-crowned kinglet, rufous-sided towhee, fox sparrow, bushiti, ringneck snake, California newt, and California slender salamander. Black-tailed deer, jays, woodpeckers can also be found (Dominican, 1997).

The Riparian corridors along Black Canyon Creek provides habitat for black-tailed deer, raccoon, and opossum. The 1997 EIR (Section 4.3, Biological Resources) states that during field surveys in late fall of 1996 showed no invertebrates, fish, or amphibians in Black Canyon creek. This is can be attributed to extensive culvert systems downstream from the site which precludes use by species other than water striders.

Eucalyptus groves are not very supportive of wildlife, but provide nesting areas for various nesting raptor species. No raptor species are currently known to exist on campus. Smaller birds can be spotted, including: American robin, brown towhee, house finch, English sparrow, and European starling. Older structures around campus have been known to provide roosts for bats such as the California myotis.

The open grass areas of the campus support small mammals, insects and reptiles. Commonly found species on campus in these areas includes: Botta pocket gopher, western fence lizard, northern alligator lizard, and gopher snake.

Threatened and Endangered Species

Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): 16 U.S.C. 1531, et seq. See also 50 CFR 402[17]. This act and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies are required to consult with the USFWS and NOAA Fisheries to ensure that they are not undertaking, funding, permitting or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 is a Biological Opinion or an incidental take permit. Section 3 of FESA defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

Affected Environment

Letters were sent to CDFG as well as to the USFWS (see correspondence in Appendix F), no response has been received to date. According to the NEPACheck® conducted for the proposed project which searches databases of the agencies such as Bureau of Land Management (BLM), USFWS, California Natural Diversity Database (CNDDB), and CDFG so that no known threatened or endangered species have reside on the Dominican University campus or the immediate vicinity (one mile radius); the 1997 Dominican College Campus Development Plan EIR collaborates these findings. The NEPACheck® shows several listed species within two miles of the campus, see Appendix B, Natural Areas for a map of the sighting locations, specific species, and listing type. The U.S. EPA Endangered Species Protection Program Database list (Table 4.4) the following Endangered Species as potential inhabitants of Marin County, California:

[17] Federal Register, 50 CFR Part 402 Joint Counterpart Endangered Species Act Section 7 Consultation Regulations; Final Rule. 2004. Retrieved by Michelle Wegener September 16, 2009. http://www.fws.gov/endangered/pdfs/Consultations/Pest/PestFinal_Rule.pdf

Table 4.4- Endangered Species Listed For Marin County, CA

Species:	Name:
Amphibian	California red-legged frog
Birds:	California clapper rail
	Western snowy plover
	Northern spotted owl
	Brown pelican
	Bald eagle
	Marble Murrelet
Crustacean:	California fresh water shrimp
Fish:	California Central Valley Steelhead
	Chinook (Central Valley spring run) salmon
	Steelhead (Central California population)
	Chinook salmon
	Coho salmon
	Tidewater goby
Insects:	Mission blue butterfly
	Myrtle's sliverspot
Mammal:	Salt marsh harvest mouse
Plant:	Tiburon paintbrush
	Sonoma spineflower
	Baker's Larkspur
	Beach layia
	Showy Indian clover
	Clover lupine
	Sonoma alopecurus
	White-rayed pentachaeta
	Marin dwarf-flax
	Tiburon jewelflower

Source: EPA Endangered Species Protection Program Database

5. ENVIRONMENTAL CONSEQUENCES

This chapter discusses the environmental consequences of the Proposed Action and the No Action Alternative. Each of the resource areas identified and described in Section 4, Affected Environment is evaluated in turn here. Where impacts are identified, they are described and noted as being temporary impacts (as, for example, occurring only during the construction phase of an activity) or permanent. Measures that could be taken to mitigate those impacts are also identified and discussed.

5.1 Human Environment

5.1.1 Land Use

Proposed Action

The Proposed Action takes place on two separate sites on the Dominican University campus:

- *Upper Deer Park*: The City of San Rafael assigns blanket "Planned Development" (PD) designations on all vacant lots five acres or greater. Lots zoned PD must undergo a zone change for any use that changes its vacant status. Once that use is determined a four digit number is assigned behind the PD designation that identifies that specific use to the lot. Due to the addition of utilities necessary to operate the research site at the Upper Deer Park location, a zone change is required and a PD number will be assigned by the City. This process generally takes four to six months; Dominican University is expected to begin this process with the City in November 2009.

- *Forest Meadows*: The Forest Meadows site is currently zoned for uses including: athletic fields, ancillary, outdoor storage, and office use. The City has reviewed the plans proposed for the Forest Meadows site and have determined that the use is consistent with the current zoning. The City of San Rafael has issued a Letter of Determination on the Forest Meadows site (see Appendix G).

Temporary Impacts: The Proposed Project would not cause any temporary impacts to land uses at either the Forest Meadows site or the Upper Deer Park site.

Permanent Impacts: The Proposed Project would require a zoning change for the Upper Deer Park site. Since this is a permanent change in the land use designation, then it is considered a permanent impact.

No Action Alternative

The No Action alternative would not change or modify current land uses at the Upper Deer Park site or Forest Meadows site on the Dominican University campus; therefore, there would be no impacts to land use.

Mitigation Measures

Proposed Action

Temporary Measures: No temporary measures required.

Permanent Measures:

Upper Deer Park: The City has determined that a zone change is required for this site. The University must begin its application for a zone change for the development of this site four to six months prior to the start of site development. The City has indicated that this zone change would be approved once the proper filing requirements completed, and fees are paid. The neighborhood "Four by Four" committee which represents residents of the neighborhoods surrounding the Dominican University Campus as well as representatives from the University has provided input on the final plans of the research sites and is not expected to present opposition to the zone change required for the project. The impact caused by the zone change would be considered Less than Significant.

Forest Meadows: The University has submitted a description of the research site and its function to the City for their determination of the consistency of the proposed use with the current land use designation. The City responded with a Letter of Determination (Appendix G) stating that the research site was constant with the current land use designation, no zone change was required. Since no zoning change is required and the use is consistent with the current use for that lot, no impacts would result from the development of the Forest Meadows site.

5.1.2 Local Community

Proposed Action

Temporary Impacts:

Forest Meadows: Temporary impacts are not anticipated to the local community as a result of the Proposed Project at the Forest Meadows location. This site is in a more remote part of campus behind the amphitheater in an unofficial campus storage area. The site is only frequently visible to students and faculty of the Colman Elementary School during recreational

hour of the day (recess and lunch times) through a chain link fence they share with the University at its property line. This is not seen as an impact because this area has been historically used as storage and as a nursery site, activities related to the development of the site are not inconsistent with historical activities in the area. The Proposed Project does not include construction therefore would not pose temporary construction related impacts. No temporary impacts anticipated.

Upper Deer Park: Temporary impacts to the local community would be experienced during the development of the Upper Deer Park Site. The Upper Deer Park Site is located across Locust Street from a residential neighborhood. While the Proposed Project does not include construction and therefore construction related disturbances such as excessive noise, dust, etc.; site development will include temporary visual impacts (site supplies, site materials, worker crews, etc.) during the time that the research site is erected as well as the disturbance of delivery vehicles delivery supplies to the site. These would be temporary impacts that would cease once the site was fully developed.

Permanent Impacts: The Proposed Action would provide the only research site in the United States dedicated to the study of SOD (*P. ramorum)* as well as other new and emerging pests and pathogens of ornamentals possibly in the future. Information gained from the study of pathogens and pests in this nursery setting simulated at Dominican University would help to fight their spread in nursery stock and natural habitats in uncontrolled environments, therefore saving industries from the economic impact they are currently facing due to the destructive nature of SOD and possibly other pathogens and pests in the future. The result would be a positive permanent impact on the nursery industry and forest stands of the world.

No Action Alternative

Temporary Impacts: The No Action Alternative would not change or affect the Dominican University campus or the surrounding local community; therefore, there would be no temporary impacts to the community of San Rafael or Dominican University.

Permanent Impacts: While the No Action Alternative would not change Dominican University campus or the surrounding community, if the NORS-DU research site is not developed, the nursery communities and countless forest stands will continue to suffer from the deadly effects of SOD and the associated economic impacts at result from the effects of this pathogen on plant species.

Mitigation Measures

Proposed Action

Temporary Measures: Temporary measures to minimize impacts during site development at Forest Meadows include:

- Traffic and circulation BMP's in order to maintain access to facilities for personnel working or attending classes on the Dominican University Campus and for residents who reside in the surrounding neighborhoods.
- Proper signage and posted updates on site development process to keep the surrounding neighborhood informed of the development process.
- Streets would be maintained open for vehicle traffic, and pedestrian and driveway access to businesses and adjacent properties would be maintained at all times during the development period.
- Maintaining communication with the neighborhood four by four committee so that community members are aware of the project process and have open communication with the University at all times.

Permanent Measures: None required.

No Action

Temporary Measures: No temporary measures required.

Permanent Measures: Approval and development of the NORS sites on the Dominican University Campus.

5.1.3 Utilities/Public & Emergency Services

Proposed Action

Temporary Impacts:

- Temporary impacts in the form of service delays and/or interruptions may be experienced during site development. The Upper Deer Park Site would be tying in directly with an existing sewer line utilized by an adjacent building that is part of the Dominican University campus. Interruption in service is not anticipated, but sometimes occurs during sewer tie-ins.

- Temporary impacts in the form of road delays or development activities may be experienced during site development. These delays could potentially have an effect on the response time of police, fire and emergency medical personnel in the case of an emergency.

Permanent Impacts:

- A diesel generator would be required at both sites. This generator will be used one to two times per year to steam sanitize the soil at the completion of an experiment. This generator would run for a maximum of three hours per use.
- Electric pumps would be required to pump excess water from the test beds after major storm events. This pump would only run when the natural flow into the evaporation basins is too much for the basin to handle and excess needs to be pumped into the holding tanks. As stated earlier, increased use of electrical resources ultimately translates into emissions from power plants. See Appendix A for diagrams and descriptions of the piping system.

  The period of operation of the diesel generator and the electric pumps is so infrequent that no permanent impacts to utilities are anticipated. The current utility capacity on the Dominican University campus would be able to accommodate the Proposed Project.

No Action Alternative

Temporary Impacts: The No Action alternative would not cause any change or disruption to the utilities currently servicing the Dominican University campus. No temporary impacts.

Permanent Impacts: No impact.

Mitigation Measures

Proposed Action

Temporary Measures:

- During site development, workers will inform University faculty of utility disruptions in time for preparation of service delays or disruptions.
- If road delays are anticipated, the University plan for traffic management should be followed.

Permanent Measures:

- No permanent impacts to utilities are anticipated. The current utility capacity of the Dominican University campus would be able to accommodate the Proposed Project; therefore no permanent measures for utilities are required.

No Action Alternative

No mitigation required.

5.1.4 Traffic and Transportation

Proposed Action

Temporary Impacts: The Proposed Project is confined to the Dominican Campus, though some of the development of the Upper Deer Park site would require the use of the access from the streets in the Upper Deer Park area that the campus shares with the community. During construction, temporary campus road delays or detours may occur. Delays and detours would be temporary.

Permanent Impacts: The Proposed Action would not permanently close any roads or sidewalks on or around the Dominican University campus. The Proposed Action is 'no growth', therefore, it would not significantly increase the number of employees at Dominican University, and not significantly increase the number of vehicles entering or leaving the campus. Likewise, no impacts to offsite roadways or public transportation links are expected.

No Action Alternative

The No Action alternative would not change or modify current roadways or circulation patterns on the Dominican University Campus or in the surrounding neighborhoods; therefore, there would be no impact on transportation and circulation on-campus or off-campus.

Permanent Impacts: No impact.

Mitigation Measures

Proposed Action

Temporary Measures: During construction activities, any anticipated roadway delay or detour should be reported to the campus employees, posted in the surrounding neighborhoods, and clearly marked to avoid traffic jams and accidents.

Permanent Measures: The Proposed project would not permanently close any roads or sidewalks on the Dominican University campus or surrounding neighborhoods. Because the

Proposed Action is 'no growth', it would not significantly increase the number of employees at NIST, would not appreciably increase the number of vehicles entering or leaving the campus, and should have no effects on offsite traffic or public transportation.

No Action Alternative

No measures required.

5.1.5 Visual/Aesthetics

Proposed Action

Temporary Impacts:

Forest Meadows: Due to low visibility and historical use of the Forest Meadows site to casual viewers off-campus, temporary impacts during construction are not expected.

Upper Deer Park: Temporary visual impacts during site development would be experienced by the surrounding neighborhood adjacent to the Upper Deer Park site (Locust Avenue area). These temporary visual impacts would include storing of site supplies, site materials, worker crews, etc. during the time that the research site is developed. These would be temporary impacts that would cease once the site was fully developed. The site would be developed to best blend with the surrounding area, input from the neighborhood Four by Four committee would be carefully considered in regards to aesthetics as well as other aspects of the project.

Permanent Impacts: The Proposed Project would add a new feature to both the Upper Deer Park and Forest Meadows sites. While these changes would be noticeable to University staff and students and residents of the adjacent neighborhood (Upper Deer Park) and some campus staff and students and staff at Colman elementary school (Forest Meadows site) both sites would be designed to best blend with the surrounding environment. The University has solicited input from the neighborhood Four by Four committee so that the surrounding community is comfortable with the addition of the research site in both locations.

At this time the development of the Upper Deer Park site would only require the removal of a few immature eucalyptus trees on the perimeter of the site. These trees are part of a larger mature grove and their removal would not be noticed by the casual viewer.

No Action Alternative

The No Action Alternative would not change the visual or aesthetic character of the Dominican University campus; therefore, there would be no impact to the visual character or aesthetics of the campus.

Mitigation Measures

Proposed Action

Temporary Measures: All elements of the Proposed Action will be designed to blend the new sites with the surrounding environment. Input on aesthetic elements of this project has been solicited from the neighborhood Four by Four committee who represents members of the surrounding community and University.

Permanent Measures: Aesthetic elements were considered during the development of the Proposed Project, and the new sites were selected in an effort to minimize the environmental impacts of their construction.

No Action Alternative

The No Action Alternative would not change the visual or aesthetic character of the Dominican University campus; therefore, there would be no impact to the visual character or aesthetics of the campus or surrounding community and no mitigation measures would be required.

5.1.6 Cultural and Historic Resources

Proposed Action

Temporary Impacts: Based on a records search of the site (NEPACheck®, Appendix B) and the 1997 Dominican College Campus Development Plan EIR, there is no record of listed historic structures or archeological elements of record that exist on the Dominican University Campus. Letters were sent to the California SHPO to collaborate this, but no response has been received to date (see Appendix E). Upper Deer Park and Forest Meadows are not known to contain any Native American sites. Therefore, the Proposed Project would have no impact on cultural or historic resources.

Permanent Impacts: No impact.

No Action

Temporary Impacts: The No Action Alternative would not alter the Dominican University campus. In addition, there are no listed historic or cultural resources present on the campus; therefore, would be no impact to cultural or historic resources.

Permanent Impacts: No impact.

Mitigation Measures

Proposed Action

Temporary Measures: Based on historical records, there are no listed historic structures or archeological elements of record that exist on the Dominican University campus. If cultural materials are discovered during site development activities, then all activity within and around the immediate discovery area must be diverted until a qualified archaeologist can assess the nature and significance of the find.

Permanent Measures: None required.

No Action Alternative

The No Action alternative would not change or modify the Dominican University campus; therefore, there would be no impact on cultural and historic resources. No measures are required.

5.2 Natural Environment

5.2.1 Water Quality, Wetlands, and Floodplain

Water Quality

Proposed Action

Temporary Impacts: Construction of the Proposed Project would not collectively or individually impact the physical condition or quality of the surface water or groundwater that lies beneath the site. None of the actions that make up the Proposed Project are expected to come in to contact with the water table since the only excavation associated with the Proposed Project would be trenching for drain and the emergency sewer lines. Utilities are commonly within four feet of ground surface which would not be deep enough to cause any harm to the geologic structures of these resources. No temporary impacts.

Permanent Impacts: None.

No Action Alternative

No changes to the condition, or quality of the surface water or groundwater aquifers would occur under this alternative; therefore no impacts would result from the No Action Alternative.

Storm Water/Erosion Control

Proposed Action

Temporary Impacts: While site development activities at both sites do not involve extensive earth work or excavation, trenching for drain and the emergency sewer lines would be required. These utilities occur within four feet below ground surface. Any type soil disturbance activity has the potential to lead to minor erosion in the development area. Un-intentional Compaction of soil and the clearing of grass and leaf ground covers can also induce minor erosion effects, carrying soil sediments into storm drains or the bordering Sisters Creek (Upper Deer Park site) or Black Canyon Creek (Forest Meadows site).

Permanent Impacts: None required.

No Action Alternative

No additions or improvements would be made to the Dominican University campus; therefore, there would be no change in storm water or erosion patterns at the Dominican University campus and no impacts would be anticipated.

Wetlands

Proposed Action

Temporary Impacts: While a wetland area appears within one mile of the Dominican Campus, the proposed action would not encroach upon or disturb the identified wetland area.

Permanent Impacts: None.

No Action Alternative

There are no wetlands in the Proposed Project area or vicinity and no additions or improvements would be made to the Dominican University campus as a result of the No Action Alternative; therefore, there would be no disturbance to any wetland areas and no impacts would be sustained.

Floodplains

Proposed Action

Temporary Impacts: The NIST Gaithersburg campus falls outside the boundaries of the 100 year floodplain according to the FEMA flood maps (See Appendix B- NORS-DU NEPACheck® Flood Plain Map) but within the 500 year flood zone. There would be no impact on floodplains if the Proposed Project were implemented.

Permanent Impacts: None.

No Action Alternative

No additions or improvements would be made to the Dominican University campus under the No Action Alternative; therefore, there would be no impacts on floodplains.

Mitigation Measures

Water Quality

Proposed Action:

Temporary Measures:

No measures required.

Permanent Measures: The Proposed Project is the development of a research site that would be used to research plant pathogens. Since the pathogen *P. ramorum* is capable of spreading to plants through water, the University has designed the nursery to safe guard against the accidental spread of the pathogen within and outside of the nurseries.

Precipitation and Irrigation Water Collection: All water that passes through the nursery rows as either planned irrigation or natural precipitation would be collected through a drainage system and piped to evaporation ponds and holding tanks where it would either evaporated out into the atmosphere or be held until treated and released. Please see Appendix A for information and diagrams describing the proposed piping system.

No Action Alternative:

No changes in the condition, quality, or structure of groundwater aquifers or to the condition or quality of surface waters would occur under this alternative and, therefore, no mitigation measures would be required.

Storm Water/Erosion Control

Proposed Action

Temporary Measures:

- While site development for the proposed project only involves minor excavation for utility lines, activities must still give special attention to storm water pollution and erosion control if development is to occur during the normal rainy season or during any major precipitation event. The proposed development will be scheduled to avoid the rainy season. Water pollution control BMPs will be used to minimize any risk of impacts to receiving waters.

- All of the improvements and additions that are part of the Proposed Action would abide by the rules and regulations set forth by the CWA.

Permanent Measures: No permanent mitigation measures required.

No Action Alternative

Under the No Action Alternative, no changes would be made to the Dominican University campus; therefore, no mitigation measures would be required.

Wetlands

Proposed Action

Temporary Measures: No wetlands exist on the Dominican Campus or in its immediate vicinity; therefore no temporary measures are required.

Permanent Measures: No mitigation measures required.

No Action Alternative

Under the No Action Alternative, no additions or improvements would be made to the Dominican University campus; therefore, no mitigation measures would be required.

Floodplains

Proposed Action

Temporary Measures: No temporary mitigation measures required.

Permanent Measures: The Dominican University is not within the 100-year floodplain, but is within the 500-year. As explained above, the Proposed Project is the development of a research site that would be used to research plant pathogens. Since the pathogen *P. ramorum* is capable of spreading to plants through water, the University has designed the nursery to safe guard against the accidental spread of the pathogen within and in the vicinity of the nurseries. The following elements have been designed into the project to mitigate any possible impacts of a 500-year flood on the spread of the pathogen:

Emergency Sewer Connection: In the unexpected instance of a 500-year flood or in the unanticipated event that the piping system for the nursery rows malfunctions, the University has designed an emergency sewer connection that will allow the water collected from the nursery beds to be released into the sewer, a safeguard against accidental release into the natural environment surrounding the nursery rows at both the Upper Deer Park and Forest Meadows sites.

No Action Alternative

No additions or improvements would be made to the Dominican University campus under the No Action Alternative; therefore, there would be no mitigation measures required.

5.2.2 Geology and Soils

Proposed Action

Temporary Impacts: The only earth work required for the Proposed Project would be trenching for drain and the emergency sewer lines at both sites. These utilities occur within four feet below ground surface. The site development for the Proposed Project does not involve any other excavation, grading, earth moving activities, or construction. Four foot trenches would not be deep enough to result in impacts to geology or soils on the Dominican University Campus. No temporary impacts.

Permanent Impacts: No permanent impacts.

No Action

If the No Action Alternative is selected, there will be no change to soils or the geology of the Dominican University campus and therefore no impact.

Mitigation Measures

Proposed Action

Temporary Measures:

- As discussed in section 5.2.1, Water Quality, development activities must give special attention to soil erosion control during the normal rainy season or during any precipitation event. The proposed development will be scheduled to avoid the rainy season as practical.
- Site developers will invoke BMP's to the fullest extent practical to minimize un-intentional soil disturbance and erosion due to development activities.

Permanent Measures: None required.

No Action Alternative

If the No Action Alternative is selected then there will be no change to soils or the geology of the Dominican University campus; therefore, no mitigation measures are required.

5.2.3 Solid and Hazardous Materials and Wastes

Proposed Action

Temporary Impacts: Neither the development of the Upper Deer Park site or the Forest Meadows site will require the exposure, handling, removal, addition, use or application of hazardous wastes or materials. The Proposed Project entails the development of two temporary research sites neither of which are part of existing facilities or located on an area known to have or historically to have had or held hazardous wastes or materials. No temporary impacts.

Permanent Impacts: No permanent impacts.

No Action Alternative

If the No Action Alternative were adopted, no development would occur relating to the proposed project on campus. No impacts would result.

Mitigation Measures

Proposed Action

Temporary Measures: No temporary measures required.

Permanent Measures: No permanent measures required.

No Action Alternative

The No Action Alternative would not have any impacts on the Dominican University campus; therefore, no impacts to solid/hazardous materials and wastes. No mitigation measures would be required.

5.2.4 Air Quality

Proposed Action

Temporary Impacts: Temporary minor increases in air pollution may result from the development activities of the Proposed Action. Because the Proposed Action does not require any actual construction, just the erection of fencing and the placement of temporary nursery pads, the only anticipated increase could potentially be from ground transport vehicles, and perhaps various types of small motorized equipment. Additionally, an insignificant increased use of electrical resources, which ultimately translates into emissions from power plants, will also be experienced during the development phase. It is not presently possible to quantify the amount (tonnage) of such emissions, but it is estimated to be insignificant considering the project elements. Therefore, the short-term air quality issues associated with development of

the Proposed Project will, both on a local and regional level, have are anticipated to have an insignificant impact on the air quality on the Dominican campus and vicinity. These minor increases in pollution would cease at the end of construction activities.

Permanent Impacts:

- Post-construction impacts associated with the day-to-day operation of the new research facilities at Forest Meadows and Upper Deer Park are not anticipated to cause incremental changes to air quality over and above that experienced at the present time.
- The Proposed Action created two new positions at Dominican University; as a result, there is an insignificant amount of change in additional automobiles used for personnel to commute to the Dominican University Campus. There will be two additional NORS-DU vehicles (golf type carts) acquired for the project. These carts will be electric and be used by the head researcher and the nursery manager to get to and from the sites and around campus. Deliveries are expected to be made to the facilities with nursery research stock, supplies etc., 2-3 times per year. Deliveries are normally made with diesel trucks.
- A diesel generator would be required at both sites. This generator will be used one to two times per year to steam sanitize the soil at the completion of an experiment. This generator would run for a maximum of three hours per use.
- Electric pumps would be required to pump excess water from the test beds after major storm events. This pump would only run when the natural flow into the evaporation basins reaches maximum capacity and excess needs to be pumped into the holding tanks. As stated earlier, increased use of electrical resources ultimately translates into emissions from power plants.

No Action Alternative

The No Action Alternative would not cause any change to the Dominican University campus; therefore, there would be no impacts to air quality.

Mitigation Measures

Proposed Action

Temporary Measures: Construction Equipment Emissions Control: The following measures will be included in the project plans and construction specifications for implementation by construction contractors where feasible:

- Use low-emission development equipment (if needed).
- Maintain engines by keeping them tuned.
- Use existing power sources (i.e., existing campus electrical distribution system) when feasible (if needed). This measure would minimize the use of higher-polluting gas or diesel generators.

Permanent Measures:

Considering the infrequent of use of the diesel generator (one to two times a year for three hours per use) and the electric pump systems (minimally after storm events to pump excess water), no permanent mitigation measures are necessary. Proposed Action would not result in a substantial effect on the short and long-term local and regional air quality.

No Action Alternative

The No Action Alternative would not cause any change or disturbance to the Dominican University campus and, therefore, no mitigation measures would be required.

5.2.5 Noise

Proposed Action

Temporary Impacts: Temporary impacts from noise would occur during site development activities. Since no construction activities are associated with the Proposed Project, noise attributed to development would be mostly minor. During the trenching for the sewer line hookup at Upper Deer Park, temporary increases in development noise would be experienced due to the use of machinery while digging through the pavement on Deer Park Avenue to connect to the existing sewer hookup.

Permanent Impacts: A slight increase in noise would be experienced several times a year during different events. These occasions would be infrequent and for short time periods.

- One to two times a year, after the end of a particular experiment or study, the soil in the nursery plots will need to be sterilized for use in the next experiment. A diesel powered steamer would be used to a maximum of three hours to sterilize the plots. This would produce a motor type sound for the duration of the sterilization process.
- After major storm events, the evaporation ponds may experience inflows that reach or exceed their capacity. At this time, the electric pumping system would be triggered and the pump would flow water to the large holding tanks for decontamination before the

water is released. The noise produced by the electric motors is anticipated to be a low hum, inaudible to people outside the nursery row. The sound most likely heard would be that of flowing water, similar to the sound one might experience in the vicinity of a koi pond. The noise generated by the electric pump is not expected to disturb those in its vicinity.

No Action Alternative

Under the No Action Alternative, no changes or modifications would be made to the Dominican University Campus and, therefore, no new noise impacts would be generated.

Mitigation Measures

Proposed Action

Temporary Measures:

During site development, the City of San Rafael's noise guidelines (City of San Rafael General Plan 2020) would be followed. Temporary impacts would be mitigated to less than substantial.

Permanent Measures:

- To mitigate noise levels experienced as a result of the diesel generator, the University would be sure to operate only during the hours designated for construction activities by the City of San Rafael's noise guidelines (City of San Rafael General Plan 2020). The University would also coordinate with the retreat center, part of the Dominican University campus, to avoid running during silent retreat activities that are held occasionally at that site.
- No mitigation measures would be required for the electric pump. The noise generated would be insignificant and not anticipated to disturb those in its vicinity.

No Action Alternative

No impacts to noise levels would be experienced because no changes would be made to the Dominican University campus under the No Action Alternative; therefore, no mitigation measures would be required.

5.2.6 Biological Resources

The impacts on the flora and fauna located on the Dominican University Campus are discussed in this section. The baseline conditions of the following subsections are discussed in Section 4 of this document.

Plants

Proposed Action

Temporary Impacts: During development, limited impacts to the existing vegetation would occur if the Proposed Action were initiated.

Forest Meadows site: The Forest Meadows site has had a variety of activities such as storage, an older nursery site, etc. in the area leaving the site where the nursery rows would be placed open, with some wood chip cover and patches of grasses. No tree removal or brush clearing is anticipated. There is a pile of old chopped logs on the edge of the site; these may be removed as a result of this project. No temporary impacts at this site are anticipated.

Upper Deer Park site: The Upper Deer Park site as previously described is broken up in to three areas. Areas 1 and 2 planned to be developed first and Area 3 would be saved for future development based on need. Areas 1 and 2 are covered in patchy grass, weeds and accumulated leaves. These areas would be cleared of those materials prior to the placement of the nursery rows during site development.

Permanent Impacts: The development of the two sites would only require the removal of a few immature eucalyptus trees along the edge of Area 1 of the Upper Deer Park site. No mature trees are anticipated to be removed.

No Action Alternative

Under the No Action Alternative, the Dominican University campus would remain as it is today and no impacts to existing vegetation would occur

Animals

Proposed Action

Temporary Impacts: The Proposed Project takes place on previously open areas of the Dominican University campus, no mature or forested habitat will be removed as a result of the Proposed Project. During development, presence of workers, noise from equipment, and the clearing of grasses and leaves may temporarily cause the displacement of some birds, reptiles and small mammals. The magnitude of this displacement would be minimal due to the current vegetative state of the Proposed Project areas at Dominican University. Wooded areas and areas of habitat appealing to wildlife will not be disturbed by this project. The Proposed Project would have a less than significant impact on the project area.

Permanent Impacts: While some vegetative ground covering would be removed to accommodate development of these research sites project, the development would occur in areas already cleared that do not provide substantial habitat to wildlife. Any displaced species would not be permanently disturbed as they would be able to shift to other adjacent vegetated areas of the campus.

No Action Alternative

Under the No Action Alternative, the Dominican University campus would remain as it is today and no impacts to existing animal species would occur.

Threatened and Endangered Species

Proposed Action

Temporary Impacts: Since there is no evidence of Threatened or Endangered Species residing on or in the immediate vicinity of the Dominican University Campus, temporary impacts due to construction activities would have no effect on this category of species.

Permanent Impacts: There would be no permanent impacts to Threatened, Endangered or Special Status species since there is no evidence that any reside on the Dominican University campus.

No Action Alternative

Under the No Action Alternative, the Dominican University campus would remain as it is today and no impacts to Threatened and Endangered Species would occur as none are known to reside on the Dominican University campus.

Mitigation Measures

Plants

Proposed Action

Temporary Measures: During development, some grasses and leaves will be disturbed, this disturbance is temporary and grasses would re-grow once development is complete.

Permanent Measures: The trees that are required to be removed as a result of the development of the Upper Deer Park site would be several immature eucalyptuses. These trees are considered invasive species to California and do not provide critical habitat to wildlife on campus. Dominican Campus frequently plants trees around campus; the few trees removed as a result of this development will be replaced with native species at another location on campus.

No Action

Temporary Measures: Under the No Action Alternative, the Dominican University campus would remain as it is today and no impacts to Threatened, Endangered or Special Status Species would occur; therefore no measures would be required.

Permanent Measures: None required.

Animals

Proposed Action

Temporary Measures: During development, existing vegetation on previously cleared areas of the campus would be disturbed; mostly sparse grassy areas and leaf accumulation. This disruption would only have a temporary effect on the birds and small mammals that exist on the campus as there are many other vegetated areas for them to shift to.

Permanent Measures: No mitigation measures required.

No Action Alternative

Under the No Action Alternative, the Dominican University campus would remain as it is today and no impacts to animal species would occur; therefore no mitigation measures would be required.

Threatened and Endangered

Proposed Action

Temporary Measures: Since there is no indication of Threatened and Endangered Species residing on the Dominican University campus, temporary impacts due to construction activities would have no effect on this category of species. No mitigation measures are required.

Permanent Measures: No measures are required.

No Action Alternative

Under the No Action Alternative, the Dominican University campus would remain as it is today and no impacts to Threatened, Endangered or Special Status Species would occur; therefore no mitigation measures are required.

6. PUBLIC AND AGENCY COORDINATION

6.1. Public Coordination

Dominican University historically has worked with the neighborhood advisory committee known as the Neighborhood Four by Four Committee. The committee is made up of four representatives from the surrounding neighborhood community and four faculty representatives from the University. This group is a forum for neighborhood residents to voice their concerns and opinions about happenings on Dominican University campus and allows the campus to keep the community informed on the campus happenings. The University values this interaction and solicits the group's input.

6.2. Agency Coordination

As needed during the process, Dominican University has met with agencies and the community for coordination purposes. This document was made available to the following agencies:

- City of San Rafael Planning Community Development
- USDA, AHPIS
- California Department of Food and Agriculture (CDFA)

Historical Consultation Letters: Letters were sent to the California State Office of Historic Preservation for review of potential impacts to historic properties as a result of this project. See Section 4.1.6.

Biological Consultation: Letters were sent to the USFWS and CDFG for the review of potential impacts to Threatened, Endangered and/or Special Status Species as a result of this project (See Section 4.2.6).

California Department of Food and Agriculture: Information on the Proposed Project was sent to CDFA for review for the project's eligibility to receive exemptions for preparing an Initial Study to satisfy CEQA regulations. Please see Appendix H for correspondence with CDFA and the letter of exemption.

City of San Rafael: Information on the Proposed Project was sent to the City of San Rafael regarding the required permits for site development. Please see Appendix G for zoning approvals from the city.

Department of the Interior, Bureau of Indian Affairs: Personal correspondence was conducted between the author and Eddie Dominguez September 17, 2009 to confirm that there were no known listed tribes in the area.

7. LIST OF PREPARERS

BMT

Michelle Wegener	Environmental Specialist	/Author
David Kindig	Senior Environmental Specialist/Quality Control	

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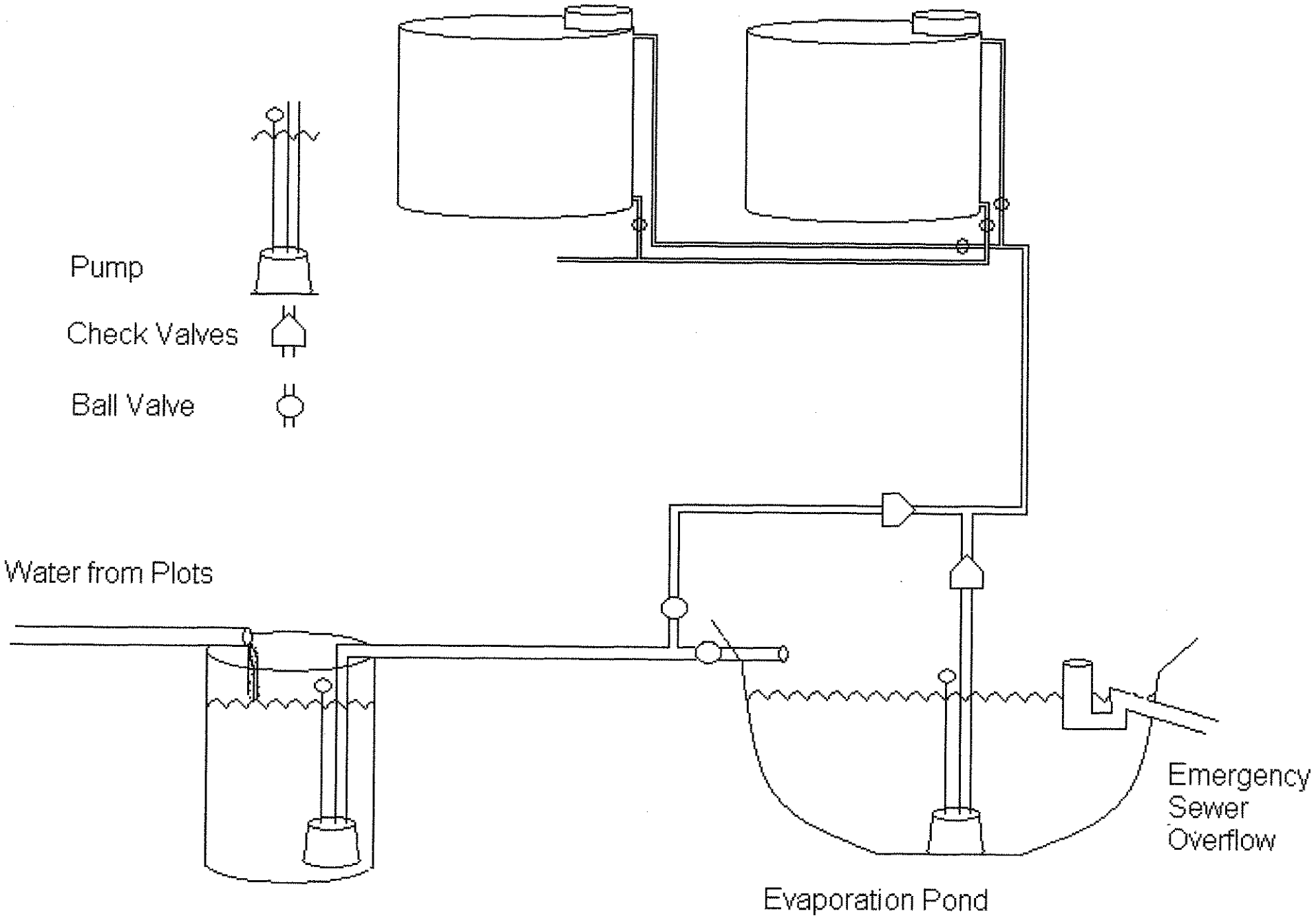
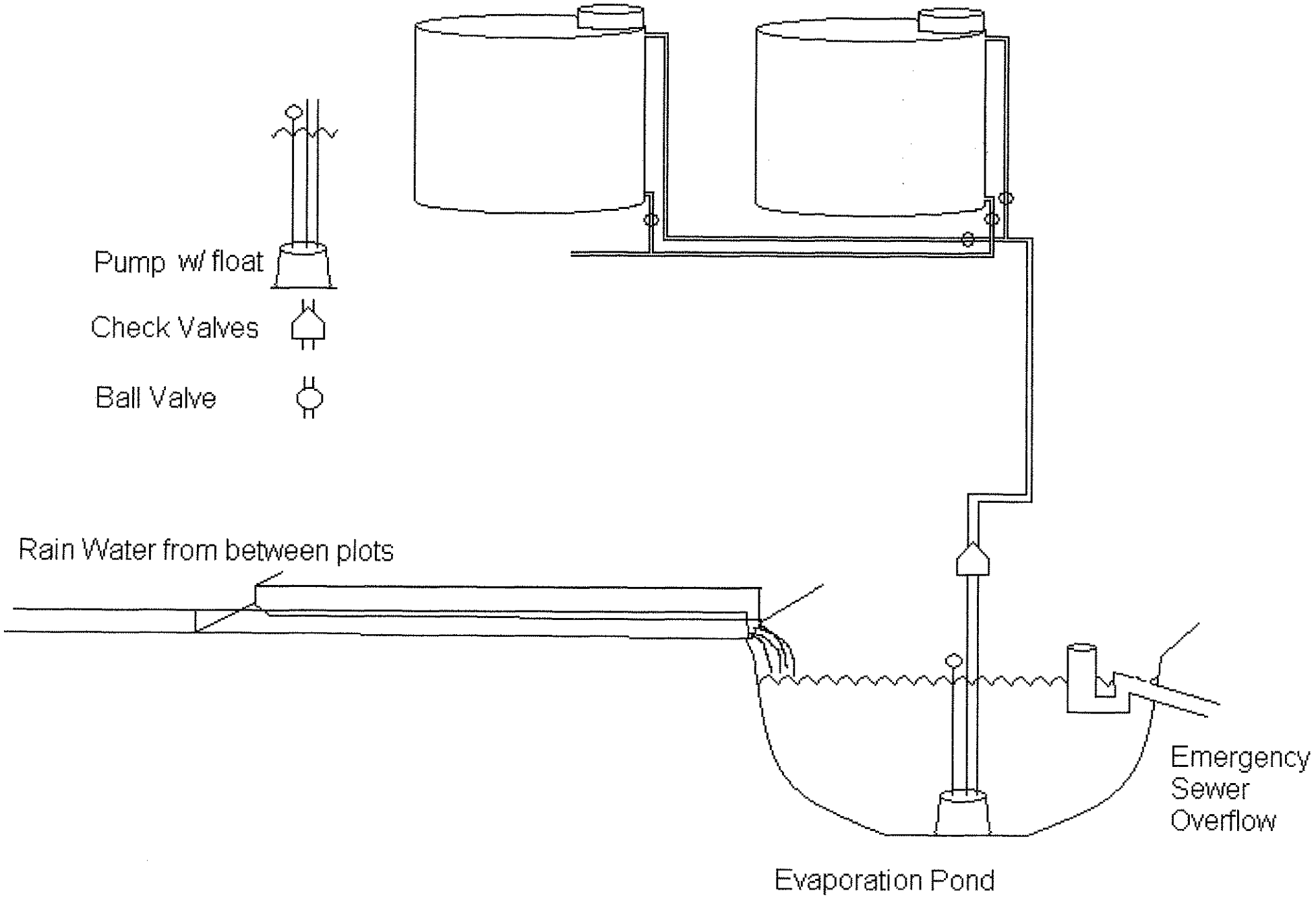
Appendix A

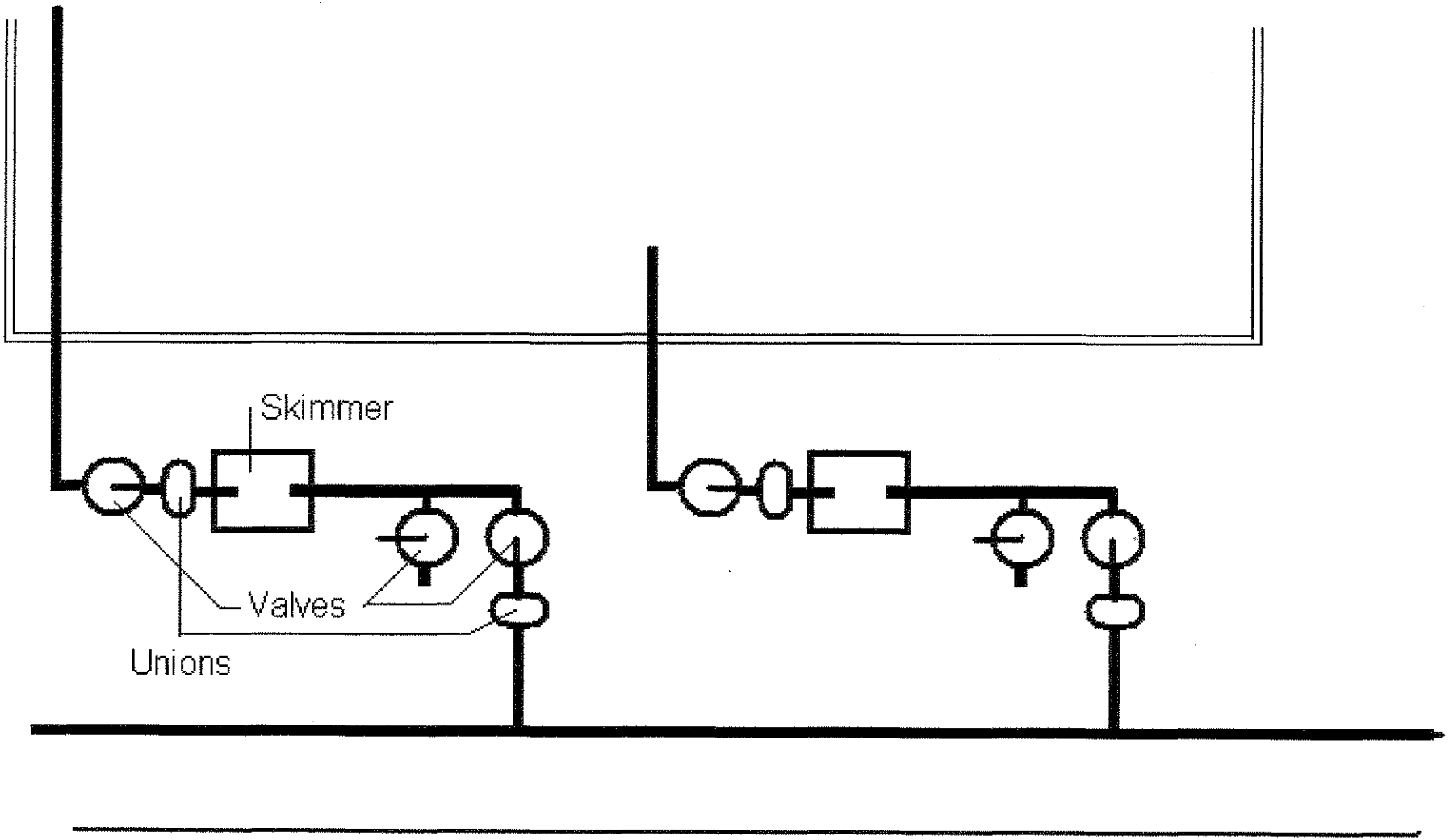
NORS-DU Drainage and Piping System

Water from Plots



Rain Water Collection




Skimmer
Valves
Unions

Appendix B

EDR NEPACheck®

NORF-DU
50 Acacia Avenue
San Rafael, CA 94901

Inquiry Number: 2576763.1s
August 28, 2009

EDR NEPACheck®

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EDR NEPACheck® DESCRIPTION

The National Environmental Policy Act of 1969 (NEPA) requires that Federal agencies include in their decision-making processes appropriate and careful consideration of all environmental effects and actions, analyze potential environmental effects of proposed actions and their alternatives for public understanding and scrutiny, avoid or minimize adverse effects of proposed actions, and restore and enhance environmental quality as much as possible.

The EDR NEPACheck provides information which may be used, in conjunction with additional research, to determine whether a proposed site or action will have significant environmental effect.

The report provides maps and data for the following items (where available). Search results are provided in the Map Findings Summary on page 2 of this report.

Section	Regulation
Natural Areas Map	
• Federal Lands Data:	
- Officially designated wilderness areas	47 CFR 1.1307(1)
- Officially designated wildlife preserves, sanctuaries and refuges	47 CFR 1.1307(2)
- Wild and scenic rivers	40 CFR 6.302(e)
- Fish and Wildlife	40 CFR 6.302
• Threatened or Endangered Species, Fish and Wildlife, Critical Habitat Data (where available)	47 CFR 1.1307(3); 40 CFR 6.302
Historic Sites Map	
• National Register of Historic Places	47 CFR 1.1307(4); 40 CFR 6.302
• State Historic Places (where available)	
• Indian Reservations	
Flood Plain Map	
• National Flood Plain Data (where available)	47 CFR 1.1307(6); 40 CFR 6.302
Wetlands Map	
• National Wetlands Inventory Data (where available)	47 CFR 1.1307(7); 40 CFR 6.302
FCC & FAA Map	
• FCC antenna/tower sites, AM Radio Towers, FAA Markings and Obstructions, AM Radio Interference Zones, Airports, Topographic gradient	47 CFR 1.1307(8)
Key Contacts and Government Records Searched	

MAP FINDINGS SUMMARY

The databases searched in this report are listed below. Database descriptions and other agency contact information is contained in the Key Contacts and Government Records Searched section on page 41 of this report.

TARGET PROPERTY ADDRESS

NORF-DU
50 ACACIA AVENUE
SAN RAFAEL, CA 94901

Inquiry #: 2576763.1s
Date: 8/28/9

TARGET PROPERTY COORDINATES

Latitude (North):	37.980000 - 37° 58' 48.0''
Longitude (West):	122.513901 - 122° 30' 50.0''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	542691.1
UTM Y (Meters):	4203502.0

Applicable Regulation from 47 CFR/FCC Checklist	Database	Search Distance (Miles)	Within Search	Within 1/8 Mile
NATURAL AREAS MAP				
1.1307a (1) Officially Designated Wilderness Area	US Federal Lands	2.00	NO	NO
1.1307a (2) Officially Designated Wildlife Preserve	US Federal Lands	2.00	NO	NO
1.1307a (3) Threatened or Endangered Species or Critical Habitat	CA Natural Diversity Database	2.00	YES	NO
1.1307a (3) Threatened or Endangered Species or Critical Habitat	County Endangered Species	County	YES	N/A
HISTORIC SITES MAP				
1.1307a (4) Listed or eligible for National Register	National Register Hist. Places	2.00	YES	NO
1.1307a (4) Listed or eligible for National Register	CA Historic Landmarks	2.00	NO	NO
	Indian Reservation	2.00	NO	NO
FLOODPLAIN MAP				
1.1307 (6) Located in a Flood Plain	FLOODPLAIN	2.00	YES	YES
WETLANDS MAP				
1.1307 (7) Change in surface features (wetland fill)	NWI	2.00	YES	NO
FCC & FAA SITES MAP				
	FCC Cellular	2.00	YES	NO
	FCC Antenna	2.00	YES	NO
	FCC Tower	2.00	YES	NO
	FCC AM Tower	2.00	NO	NO
	FAA DOF	2.00	YES	NO
	Airports	2.00	NO	---
	Power Lines	2.00	YES	---

Natural Areas Map

SITE NAME:	NORF-DU	CLIENT:	BMT
ADDRESS:	50 Acacia Avenue San Rafael CA 94901	CONTACT:	Michelle Wegener
LAT/LONG:	37.9800 / 122.5139	INQUIRY #:	2576763.1s
		DATE:	August 28, 2009

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NATURAL AREAS MAP FINDINGS

Endangered Species Listed for: MARIN County, CA.

Source: EPA Endangered Species Protection Program Database

AMPHIBIAN:	FROG, CALIFORNIA RED-LEGGED
BIRD:	RAIL, CALIFORNIA CLAPPER
BIRD:	PLOVER, WESTERN SNOWY
BIRD:	OWL, NORTHERN SPOTTED
BIRD:	PELICAN, BROWN
BIRD:	EAGLE, BALD
BIRD:	MURRELET, MARBLED
CRUSTACEAN:	SHRIMP, CALIFORNIA FRESHWATER
FISH:	STEELHEAD, CALIFORNIA CENTRAL VALLEY POP
FISH:	SALMON, CHINOOK (CENTRAL VALLEY SPRING RUN)
FISH:	STEELHEAD, CENTRAL CALIFORNIA POPULATION
FISH:	SALMON, CHINOOK (SACRAMENTO RIVER WINTER RUN)
FISH:	SALMON, COHO (CENTRAL CALIFORNIA COAST POP)
FISH:	GOBY, TIDEWATER
INSECT:	BUTTERFLY, MISSION BLUE
INSECT:	BUTTERFLY, MYRTLE'S SILVERSPOT
MAMMAL:	MOUSE, SALT MARSH HARVEST
PLANT:	PAINTBRUSH, TIBURON
PLANT:	SPINEFLOWER, SONOMA
PLANT:	LARKSPUR, BAKER'S
PLANT:	LAYIA, BEACH
PLANT:	CLOVER, SHOWY INDIAN
PLANT:	LUPINE, CLOVER
PLANT:	ALOPECURUS, SONOMA
PLANT:	PENTACHAETA, WHITE-RAYED
PLANT:	DWARF-FLAX, MARIN
PLANT:	JEWELFLOWER, TIBURON

Map ID Direction Distance Distance (ft.)			EDR ID Database
A1 ESE 1/4-1/2 mi 2401	EO ID:	17551	CAS0012823 CA Natural Diversity Database
	Geo ID:	08650	
	Element code:	PDSCR0J0C3	
	Occurrence ID:	4	
	Last Visited:	1863XXXX	
	Last Observed:	1863XXXX	
	Presence:	Possibly Extirpated	
	Trend:	Unknown	
	Occrank:	None	
	Sensitive?:	N	
	Main Info:	BOLANDER #2430 US (HERB)	
	Occtype:	Natural/Native occurrence	
	Directions:	SAN RAFAEL.	
	Ownership:	PVT	
	Threat Comments:	Not Reported	
	Ecological Comments:	SALTMARSH.	
	Distribution Comments:	Not Reported	
	General Comments:	PROBABLY EXTIRPATED ACCORDING TO P. ALLEN; EXTIRPATED ACCORDING TO D. SMITH (1996).	
	Scientific name:	CORDYLANTHUS MARITIMUS SSP PALUSTRIS	
	Common name:	POINT REYES BIRD'S-BEAK	
	Global rank:	G3T2	
	State rank:	S2.2	
	Federal Status:	None	
	State Status:	None	
	Special Concern?:	Not Reported	
	CNPS Rarity:	Plants rare, threatened, or endangered in CA and elsewhere	

Redcode:	Distributed in a limited number of occurrences, occasionally more if each occurrence is small/Endangered in a portion of its range/Rare outside of California
General habitat:	COASTAL SALT MARSH.
Micro habitat:	USUALLY IN COASTAL SALT MARSH WITH SALICORNIA, DISTICHLIS, JAUMEA, SPARTINA, ETC. 0-15M.

2
NNW
1/2-1 mi
4516

EO ID:	42044
Geo ID:	42044
Element code:	PDERI040J5
Occurrence ID:	24
Last Visited:	XXXXXXXX
Last Observed:	XXXXXXXX
Presence:	Presumed Extant
Trend:	Unknown
Occrank:	Unknown
Sensitive?:	N
Main Info:	SMITH, D. 1996 (PERS)
Occtype:	Natural/Native occurrence
Directions:	NORTH OF FAIRFAX AND EAST OF WOODACRE.
Ownership:	UNKNOWN
Threat Comments:	Not Reported
Ecological Comments:	Not Reported
Distribution Comments:	MAPPED IN GENERAL VICINITY OF THE NOVATO QUADRANGLE. ONLY SOURCE OF INFORMATION IS REPORT OF OCCURENCE ALONG ROADSIDE ON THIS QUAD.
General Comments:	MORE INFORMATION NEEDED FOR THIS SITE.
Scientific name:	ARCTOSTAPHYLOS HOOKERI SSP MONTANA
Common name:	MT. TAMALPAIS MANZANITA
Global rank:	G3T2
State rank:	S2.2
Federal Status:	None
State Status:	None
Special Concern?:	Not Reported
CNPS Rarity:	Plants rare, threatened, or endangered in CA and elsewhere
Redcode:	Distributed in one to several highly restricted occurrences, or present in such small numbers that it is seldom reported/Not endangered/Endemic to California
General habitat:	CHAPARRAL, VALLEY AND FOOTHILL GRASSLAND. KNOWN FROM FEWER THAN 20 OCCURRENCES IN THE MT. TAMALPAIS AREA, MARIN COUNTY.
Micro habitat:	SERPENTINE SLOPES IN CHAPARRAL AND GRASSLAND. 160-760M.

CAS0031808
CA Natural Diversity Database

3
South
1/2-1 mi
4954

EO ID:	16685
Geo ID:	08536
Element code:	PDAST6X030
Occurrence ID:	3
Last Visited:	19460525
Last Observed:	19460525
Presence:	Extirpated
Trend:	Unknown
Occrank:	None
Sensitive?:	N
Main Info:	HOWELL, J. #21933 RSA (HERB)
Occtype:	Natural/Native occurrence
Directions:	GREENBRAE HILLS.
Ownership:	UNKNOWN

CAS0012808
CA Natural Diversity Database

Threat Comments: Not Reported
Ecological Comments: ON GRASSY NORTH-FACING SLOPE ON EDGE OF WOODLAND.
Distribution Comments: Not Reported
General Comments: Not Reported
Scientific name: PENTACHAETA BELLIDIFLORA
Common name: WHITE-RAYED PENTACHAETA
Global rank: G1
State rank: S1.1
Federal Status: Endangered
State Status: Endangered
Special Concern?: Not Reported
CNPS Rarity: Plants rare, threatened, or endangered in CA and elsewhere
Redcode: Distributed in one to several highly restricted occurrences, or present in such small numbers that it is seldom reported/Endangered throughout its range/Endemic to California
General habitat: VALLEY AND FOOTHILL GRASSLAND.
Micro habitat: OPEN DRY ROCKY SLOPES AND GRASSY AREAS, OFTEN ON SOILS DERIVED FROM SERPENTINE BEDROCK. 35-620M.

A4
SE
1-2 mi
5902

EO ID: 25871
Geo ID: 08636
Element code: ABNME05016
Occurrence ID: 4
Last Visited: 1975XXXX
Last Observed: 1975XXXX
Presence: Presumed Extant
Trend: Unknown
Occrank: Unknown
Sensitive?: N
Main Info: GILL, R. 1979 (LIT)
Occtype: Natural/Native occurrence
Directions: FROM THE MOUTH OF SAN RAFAEL CRK UPSTREAM APPROX 0.6 MI.
Ownership: UNKNOWN
Threat Comments: Not Reported
Ecological Comments: Not Reported
Distribution Comments: Not Reported
General Comments: Not Reported
Scientific name: RALLUS LONGIROSTRIS OBSOLETUS
Common name: CALIFORNIA CLAPPER RAIL
Global rank: G5T1
State rank: S1
Federal Status: Endangered
State Status: Endangered
Special Concern?: Not Reported
CNPS Rarity: Not Reported
Redcode: Not Reported
General habitat: SALT-WATER & BRACKISH MARSHES TRAVERSED BY TIDAL SLOUGHS IN THE VICINITY OF SAN FRANCISCO BAY.
Micro habitat: ASSOCIATED WITH ABUNDANT GROWTHS OF PICKLEWEED, BUT FEEDS AWAY FROM COVER ON INVERTEBRATES FROM MUD-BOTTOMED SLOUGHS.

CAS0018541
CA Natural Diversity Database

5
NE
1-2 mi
6221

EO ID: 25953
Geo ID: 08655
Element code: ABNGA04010
Occurrence ID: 23
Last Visited: 1982XXXX
Last Observed: 1982XXXX
Presence: Presumed Extant

CAS0018547
CA Natural Diversity Database

Trend:	Increasing
Occrank:	Unknown
Sensitive?:	N
Main Info:	PRATT, H. 1983 (LIT)
Occtype:	Natural/Native occurrence
Directions:	ALONG N SAN PEDRO ROAD & SAN PABLO BAY, APPROX 3 KM ESE OF MARIN CIVIC CTR, SAN RAFAEL.
Ownership:	PVT
Threat Comments:	Not Reported
Ecological Comments:	Not Reported
Distribution Comments:	COLONY IS LOCATED IN LIVE OAKS AND MADRONE.
General Comments:	ONE PAIR OF GREAT BLUE HERONS NESTED HERE FOR THE FIRST TIME IN 1971; EXCEPT FOR 1974 AND 1975, WHEN NO HERONS RETURNED TO THE NESTS, THERE HAVE BEEN BETWEEN ONE AND FOUR NESTS THROUGH 1982.
Scientific name:	ARDEA HERODIAS
Common name:	GREAT BLUE HERON
Global rank:	G5
State rank:	S4
Federal Status:	None
State Status:	None
Special Concern?:	Not Reported
CNPS Rarity:	Not Reported
Redcode:	Not Reported
General habitat:	(ROOKERY) COLONIAL NESTER IN TALL TREES, CLIFFSIDES, AND SEQUESTERED SPOTS ON MARSHES.
Micro habitat:	ROOKERY SITES IN CLOSE PROXIMITY TO FORAGING AREAS: MARSHES, LAKE MARGINS, TIDE-FLATS, RIVERS AND STREAMS, WET MEADOWS.

6
SE
1-2 mi
7849

EO ID:	23872
Geo ID:	08610
Element code:	AMAFF02040
Occurrence ID:	35
Last Visited:	19951020
Last Observed:	19951020
Presence:	Presumed Extant
Trend:	Unknown
Occrank:	Fair
Sensitive?:	N
Main Info:	LACY, T. 1995 (OBS)
Occtype:	Natural/Native occurrence
Directions:	SPINNAKER LAGOON, SAN RAFAEL.
Ownership:	PVT
Threat Comments:	CATS, URBAN RUNOFF, WATER LEVELS MANAGED IMPROPERLY. MUCH OF THE MARSHLAND HAS BEEN FILLED & DEVELOPED (1950 NOTATION).
Ecological Comments:	VEGETATION AROUND THE LAGOON IS PICKLEWEED, ALKALI BULRUSH, SALTGRASS, RABBITSFOOT GRASS, CURLY DOCK, BRASS BUTTONS & CATTAILS. DIKED MARSH DOMINATED BY PICKLEWEED WITH SALTGRASS, FENNEL & THISTLE ON UPLAND BORDERS OF MARSH.
Distribution Comments:	PERIMETER OF SPINNAKER LAGOON AND SURROUNDING DIKED MARSH. 1950 MVZ SPECIMENS (#'S 121098-121099) GIVE LOCATION AS 3.5 MILES NE OF CORTE MADERA.
General Comments:	2 COLLECTED 10 DEC 1950. UNKNOWN NUMBER FOUND 1982 & 1983. 11 TRAPPED OCT 1990. NONE FOUND 1991. 2 ADULTS & 2 JUVENILES TRAPPED OCT 1992. 13 TRAPPED OCT 1993. 11 ADULTS, 4 JUVENILES & 2 UNKNOWN TRAPPED OCT 1995.
Scientific name:	REITHRODONTOMYS RAVIVENTRIS
Common name:	SALT-MARSH HARVEST MOUSE
Global rank:	G1G2
State rank:	S1S2

CAS0026577
CA Natural Diversity Database

Federal Status:	Endangered
State Status:	Endangered
Special Concern?:	Not Reported
CNPS Rarity:	Not Reported
Redcode:	Not Reported
General habitat:	ONLY IN THE SALINE EMERGENT WETLANDS OF SAN FRANCISCO BAY AND ITS TRIBUTARIES.
Micro habitat:	PICKLEWEED IS PRIMARY HABITAT. DO NOT BURROW, BUILD LOOSELY ORGANIZED NESTS. REQUIRE HIGHER AREAS FOR FLOOD ESCAPE.

7
North
1-2 mi
8880

EO ID:	25832	
Geo ID:	08575	CAS0018531
Element code:	ABNME05016	CA Natural Diversity Database
Occurrence ID:	68	
Last Visited:	19891114	
Last Observed:	19891114	
Presence:	Presumed Extant	
Trend:	Unknown	
Occrank:	Unknown	
Sensitive?:	N	
Main Info:	BOTTI, F. 1986 (PERS)	
Occtype:	Natural/Native occurrence	
Directions:	SOUTH FORK GALLINAS CREEK, APPROX 3 MI S OF HAMILTON AFB, SAN RAFAEL.	
Ownership:	UNKNOWN	
Threat Comments:	Not Reported	
Ecological Comments:	Not Reported	
Distribution Comments:	Not Reported	
General Comments:	SEVERAL OBS DURING AIRBOAT RAIL SURVEYS DURING WINTER HIGH TIDES, 1985. IN 1989, 14 SEEN ON "LAS GALINAS CR", INCLUDING N & S FORKS.	
Scientific name:	RALLUS LONGIROSTRIS OBSOLETUS	
Common name:	CALIFORNIA CLAPPER RAIL	
Global rank:	G5T1	
State rank:	S1	
Federal Status:	Endangered	
State Status:	Endangered	
Special Concern?:	Not Reported	
CNPS Rarity:	Not Reported	
Redcode:	Not Reported	
General habitat:	SALT-WATER & BRACKISH MARSHES TRAVERSED BY TIDAL SLOUGHS IN THE VICINITY OF SAN FRANCISCO BAY.	
Micro habitat:	ASSOCIATED WITH ABUNDANT GROWTHS OF PICKLEWEED, BUT FEEDS AWAY FROM COVER ON INVERTEBRATES FROM MUD-BOTTOMED SLOUGHS.	

8
SSE
1-2 mi
9958

EO ID:	23861	
Geo ID:	08629	CAS0018539
Element code:	AMAFF02040	CA Natural Diversity Database
Occurrence ID:	70	
Last Visited:	19870625	
Last Observed:	19820325	
Presence:	Presumed Extant	
Trend:	Decreasing	
Occrank:	Unknown	
Sensitive?:	N	
Main Info:	WARENYCIA, D. 1986 (OBS)	
Occtype:	Natural/Native occurrence	
Directions:	HOLIDAY MAGIC (CANALWAYS) MARSH, AT END OF KERNER BLVD, SAN	

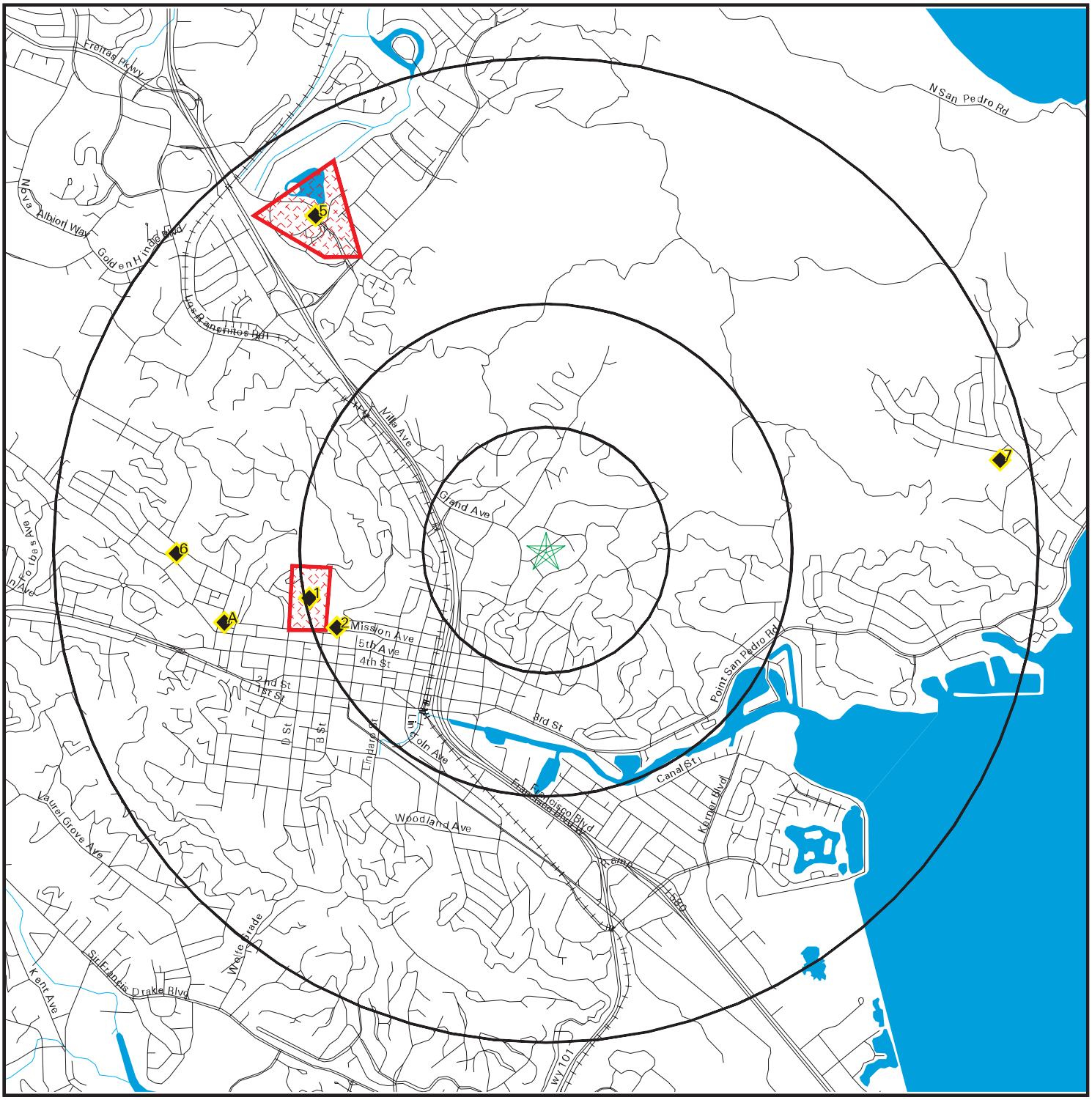
RAFAEL.
Ownership: PVT
Threat Comments: Not Reported
Ecological Comments: VISIT TO THE SITE IN 1987 REVEALED ENCROACHMENT BY 6-8 PAMPAS GRASS BUSHES IN THE UPLAND PORTION.
Distribution Comments: 13 CAPTURES DURING 3 NIGHTS OF TRAPPING, FROM MARCH 23 THRU MARCH 25, 1982.
General Comments: MOST NORTHERLY OCCURRENCE OF THE SOUTHERN SUBSPECIES, R. R. RAVIVENTRIS.
Scientific name: REITHRODONTOMYS RAVIVENTRIS
Common name: SALT-MARSH HARVEST MOUSE
Global rank: G1G2
State rank: S1S2
Federal Status: Endangered
State Status: Endangered
Special Concern?: Not Reported
CNPS Rarity: Not Reported
Redcode: Not Reported
General habitat: ONLY IN THE SALINE EMERGENT WETLANDS OF SAN FRANCISCO BAY AND ITS TRIBUTARIES.
Micro habitat: PICKLEWEED IS PRIMARY HABITAT. DO NOT BURROW, BUILD LOOSELY ORGANIZED NESTS. REQUIRE HIGHER AREAS FOR FLOOD ESCAPE.

9
WSW
1-2 mi
10289

EO ID: 22250
Geo ID: 08438
Element code: PMPOA7Y031
Occurrence ID: 3
Last Visited: 19880516
Last Observed: 19470427
Presence: Possibly Extirpated
Trend: Unknown
Occrank: Unknown
Sensitive?: N
Main Info: HOWELL, J. #23107 CAS (HERB)
Occtype: Natural/Native occurrence
Directions: ROSS.
Ownership: PVT
Threat Comments: Not Reported
Ecological Comments: FOUND IN SHADED GRASSY PLACES UNDER TREES.
Distribution Comments: Not Reported
General Comments: NOT FOUND BY BOOTH IN 1988. D. SMITH (2000) BELIEVES SITE IS EXTIRPATED.
Scientific name: PLEUROPOGON HOOVERIANUS
Common name: NORTH COAST SEMAPHORE GRASS
Global rank: G1
State rank: S1.1
Federal Status: None
State Status: Candidate
Special Concern?: Not Reported
CNPS Rarity: Plants rare, threatened, or endangered in CA and elsewhere
Redcode: Distributed in one to several highly restricted occurrences, or present in such small numbers that it is seldom reported/Endangered throughout its range/Endemic to California
General habitat: BROADLEAFED UPLAND FOREST, MEADOWS AND SEEPS, NORTH COAST CONIFEROUS FOREST.
Micro habitat: WET GRASSY, USUALLY SHADY AREAS, SOMETIMES FRESHWATER MARSH; ASSOCIATED WITH FOREST ENVIRONMENTS; 10-1150M.

CAS0012785
CA Natural Diversity Database

Historic Sites Map



- Target Property
- Streets
- County Boundary
- Waterways
- Water
- Historic Sites
- Federal Historic Areas
- State Historic Areas
- US Indian Reservations
- Scenic Trail

SITE NAME: NORF-DU	CLIENT: BMT
ADDRESS: 50 Acacia Avenue San Rafael CA 94901	CONTACT: Michelle Wegener INQUIRY #: 2576763.1s
LAT/LONG: 37.9800 / 122.5139	DATE: August 28, 2009

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HISTORIC SITES MAP FINDINGS

Map ID Direction Distance Distance (ft.)			EDR ID Database
1 West 1/2-1 mi 4633	Resource Name: Alternate Name: Resource Address: Resource Type: Location: County: Primary Certification: Certification Date: Number of Buildings: Number of Sites: Number of non-contributing Buildings: Number of non-contributing Objects: Number of non-contributing Sites: Num. of non-contributing Structures: Applicable Criteria: Areas of Significance: Current Function: Building Material: Other Names:	Dollar, Robert, Estate Not Reported 1408 Mission Ave. Building San Rafael, CA Marin, CA Listed in the national register 19721211 Acreage: 111 1 Number of Objects: 0 0 Num. of Structures: 0 4 0 0 0 Event, Architecture/Engineering, Person Landscape architecture, Commerce, Art, Architecture Domestic Shingle, Stucco, None listed, Wood Walker,James D.,Home;Dollar,Robert,Home;"Falkirk"	72000237 National Register Hist. Places
2 WSW 1/2-1 mi 4777	Resource Name: Alternate Name: Resource Address: Resource Type: Location: County: Primary Certification: Certification Date: Number of Buildings: Number of Sites: Number of non-contributing Buildings: Number of non-contributing Objects: Number of non-contributing Sites: Num. of non-contributing Structures: Applicable Criteria: Areas of Significance: Current Function: Building Material: Other Names:	Boyd House Not Reported 1125 B St. Building San Rafael, CA Marin, CA Listed in the national register 19741217 Acreage: 3 1 Number of Objects: 0 0 Num. of Structures: 0 0 0 0 0 Architecture/Engineering Architecture, Social history Recreation and culture Other, Weatherboard, Inapplicable, Shingle, None listed The Gate House	74000528 National Register Hist. Places

HISTORIC SITES MAP FINDINGS

Map ID
Direction
Distance
Distance (ft.)

EDR ID
Database

A3
WSW
1-2 mi
6777

Resource Name: Bradford House
Alternate Name: Not Reported
Resource Address: 333 G St.
Resource Type: Building
Location: San Rafael, CA
County: Marin, CA
Primary Certification: Listed in the national register
Certification Date: 19800606
Acreage: 4
Number of Buildings: 1
Number of Objects: 0
Number of Sites: 0
Num. of Structures: 0
Number of non-contributing Buildings: 1
Number of non-contributing Objects: 0
Number of non-contributing Sites: 0
Num. of non-contributing Structures: 0
Applicable Criteria: Event, Person, Architecture/Engineering
Areas of Significance: Commerce, Economics, Architecture, Politics/government
Current Function: Commerce/trade
Building Material: Weatherboard, Brick, None listed, Wood
Other Names: Bradford Manor;Bradford/Sharp House

80000818
National Register Hist. Places

A4
WSW
1-2 mi
7354

Resource Name: San Rafael Improvement Club
Alternate Name: Not Reported
Resource Address: 1800 5th Ave.
Resource Type: Building
Location: San Rafael, CA
County: Marin, CA
Primary Certification: Listed in the national register
Certification Date: 19840329
Acreage: 6
Number of Buildings: 1
Number of Objects: 0
Number of Sites: 0
Num. of Structures: 0
Number of non-contributing Buildings: 0
Number of non-contributing Objects: 0
Number of non-contributing Sites: 0
Num. of non-contributing Structures: 0
Applicable Criteria: Event, Architecture/Engineering
Areas of Significance: Architecture, Social history
Current Function: Social
Building Material: None listed, Wood

84000907
National Register Hist. Places

HISTORIC SITES MAP FINDINGS

Map ID
Direction
Distance
Distance (ft.)

EDR ID
Database

5
NNW
1-2 mi
7442

Resource Name: Marin County Civic Center
Alternate Name: Not Reported
Resource Address: Jct. of N. San Pedro Rd. and Civic Center Dr.
Resource Type: Building
Location: San Rafael, CA
County: Marin, CA
Primary Certification: Listed in the national register
Certification Date: 19910717
Acreage: 815
Number of Buildings: 2
Number of Objects: 0
Number of Sites: 0
Num. of Structures: 0
Number of non-contributing Buildings: 3
Number of non-contributing Objects: 0
Number of non-contributing Sites: 0
Num. of non-contributing Structures: 0
Applicable Criteria: Architecture/Engineering
Areas of Significance: Architecture
Current Function: Education, Government
Building Material: Aluminum, Concrete

91002055
National Register Hist. Places

6
West
1-2 mi
7921

Resource Name: Dollar, Robert, House
Alternate Name: Not Reported
Resource Address: 115 J St.
Resource Type: Building
Location: San Rafael, CA
County: Marin, CA
Primary Certification: Listed in the national register
Certification Date: 19910723
Acreage: 3
Number of Buildings: 1
Number of Objects: 0
Number of Sites: 0
Num. of Structures: 0
Number of non-contributing Buildings: 0
Number of non-contributing Objects: 0
Number of non-contributing Sites: 0
Num. of non-contributing Structures: 1
Applicable Criteria: Person, Architecture/Engineering
Areas of Significance: Transportation, Architecture
Current Function: Domestic
Building Material: Weatherboard, Shingle, Concrete, None listed

91000920
National Register Hist. Places

HISTORIC SITES MAP FINDINGS

Map ID Direction Distance Distance (ft.)					EDR ID Database
7 East 1-2 mi 9934	Resource Name: Alternate Name: Resource Address: Resource Type: Location: County: Primary Certification: Certification Date: Number of Buildings: Number of Sites: Number of non-contributing Buildings: Number of non-contributing Objects: Number of non-contributing Sites: Num. of non-contributing Structures: Applicable Criteria: Areas of Significance: Current Function: Building Material: Other Names:	McNear, Erskine, B., House Not Reported 121 Knight Dr. Building San Rafael, CA Marin, CA Listed in the national register 19820111 1 0	Acreage: Number of Objects: Num. of Structures: 1 0 0 0	29 0 0	82002204 National Register Hist. Places
		Event, Architecture/Engineering, Person Industry, Commerce, Economics, Architecture Social, Religion Shingle, Concrete, Brick, None listed McNear House			

UNMAPPABLE HISTORIC SITES

Due to poor or inadequate address information, the following sites were not mapped:

Status
EDR ID
Database

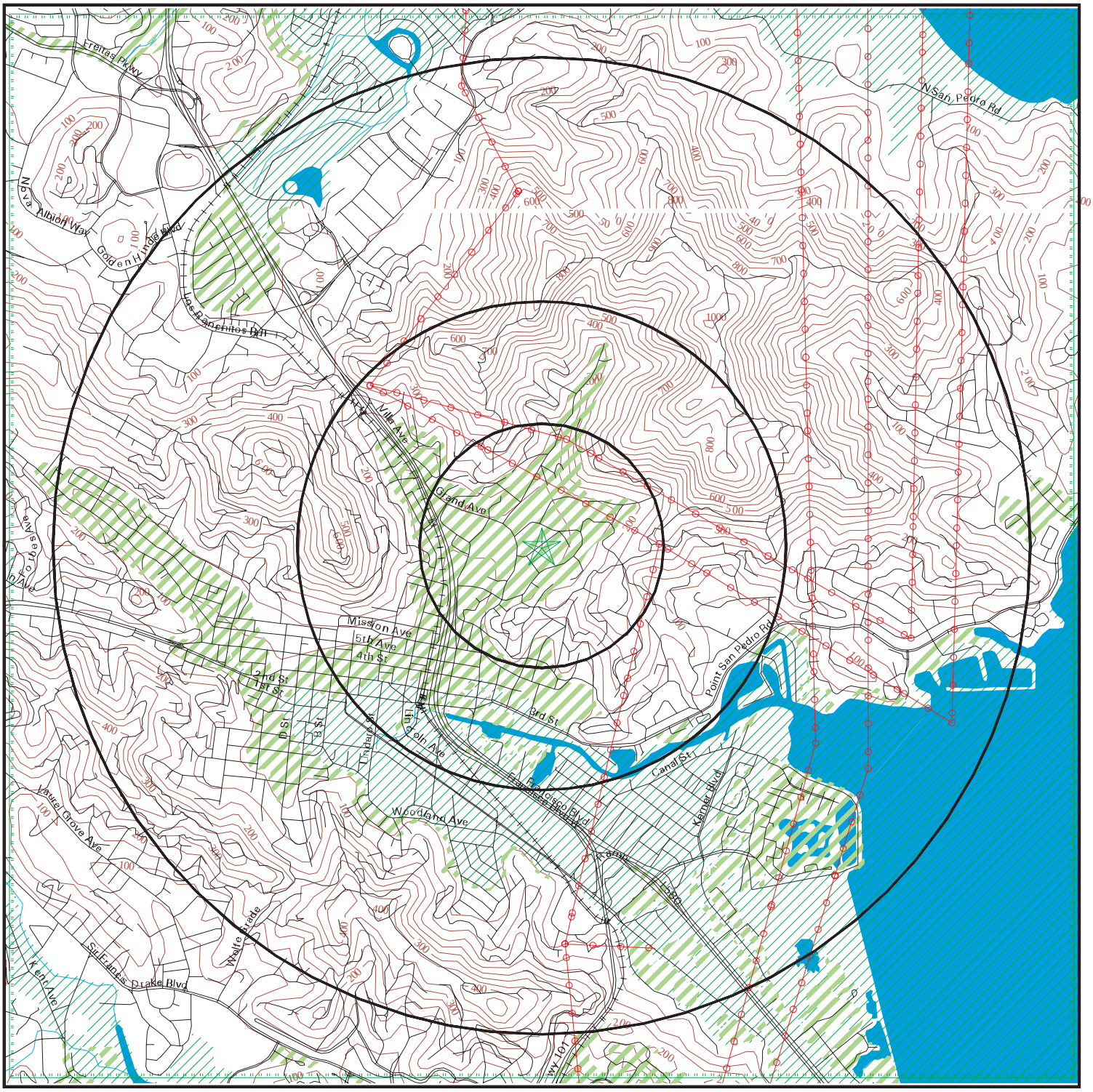
Id num: NO. 924
Nrhp num: Not Reported
Usgs quad: CONWAY STAGE STATION
Name: CHINA CAMP
Address: At entrance to China Camp Village, China Camp State Park, on N San Pedro Rd, 5.3 mi SE of State Hwy 101, Santa Venetia
Address2: Not Reported
County: Marin
Desc1: One of the earliest, largest, and most productive Chinese fishing villages in California, China Camp was in operation by 1870. The Chinese immigrants and their descendants introduced the use of commer
cial netting to catch bay shrimp off Point San Pedro. The shrimp were the dried and exported to Chinese throughout the world. China Camp represents the last surviving Chinese shrimp fishing village in
California.

Unmappable
CA10000379
CA Historic Landmarks

Id num: NO. 630
Nrhp num: Not Reported
Usgs quad: Not Reported
Name: ST. VINCENT'S SCHOOL FOR BOYS
Address: 0.7 mi E of Hwy 101 on St. Vincent Dr, 4 mi N of San Rafael
Address2: Not Reported
County: Marin
Desc1: In 1853, Timothy Murphy, Irishborn pioneer of Marin County, gave 317 acres of land to Archbishop Alemany for educational purposes. Here the Sisters of Charity in 1855 founded a school that, as St. Vin
cent's School for Boys, has been maintained and enlarged by successive archbishops of San Francisco.

Unmappable
CA10000375
CA Historic Landmarks

Flood Plain Map



- Major Roads
- Contour Lines
- Waterways
- County Boundary
- Power Lines
- Pipe Lines
- Fault Lines
- Water
- 100-year flood zone
- 500-year flood zone
- Electronic FEMA data available
- Electronic FEMA data not available

SITE NAME: NORF-DU	CLIENT: BMT
ADDRESS: 50 Acacia Avenue San Rafael CA 94901	CONTACT: Michelle Wegener INQUIRY #: 2576763.1s
LAT/LONG: 37.9800 / 122.5139	DATE: August 28, 2009

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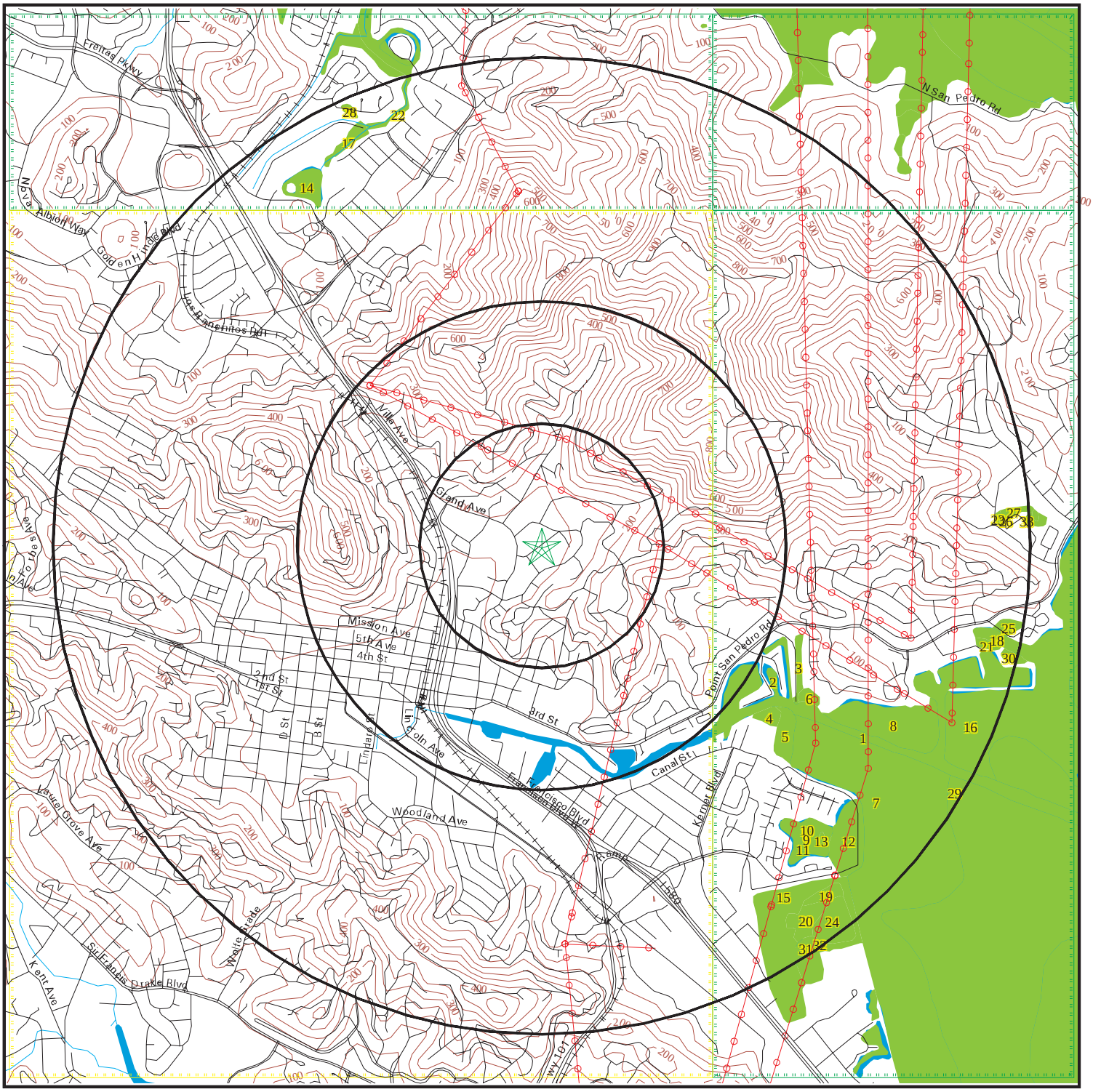
FLOOD PLAIN MAP FINDINGS

Source: FEMA Q3 Flood Data

County	FEMA flood data electronic coverage
MARIN, CA	YES
Flood Plain panel at target property:	0650580005B
Additional Flood Plain panel(s) in search area:	
0601730269A	
0601730300A	
0601730455A	
0601730450A	
0650580010B	
0601800001B	
0650580020B	
0650580015B	
0601790001B	
0601730434A	
0601730433A	
0650400001B	

National Wetlands Inventory Map



- Major Roads
- Contour Lines
- Waterways
- County Boundary
- Power Lines
- Pipe Lines
- Fault Lines
- Water
- National Wetland Inventory
- Electronic NWI data available
- Electronic NWI data not available

SITE NAME:	NORF-DU	CLIENT:	BMT
ADDRESS:	50 Acacia Avenue San Rafael CA 94901	CONTACT:	Michelle Wegener
LAT/LONG:	37.9800 / 122.5139	INQUIRY #:	2576763.1s
		DATE:	August 28, 2009

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WETLANDS MAP FINDINGS

Source: Fish and Wildlife Service NWI data

NWI hardcopy map at target property: San Rafael
Additional NWI hardcopy map(s) in search area:
Novato
Petaluma Point
San Quentin

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
1 SE 1/2-1 mi 4952	E1UBL [E] Estuarine, [1] Subtidal, [UB] Unconsolidated Bottom, [L] Subtidal	NWI
2 ESE 1-2 mi 5550	E2EM/USN [E] Estuarine, [2] Intertidal, [EM] Emergent / , [US] Unconsolidated Shore, [N] Regularly Flooded	NWI
3 ESE 1-2 mi 5823	E2EMP [E] Estuarine, [2] Intertidal, [EM] Emergent, [P] Irregularly Flooded	NWI
4 SE 1-2 mi 5841	PEMCh [P] Palustrine, [EM] Emergent, [C] Seasonally Flooded, [h] Diked/Impounded	NWI
5 SE 1-2 mi 6105	E2EMN [E] Estuarine, [2] Intertidal, [EM] Emergent, [N] Regularly Flooded	NWI
6 ESE 1-2 mi 6410	E2EMN [E] Estuarine, [2] Intertidal, [EM] Emergent, [N] Regularly Flooded	NWI
7 ESE 1-2 mi 6555	E2USN [E] Estuarine, [2] Intertidal, [US] Unconsolidated Shore, [N] Regularly Flooded	NWI
8 ESE 1-2 mi 7035	E2USN [E] Estuarine, [2] Intertidal, [US] Unconsolidated Shore, [N] Regularly Flooded	NWI

*See Wetland Classification System for additional information.

WETLANDS MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
9 SE 1-2 mi 7871	PUBHh [P] Palustrine, [UB] Unconsolidated Bottom, [H] Permanently Flooded, [h] Diked/Impounded	NWI
10 SE 1-2 mi 8274	PEMAh [P] Palustrine, [EM] Emergent, [A] Temporarily Flooded, [h] Diked/Impounded	NWI
11 SE 1-2 mi 8540	PEMAh [P] Palustrine, [EM] Emergent, [A] Temporarily Flooded, [h] Diked/Impounded	NWI
12 SE 1-2 mi 8618	PEMFh [P] Palustrine, [EM] Emergent, [F] Semipermanently Flooded, [h] Diked/Impounded	NWI
13 SE 1-2 mi 8648	PEMAh [P] Palustrine, [EM] Emergent, [A] Temporarily Flooded, [h] Diked/Impounded	NWI
14 NNW 1-2 mi 8743	PUBHx [P] Palustrine, [UB] Unconsolidated Bottom, [H] Permanently Flooded, [x] Excavated	NWI
15 SSE 1-2 mi 8842	PEMCh [P] Palustrine, [EM] Emergent, [C] Seasonally Flooded, [h] Diked/Impounded	NWI
16 ESE 1-2 mi 9305	E2USN [E] Estuarine, [2] Intertidal, [US] Unconsolidated Shore, [N] Regularly Flooded	NWI
17 NNW 1-2 mi 9387	E2EMN [E] Estuarine, [2] Intertidal, [EM] Emergent, [N] Regularly Flooded	NWI
18 East 1-2 mi 9493	E2USN [E] Estuarine, [2] Intertidal, [US] Unconsolidated Shore, [N] Regularly Flooded	NWI

*See Wetland Classification System for additional information.

WETLANDS MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
19 SE 1-2 mi 9547	PEM/USCh [P] Palustrine, [EM] Emergent / , [US] Unconsolidated Shore, [C] Seasonally Flooded, [h] Diked/Impounded	NWI
20 SE 1-2 mi 9571	PUSCh [P] Palustrine, [US] Unconsolidated Shore, [C] Seasonally Flooded, [h] Diked/Impounded	NWI
21 ESE 1-2 mi 9572	E2EMPh [E] Estuarine, [2] Intertidal, [EM] Emergent, [P] Irregularly Flooded, [h] Diked/Impounded	NWI
22 NNW 1-2 mi 9670	E1UBL [E] Estuarine, [1] Subtidal, [UB] Unconsolidated Bottom, [L] Subtidal	NWI
23 East 1-2 mi 9807	PSSC [P] Palustrine, [SS] Scrub-Shrub, [C] Seasonally Flooded	NWI
24 SE 1-2 mi 9870	PUSAh [P] Palustrine, [US] Unconsolidated Shore, [A] Temporarily Flooded, [h] Diked/Impounded	NWI
25 East 1-2 mi 9890	E2EMPh [E] Estuarine, [2] Intertidal, [EM] Emergent, [P] Irregularly Flooded, [h] Diked/Impounded	NWI
26 East 1-2 mi 9909	PEMF [P] Palustrine, [EM] Emergent, [F] Semipermanently Flooded	NWI
27 East 1-2 mi 9928	PEMC [P] Palustrine, [EM] Emergent, [C] Seasonally Flooded	NWI
28 NNW 1-2 mi 10061	PUSC [P] Palustrine, [US] Unconsolidated Shore, [C] Seasonally Flooded	NWI

*See Wetland Classification System for additional information.

WETLANDS MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
29 ESE 1-2 mi 10126	E2USM [E] Estuarine, [2] Intertidal, [US] Unconsolidated Shore, [M] Irregularly Exposed	NWI
30 ESE 1-2 mi 10190	PEMCh [P] Palustrine, [EM] Emergent, [C] Seasonally Flooded, [h] Diked/Impounded	NWI
31 SSE 1-2 mi 10201	PUBHh [P] Palustrine, [UB] Unconsolidated Bottom, [H] Permanently Flooded, [h] Diked/Impounded	NWI
32 SE 1-2 mi 10405	PEMCh [P] Palustrine, [EM] Emergent, [C] Seasonally Flooded, [h] Diked/Impounded	NWI
33 East 1-2 mi 10461	PSSC [P] Palustrine, [SS] Scrub-Shrub, [C] Seasonally Flooded	NWI

*See Wetland Classification System for additional information.

WETLANDS CLASSIFICATION SYSTEM

National Wetland Inventory Maps are produced by the U.S. Fish and Wildlife Service, a sub-department of the U.S. Department of the Interior. In 1974, the U.S. Fish and Wildlife Service developed a criteria for wetland classification with four long range objectives:

- to describe ecological units that have certain homogeneous natural attributes,
- to arrange these units in a system that will aid decisions about resource management,
- to furnish units for inventory and mapping, and
- to provide uniformity in concepts and terminology throughout the U.S.

High altitude infrared photographs, soil maps, topographic maps and site visits are the methods used to gather data for the productions of these maps. In the infrared photos, wetlands appear as different colors and these wetlands are then classified by type. Using a hierarchical classification, the maps identify wetland and deepwater habitats according to:

- system
- subsystem
- class
- subclass
- modifiers

(as defined by Cowardin, et al. U.S. Fish and Wildlife Service FWS/OBS 79/31. 1979.)

The classification system consists of five systems:

1. marine
2. estuarine
3. riverine
4. lacustrine
5. palustrine

The marine system consists of deep water tidal habitats and adjacent tidal wetlands. The riverine system consists of all wetlands contained within a channel. The lacustrine systems includes all nontidal wetlands related to swamps, bogs & marshes. The estuarine system consists of deepwater tidal habitats and where ocean water is diluted by fresh water. The palustrine system includes nontidal wetlands dominated by trees and shrubs and where salinity is below .5% in tidal areas. All of these systems are divided in subsystems and then further divided into class.

National Wetland Inventory Maps are produced by transferring gathered data on a standard 7.5 minute U.S.G.S. topographic map. Approximately 52 square miles are covered on a National Wetland Inventory map at a scale of 1:24,000. Electronic data is compiled by digitizing these National Wetland Inventory Maps.

SYSTEM **MARINE**

SUBSYSTEM **1 - SUBTIDAL** **2 - INTERTIDAL**

CLASS	RB-ROCK BOTTOM	UB-UNCONSOLIDATED BOTTOM	AB-AQUATIC BED	RF-REEF	OW-OPEN WATER / Unknown Bottom	AB-AQUATIC BED	RF-REEF	RS-ROCKY SHORE	US-UNCONSOLIDATED SHORE
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 3 Rooted Vascular 5 Unknown Submergent	1 Coral 3 Worm		1 Algal 3 Rooted Vascular 5 Unknown Submergent	1 Coral 3 Worm	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic

SYSTEM **E - ESTUARINE**

SUBSYSTEM **1 - SUBTIDAL**

CLASS	RB-ROCK BOTTOM	UB-UNCONSOLIDATED BOTTOM	AB-AQUATIC BED	RF-REEF	OW-OPEN WATER / Unknown Bottom
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	2 Mollusk 3 Worm	

SUBSYSTEM **2 - INTERTIDAL**

CLASS	AB-AQUATIC BED	RF-REEF	SB - STREAMBED	RS-ROCKY SHORE	US-UNCONSOLIDATED SHORE	EM-EMERGENT	SS-SCRUB SHRUB	FO-FORESTED
Subclass	1 Algal 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	2 Mollusk 3 Worm	1 Cobble- Gravel 2 Sand 3 Mud 4 Organic	1 Bedrock 2 Rubble	1 Cobble- Gravel 2 Sand 3 Mud 4 Organic	1 Persistent 2 Nonpersistent	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 Deciduous 7 Evergreen	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 Deciduous 7 Evergreen

SYSTEM — **R - RIVERINE**

SUBSYSTEM	1 - TIDAL	2 - LOWER PERENNIAL	3 - UPPER PERENNIAL	4 - INTERMITTENT	5 - UNKNOWN PERENNIAL
CLASS	RB-ROCK BOTTOM UB-UNCONSOLIDATED BOTTOM *SB-STREAMBED AB-AQUATIC BED RS-ROCKY SHORE US-UNCONSOLIDATED SHORE **EM-EMERGENT OW-OPEN WATER/ Unknown Bottom				
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Bedrock 2 Rubble 3 Cobble-Gravel 4 Sand 5 Mud 6 Organic 7 Vegetated	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated	2 Nonpersistent

* STREAMBED is limited to TIDAL and INTERMITTENT SUBSYSTEMS, and comprises the only CLASS in the INTERMITTENT SUBSYSTEM.
**EMERGENT is limited to TIDAL and LOWER PERENNIAL SUBSYSTEMS.

SYSTEM — **L - LACUSTRINE**

SUBSYSTEM — **1 - LIMNETIC**

CLASS	RB-ROCK BOTTOM	UB-UNCONSOLIDATED BOTTOM	AB-AQUATIC BED	OW-OPEN WATER/ Unknown Bottom
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	

SUBSYSTEM — **2 - LITTORAL**

CLASS	RB-ROCK BOTTOM	UB-UNCONSOLIDATED BOTTOM	AB-AQUATIC BED	RS-ROCKY SHORE	US-UNCONSOLIDATED SHORE	EM-EMERGENT	OW-OPEN WATER/ Unknown Bottom
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated	2 Nonpersistent	

SUBSYSTEM — **P - PALUSTRINE**

CLASS	RB--ROCK BOTTOM	UB--UNCONSOLIDATED BOTTOM	AB-AQUATIC BED	US--UNCONSOLIDATED SHORE	ML--MOSS-LICHEN	EM--EMERGENT	SS--SCRUB-SHRUB	FO--FORESTED	OW-OPEN WATER/ Unknown
Bottom									
Subclass	1 Bedrock 2 Rubble 3 Mud 4 Organic	1 Cobble-Gravel 2 Sand	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated	1 Moss 2 Lichen	1 Persistent 2 Nonpersistent	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 Deciduous 7 Evergreen	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6Deciduous 7 Evergreen	

MODIFIERS

In order to more adequately describe wetland and deepwater habitats one or more of the water regime, water chemistry, soil, or special modifiers may be applied at the class or lower level in the hierarchy. The farmed modifier may also be applied to the ecological system.

WATER REGIME

Non-Tidal

A Temporarily Flooded
B Saturated
C Seasonally Flooded
D Seasonally Flooded/ Well Drained
E Seasonally Flooded/ Saturated
F Semipermanently Flooded
G Intermittently Exposed

Tidal

H Permanently Flooded
J Intermittently Flooded
K Artificially Flooded
W Intermittently Flooded/Temporary
Y Saturated/Semipermanent/ Seasonal
Z Intermittently Exposed/Permanent
U Unknown

Coastal Salinity Modifiers for Inland Salinity

K Artificially Flooded
L Subtidal
M Irregularly Exposed
N Regularly Flooded
P Irregularly Flooded

*S Temporary-Tidal
*R Seasonal-Tidal
*T Semipermanent -Tidal
V Permanent -Tidal
U Unknown

*These water regimes are only used in tidally influenced, freshwater systems.

WATER CHEMISTRY

pH Modifiers for all Fresh Water

1 Hyperhaline
2 Euhaline
3 Mixohaline (Brackish)
4 Polyhaline
5 Mesohaline
6 Oligohaline
0 Fresh

7 Hypersaline
8 Eusaline
9 Mixosaline
0 Fresh

a Acid
t Circumneutral
i Alkaline

SOIL

g Organic
n Mineral

SPECIAL MODIFIERS

b Beaver
d Partially Drained/Ditched
f Farmed
h Diked/Impounded
r Artificial Substrate
s Spoil
x Excavated

Source: U.S. Department of the Interior
Fish and Wildlife Service
National Wetlands Inventory

FCC & FAA Sites Map

- Streets
- Contour Lines
- County Boundary
- Waterways
- Power Lines
- Water
- Sites
- Omni Directional AM Interference
- Directional AM Interference

SITE NAME: NORF-DU	CLIENT: BMT
ADDRESS: 50 Acacia Avenue San Rafael CA 94901	CONTACT: Michelle Wegener INQUIRY #: 2576763.1s
LAT/LONG: 37.9800 / 122.5139	DATE: August 28, 2009

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FCC & FAA SITES MAP FINDINGS
TOWERS

Map ID
Direction
Distance
Distance (ft.)

EDR ID
Database

A1
West
1/2-1 mi
4240

DOF100000066458
FAA DOF

Nacg code:	05	Obs number:	6129
O or u:	U	State id:	CA
City name:	SAN RAFAEL	Latdeg:	37
Latmin:	58		
Latsec:	49		
Lat hemi:	N	Longdeg:	122
Longmin:	31		
Longsec:	43		
Long hemi:	W	Obs type:	TOWER
Frequency:	Not Reported	Agl ht:	0105
Amsl ht:	00720	Strobe ind:	Not Reported
Acc h:	Not Reported	Acc v:	Not Reported
Mark ind:	Not Reported	Faa stdy n:	Not Reported
Act acd dt:	A76072	Datchk cd:	161187
Dat file:	AWP	Site id:	DOF100000066458

A2
West
1/2-1 mi
4445

CEL100000042141
CELLULAR

Low Frequency:	880.02000000	High Frequency:	889.98000000
Callsign:	KNKA228	Radio Code:	CL
DBA Name:	GTE MOBILNET OF CALIFORNIA LIMITED PARTN		
Contact:	Not Reported		
Licensee:	GTE MOBILNET OF CALIFORNIA LIMITED PARTNERSHIP Not Reported ATLANTA, GA 30346		
Transmitter Address:	SAN RAFAEL HILL ON ROBERT DOLLAR SCENIC SAN RAFAEL, CA		
County:	MARIN		
Latitude:	375855	Longitude:	1223141
Elevation:	00000	Height:	00000
Height Average:	00000	Effective Height:	00240
Structure Height:	00000	Class Code:	FB
ERP:	00000000	Database ID:	Y
License Date:	940926	Emissions:	40K0F3E 40K0F1D
Issue Date:	940802	Expiration Date:	941001
Mobile Vehicles:	Not Reported	Total Units:	Not Reported
Control Point Auth:	00	Authorization Type:	L

This record is for a license, and it may or may not indicate a site which has been built.

FCC & FAA SITES MAP FINDINGS
TOWERS

Map ID
Direction
Distance
Distance (ft.)

EDR ID
Database

A3
West
1/2-1 mi
4445

CEL100000017230
CELLULAR

Low Frequency:	835.02000000	High Frequency:	844.98000000
Callsign:	KNKA228	Radio Code:	CL
DBA Name:	GTE MOBILNET OF CALIFORNIA LIMITED PARTN		
Contact:	Not Reported		
Licensee:	GTE MOBILNET OF CALIFORNIA LIMITED PARTNERSHIP Not Reported ATLANTA, GA 30346		
Transmitter Address:	SAN RAFAEL HILL ON ROBERT DOLLAR SCENIC SAN RAFAEL, CA		
County:	MARIN		
Latitude:	375855	Longitude:	1223141
Elevation:	00000	Height:	00000
Height Average:	00000	Effective Height:	00240
Structure Height:	00000	Class Code:	MO
ERP:	00000000	Database ID:	Y
License Date:	940926	Emissions:	40K0F3E 40K0F1D
Issue Date:	940802	Expiration Date:	941001
Mobile Vehicles:	Not Reported	Total Units:	Not Reported
Control Point Auth:	00	Authorization Type:	L

This record is for a license, and it may or may not indicate a site which has been built.

FCC & FAA SITES MAP FINDINGS
TOWERS

Map ID
Direction
Distance
Distance (ft.)

EDR ID
Database

4
NE
1/2-1 mi
4468

TOW100000048496
TOWER

Tower ID:	31358		
Tower Owner Name:	PACIFIC BELL		
1.5 MI NE, SAN RAFAEL, CA			
Latitude:	37 59' 136759"	Latitude (in seconds):	136759
Longitude:	122 30' 6"	Longitude (in seconds):	441006
Transmitter Latitude:	375919	Transmitter Longitude	1223006
Construction Date:	99/99/1999	Activation Date:	Oct 13 1992
FAA Date:		FCC Date:	Sep 29 1992
File Number:	344318	FAA ID:	
Antenna Height:	17.0000	Antenna Height (M):	5.2000
Beacon Height:	0.0000	Beacon Height (M):	0.0000
Elevation:	1107.0000	Elevation FAA:	0.0000
Elevation FAA (M):	0.0000	Elevation (M):	337.4000
Structure Height:	81.0000	Structure Height (M):	24.7000
Structure Height FAA:	0.0000	Structure Height FAA (M):	24.7000
Supporting Struct Hgt:	0.0000	Supporting Struct Hgt (M):	0.0000
Tower Height:	64.0000	Tower Height (M):	19.5000
Structure Type:	TOW	Tower Type:	E
Key Remarks:		Date:	
Key Site:	39681	Record Action:	MOD
ID Exam:	PRB3	ID_ASB_ACC:	C
Paint and Lighting Specs:			
Special Conditions/Remarks:			

This record is for a license, and it may or may not indicate a site which has been built.

FCC & FAA SITES MAP FINDINGS
TOWERS

Map ID
Direction
Distance
Distance (ft.)

EDR ID
Database

B5
SW
1/2-1 mi
4887

CEL100000001736
CELLULAR

Low Frequency:	825.03000000	High Frequency:	834.99000000
Callsign:	KNKA274	Radio Code:	CL
DBA Name:	BAY AREA CELLULAR TELEPHONE COMPANY		
Contact:	Not Reported		
Licensee:	BAY AREA CELLULAR TELEPHONE COMPANY Not Reported SOUTH SAN FRANCISCO, CA 94080		
Transmitter Address:	757 LINCOLN AVENUE SAN RAFAEL, CA		
County:	MARIN		
Latitude:	375811	Longitude:	1223125
Elevation:	00000	Height:	00000
Height Average:	00000	Effective Height:	00370
Structure Height:	00050	Class Code:	MO
ERP:	00000000	Database ID:	Y
License Date:	940926	Emissions:	40K0F3E 40K0F1D
Issue Date:	940906	Expiration Date:	951001
Mobile Vehicles:	Not Reported	Total Units:	Not Reported
Control Point Auth:	00	Authorization Type:	L

This record is for a license, and it may or may not indicate a site which has been built.

B6
SW
1/2-1 mi
4887

CEL100000030301
CELLULAR

Low Frequency:	870.03000000	High Frequency:	879.99000000
Callsign:	KNKA274	Radio Code:	CL
DBA Name:	BAY AREA CELLULAR TELEPHONE COMPANY		
Contact:	Not Reported		
Licensee:	BAY AREA CELLULAR TELEPHONE COMPANY Not Reported SOUTH SAN FRANCISCO, CA 94080		
Transmitter Address:	757 LINCOLN AVENUE SAN RAFAEL, CA		
County:	MARIN		
Latitude:	375811	Longitude:	1223125
Elevation:	00000	Height:	00000
Height Average:	00000	Effective Height:	00370
Structure Height:	00050	Class Code:	FB
ERP:	00000000	Database ID:	Y
License Date:	940926	Emissions:	40K0F3E 40K0F1D
Issue Date:	940906	Expiration Date:	951001
Mobile Vehicles:	Not Reported	Total Units:	Not Reported
Control Point Auth:	00	Authorization Type:	L

This record is for a license, and it may or may not indicate a site which has been built.

FCC & FAA SITES MAP FINDINGS
TOWERS

Map ID Direction Distance Distance (ft.)		EDR ID Database
7 SW 1/2-1 mi 4905		ANT100000015054 ANTREG

Tower ID:	1015587		
Address:	2ND & BROOKS STS, SAN RAFAEL, CA		
Lat (NAD 27):	375817	Lon (NAD 27):	1223133
Lat (NAD 83):	375817	Lon (NAD 83):	1223137
Construction Date:	Jan 1 1979	Dismantled Date:	
Nepa Flag:	N	FAA ID:	79-AWE-325-OE
Structure Type:	TOWER	Elevation (M):	4.50
Structure Hgt (M):	27.00	Hgt Above Ground:	31.00
Hgt Above Ground (M):	31.0899772	Hgt Above Mean Sea Level (M):	35.6620330
Date Activated:	Jan 27 1999	License Issue Date:	Mar 7 1997
Date Keyed:	Mar 4 1997	Date Printed:	Mar 7 1997
Date Processed:	Mar 6 1997	Date Received:	Feb 28 1997
Licensee Signature	MARILOU EHRENBERG		
Nature of Modification:		Purpose:	R
Company (DBA) Name:			
Owner Name:	PACIFIC GAS & ELECTRIC COMPANY		
Attention:	MARILOU EHRENBERG		
Owner Address:	77 BEALE ST, SAN FRANCISCO, CA 94106		
Owner PO Box:		Phone Number:	4159730265
E-Mail Address:	MXER@PCE.COM		
Internet Domain:	PCE.COM		
Painting & Lighting Specs:		Date of Last Remarks:	
Special Conditions #1:			
Special Conditions #2:			
Key Remarks:			

This record is for a license, and it may or may not indicate a site which has been built.

FCC & FAA SITES MAP FINDINGS
TOWERS

Map ID
Direction
Distance
Distance (ft.)

EDR ID
Database

C8
NE
1-2 mi
5338

TOW100000007735
TOWER

Tower ID:	112629		
Tower Owner Name:	MARIN BROADCASTING CO, INC.		
2.62 KM E. OF MARIN CIVIC, SAN RAFAEL, CA			
Latitude:	37 59' 136764"	Latitude (in seconds):	136764
Longitude:	122 29' 57"	Longitude (in seconds):	440997
Transmitter Latitude:	375924	Transmitter Longitude	1222957
Construction Date:		Activation Date:	Mar 25 1991
FAA Date:	Feb 12 1991	FCC Date:	Jul 26 1990
File Number:	BPH-900726IC	FAA ID:	90-AWP-625-OE
Antenna Height:	12.0000	Antenna Height (M):	3.7000
Beacon Height:	0.0000	Beacon Height (M):	0.0000
Elevation:	1108.0000	Elevation FAA:	1108.0000
Elevation FAA (M):	337.7000	Elevation (M):	337.7000
Structure Height:	50.0000	Structure Height (M):	15.2000
Structure Height FAA:	50.0000	Structure Height FAA (M):	15.2000
Supporting Struct Hgt:	0.0000	Supporting Struct Hgt (M):	0.0000
Tower Height:	38.0000	Tower Height (M):	11.6000
Structure Type:	TOW	Tower Type:	E
Key Remarks:		Date:	
Key Site:	39690	Record Action:	ADD
ID Exam:	ASB3	ID_ASB_ACC:	C
Paint and Lighting Specs:			
Special Conditions/Remarks:			

This record is for a license, and it may or may not indicate a site which has been built.

FCC & FAA SITES MAP FINDINGS
TOWERS

Map ID
Direction
Distance
Distance (ft.)

EDR ID
Database

C9
NE
1-2 mi
5353

CEL100000030302
CELLULAR

Low Frequency:	870.03000000	High Frequency:	879.99000000
Callsign:	KNKA274	Radio Code:	CL
DBA Name:	BAY AREA CELLULAR TELEPHONE COMPANY		
Contact:	Not Reported		
Licensee:	BAY AREA CELLULAR TELEPHONE COMPANY Not Reported SOUTH SAN FRANCISCO, CA 94080		
Transmitter Address:	SAN PEDRO HILL SAN RAFAEL, CA		
County:	MARIN		
Latitude:	375925	Longitude:	1222958
Elevation:	00000	Height:	00000
Height Average:	00000	Effective Height:	00790
Structure Height:	00100	Class Code:	FB
ERP:	62000000	Database ID:	Y
License Date:	940926	Emissions:	40K0F3E 40K0F1D
Issue Date:	940906	Expiration Date:	951001
Mobile Vehicles:	Not Reported	Total Units:	Not Reported
Control Point Auth:	00	Authorization Type:	L

This record is for a license, and it may or may not indicate a site which has been built.

C10
NE
1-2 mi
5353

CEL100000001737
CELLULAR

Low Frequency:	825.03000000	High Frequency:	834.99000000
Callsign:	KNKA274	Radio Code:	CL
DBA Name:	BAY AREA CELLULAR TELEPHONE COMPANY		
Contact:	Not Reported		
Licensee:	BAY AREA CELLULAR TELEPHONE COMPANY Not Reported SOUTH SAN FRANCISCO, CA 94080		
Transmitter Address:	SAN PEDRO HILL SAN RAFAEL, CA		
County:	MARIN		
Latitude:	375925	Longitude:	1222958
Elevation:	00000	Height:	00000
Height Average:	00000	Effective Height:	00790
Structure Height:	00100	Class Code:	MO
ERP:	62000000	Database ID:	Y
License Date:	940926	Emissions:	40K0F3E 40K0F1D
Issue Date:	940906	Expiration Date:	951001
Mobile Vehicles:	Not Reported	Total Units:	Not Reported
Control Point Auth:	00	Authorization Type:	L

This record is for a license, and it may or may not indicate a site which has been built.

FCC & FAA SITES MAP FINDINGS
TOWERS

Map ID
Direction
Distance
Distance (ft.)

EDR ID
Database

C11
NE
1-2 mi
5353

TOW100000008978
TOWER

Tower ID:	113842		
Tower Owner Name:	MARIN BROADCASTING COMPANY, INC. SAN PEDRO MOUNTAIN, SAN RAFAEL, CA		
Latitude:	37 59' 136765"	Latitude (in seconds):	136765
Longitude:	122 29' 58"	Longitude (in seconds):	440998
Transmitter Latitude:	375925	Transmitter Longitude	1222958
Construction Date:	99/99/1999	Activation Date:	Sep 11 1992
FAA Date:	Oct 8 1991	FCC Date:	Mar 31 1992
File Number:	BPH-911002IE	FAA ID:	91-AWP-0822-OE
Antenna Height:	0.0000	Antenna Height (M):	0.0000
Beacon Height:	0.0000	Beacon Height (M):	0.0000
Elevation:	1175.0000	Elevation FAA:	1175.0000
Elevation FAA (M):	358.1000	Elevation (M):	358.1000
Structure Height:	118.0000	Structure Height (M):	36.0000
Structure Height FAA:	118.0000	Structure Height FAA (M):	36.0000
Supporting Struct Hgt:	0.0000	Supporting Struct Hgt (M):	0.0000
Tower Height:	118.0000	Tower Height (M):	36.0000
Structure Type:	TOW	Tower Type:	E
Key Remarks:		Date:	
Key Site:	39696	Record Action:	MOD
ID Exam:	ASB8	ID_ASB_ACC:	C
Paint and Lighting Specs:			
Special Conditions/Remarks:			

This record is for a license, and it may or may not indicate a site which has been built.

FCC & FAA SITES MAP FINDINGS
TOWERS

Map ID
Direction
Distance
Distance (ft.)

EDR ID
Database

12
North
1-2 mi
6153

TOW100000018424
TOWER

Tower ID:	122906		
Tower Owner Name:	CERTIFIED LOCK & SAFE INC		
SAN PEDRO HILL, SANTA VENITIA, CA			
Latitude:	37 59' 136789"	Latitude (in seconds):	136789
Longitude:	122 30' 41"	Longitude (in seconds):	441041
Transmitter Latitude:	375949	Transmitter Longitude	1223041
Construction Date:		Activation Date:	Nov 19 1993
FAA Date:	Nov 18 1993	FCC Date:	Aug 27 1993
File Number:	631581	FAA ID:	93-AWP-1019-OE
Antenna Height:	0.0000	Antenna Height (M):	0.0000
Beacon Height:	0.0000	Beacon Height (M):	0.0000
Elevation:	1010.0000	Elevation FAA:	1010.0000
Elevation FAA (M):	307.9000	Elevation (M):	307.9000
Structure Height:	60.0000	Structure Height (M):	18.3000
Structure Height FAA:	60.0000	Structure Height FAA (M):	18.3000
Supporting Struct Hgt:	0.0000	Supporting Struct Hgt (M):	0.0000
Tower Height:	60.0000	Tower Height (M):	18.3000
Structure Type:	TOW	Tower Type:	E
Key Remarks:		Date:	
Key Site:	39730	Record Action:	ADD
ID Exam:	PRB4	ID_ASB_ACC:	
Paint and Lighting Specs:			
Special Conditions/Remarks:			

This record is for a license, and it may or may not indicate a site which has been built.

FCC & FAA SITES MAP FINDINGS
AIRPORTS

EDR ID
Database

No Sites Reported.

FCC & FAA SITES MAP FINDINGS
POWERLINES

EDR ID
Database

POW0008732
POWERLINES

Msid:	MSX1014002- 1	Voltage:	60
Rangeflg:	1	Hi_range:	92
Type:	AC	Status:	AC
Corridor:	Y	Ownr_id:	PGECRP
Own_name:	PG and E Corporation	Opr_id:	PGE
Ownr_flg:	S	Coname:	Pacific Gas and Electric Co.
Physaddres:	77 Beale St.	Physcity:	San Francisco
Physstate:	California	Physlposta:	94177
Mailaddres:	PO Box 770000	Mailcity:	San Francisco
Mailstate:	California	Mailpostal:	94177
Phone:	415-973-7000	Fax:	Not Reported
Webpage:	www.pge.com		

POW0008727
POWERLINES

Msid:	MSX1013997- 1	Voltage:	60
Rangeflg:	1	Hi_range:	92
Type:	AC	Status:	AC
Corridor:	N	Ownr_id:	PGECRP
Own_name:	PG and E Corporation	Opr_id:	PGE
Ownr_flg:	S	Coname:	Pacific Gas and Electric Co.
Physaddres:	77 Beale St.	Physcity:	San Francisco
Physstate:	California	Physlposta:	94177
Mailaddres:	PO Box 770000	Mailcity:	San Francisco
Mailstate:	California	Mailpostal:	94177
Phone:	415-973-7000	Fax:	Not Reported
Webpage:	www.pge.com		

POW0008729
POWERLINES

Msid:	MSX1013999- 1	Voltage:	60
Rangeflg:	1	Hi_range:	92
Type:	AC	Status:	AC
Corridor:	N	Ownr_id:	PGECRP
Own_name:	PG and E Corporation	Opr_id:	PGE
Ownr_flg:	S	Coname:	Pacific Gas and Electric Co.
Physaddres:	77 Beale St.	Physcity:	San Francisco
Physstate:	California	Physlposta:	94177
Mailaddres:	PO Box 770000	Mailcity:	San Francisco
Mailstate:	California	Mailpostal:	94177
Phone:	415-973-7000	Fax:	Not Reported
Webpage:	www.pge.com		

FCC & FAA SITES MAP FINDINGS
POWERLINES

EDR ID
Database

POW0008730
POWERLINES

Msid:	MSX1014000- 1	Voltage:	60
Rangeflg:	1	Hi_range:	92
Type:	AC	Status:	AC
Corridor:	N	Ownr_id:	PGECRP
Own_name:	PG and E Corporation	Opr_id:	PGE
Ownr_flg:	S	Coname:	Pacific Gas and Electric Co.
Physaddres:	77 Beale St.	Physcity:	San Francisco
Physstate:	California	Physlposta:	94177
Mailaddres:	PO Box 770000	Mailcity:	San Francisco
Mailstate:	California	Mailpostal:	94177
Phone:	415-973-7000	Fax:	Not Reported
Webpage:	www.pge.com		

POW0008723
POWERLINES

Msid:	MSX1013993- 1	Voltage:	110
Rangeflg:	1	Hi_range:	161
Type:	AC	Status:	AC
Corridor:	N	Ownr_id:	PGECRP
Own_name:	PG and E Corporation	Opr_id:	PGE
Ownr_flg:	S	Coname:	Pacific Gas and Electric Co.
Physaddres:	77 Beale St.	Physcity:	San Francisco
Physstate:	California	Physlposta:	94177
Mailaddres:	PO Box 770000	Mailcity:	San Francisco
Mailstate:	California	Mailpostal:	94177
Phone:	415-973-7000	Fax:	Not Reported
Webpage:	www.pge.com		

POW0008724
POWERLINES

Msid:	MSX1013994- 1	Voltage:	110
Rangeflg:	1	Hi_range:	161
Type:	AC	Status:	AC
Corridor:	N	Ownr_id:	PGECRP
Own_name:	PG and E Corporation	Opr_id:	PGE
Ownr_flg:	S	Coname:	Pacific Gas and Electric Co.
Physaddres:	77 Beale St.	Physcity:	San Francisco
Physstate:	California	Physlposta:	94177
Mailaddres:	PO Box 770000	Mailcity:	San Francisco
Mailstate:	California	Mailpostal:	94177
Phone:	415-973-7000	Fax:	Not Reported
Webpage:	www.pge.com		

FCC & FAA SITES MAP FINDINGS
POWERLINES

EDR ID
Database

POW0008725
POWERLINES

Msid:	MSX1013995- 1	Voltage:	60
Rangeflg:	1	Hi_range:	92
Type:	AC	Status:	AC
Corridor:	N	Ownr_id:	PGECRP
Own_name:	PG and E Corporation	Opr_id:	PGE
Ownr_flg:	S	Coname:	Pacific Gas and Electric Co.
Physaddres:	77 Beale St.	Physcity:	San Francisco
Physstate:	California	Physlposta:	94177
Mailaddres:	PO Box 770000	Mailcity:	San Francisco
Mailstate:	California	Mailpostal:	94177
Phone:	415-973-7000	Fax:	Not Reported
Webpage:	www.pge.com		

KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

Various Federal laws and executive orders address specific environmental concerns. NEPA requires the responsible offices to integrate to the greatest practical extent the applicable procedures required by these laws and executive orders. EDR provides key contacts at agencies charged with implementing these laws and executive orders to supplement the information contained in this report.

NATURAL AREAS
Officially designated wilderness areas
Government Records Searched in This Report

FED_LAND: Federal Lands
Source: USGS
Telephone: 703-648-5094
Federal data from Bureau of Land Management, National Park Service, Forest Service, and Fish and Wildlife Service.
- National Parks
- Forests
- Monuments
- Wildlife Sanctuaries, Preserves, Refuges
- Federal Wilderness Areas.
Date of Government Version: 12/31/2005

Federal Contacts for Additional Information

National Park Service, Pacific West Region
600 Harrison Street, Suite 600
San Francisco, CA 94107
415-427-1300

USDA Forest Service, Pacific Southwest
630 Sansome Street
San Francisco, CA 94111
415-705-2557

BLM - California State Office
2800 Cottage Way, Room W-1834
Sacramento, CA 95825-1886
916-978-4400

Fish & Wildlife Service, Region 1
Eastside Federal Complex 911 NE 11th Avenue
Portland, OR 97232-4181
503-231-6188

Officially designated wildlife preserves, sanctuaries and refuges
Government Records Searched in This Report

FED_LAND: Federal Lands
Source: USGS
Telephone: 703-648-5094
Federal data from Bureau of Land Management, National Park Service, Forest Service, and Fish and Wildlife Service.
- National Parks
- Forests
- Monuments
- Wildlife Sanctuaries, Preserves, Refuges
- Federal Wilderness Areas.
Date of Government Version: 12/31/2005

KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

Federal Contacts for Additional Information

Fish & Wildlife Service, Region 1
Eastside Federal Complex 911 NE 11th Avenue
Portland, OR 97232-4181
503-231-6188

State Contacts for Additional Information

Department of Fish & Game 916-653-7667

Wild and scenic rivers

Government Records Searched in This Report

FED_LAND: Federal Lands
Source: USGS
Telephone: 703-648-5094
Federal data from Bureau of Land Management, National Park Service, Forest Service, and Fish and Wildlife Service.
- National Parks
- Forests
- Monuments
- Wildlife Sanctuaries, Preserves, Refuges
- Federal Wilderness Areas.

Date of Government Version: 12/31/2005

Federal Contacts for Additional Information

Fish & Wildlife Service, Region 1
Eastside Federal Complex 911 NE 11th Avenue
Portland, OR 97232-4181
503-231-6188

Endangered Species

Government Records Searched in This Report

Endangered Species Protection Program Database
A listing of endangered species by county.
Source: Environmental Protection Agency
Telephone: 703-305-5239

CA Endangered Species: Natural Diversity Database
Source: Dept. of Fish and Game.
Telephone: 916-324-3812

Federal Contacts for Additional Information

Fish & Wildlife Service, Region 1
Eastside Federal Complex 911 NE 11th Avenue
Portland, OR 97232-4181
503-231-6188

State Contacts for Additional Information

Natural Heritage Program, Dept. of Fish & Game 916-322-2493

KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

LANDMARKS, HISTORICAL, AND ARCHEOLOGICAL SITES
Historic Places
Government Records Searched in This Report

National Register of Historic Places:
The National Register of Historic Places is the official federal list of districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, engineering, and culture. These contribute to an understanding of the historical and cultural foundations of the nation.
The National Register includes:
- All prehistoric and historic units of the National Park System;
- National Historic Landmarks, which are properties recognized by the Secretary of the Interior as possessing national significance; and
- Properties significant in American, state, or local prehistory and history that have been nominated by State Historic Preservation Officers, federal agencies, and others, and have been approved for listing by the National Park Service.

Date of Government Version: 03/23/2006

CA Historic Landmarks: CA Historical Landmarks
Source: Office of Historic Preservation.
Telephone: 916-653-6624

Federal Contacts for Additional Information

Park Service; Advisory Council on Historic Preservation
1849 C Street NW
Washington, DC 20240
Phone: (202) 208-6843

State Contacts for Additional Information

Office of Historic Preservation, Ept. Of Parks & Recreation 916-653-6624

Indian Religious Sites
Government Records Searched in This Report

Indian Reservations:
This map layer portrays Indian administrated lands of the United States that have any area equal to or greater than 640 acres.
Source: USGS
Phone: 888-275-8747
Date of Government Version: 12/31/2005

Federal Contacts for Additional Information

Department of the Interior- Bureau of Indian Affairs
Office of Public Affairs
1849 C Street, NW
Washington, DC 20240-0001
Office: 202-208-3711
Fax: 202-501-1516

National Association of Tribal Historic Preservation Officers
1411 K Street NW, Suite 700
Washington, DC 20005
Phone: 202-628-8476
Fax: 202-628-2241

KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

State Contacts for Additional Information
A listing of local Tribal Leaders and Bureau of Indian Affairs Representatives can be found at:
http://www.doi.gov/bia/areas/agency.html

Phoenix Area Office, Bureau of Indian Affairs
One North First Street P.O. Box 10
Phoenix, AZ 85001
602-379-6600

Sacramento Area Office, Bureau of Indian Affairs
2800 Cottage Way
Sacramento, CA 95825
916-979-2600

Cultural Division, Yuork Tribe
1034 6th Street
Eureka, CA 95501

Scenic Trails

State Contacts for Additional Information
Pacific Crest Trail Association
5325 Elkhorn Boulevard, #256
Sacramento, California 95842
916-349-2109

FLOOD PLAIN, WETLANDS AND COASTAL ZONE

Flood Plain Management
Government Records Searched in This Report
Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

Federal Contacts for Additional Information
Federal Emergency Management Agency 877-3362-627

State Contacts for Additional Information
Office of Emergency Services 916-262-1843

Wetlands Protection
Government Records Searched in This Report
NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2004 from the U.S. Fish and Wildlife Service.

Federal Contacts for Additional Information
Fish & Wildlife Service 813-570-5412

State Contacts for Additional Information
Department of Fish & Game 916-653-7667

KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

Coastal Zone Management
Government Records Searched in This Report
CAMA Management Areas
Dept. of Env., Health & Natural Resources
919-733-2293

Federal Contacts for Additional Information
Office of Ocean and Coastal Resource Management
N/ORM, SSMC4
1305 East-West Highway
Silver Spring, Maryland 20910
301-713-3102

State Contacts for Additional Information
California Coastal Commission 415-904-5200

FCC & FAA SITES MAP
For NEPA actions that come under the authority of the FCC, the FCC requires evaluation of Antenna towers and/or supporting structures that are to be equipped with high intensity white lights which are to be located in residential neighborhoods, as defined by the applicable zoning law.

Government Records Searched in This Report
Cellular
Federal Communications Commission
Mass Media Bureau
2nd Floor - 445 12th Street SW
Washington DC 20554 USA
Telephone (202) 418-2700
Portions copyright (C) 1999 Percon Corporation. All rights reserved.

Tower
Federal Communications Commission
Mass Media Bureau
2nd Floor - 445 12th Street SW
Washington DC 20554 USA
Telephone (202) 418-2700
Portions copyright (C) 1999 Percon Corporation. All rights reserved.

Antenna Registration
Federal Communications Commission
Mass Media Bureau
2nd Floor - 445 12th Street SW
Washington DC 20554 USA
Telephone (202) 418-2700
Portions copyright (C) 1999 Percon Corporation. All rights reserved.

AM Tower
Federal Communications Commission
Mass Media Bureau
2nd Floor - 445 12th Street SW
Washington DC 20554 USA
Telephone (202) 418-2700

KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

FAA Digital Obstacle File
Federal Aviation Administration (FAA)
1305 East-West Highway, Station 5631
Silver Sprinng, MD 20910-3281
Telephone: 301-713-2817
Describes known obstacles of interest to aviation users in the US. Used by the Federal Aviation Administration (FAA) and the National Oceanic and Atmospheric Administration to manage the National Airspace System.

Airport Landing Facilities
Federal Aviation Administration
Telephone (800) 457-6656
Private and public use landing facilities.

Electric Power Transmission Line Data
PennWell Corporation
Telephone: (800) 823-6277
This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Excessive Radio Frequency Emission
For NEPA actions that come under the authority of the FCC, Commission actions granting construction permits, licenses to transmit or renewals thereof, equipment authorizations or modifications in existing facilities, require the determination of whether the particular facility, operation or transmitter would cause human exposure to levels of radio frequency in excess of certain limits.

Federal Contacts for Additional Information
Office of Engineering and Technology
Federal Communications Commission
445 12th Street SW
Washington, DC 20554
Phone: 202-418-2470

OTHER CONTACT SOURCES

NEPA Single Point of Contact
State Contacts for Additional Information
Grants Coordination
State Clearinghouse
P.O. Box 3044
Room 222
Sacramento, CA 95812-3044
916-445-0613

STREET AND ADDRESS INFORMATION

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Appendix C

Dominican University Master Planning Documents

EXHIBIT B1
Conditions for Use Permit
Dominican College Campus Development Plan

(UP-97-45)

1. This Use Permit (UP97-45) approves project development to be completed in four phases, as follows:
   a. Phase I shall consist of: (1) Recreation Center at Forest Meadows and related Grand Avenue 215-vehicle parking lot and 38-vehicle overflow parking area; (2) Parking and landscape improvements in portions of the Academic Core, including upgrading of an existing parking lot, new walkways and pedestrian bridges, and landscape buffers along Olive and Palm Avenues: and (3) The addition of four parking spaces to Caleruega West parking lot.
   b. Phase II-A shall consist of: (1) The Science and Technology Building at the Academic Core; (2) A 60-vehicle parking lot adjacent to Calereuga Hall with access at Magnolia Avenue; (3) An additional landscape buffer along Palm Avenue in front of Alemany Library; and (4) The temporary relocation of the Nursing Skills Lab to make room for the Science and Technology Building.
   c. Phase II-B shall consist of: (1) A chapel at the Academic Core.
   d. Phase III shall consist of (1) a Residence Hall in the residential area and related 100-vehicle parking lot.
   e. Phase IV shall consist of (1) Forest Meadows outdoor facilities, including a regulation soccer field, expansion of the existing amphitheater and a 90-vehicle parking lot in the northwest corner of Forest Meadows at Belle Avenue

   Flexibility regarding timing of these phases shall be allowed after review and approval by the hearing body for the individual Environmental and Design Review Permits for each improvement so long as sufficient parking is provided concurrent with improvements and other conditions for development of each phase are fulfilled. In addition to the conditions of project approval contained herein, each phase of project development will be subject to all requirements of applicable statutes and City Ordinances, regulations, plans and policies in effect at the time of application for permits or entitlements for that phase.

2. Individual Environmental and Design Review Permits are required for each phase. This Use Permit shall incorporate all mitigation measures specified in the FEIR and adopted by the City Council.

3. This Use Permit approves the use of:
   - The 29,000 Recreation Center building and 7,700 outdoor pool and deck area with seating to accommodate 1,285 persons and associated facilities within. The following uses are permitted for the Recreation Center Facility: athletic, recreation, health/fitness and general physical education games, classes and supporting offices, public facilities for Forest Meadows events (restrooms, ticket office, snack bar) and use of the building as an emergency disaster center. Also approved are intercollegiate and tournament activities, academic classes, assemblies and programs. Rentals to the public consistent with the *Events Management Plan* are permitted for athletic and recreation uses only. The term "Rental" used throughout this use permit means with or without payment of fees. Hours of operation for this facility are Sunday through Thursday, 7:00 a.m. until 11:00 p.m.,

Friday and Saturday from 7:00 a.m. until midnight, except for student dances, which can end at 1:00 a.m. Hours of operation for events in this facility are as set forth in Section IV.B of *the Events Management Plan* cited and incorporated within Condition #4 of this Use Permit.

- The Amphitheater in Forest Meadows, for stadium-style bench seating with a concrete stage pad and moat and associated utilities Seating capacity of the amphitheater shall be limited to 1,000 seats. Permitted uses for the amphitheater are college assemblies, programs, performances and activities and related services, academic classes and rentals to the public for community based cultural, education events and performances consistent with the *Events Management Plan.* Amphitheater hours of operation shall be limited to Sunday through Thursday from 7:00 a.m. until 10:30 p.m., Friday and Saturday from 7:00 a.m. until 11:00 p.m. Hours of operation for events in this facility are as set forth in Section IV.B of *the Events Management Plan* cited and incorporated within Condition #4 of this Use Permit.
- A regulation-sized soccer field with ancillary fencing, scoreboard, utilities, public address system, and bleachers to accommodate 500 people. Uses approved for the soccer field include athletic, academic, recreation, health/fitness and general physical education games and classes, including intercollegiate competitions, summer soccer camps and elementary school and high school soccer programs. Rentals to the public for similar uses which are consistent with the *Events Management Plan* are also allowed. Hours of operation for the soccer field shall be limited to Sunday through Thursday from 7:00 a.m. until sunset, and on Friday and Saturday from 7:00 a.m. until sunset.
- Two fenced sets of three each asphalt-surfaced tennis courts with one court fitted for bleacher seating for 200 people. Uses approved for the tennis courts are athletic, recreation, health/fitness and general physical education games and classes, including intercollegiate competitions, and summer tennis camps. Rentals to the public for similar uses which are consistent with the *Events Management Plan* are also allowed. The total square feet of each surfaced and fenced area is 180 X 120 feet. Hours of operation for the tennis courts shall be all days from 7:00 a.m. until sunset.
- A 72,000 square foot (330 X 195 feet) multi-use grass sports field with portable bleachers and a softball backstop. Uses approved for the multi-use field are athletic recreation, health/fitness and general physical education games and classes including intercollegiate competitions, summer soccer camps and elementary school and high school athletic programs. Rentals to the public for similar uses are allowed consistent with the *Events Management Plan.* Hours of use for the multi-use field shall be all days from 7:00 a.m. until sunset.
- Buildings and outdoor storage for campus maintenance equipment and ancillary administrative offices in Forest Meadows. Hours of operation for these facilities are allowed 24 hours a day, seven days a week, as needed.
- The 39,500 square foot Angelico Hall building with classrooms, assembly areas, concert hall, offices and adjacent lawn area. Uses approved for Angelico Hall are limited to academic classes, assemblies, programs and related activities. Rentals to the public are allowed consistent with the *Events Management Plan.* Any events occurring in front of Angelico Hall must be associated with an event in Angelico Hall, and shall be only those types of functions normally found in a lobby setting such as event registration or receptions. There will be no food preparation or picnicking allowed in front of Angelico Hall, and the space itself will not be rented per se but used only in conjunction with the use of Angelico Hall. Hours of operation for Angelico Hall are limited to Sunday

through Thursday from 7:00 a.m. until 11:00 p.m. and Friday and Saturday from 7:00 a.m. until midnight. Hours of operation for events in this facility are as set forth in Section IV.B of *the Events Management Plan* cited and incorporated within Condition #4 of this Use Permit.

- The 26,600 square foot Guzman Hall building with classrooms, assembly areas and offices. Uses for Guzman Hall are limited to academic classes, assemblies, programs and related activities. Rentals to the public are allowed consistent with the *Events Management Plan*. Hours of operation for Guzman Hall are limited to Sunday through Thursday from 7:00 a.m. until 11:00 p.m., and Friday and Saturday from 7:00 a.m. until midnight. . Student dances are allowed on Friday and Saturday night until 1:00 a.m. Hours of operation for events in this facility are as set forth in Section IV.B of *the Events Management Plan* cited and incorporated within Conditions #4 of this Use Permit.
- An approximately 35,000 square foot two-story Science and Technology building. Permitted uses are classrooms, laboratories, faculty and staff offices and general college assemblies. Hours of operation shall be seven days a week from 7:00 a.m. until 11:00 p.m. Area between Palm Avenue and the Science and Technology Building shall be utilized for landscaping only. Hours of operation for events in this facility are as set forth in Section IV.B of *the Events Management Plan* cited and incorporated within Condition #4 of this Use Permit.
- A 9,000 square foot building with two chapels, one with seating for a maximum of 300 people, and one with seating for a maximum of 50 people, with ancillary offices and meeting rooms. Uses approved for the chapel are college campus religious services and celebrations, college and campus ministry programs, college assemblies, academic programs and activities. Rentals are allowed to the "College Community" consistent with the *Events Management Plan* for religious services and celebrations and programs. The "College Community" shall include students, faculty, staff, alumni, trustees and donors of Dominican College, Dominican Sisters and the Dominican/Black Canyon Neighborhood Association. Hours of operation shall be limited to seven days a week from 7:00 a.m. until 11:00 p.m.–Hours of operation for events in this facility are as set forth in Section IV.B of *the Events Management Plan* cited and incorporated within Condition #4 of this Use Permit.
- The 45,000 square foot Archbishop Alemany Library which includes a study center, computer laboratory, media/language laboratory, offices, archives, student lounge/vending area, art gallery and exhibition space. Uses approved for the Archbishop Alemany Library are the College Library, computer laboratories, classes, record storage, art and media exhibits, receptions and lectures. Rentals to the public are allowed consistent with the *Events Management Plan.* Hours of operation are limited to Sunday through Thursday, 7:00 a.m. until 11:00 p.m.. Friday and Saturday from 7:00 a.m. until midnight. Exceptions to these hours are student dances allowed to end at 1:00 a.m. on Friday and Saturday. Additionally, study rooms and computer labs are allowed to be open 24 hours a day during the approximate three-week school final exam time. Hours of operation for events in this facility are as set forth in Section IV.B of *the Events Management Plan* cited and incorporated within Condition #4 of this Use Permit
- The San Marco Gallery as an art gallery, classroom area with the ancillary outdoor kiln and patio area. Uses allowed for this building are academic classes, and student and guest artists exhibitions. Hours of operation shall be limited to seven days a week from 7:00 a.m. until 11:00 p.m. Hours of operation for events in this facility are as set forth in

Section IV.B of *the Events Management Plan* cited and incorporated within Condition #4 of this Use Permit

- The 36,000 square foot Bertrand Hall including administrative offices and related administrative support offices, fitness-weight/physical therapy area, classrooms, College bookstore, café and outdoor plaza. Uses allowed are administrative support services, student support services, eatery and take out food service, central campus communications/computer operations, physical fitness and weight training and academic classes. Hours of operation of this building are Sunday through Thursday, 7:00 a.m. to 11:00 p.m., Friday and Saturday, 7:00 a.m. until midnight. The building shall be allowed to be open on Friday and Saturday night until 1:00 a.m. when student dances are held. Hours of operation for events in this facility are as set forth in Section IV.B of *the Events Management Plan* cited and incorporated within Condition #4 of this Use Permit
- The 24,400 square foot Meadowlands Hall as a residence hall, classroom and administrative office building with student support facilities. Uses allowed in Meadowlands Hall are student housing and related support activities and program areas, academic classes, and administrative support activities. Hours of operation of this building are seven days a week, 24 hours a day.
- All other buildings within the academic core, including Albertus Magnus, Albertus Minor, Anne Hathaway and ancillary lawn area, Brown House, the Nursing Skills Laboratory, Martin de Porres Hall, Ralph Minor Hall and the Gazebo Building. These buildings are classrooms, assembly areas, offices, delivery and mail services. Uses for these buildings are academic classes, assemblies, programs and activities, college computer laboratories, nursing skills, chemistry and biology laboratories, athletic activities and student support activities. Uses also include a photography studio/darkroom, music rehearsal space. Hours of operation for the campus buildings are seven days a week, from 7:00 a.m. until 11:00 p.m. with the exception of the approximate three-week final exam time when the study rooms and computer labs are allowed to be open 24 hours a day. A portion of Ralph Minor Hall shall be allowed to be open 24 hours a day for mail access. Hours of operation for events in this facility are as set forth in Section IV.B of *the Events Management Plan* cited and incorporated within Condition #4 of this Use Permit
- Hannify Hall Gymnasium and Swimming Pool, a gymnasium and swimming pool located on the property of the Sisters of St. Dominic. This Use Permit does not confer any rights to the Dominican College for any use of Hannify Hall Gymnasium and Swimming Pool owned by the Sisters of St. Dominic. The College Use Permit no longer pertains to this facility.
- The use of the Garden School building in the Residential Area. The Garden School area contains fixed modular classroom buildings and outdoor playground facilities with play structure. Uses for this area are academic classes, playground and ancillary programs and activities. Hours of operation for the Garden School buildings shall be seven days a week, 7:00 a.m. until 11:00 p.m. Hours of operation for events in this facility are as set forth in Section IV.B of *the Events Management Plan* cited and incorporated within Condition #4 of this Use Permit
- The 26,250 square foot Caleruega Dining Hall. Caleruega Dining Hall contains two dining halls, kitchen and food preparation facilities, offices, patios, outdoor barbecue stations, and an outdoor plaza. Uses are College dining hall and banquet facilities, classes, assemblies, programs and activities and offices. Rentals to the public are allowed consistent with the *Events Management Plan.* Hours of operation shall be limited to

Sunday through Thursday, 7:00 a.m. until 11:p.m, Friday and Saturday from 7:00 a.m. until midnight, with the exception that the building can remain open until 1:00 a.m. Friday and Saturday evening when student dances are held. Caleruega Dining Hall shall be allowed to be open 24 hours a day during the approximate three week final exam time. All non-college sponsored events shall end no later than 10:30 p.m. Hours of operation for events in this facility are as set forth in Section IV.B of *the Events Management Plan* cited and incorporated within Condition #4 of this Use Permit

- A proposed Residence Hall sized to accommodate 150 to 200 beds east of Caleruega Hall with an ancillary 100-vehicle parking lot. Use of this Residence Hall shall contain housing and related support activities for Dominican students, students taking courses on campus, resident staff, a residence for Dominican Sisters, and residences used in connection with educational conferences and academic classes. Hours of operation for this building shall be seven days a week, 24 hours a day.
- The 25,400 square foot Fanjeaux Hall, a residence hall. Use of this Residence Hall shall contain housing and related support activities for Dominican students, students taking courses on campus, resident staff, a residence for Dominican Sisters, and residences used in connection with educational conferences and academic classes. Hours of operation for this building shall be seven days a week, 24 hours a day.
- The 52,500 square foot Pennafort Hall, a residence hall. Use of this Residence Hall shall contain housing and related support activities for Dominican students, students taking courses on campus, resident staff, a residence for Dominican Sisters, and residences used in connection with educational conferences and academic classes. Hours of operation shall be seven days a week, twenty-four hours a day.
- The use of Edgehill, a 14,000 square foot administrative support building containing academic classes, and administrative support activities. Hours of operation shall be seven days a week, from 7:00 a.m. until 11:00 p.m. .Hours of operation for events in this facility are as set forth in Section IV.B of *the Events Management Plan* cited and incorporated within Condition #4 of this Use Permit

4. All events on campus shall be operated in substantial compliance with the *Events Management Plan* (EMP) dated July 14, 1998, as modified by the conditions of this Use Permit and said EMP shall be incorporated as a condition of this Use Permit. Revisions can be made to the EMP subject to the approval of the Director of Community Development, the Public Works Director and the Chief of Police to address parking, noise, traffic, and security issues when necessary to protect the immediate Public Health and Safety issues. Any such revisions to the EMP will be done in consultation with the Advisory Committee and will not increase the established cap on the maximum attendance limits, number of events, or noise limits established in the FEIR and EMP.

5. The College shall establish an Events Management Office (hereafter the "EMO") which shall be responsible for planning, coordinating, scheduling, staffing, communicating and all other requirements attendant to compliance with the Events Management Plan. The duties and responsibilities of the Events Management Office, which are, from time to time, subject to change, are set forth in Appendix A of the Events Management Plan titled *Duties and Responsibilities of the Events Management Office*

6. The Events Management Office shall designate a primary contact person and supply a main phone number and list of emergency contact personnel for day and evening hours to the San

Rafael Community Development Department, San Rafael Police Department and neighborhood associations adjacent to the College. The contact person shall serve as a liaison to the community and City staff and may at times, meet with concerned citizens.

7. Events and College Activities shall, with the exceptions noted, conclude no later than the hours and exceptions noted below:
   a. College Activities:

      On weekdays, (Sunday through Thursday), indoor venues shall be held only from 8:00 a.m. until 11:00 p.m. Outdoor venues shall be held only from 8:00 a.m. until 10:30 p.m. On weekends, (Friday through Saturday), indoor venues shall be held only from 8:00 a.m. until 12:00 midnight. College activities such as student dances on Friday and Saturday shall conclude no later than 1:00 a.m. Outdoor activities shall be held only from 8:00 a.m. until 11:00 p.m. There shall be no night time outdoor athletic events in Forest Meadows at any time, weekdays or weekends.

   b. Events (non-college activities):

      On weekdays, (Sunday through Thursday), indoor venues shall be held only from 8:00 a.m. until 10:30 p.m. Outdoor venues shall be held shall be held only from 8:00 a.m. until 10:30 p.m. On weekends (Friday through Saturday), indoor venues shall be held only from 8:00 a.m. until 12:00 midnight. Outdoor venues shall be held only from 8:00 a.m. until 10:30 p.m. There shall be no night time outdoor athletic events in Forest Meadows.

8. *Maximum Annual Number of Events*: The total number of events allowed to be scheduled on campus in any fiscal year, i.e., the "Maximum Annual Number of Events," shall be 475. The maximum annual number of events shall be reviewed as part of the regular monitoring of the Events Management Plan. The maximum annual number of events may, from time to time, be revised after review and approval from the Planning Commission. The College shall not change its current practices regarding the classification of events and College Activities. Appendix D of the *Events Management Plan* is provided for illustration purposes only to serve as an example of what constitutes an event. In good faith and using best efforts, the College shall attempt to phase in one College-only night per week by the time of the first review of the Use Permit conditions pertaining to the EMP. A College-only night is defined as a night on which no Events occur or are scheduled.

9. *Attendance Limits*: Attendance at events shall be controlled and limited first by estimating the number of people who will attend the event, and then by estimating the number of automobiles and other vehicles that will arrive at the campus bringing people to attend the event or events being scheduled. This estimated number of vehicles shall be compared to the number of parking spaces available to the College under the terms of the EMP. For each event being scheduled, the Events Management Office (EMO) shall schedule, reschedule, or otherwise allow or disallow the event based upon the total number of parking spaces that are anticipated to be used by the combination of the proposed event and College activities scheduled during the same period. In no case shall the EMO allow or schedule an event on a date and at a time that would result in the number of vehicles on campus exceeding the allowed campus parking stock as specified by the EIR parking standards, nor may the maximum number of persons attending simultaneous events exceed the attendance set forth

in the *Attendance Limits table*, below, as set forth in the *Revised Draft Environmental Impact Report*, December 1997 and attached as an exhibit to this use permit.

10. *Attendance Limits Table* Maximum attendance at simultaneous events shall not exceed the number of persons set forth in the following table:

Phase I	790	1,040	1,360
Phase II	840	1,115	1,430
Phase III	815	1,115	1,570*
Phase IV	1,010	1,310	1,845*

* as modified by the FEIR

The maximum attendance at simultaneous events held on a weeknight when classes are not in session shall be limited to 1,360 persons. The maximum attendance for special events could be increased by 130 persons during each of the three time periods evaluated if the College were to construct the 60-space lot east of Caleruega Hall during Phase I rather than Phase II. This would bring the maximum attendance to 1,170 persons on a weekend, 920 persons on weeknights when classes are in session and 1,490 persons on weeknights when classes are not in session. These attendance limits were arrived at using the parking occupancy counts and parking generation discussed in Condition 12 and the methodology discussed on page 41 in the FEIR.

11. *Exception to Attendance Limits and Attendance Limits Table:* The following shall be exceptions to the *Attendance Limits* and the *Attendance Limits Table*:
    a. Annual College commencement and/or convocation ceremonies (maximum four times per year).
    b. College sponsored intercollegiate athletic playoff or tournaments (maximum ten times per year.
    c. Special non-recurring events or activities allowed by means of a Temporary Use Permit issued by the City of San Rafael.

    The College, through the Events Management Office, will not schedule events at the same time that any of the above noted exceptions have been scheduled.

12. A program to monitor event attendance and parking generation shall be established. The revised *Events Management Plan* contains many of the elements which would be necessary for such a plan. A revised *Events Management Plan* shall be submitted with the following information in order to mitigate anticipated impacts to parking and traffic and shall be submitted to the Community Development Director, Public Works Director and the Chief of Police for approval:
    - Events contracts (between the College and the event sponsor) shall include specific language regarding the maximum number of attendees allowed. If maximum attendance is exceeded, potential actions shall include turning attendees away at the door or prohibiting further events by organizers who do not stay within their allowed attendance ceilings.
    - Beginning 6 months after the date of the Council approval of this use permit, parking occupancy counts for the area included in this analysis shall be completed at least twice annually during special events as determined by City staff for a period

not to exceed three years, and annually thereafter for a period of five years and annually thereafter at the discretion of the Planning Commission. On request from the Planning Division, the college shall deposit funds with the City for completion of such surveys by a third party. The data base maintained by the College's Events Management Office shall be included in the evaluation of an appropriate parking generation rate at the discretion of the City's Traffic Engineer.

- The parking generation rate shall be determined for the special events for which parking occupancy counts are obtained. If it is determined that the field-measured rate is either less than or greater than the rate used in the EIR for two consecutive surveys, the maximum event size shall be adjusted using an average of all occupancy surveys completed in response to this condition. If the parking occupancy rate fluctuates above and below the adopted rate from one survey to the next, the maximum attendance shall remain as is established in the EIR for each phase of development. It is recommended that the initial parking occupancy rate be set at 0.46 occupied spaces per attendee.
- For single or simultaneous events having a peak cumulative attendance in excess of 1,000 persons, the College shall, at least 30 days prior to the event, submit for approval by the City of San Rafael Police Department a traffic/security plan for that event or those events. The Police Department shall evaluate the plan and determine the number of Police Officers required for each event.
- The use of Traffic Control Personnel during special events, as indicated in the *Events Management Plan*, shall be limited to College parking lots and the private portion of Acacia Avenue only. Traffic Control Personnel shall not be allowed to direct traffic within the public right-of-way.
- Maximum Event Attendance shall be as indicated in the Attendance Limits Table or as determined based on future data collection as provided above. These maximums are intended as absolute ceilings for planning programs. All events which are expected to exceed the maximum attendance specified, except Commencement and College sponsored intercollegiate athletic playoffs and tournaments, shall be allowed only under a temporary use permit approval by the City of San Rafael.
- The College, through its Events Management Office, shall manage the impact of traffic and parking related to events to ensure full compliance with the applicable aspects of the *Events Management Plan*. For events greater than 150 people, a college staff person shall be available on campus and accessible by pager or cellular phone to monitor compliance with the EMP provisions. The name of the contact person shall be made available to the Police Department and adjacent neighborhood associations. A traffic and parking management action plan is included in the *Events Management Plan* as Appendix B, Traffic Management Plan. It is anticipated that this traffic and parking management action plan shall be revised during the various phases of development anticipated by the Campus Master Plan and as the College gains experience implementing the EMP. Any traffic control program is subject to the review and approval of the Chief of Police, and any changes shall require the approval of the Community Development Director, Public Works Director, and Police Chief.

13. *Management of Event Sounds/Noise/Music:* The use of amplified sound is allowed only if the Campus Events Management Office determines it is appropriate to the venue and for the prescribed purposes. Amplified sound at College venues shall be limited so as to control sound levels at the boundaries of nearby residences to the limits set forth in the State of California Model Community Noise Control Ordinance which are:

Time Period	Sound Level
Between 9:00 a.m. and 9:00 p.m.	50 dBA
Between 9:00 p.m. and 9:00 a.m.	40 dBA

The Following provisions shall apply in order to mitigate noise impacts:

- The noise levels for amplified sound shall be clearly defined as energy average noise levels, or L_{eq} noise levels, averaged over a five-minute period. The use of L_{eq} will allow some fluctuations in the noise but would restrict dosage during a performance to a satisfactory amount.
- The *Events Management Plan* shall include provision for a noise control person to be designated by the College. This person shall be responsible for monitoring sound level at events to confirm that the standards are met.

These standards shall apply to all events and College activities. Special events or College activities which exceed these levels shall be allowed only with a use permit approved in advance by the City of San Rafael. An exception for this condition is granted for Marin Shakespeare Company. Marin Shakespeare Company shall be allowed to operate after 9:00 p.m. within the 50 dBA noise standard. If complaints are received, the College will retain an acoustical consultant to monitor a Shakespeare performance and recommend ways to minimize the noise levels in the community. This exception is subject to review following the close of each performance season.

14. *Management of Event Lighting*: Any and all outdoor lighting used for events shall be shielded from the direct view of residences.

15. *Ongoing Monitoring*: The Events Management Office shall create and maintain an events database that logs and evaluates all event parameters such as number of attendees per arriving automobile, sound levels, and total event attendance. The College shall review regularly with the City of San Rafael the results of implementing this Events Management Plan, including the assumptions underlying the campus parking supply, and the traffic and parking management action plan. Upon completion of this review, the Community Development Department shall submit a report to the Planning Commission outlining compliance. The first such review shall take place six months following the date of the Council's approval of this use permit, and then at the one-year point following the approval date, and annually thereafter, for five years and annually thereafter at the discretion of the Planning Commission. The time period of review may be changed with review and approval by the Planning Commission. The EMP may be revised as directed as a result of these reviews with the City of San Rafael.

16. The Schedule for EMP implementation shall be consistent with the Implementation Schedule set forth in Appendix C of the *Events Management Plan.* All aspects of this schedule shall be in place prior to occupancy of the Recreation Center.

17. Master Use Permit approval shall be conditioned upon the applicant installing a traffic signal at the intersection of Grand Avenue/Mission Avenue prior to the issuance of a building permit for Phase II development. This improvement is not included in the Downtown Traffic Mitigation Fee. Estimated costs for the signalization design and construction is $200,000.00, in 1998 dollars. The developer's pro rata share is 36%. The College shall be responsible for installation of the signal and shall be reimbursed beyond this pro rata share as funds are available.

18. The Downtown Traffic Mitigation Fee in effect at the time shall be paid before issuance of a building permit for each phase. The current fee in 1997 dollars is $764.00 per p.m. peak trip. This fee shall be annually adjusted by the Lee Saylor Construction Cost index and may be subject to other adjustments as recommended by the Public Works Director and approved by the City Council at a duly noticed public hearing. As listed in the *Trip Generation Summary* in the EIR, Phase I adds 103 trips, Phase II, 38 trips, and Phase III, 38 trips. Payment of the Fee shall be prior to issuance of building permits.

19. The College shall establish a neighborhood based Advisory Committee consisting of no fewer than four regular members. ~~The~~ The Committee shall consist of two representatives from the College, and two representatives nominated by the Dominican/Black Canyon Neighborhood Association. The Events Management Officer shall participate as ex-officio member of the Advisory Committee. Every effort shall be made to ensure that the representatives nominated by the Dominican/Black Canyon Neighborhood Association represent the broadest possible range of interests and points of view of the College's neighbors regarding the College. The membership of the Advisory Committee may be expanded by vote of the Committee to be greater than four from time to time as needed to ensure the broadest possible representation of College and community interests. This Advisory Committee shall establish a process for resolving complaints and monitoring compliance with the EMP and Use Permit conditions pertaining to the EMP. The membership and reporting responsibilities of this Committee shall be reviewed by the Planning Commission and the Committee shall be in place before occupancy of the Recreation Center. The Commission, during the periodic review, may expand the membership of the Committee.

20. This Use Permit must be activated within three years by issuance of a building permit and shall be valid until the use is discontinued; however it may be brought up for review by the City at any time pursuant to Chapter 29, *Enforcement*, should the use not comply with City regulations and project conditions of approval or should the use become detrimental to the public health, safety or welfare or materially injurious to properties or improvements in the vicinity, or the general welfare of the City. Provisions of this Use Permit related to Phase I shall be valid if action on the Phase I plan has been initiated within 3 years of the effective date of this permit. Provisions of this Use Permit related to Phase II shall be valid if action on Phase II has been initiated within 7 years of the effective date of this permit. Provisions of the Use Permit related to Phase III and IV shall be valid if action on Phase III or IV has been initiated within 12 years. The applicant can apply for an extension of this time frame subject to the review and approval of the Planning Commission.

EXHIBIT B2
Conditions for Environmental and Design Review Permit
Dominican College Master Plan
(ED-97-146)

General Conditions

1. The Master Environmental and Design Review Permit (ED-97-146) establishes design standards for the placement of four proposed buildings, additional parking facilities and landscaping standards. The project is divided into four phases. The project site consists of three areas: *Forest Meadows,* (APN 15-141-02), is 21.5 acres and located west of Grand Avenue, *The Academic Core,* (APNs 15-142-03 and 15-142-04) is 14.4 acres and is defined by Acacia, Olive and Palm Avenues, *The Residential Area* (APN 15-161-01 and 15-162-02) is 19.2 acres and includes Caleruega Dining Hall and Pennafort and Fanjeaux residence halls. The building techniques, materials, elevations and appearance of this project, as presented for approval, and as shown on the plans entitled, Dominican College Campus Development Plan, Fig. 2.1, dated November 30, 1995, and revised on August 18, 1997, also including Sheets titled Phase I - Recreation Center Environmental and Design Review, dated May 1, 1996, and revised on August 4, 1997 (ED97-89), shall be the same as required for issuance of a building permit. Each additional Phase (Phase II, III, IV) of the project shall require an individual Environmental and Design Review Permit. Any future additions, expansions, remodeling, etc., shall be subject to review by the Community Development Director. The Director shall determine which decision-making body is to review the modifications.

2. This Environmental and Design Review Permit acknowledges that construction of the project will be phased and that each construction phase of the development will be subject to all of the provisions of the Mitigation Monitoring Program and the mitigation measures listed in the FEIR and the Conditions of this Environmental and Design Review Permit. All grading and construction shall be subject to the development standards for ZC-97-7 (PD District zoning), and the conditions of approval for UP-97-45 (Use Permit). Effective date of this Environmental and Design Review Permit shall be the effective date of the ordinance adopted for the PD (Planned Development) District zoning.

3. This Environmental and Design Review Permit is approved for project development in a minimum of four phases, as follows:
   a. Phase I (ED97-89) shall consist of: (1) An approximately 29,000 square foot Recreation Center and 7,700 outdoor pool area at Forest Meadows and related Grand Avenue 215-vehicle parking lot and 38-vehicle overflow parking area; (2) Parking and landscape improvements in portions of the Academic Core, including upgrading of an existing parking lot, new walkways and pedestrian bridges, and landscape buffers along Olive and Palm Avenues: and (3) (ED96-154) The addition of four parking spaces to Caleruega West parking lot.
   b. Phase II-A shall consist of: (1) An approximately 35,000 square foot Science and Technology Building at the Academic Core; (2) A 60-vehicle parking lot aside Caleruega at Magnolia Avenue; (3) An additional landscape buffer along Palm Avenue

in front of Alemany Library; and (4) The temporary relocation of the Nursing Skills Lab to make room for the Science and Technology Building.

c. Phase II-B shall consist of: (1) A chapel at the Academic Core.

d. Phase III shall consist of (1) a Residence Hall in the residential area and related 100 vehicle parking lot.

e. Phase IV shall consist of (1) Forest Meadows outdoor facilities, including a regulation soccer field, expansion of the existing amphitheater and a 90-vehicle parking lot in the northwest comer of Forest Meadows at Belle Avenue.

Flexibility regarding timing of these phases shall be allowed after review and approval by the hearing body for the individual Environmental and Design Review permits required for each improvement so long as sufficient parking is provided concurrent with improvements and other conditions for development of each phase are fulfilled. In addition to the conditions of project approval contained herein, each phase of project development shall be subject to all requirements of applicable statutes and City Ordinances, regulations, plans and policies in effect at the time of application for permits or entitlements for that phase.

4. As proposed in the Development Standards, a 40-foot building setback shall be maintained for the Science and Technology building from Palm Avenue to allow for adequate buffer area.

5. The Master Environmental and Design Review Permit shall be revised before application for Phase II Environmental and Design Review Permit to include specific architectural standards to require design compatibility of the Chapel with surrounding campus buildings and residential areas. This would reduce visual impacts of the site from the neighborhood. The architectural standards shall include the following:
   - Consideration of the use of screening trees between the Chapel and Acacia Avenue.
   - The Chapel shall be sited to preserve the redwood trees to the west and the gate and stone fence to the north.
   - A southwest-northeast rectangular alignment shall be avoided that would intrude upon the open space to the southwest.
   - The building mass of the Chapel shall be the most efficient possible, while still being consistent with City design guidelines and policies.

6. A more detailed building description shall be included into the Phase II Environmental and Design Review Permit application for the Chapel and Science Building. The elements of the project (form, line, color and texture) shall be reviewed at this time to ensure that the building is compatible with the surrounding environment, including surrounding residential and campus buildings. A good example of buildings that fit in well with the neighborhood is the relatively new Dominican Sisters' buildings on Grand Avenue. Elements in these buildings that allow compatibility with nearby residential neighborhoods include the following and shall be considered during design of the Chapel building:
   - The use of traditional residential building materials for the buildings
   - A gradual roof pitch to fit in with nearby residential roofs
   - The use of low-reflectivity building materials such as wood
   - An articulated building footprint
   - The breaking up of the mass of the buildings by the use of different building planes

- The "stepping back" of higher floors of the buildings from Palm Avenue to avoid the appearance of a "wall" of development
- Varied building heights, colors and textures
- The building mass of the Science and Technology building shall be the most efficient design possible while still being consistent with City design policies and guidelines.
- Landscaping in the area between the Science and Technology building and Palm Avenue shall be placed so as to maximize effective screening of the building from Palm Avenue and shall be planted as part of Phase I improvements.

7. The Master Environmental and Design Review Permit shall be revised before application for Phase IV Environmental and Design Review to include specific architectural standards to require design compatibility of the Residence Hall with surrounding campus buildings and the residential area. Specific recommendations in regard to colors, materials, scale and building and site design shall be included in the architectural standards. The standards shall include the following elements and shall be considered during design of the Residence Hall:
   - The Residence Hall buildings shall be situated as close to Magnolia Avenue as possible, so the natural rise in elevation between Magnolia and Locust Avenues would hide more of the buildings from the residential areas to the north. The ultimate location would be a trade-off between the loss of trees and visual considerations. The 50-foot setback for the Residential Hall from Magnolia Avenue proposed by the applicant shall be counter to this condition, and shall be eliminated from the project description.
   - The area between the northern edge of the parking lots and the creek channel shall be heavily planted with screening trees to block as much of the view between the Residence Hall and the residential area to the north.
   - As much of the 60-vehicle parking lot shall be located next to or as close to Caleruega Hall as possible, to avoid parking spaces on the higher elevations to the northeast, to reduce grading, and to allow the higher elevations to the northeast to provide screening from the residential area to the north. Screening vegetation and/or berms shall be developed between the top of the creek bank and the parking lot to hide the parking lot from the residential areas to the north. The parking lot lighting shall be designed to direct light downward onto the parking lot and not create off-site glare.
   - The building mass of the Residence Hall shall be the most efficient design possible while still achieving consistency with City design guidelines and policies.

8. A more detailed building description shall be included into the Phase III Environmental and Design Review Permit application for the Residence Hall. The elements of the project (form, line, color and texture) shall be reviewed at this time to ensure that the building is compatible with the surrounding environment, including surrounding residential and campus buildings. The same design elements that are described in Phase II, Environmental and Design Review, above shall be utilized in the design of the Residential Hall building.

9. A more detailed description of the 90-vehicle parking lot located at Belle and Grand Avenues shall be included into the Phase IV Environmental and Design Review Permit application. The elements of the project (form, line, color and texture) shall be reviewed at this time to ensure that the parking lot is compatible with the surrounding environment. The design of this lot shall include berms and/or landscaping along the Belle and Grand Avenue frontages

to effectively screen views of the parking lot and parked vehicles to the greatest extent possible and consistent with Police Department safety requirements described in Condition 10. Any parking lot lighting shall be designed to direct light downward onto the parking lot and not create off-site glare.

10. Screening vegetation shall be developed in the proposed 50-foot buffer between the parking lot and Belle and Grand Avenues during construction of Phase IV. This means that landscaping (trees/shrubs) shall be placed to block views of 50 percent of the parking lot from Grand and Belle Avenues. A hedge or vegetated berm up to 3 ½ feet high shall be constructed to block car headlights and partially screen the parking lot, but keeping the parking lot visible from Grand and Belle Avenues for security purposes. The remaining eucalyptus trees in this buffer area shall be retained in this vegetation plan. Trees/shrubs shall be selected to block the path of light from a parked car in a parking space facing Grand Avenue to the first floors of 1610 and 1618 Grand Avenue which have unobstructed views. This shall be the minimum standard. Additional landscaping may be added with the review and approval of the Police Department.

11. The parking lot at the corner of Belle and Grand Avenues shall be designed so that inbound access is from Grand Avenue only, and outbound access is via a right-turn only onto Belle Avenue. The right-turn restriction to Belle Avenue shall include signing as well as a physical barrier, such as a median island and driveway which turns east which would make turning left difficult, if not impossible. Circulation within the parking lot shall be designed to support these access/exit restrictions.

12. In order to reduce light and glare impacts from car headlights to the homes along Locust Avenue adjacent to the new residence hall, screening vegetation shall be developed up to 3 ½ feet high in the buffer area that would block headlights but still allow visibility into the parking lot for security reasons.

Prior to Issuance of a Grading Permit for Site Grading and Improvements

Community Development Department - Building and Safety Division

13. All grading and site improvement activities shall incorporate the required mitigation measures adopted by City Council presented in the Dominican College Campus Development Plan Final Environmental Impact Report, June 1998, and the approved Mitigation Monitoring Program/Plan, both on file with the Community Development Department of the City of San Rafael.

14. A City of San Rafael grading permit is required for all grading and site improvement work.

15. All grading and construction work proposed within the City of San Rafael public right-of-way shall require the approval of an encroachment permit.

16. A detailed grading plan shall be prepared and submitted with the application for a grading permit for site improvements. The plan shall include all existing and proposed topographic contours and site characteristics.

17. A detailed drainage plan shall be prepared and submitted with the application for a grading permit for site improvements. The plan shall include the following information:
    a. All proposed drainage improvements.
    b. All drainage shall be designed to be collected and contained within a closed system, routed to public storm drains.
    c. The drainage plans shall be designed to handle the 100 year storm event, provide adequate protection to life and property in the interim, and final design compliance with FEMA guidelines.
    d. All drainage facilities shall incorporate permanent improvements that manage runoff and water quality. The detailed drainage plan shall be prepared utilizing suggested stormwater protection measures, to the extent practical, presented in Start at the Source, Design Manual for Stormwater Quality Protection, available from the Bay Area Stormwater Management Agencies Association.
    e. The final drainage plans shall be subject to the review and approval by the City Engineer, to ensure that adequate design drainage mechanisms are in-place, as may be required to accommodate the interim hydrological conditions.

18. A final geotechnical and soils evaluation shall be completed by the project geotechnical engineer. The evaluation shall determine the amount of anticipated total and differential settlement on the site and around each of the structures. In addition, the evaluation shall include the following:
    a. Special measures to accommodate differential settlement in utility connections, flat works, stair details, and the entrances and exits to the buildings/structures.
    b. Other measures such as flexible utility connections at the structures, increased slope for storm drains, articulated concrete slab-on-grades and special connections to exterior structure attachments.
    c. The evaluation shall confirm areas of fill that would require excavation and recompaction prior to the initiation of construction activities.

19. The project geotechnical/soil engineer is required to review the final plans for grading and construction of site improvements. The project geotechnical engineer shall verify, in writing, that the final plans are designed in accordance with standard engineering practices to accommodate the anticipated total and differential settlements. All earthwork shall be done under the supervision of the project geotechnical/soil engineer.

20. A construction logistics and staging plan for construction of the major grading, installation of utilities and site improvements during each Phase shall be submitted for review and approval by the Department of Public Works, Community Development Department and Fire Department. This plan shall address, at minimum, parking, truck routes, staging, material storage, and pedestrian and vehicular traffic adjacent to the construction site. Consistent with the requirements of the Mitigation Monitoring Program/Plan, the following specific measures shall be incorporated into the construction logistics and staging plan:
    a. The use of heavy rubber tired vehicles or construction equipment over the midden area to minimize damage to the archaeological resource.
    b. A staging area shall be identified on the plan for each phase of construction.
    c. Hours of operation for construction activities shall be limited to between 7:30 a.m. and 6:00 p.m. No work shall be allowed on weekends or holidays.
    d. A travel route system shall be established for construction vehicles and trucks.

21. A Stormwater Pollution Prevention Plan (SWPPP) shall be prepared and submitted with the application for a grading permit. The plan shall address different stages or phases of the grading operation to ensure that appropriate control measures are installed for erosion protection during the duration of the construction period. The SWPPP shall be prepared in coordination with the requirements and implementation of the approved Soil Management Work Plan (SMWP). The provisions of the SMWP shall take precedence over the requirements of the SWPPP. However, if not in conflict with the SMWP, the following erosion control and Best Management Practices (BMP) measures shall be incorporated into the SWPPP:
    a. Disturbed areas shall be protected from exposure by implementing measures such as covering areas with rolled plastic sheeting.
    b. Install sand bags, silt fences and hay bales to trap sediment on site.
    c. Install sand bags to control surface runoff and maintain low runoff velocities.
    d. Minimize length and steepness of slopes and stabilize sloped areas with landscaping or seeding.
    e. Install drainage system outlet protections, as well as temporary sediment basins and traps, where appropriate.
    f. An ample area shall be identified and developed for waste disposal (construction debris, etc.) during grading and construction.
    g. The SWPPP shall include a 'staging program', to address precautionary/contingency measures in the event that rain is forecast within five days and the planned erosion control measures cannot be installed.

22. The following shall be required before issuance of a grading permit for Phases 1, II and 111. The project geotechnical engineer shall conduct site and project specific Geotechnical Investigations. The resulting report shall include the recommendation for at least the minimum 25 foot building setback requirement from the high top of creek banks (both Black Canyon and Sisters Creek) to comply with Section 1.3.3 of the revised *Campus Development Plan.* Additionally, an evaluation of creek bank stability on Sisters Creek shall be performed for sections near proposed development (Chapel, stream crossing near Olive Avenue, parking lots next to Caleruega Hall and the proposed Residence Hall, the Meadowlands West parking lot. The stability evaluation shall use information developed from a subsurface exploration and laboratory analysis of soils, and shall evaluate the existing bank's safety factor for slope failure in static saturated (highest ground water) conditions under the design seismic acceleration as recommended under the 1997 UBC. If the safety factor for static conditions is less than 1.5 or for dynamic conditions is less than 1.3, site specific mitigations such as increased set backs, special foundation design or creek bank stabilization (or a combination of these) would be required.

23. The residence hall building(s) shall be set back from Sisters Creek a minimum of 50 feet, or be at least five feet higher in elevation than the adjacent creek if within 50 feet to prevent mudflows from impacting the residence hall. These setback and elevation requirements can be reduced to minimize visual impacts and loss of trees if the applicant can show through hydrologic studies that potential mudflows would affect a smaller area around Sisters Creek.

24. Grading Plans for all phases of the project shall conform to the following criteria: no slopes steeper than 2:1 (horizontal to vertical), provide permanent erosion control if slopes are as

steep as 2: 1, provide proper drainage, and provide smooth transitions from man-made cuts and fills into the existing terrain.

25. Phase I, II, and III grading and drainage plans shall incorporate the utilization of the following stormwater drainage mitigation logic, including, (a) Construction of vegetated swales with minimum lengths of 50 feet and grade breaks (appropriately spaced earthen berms to minimize local flow velocities and maximize infiltration), and (b), Local bank revegetation and stabilization with geotextiles, where supplemental bank grading and/or erosion control is required. There are enough stable reaches along Sisters Creek to locate appropriate outlet locations requiring little, if any additional bank erosion protection measures.

26. Plans for parking lot drainage for the lot proposed at Grand and Belle Avenues shall promote sheet water runoff from the lot surface onto the adjacent native ground. The stormwater runoff would then proceed over the existing native ground which would provide opportunities for natural depression storage and infiltration. The native ground shall be re-seeded to increase the density of vegetation along the flow path..

27. Subsurface and surface drains associated with earthwork (e.g. subdrains, surface drains, etc.) should be designed to discharge so as not to contribute to or cause erosion.

28. Grading plans shall retain, protect, and supplement existing vegetation wherever possible. Exposure of soils shall be limited to the immediate area required for construction operations. The existing vegetation in the area of construction shall not be destroyed, removed or disturbed more than 15 days prior to grading or related earth work.

29. Improvement plans/grading plans shall minimize the visual impacts of required retaining walls by constructing them or facing them with natural materials. Retaining walls shall be planted with trailing and creeping plants to create a natural landscaped appearance.

30. Grading plans shall be designed to minimize the need for importing soils from off-site by balancing the volume of cuts and fills. Grading plans shall provide for dust control by spraying with water. Where imported soils or aggregates may be needed, or other heavy truck or equipment traffic is required for grading, care shall be taken to prevent soils and debris from impacting the local streets by making sure trucks are free of loose soils, mud or other debris before leaving the construction site. Grading shall not occur during the wet season (November through April) so as to mitigate against the potential for siltation of the nearby creek system. Truck traffic shall be scheduled to occur in off-peak hours to eliminate any potential traffic impacts.

31. A Section 1603 Stream Alteration Agreement shall be obtained from the California Department of Fish and Game (CDFG) for any work in the stream area. The CDFG biologist/warden may specify site-specific erosion control measures if warranted in addition to SWPPP measures incorporated into the project. This condition shall be followed during construction of Phases I and IV.

32. A detailed erosion and sedimentation control plan shall be prepared and implemented during each phase of development involving grading on site in order to mitigate impacts on

jurisdictional waters. The plan shall contain detailed measures to control erosion of stockpiled earth and exposed soil, provide for revegetation of graded slopes before the first rainy season following construction, and specify procedures for monitoring the plan's effectiveness. The revegetation component of the plan should be consistent with the Landscape and Vegetation Management Plan required for each phase of construction, and shall be prepared by a qualified landscape architect in consultation with a plant ecologist experienced in management of native species. The plan should 1) provide for re-establishment of native vegetation in graded areas adjacent to forest cover and drainageways, 2) provide details on native plantings associated with proposed revegetation and mitigation, 3) identify unsuitable species which should not be used in landscaping, 4) control the establishment and spread of unsuitable species such as broom, and 5) specify long-term management provisions to ensure re-establishment of landscape improvements. Aspects of the plan shall include the following:

- Landscaping and revegetation should emphasize the use of native plant species along the fringe of Black Canyon Creek, the native forest cover in Forest Meadows, and along Sisters Creek. Suitable plant species for use in native planting include: coast live oak *(Quercus agrifolia),* valley oak *(Quercus lobata),* California buckeye *(Aesculus californica),* California rose *(Rosa californica),* common rush *(Juizcus patens),* creeping wildrye (*Leymus triticolides*), and purple needlegrass *(Nassella pulchra).*
- Non-native ornamental species used in landscape plantings shall be restricted to the immediate vicinity of the parking lots and buildings. Use of non-native, invasive species that may spread into adjacent undeveloped areas should be prohibited in landscaping plans. Unsuitable species include acacia *(Acacia* spp.), pampus grass *(Cortaderia sellona), broom (Cytisus* spp.) gorse *(Ulex europeaus), bamboo (Bambusa* spp.), giant reed *(Arundo donax),* English ivy (Hedera helix), German ivy *(Senecio milanioides),* and periwinkle (Vinca sp.).
- Graded slopes and areas disturbed as part of the project should be monitored to prevent establishment and spread of French and Scotch broom. Removal and monitoring should include annual late winter removal of any rooted plants when soils are saturated and cutting back of any remaining flowering plants in the spring before seed begins to set in late April.
- The landscape plan shall specify provisions to maintain landscaping and graded slope revegetation with replacement plantings and seeding during a minimum of five years to ensure re-establishment of cover.

The following are Building and Safety Division conditions for all phases of the project:

33. Permits, Plans and Agreements
    a. An engineered site improvement plan shall be submitted with the application for a grading or building permit
    b. An encroachment permit shall be required for any work in the Public Right of way.

34. Grading and Excavation
    a. Grading Plans shall show all proposed and existing contours as well as proposed drainage facilities.
    b. A level "B" soils report shall be submitted with the application for a grading or building permit.
    c. A grading permit shall be required for all parking lot improvements.

d. All earth and foundation work shall be done under the direction of the project soils engineer; and a final report shall be submitted prior to acceptance of the work.
e. Grading, drainage and foundation plans shall be reviewed and approved by the project soils engineer prior to the issuance of a grading permit.
f. The final grading plans shall be prepared in accordance with the mitigation measures contained in the project EIR.

35. Sanitary Sewers:
a. The improvement plans shall show all existing and proposed sanitary facilities.
b. Sanitary sewer plans shall be reviewed and approved by the San Rafael Sanitation District.

36. Frontage Improvements:
a. The improvement plans shall show all existing and proposed frontage improvements.
b. All existing curb, gutter, and sidewalk damaged during construction shall be replaced to the satisfaction of the City Engineer.
c. All unused driveway approaches shall be removed and reconstructed with standard curb, gutter and sidewalk.
d. Standard curb, gutter, sidewalk and driveway approaches will be required along Grand Avenue from Watt Avenue to Belle Avenue. Improvements shall be timed to correspond to development of the property adjacent or sooner.
e. Frontage improvements adjacent to the parking lots shall be constructed when the parking lots are constructed. Frontage improvements adjacent to the recreation building shall be constructed when the recreation building is constructed.
f. All frontage improvements shall be constructed in accordance with the "Uniform Construction Standards for the Cities and Counties of Marin"

37. Utilities:
a. All utilities shall be underground.
b. The improvement plans shall show all existing and proposed utilities.
c. Street lighting shall be provided to the satisfaction of the City Engineer.

38. Landscaping:
a. All street trees shall be provided with approved root guards.
b. Street trees shall be provided from the City's approved street tree list.

Community Development Department - Planning Division

39. Mature trees near the limits of anticipated grading should be preserved and protected where feasible from an engineering and safety standpoint and warranted based on the good to excellent health and structure of the tree. An engineering survey of oaks with trunk diameters of six inches or greater and all other tree species with trunk diameters of 12 inches or greater (measured at 18 inches above the root crown) should be performed as part of Environmental and Design submittals for each phase of development, and should map trunk locations within 50 feet of the limits of grading. Individual specimen-sized trees shall be preserved by retaining walls, short over-steepened slopes, and other methods. Protection of native oak and California bay trees should take precedence over non-native species, and larger eucalyptus with trunk diameters exceeding 24 inches which do not pose a hazard from falling should take precedence over smaller non-native trees.

40. Site development plans for all phases in the Academic Core and Residential Area shall be designed to protect the scattered pockets of native trees and mature ornamental trees. In particular, this should include protection of the:
    - Clusters of coast redwoods west of Albertus Magnus Hall in planning improvements for the Chapel;
    - Four large California bay trees north of Caleruega Hall in planning improvements for the Phase 11 60-vehicle parking lot and Phase III Residence Hall; and
    - The cluster of live oaks and valley oaks along the south bank of the tributary drainage just west of Palm Avenue.
    - Scattered mature eucalyptus, palms, and single live oak near the Nursing Skills Lab and Brown House when planning improvements for the Science and Technology Building.

41. A certified arborist shall prepare detailed guidelines to control possible damage to trees to be preserved during each phase of development. The guidelines shall be prepared as part of each Environmental and Design Review Permit submittal. Standards shall be consistent with the tree protection recommendations defined in the Tree Evaluation for the Recreation Center and Parking Lot prepared by LSA Associates, which should also be applied to tree removal in the Meadowlands area. Standards contained in the preservation guidelines shall include the following:
    - Do not "fell" any of the trees to be removed unless they are far enough away to avoid hitting and damaging protected trees. Trees that are too close to protected trees to be safely removed by felling shall be cut and lowered in sections by rope and the stump ground down, rather than pushing the tree over. Trees to be cut and lowered in sections will be identified and marked by a certified arborist
    - Where feasible, all construction activity (grading, filling, paving, equipment and materials storage) shall remain outside the root protection zone, identified as the area within the dripline. The dripline is defined as the outside edge of the tree canopy. If work is required within the dripline of preserved trees, a certified arborist shall be present to monitor root damage. Prior to work within the dripline an arborist shall be consulted to review the proposed work.
    - Temporary protective fencing shall be placed around protected trees. The fencing will be maintained throughout the period of construction.
    - Utilities shall be designed to avoid the dripline where feasible. Utility lines shall not cross any portion of the dripline unless the trenches are hand-dug and the roots treated as they are exposed.
    - Any cuts to roots shall be minimized to the extent possible. Roots shall not be pulled when contacted by construction equipment. The loss of roots could affect tree vigor. This shall be explained to all equipment operators. Any roots encountered shall be hand excavated. Shredded mulch and wet burlap shall be on-site for covering damaged roots. The removal of roots greater than two inches in diameter must be assessed by a qualified arborist for structural impacts. If canopy limb pruning is required to counter-balance root loss, a qualified arborist shall be consulted to identify and monitor pruning activities. Pruning cuts shall be clean and as close to the limb's shoulder as possible.

- All grading shall be designed to drain water away from the base of the trees and shall not create areas of ponding within the dripline, especially around the oaks. Drainage features such as v-ditches shall be utilized, as necessary, upslope from existing trees, to divert runoff away from the area within the tree dripline.

42. Improvements shall be restricted to a minimum of 25 feet from the creeks and outside the areas with native tree cover to protect the habitat value of the creek corridors. The proposed development envelope for the Phase II Calereuga Parking Lot and the Phase IV Residence Hall parking lot shall be restricted a minimum of 25 feet from the top of creek bank of Sisters Creek, and the Planned District (PD) standards for the site shall be revised to restrict all new parking lot construction to a minimum of 25 feet from the creek. The proposed bridge crossing to the Amphitheater shall be designed to avoid removal of the mature California Bay trees along this segment of the creek channel.

43. An auger boring program shall be conducted at the proposed Residence Hall and parking lot to determine whether or not potentially important archaeological resources are present. If subsurface cultural deposits are not encountered, then no further archaeological investigations or monitoring would be necessary.

44. In the event that archaeological resources are present at the proposed Residence Hall site, additional archaeological exploration shall be recommended to determine the importance of the site(s) by CEQA criteria. Should it be determined that important resources are potentially subject to significant impacts, then mitigation shall be accomplished by one of two methods:
    - The plans shall be adjusted and the project shall be built at a different location.
    - Data retrieval through archaeological excavation of those portions of the site(s) that would be damaged. The Native American community shall be consulted on all aspects of mitigation and monitoring programs.

45. Construction activities anywhere within the Campus Plan Area could disturb currently unknown cultural resources. If cultural deposits are encountered, construction activities shall be halted, and a qualified archaeologist and the Federated Coast Miwok Tribal Council shall be consulted. The archaeologist shall conduct independent review of the find, with authorization of and under the direction of the City. Prompt evaluations shall be made regarding the significance and importance of the finds and a course of action acceptable to all concerned parties shall be adopted. If mitigation is required, the first priority shall be for avoidance and preservation of the resource. If avoidance is not feasible, an alternative plan that may include excavation shall be prepared. All archaeological excavation and monitoring activities shall be conducted in accordance with prevailing professional standards as outlined in Appendix K of the *State CEQA Guidelines* and by the California Office of Historic Preservation. The Native American community shall be consulted on all aspects of the mitigation program.

Prior to Issuance of a Building Permit

Community Development Department - Planning Division

46. All construction details, documents and plans shall incorporate the required mitigation measures presented in the FEIR for the Dominican College Campus Development Plan, June 1998 and adopted by City Council, and the approved Mitigation Monitoring Program/Plan, both on file with the City of San Rafael Department of Community Development.

47. The landscaping and irrigation plans submitted for review and approval with the Environmental and Design Review Permit shall include the following information and details:
    a. The final plans for Phases II through IV shall comply with the requirements of 14.18.160 (Parking Lot Screening and Landscaping) of the San Rafael Municipal Code. A canopy tree-to-parking space ratio of 1:4 shall be required.
    b. All tree sizes shall be subject to the approval of the Design Review Board.
    c. Plant species and placement of plantings shall be reviewed by the Police Department to ensure that plantings do not impact building security. At a minimum, the landscaping shall be as stated in the EIR. Additional landscaping may be allowed if security issues are addressed after review by the Police Department.
    d. Drought, pest and disease resistance grass and landscape species shall be selected and incorporated into the plant list.
    e. Barrier or thorny plants may be proposed in areas to detour access to windows or other areas. A list of barrier plants are available from the SRPD Crime Prevention Officer (415) 485-3114.
    f. Street tree planting shall be required along all public street frontages. Tree species shall be approved by the Community Development and Public Works Departments.
    g. Prior to issuance of a building permit, landscaping and irrigation plans shall be submitted to the Marin Municipal Water District (MMWD) for review and approval. The final plans shall meet the requirements of MMWD.

48. A detailed plan shall be prepared presenting the location, specifications (for racks and/or lockers) and amount of bicycle parking, as required by Section 14.18.090 (Bicycle Parking) of the San Rafael Zoning Ordinance. The amount of on-site bicycle parking shall be 3% of the requirement for automobile parking. The plan shall show bicycle parking for each phase of the project. The bicycle parking shall be located in an enclosed, secure area where both bicycle tires and frames can be locked. Bicycle parking can be installed in phases, consistent with the approved project phasing.

49. All lighting shall comply with the approved Campus Lighting Plan. Exterior lighting details shall be prepared and submitted for review by the Police, Public Works and Community Development Departments, and shall include the following details, specifications and information:
    a. Detailed specification for all pole-mounted parking lot lighting shall be included in the final lighting plan. Fixture specifications shall include information on intensity of illumination and shielding measures to reduce glare from the public street.
    b. The final plan for all exterior lighting shall include a photometric study demonstrating the lighting coverage area for the selected fixture.

c. A minimum one-foot candle at ground level overlap shall be provided in all exterior doorways and vehicle parking areas.
d. A minimum ½ foot candle at ground overlap shall be provided along all outdoor pedestrian walkways.
e. A minimum ½ foot candle shall be required for all directional lighting.
f. All exterior lighting shall be on a master photoelectric cell to operate during evening hours (hours of darkness).
g. All pedestrian, garden and exterior lighting shall be vandal-resistant.

50. The final plans for issuance of building permits for the buildings shall include a roof plan, which presents details and specifications for reasonable screening of rooftop mechanical equipment and all other mechanical equipment (air conditioning units, meters and transformers and appurtenances that are not entirely enclosed within the building structures).

51. The design, materials and illumination for any proposed signs shall be consistent and compatible with the approved sign program for the campus.

52. The project sponsor shall comply with the conditions of the Marin Municipal Water District for obtaining water service for the project.

53. The *Campus Development Plan* shall be revised so that Ralph Minor Hall is not demolished.

Community Development Department - Building and Safety Division

54. Site-specific geotechnical investigations shall be performed for each of the proposed buildings in Phase I, Phase II and Phase III (Science and Technology Building, Chapel, Residence Hall), in order to assess liquefaction potential and ground settlement as described below:

- Liquifaction: For sites where a significant liquefaction potential is found to exist, mitigations such as deep foundations (such as drilled piers or driven piles) or re-working of the soils (if the layer of liquefiable soil is shallow) shall be employed.
- Ground Settlement: Soil conditions for each project shall be identified through exploratory borings. Soil samples shall be collected from the borings for visual characterization and laboratory testing of density and grain size distribution, void ratios, and other parameters. Where such soils are identified, the condition shall be mitigated by reworking and compacting the soils if they are near the surface. If they are deeper, a drilled pier or driven pile foundation could carry the loads through the weak layers.
- Lurching and ground cracking: For sites where a significant potential for lurching and ground cracking is found to exist, mitigation such as drilled piers or driven piles, reworking of the soils (if the layer of low density soils are shallow), or increased creek bank set backs shall be employed.

55. An engineered site improvement plan for each development phase shall be prepared and submitted with the application for a building permit(s). The engineered site plan shall include the following information:
a. All existing and proposed improvements for on-site conditions.
b. All existing and proposed off-site improvements.

c. The location of all existing and proposed sanitary sewer facilities.
d. The location of all existing and proposed frontage improvements.
e. The location of all existing and proposed utilities.

56. All structures shall be in compliance with Title 18 of the City of San Rafael Municipal Code "Protection of Flood Hazard Areas".

57. In order to insure proper implementation and performance of the geotechnical design for construction on Sisters Creek during construction of Phase II and Phase III, the project geotechinical engineer shall review plans and specifications, inspect all site preparation, over excavation, subgrade preparation, foundation excavations, pier drilling to confirm proper conditions, inspect earthwork preparation, sediment control, water diversion, and construction of any creek bank erosion protection measure required. The geotechnical engineer shall submit a final report stating that construction was in compliance with the engineer's requirements and/or any modifications authorized based on the actual site conditions encountered during construction. This report shall be submitted to the City prior to approval of the final inspection of the work or issuance of a Certificate of Occupancy.

58. Mechanical equipment associated with the Science and Technology building, Residence Hall, Recreation Center and Chapel shall be designed so that the noise generated by this equipment does not exceed 45 dBA at the nearest home. Before approval of a building permit for any new building in the Campus Plan, an acoustical report shall be prepared showing how the noise from the facilities will be controlled.

Police Department

59. The final plans for construction of buildings shall include the following crime prevention measures:
    a. Any window in or within 40 inches of an exterior door shall be stationary and non-removable.
    b. Louvered windows shall not be installed within eight feet of the ground level.
    c. All operable windows within 12 feet of the ground level shall have a secondary lock mounted to the front of the window. The secondary lock shall be a bolt lock and shall be no less than 1/8 inch in thickness. The lock shall have a hardened steel throw of 1/2 inch minimum length.
    d. Delivery doors shall have a viewer that provides a minimum 180 degrees peripheral vision.
    e. Glass on all exterior doors or window glazing within 40 inches of an exterior door shall be break-resistant or glass-like materials to the satisfaction of the Police Department.
    f. In-swinging exterior doors shall have rabbeted jambs. Exterior doors that swing outward shall have non-removal pins.
    g. Exterior jambs for doors shall be constructed or protected to prevent violation of the function of the strike plate from the outside. The strike plate shall be secured to the jamb by a minimum of two screws, which penetrate into the solid backing beyond the jamb.
    h. Metal-framed doors shall be set in metal door jambs. Metal-framed glass door shall have a deadbolt lock with a cylinder guard and a hardened steel throw that is a minimum of one (1) inch in length.

i. All exterior doors shall have a solid core construction with a minimum thickness of 1 3/4 inches or with panels not less than 9/16 inch thick.

j. All permanently fixed ladders leading to roofs shall be fully enclosed with sheet metal to a height of ten (10) feet. The covering shall be locked against the ladder with a casehardened hasp steel shackle, locking at both heel and toe, and have a minimum of five pin tumbler operation.

k. Perimeter walls, fences, trash storage areas, etc., shall be built to limit and/or prevent access to the roof or balconies.

l. Exposed roof vents and ducts shall be grated or constructed of an impact-resistant material to the satisfaction of the Police Department.

Fire Department.

60. All buildings shall comply with the following Uniform Building Code, 1994 edition, sections:

    a. Compliance with UBC Section 1006.14, requiring that one stair be provided to the roof of the building(s), if required. Final determination shall be made by the Fire Marshal before issuance of a building permit.

    b. Compliance with UBC Section 904.5.3, requiring the installation of a standpipe system at all exit stairs. Final determination shall be made by the Fire Marshal at application for building permit.

During Grading and Construction

Fire Department

61. No Parking - Fire Lane signs and curb markings shall be installed for all access roadways, parking lots/structures and driveways, as specified by the Fire Marshal, conforming to Fire Prevention Standard 204.

62. Prior to the installation of all automatic and fixed fire extinguishing and detection systems, a permit application shall be submitted to the Fire Prevention Bureau with two sets of plans for review. Specification sheets for each type of device shall be submitted for review.

63. An automatic fire sprinkler system shall be installed in all buildings and structures, as required by the Uniform Building Code (LTBC), 1994 edition, and Fire Code, 1994 edition, as amended by the City of San Rafael. The system shall conform to NFPA Std. 13.

Community Development Department - Building and Safety Division

64. The Army Corps of Engineers shall be notified of bank stabilization work planned for the project. A brief documentation of the project and a timetable for construction is all that shall be required as long as channel/bank grading were maintained within the Corps' prescribed limits for non-reporting band stabilization projects. This condition shall be implemented for construction during Phases I and IV.

65. During grading and construction of each phase, a Stormwater Pollution Prevention Plan (SWPPP) shall be prepared in accordance with guidelines set forth by the Regional Water Quality Control Board under the General Construction Permit program (all projects of five acres or more). This plan shall include all drainage controls, bank stabilization work, and other water quality mitigations, as well as normal site erosion control measures such as the

seeding and protection of bared soils against raindrop impact and detachment by overland runoff, controls on heavy equipment access and off-stream construction activities during the winter season, vegetated buffers and drainage swales, and isolation and disposal of waste construction materials. In addition, the applicant must complete a Notice of Intent (NOI) and the appropriate fee to the State Water Resources Control Board in Sacramento to obtain an NPDES General Stormwater Permit for the project (required for all project of five acres or more). The SWPPP does not have to be submitted to the RWQCB, however, it must be kept on-site during construction and is subject to review by any Board field inspector. Amendments to the SWPPP can be mandated by the field inspector(s) and sanctions imposed if warranted.

66. The project sponsor shall be responsible for overseeing and/or ensuring that the contractors properly implement the approved construction logistics/staging plan. Signs shall be posted informing workers of restricted hours and fines for violations. Any changes to the plan that are required to address changes in conditions or construction operations shall be approved by the Community Development Director, the Public Works Director, and the Fire Chief.

67. No storage of construction materials is permitted in the public right-of-way, without a City encroachment permit.

68. All earth and foundation work shall be performed under the supervision of the project geotechnical/soils engineer, consistent with the approved soils report/investigation. The project sponsor shall employ the services of a licensed geotechnical engineer (at no cost to the City) to provide appropriate inspections during grading and construction of site improvements.

69. The footings and foundations of the proposed pedestrian bridges shall be designed so as not to disrupt the flow of water in the creeks. Construction shall be planned for the dry season when the creeks are dry. No construction shall occur without meeting permit agreements from the California Department of Fish and Game and the U. S. Army Corps of Engineers. Construction shall also be consistent with the detailed drainage plan prepared by a qualified hydrologist.

70. All on-site roads, structures, and utilities shall be constructed in conformance with City's adopted Uniform Building Code. The applicant's engineer shall identify the seismic coefficients and other design criteria to be used in the final design. All roads and utilities are subject to the review and approval of the City Engineer.

71. In order to reduce fugitive dust emissions from construction activities, contractors shall be required to implement the following measures:
    - All active construction areas shall be watered at least twice daily and more often during windy periods. Active areas adjacent to residences shall be kept damp at all times.
    - All hauling trucks shall be covered or shall maintain at least two feet of freeboard.
    - All unpaved access roads, parking areas and staging areas shall be watered at least twice daily or have non-toxic soil stabilizers applied.

- All paved access roads, parking areas, and staging areas shall be swept daily with water sweepers. Streets shall be swept daily if visible soil material is deposited onto the adjacent roads.
- All inactive construction areas that have been previously graded that are inactive for ten days or more shall be hydroseeded or have no-toxic soil stabilizers applied.
- Exposed stockpiles shall be covered, enclosed or be applied non-toxic soil binders or watered twice daily.
- Speed limits shall be limited on any unpaved roads to 15 mph.
- Vegetation shall be replanted in disturbed areas as soon as grading activities are ceased.
- Any activities that cause visible dust plumes which cannot be controlled by watering shall be suspended.

73. The following mitigation measures shall be required to reduce the project's significant construction noise impacts:
    - All construction activities, including grading, excavating, paving and truck traffic coming to and from the construction site, shall be limited to non-holiday weekdays between 7:30 a.m. and 6:00 p.m.
    - All internal combustion engine-driven equipment used on site shall be fitted with intake and exhaust mufflers which are in good condition. Good mufflers with quieted compressors shall result in all non-impact tools generating a maximum noise level of 85 dB when measured at a distance of 50 feet.
    - Powered construction equipment shall be turned off when not in use.
    - All noise generating construction equipment such as air compressors shall be located as far as practical from existing nearby homes.
    - Wherever possible, quiet construction equipment shall be used, particularly air compressors.
    - Neighbors located within 500 feet of a construction site shall be notified, in writing, of the construction schedule.
    - A Disturbance Coordinator shall be designated for the site. The coordinator shall be hired by the applicant subject to the City's approval, on an on-call basis and paid for by the applicant. The site coordinator shall be responsible for receiving and acting on campus complaints about construction noise when construction activities are occurring on campus. The coordinator shall determine the cause(s) and should implement remedial measures as necessary to alleviate significant noise problems. The telephone number of the coordinator shall be clearly posted on a sign at each construction site.

Community Development Department - Planning Division

74. Construction of the Campus Plan may result in raptor nests being destroyed or abandoned. Any active raptor nests established within the vicinity of proposed grading shall be avoided until young birds are able to leave the nest (fledge) and forage on their own. Avoidance may be accomplished either by scheduling grading and tree removal during the non-nesting period (August 15 through January 14), or if this is not feasible, by conducting a pre-construction survey for raptor nests. Provisions of the pre-construction survey effort, if necessary, shall include the following:

- If grading and tree removal is scheduled during the sensitive nesting period (January 15 through August 14), a qualified wildlife biologist, chosen by the City and paid for by the applicant, shall conduct a pre-grading raptor survey to confirm the presence or absence of active nests in the vicinity of proposed construction activities.
- If raptor nests are encountered, the biologist shall prepare and implement species-specific measures to prevent abandonment of the active nest(s). At a minimum, grading in the vicinity of a nest tree shall be deferred until the young birds have fledged, and a construction-disturbance setback of at least 300 feet shall be provided. Grading or other disturbance in the vicinity of the nests shall not be permitted until the biologist confirms that the young raptors have fledged. The biologist shall submit a survey report to the City before grading in the construction-disturbance setback area is initiated verifying the young have fledged.
- Representatives of the CDFG and USFWS shall be consulted to confirm that the above guidelines are adequate to ensure compliance with the Migratory Bird Treaty Act and provisions of the State Fish and Game Code.

Prior to Completion of a Final Inspection for Building Occupancy

Community Development Department- Building and Safety Division

75. The increase in runoff volume generated during severe rainstorms and its potential impact on floodwater accumulation at 31 and 37 Palm Avenue shall be mitigated by replacing the existing 12-inch storm drain at 37 Palm Avenue. The new storm drain shall possess a slope sufficient to maintain scouring velocities that would minimize the potential for clogging via leaf litter and other debris. The replacement drain shall accommodate the anticipated stormwater runoff from the Palm Avenue corridor, including the stormwater influx from Edwards Court and the contributing area to the storm drain inlets at the intersection of Palm and Olive Avenues (encompassing a watershed area of 27.9 acres). Commonly obstructed storm drain inlets at the Palm/Olive Avenue intersection warrant the inclusion of upslope area runoff, as documented in the EIR supplemental flood assessment. *Since the flooding condition along Palm Avenue is an existing one, the applicant shall be responsible for only that portion of the cost of storm drain replacement that would accrue from increasing the pipe size due to the upslope contribution of runoff from the campus area. Therefore, the City of San Rafael would be responsible for determining the extent of the increase in the required pipe size and any ancillary increases in pipe installation costs. The* City is currently in the process of designing the replacement storm drain at 37 Palm Avenue. The storm drain design shall pay careful attention to the potential for backwater influences, since the open channel running along the backyards on Palm Avenue is narrow and tailwater conditions could affect any piped discharge to the creek. Before construction of Phase II and III, the applicant shall deposit with the City a lump sum payment, sufficient to cover the City's costs associated with the increase in storm drain size and ancillary installation expenses (time and materials) needed to deal with post-project increase in runoff as determined by the City.

76. Prior to the acceptance of all off-site improvements, "as-built" drawings and plans shall be submitted to the City. The "as-builts" shall be accompanied by a letter from the project civil engineer which confirms that the plans reflect the improvements that have been installed. In

addition, "as-built" drawings and plans shall be prepared for all on-site improvements and shall be submitted to the City.

77. As part of Phase I improvements, a sidewalk shall be provided on the south side of Magnolia Avenue along the College's frontage.

78. As part of Phase III improvements, a sidewalk shall be provided along the northwesterly side of Magnolia Avenue or other equivalent pedestrian facilities between the proposed Residence Hall and existing campus facilities.

Community Development Department - Planning Division

79. All landscaping and irrigation for each development phase shall be installed and/or bonded prior to occupancy of that phase. Replacement shall be required for any dead or dying plants.

Fire Department

80. Addresses shall be posted for each building, conforming to Fire Prevention Std. 205 and 205A.

81. A Fire Department approved Knox keyway system is required to be installed, conforming to Fire Prevention Std. 202.

82. A potential exists for the release of very small hazardous substances at the Science and Technology Building. All use of hazardous substances on the campus shall be in compliance with Cal-OSHA and San Rafael Fire Department standards on hazardous materials.

Police Department

83. The Crime Prevention Office may require a final inspection to ensure compliance with security-related requirements.

Post Construction Monitoring

Department of Community Development- Planning Division

84. After the issuance of a certificate of occupancy, all exterior lighting shall be subject to a 30 day lighting level review by the Planning Division and the Police Department to ensure compatibility with the surrounding area and to address adequate security and safety concerns.

Fire Department

85. The alarms installed for the fire detection systems and commercial fire sprinklers shall be monitored by a UL Central Station Company, approved by the San Rafael Fire Department. The alarms/systems shall be issued a UL serially numbered Certificate for Central Station Fire Alarms.

On-going (Throughout Processing and Construction)

86. City staff time required for implementation and monitoring of the Mitigation Monitoring Program/Plan shall be subject to cost recovery fees charged to the project sponsor.

87. All meetings with or inspections by the Fire Department require a minimum 24-hour advance appointment.

88. Water lines serving new development shall be required to meet MMWD's standards, which require a minimum six-inch line.

89. Replacement water lines shall be coordinated with the replacement of sewer lines to reduce the time of street closure.

90. Sewer lines serving new development shall be required to meet the City's sanitary sewer standards.

Fire Department

91. Water lines shall be upgraded to meet minimum fire flow requirements, as per SRFD and Uniform Fire Code standards. This shall be done during grading for each phase to minimize the amount of construction activity in the area.

Police Department

92. Illumination in all parking lots and exterior doorways shall be a minimum of one-foot candle per square foot.

93. All exterior lighting shall be vandal-resistant, and shall be on a master photoelectric cell to operate during hours of darkness.

Expiration Provisions

94. This Environmental and Design Review Permit shall be valid for the construction of the following phases:
    - Provisions of this Environmental and Design Review Permit related to construction of Phase I shall be valid if a building permit has been granted within three years of the effective date of this permit.
    - Provisions of this Environmental and Design Review Permit relating to construction of Phase II shall be valid if a building permit has been granted within seven years of the effective date of this permit.
    - Provisions of this Environmental and Design Review Permit relating to construction of Phase III and IV shall be valid if a building permit has been granted within twelve years of the effective date of this permit.

The applicant can apply for an extension of this time frame subject to the review and approval of the Planning Commission.

EXHIBIT B2

Conditions for Environmental and Design Review Permit
Dominican College Master Plan
(ED-97-146)

General Conditions

1. The Master Environmental and Design Review Permit (ED-97-146) establishes design standards for the placement of four proposed buildings, additional parking facilities and landscaping standards. The project is divided into four phases. The project site consists of three areas: *Forest Meadows,* (APN 15-141-02), is 21.5 acres and located west of Grand Avenue. *The Academic Core,* (APNs 15-142-03 and 15-142-04) is 14.4 acres and is defined by Acacia, Olive and Palm Avenues; *The Residential Area* (APN 15-161-01 and 15-162-02) is 19.2 acres and includes Caleruega Dining Hall and Pennafort and Fanjeaux residence halls. The building techniques, materials, elevations and appearance of this project, as presented for approval, and as shown on the plans entitled, Dominican College Campus Development Plan, Fig. 2.1, dated November 30, 1995, and revised on August 18, 1997, also including Sheets titled Phase I - Recreation Center Environmental and Design Review, dated May 1, 1996, and revised on August 4, 1997 (ED97-89), shall be the same as required for issuance of a building permit. Each additional Phase (Phase II, III, IV) of the project shall require an individual Environmental and Design Review Permit. Any future additions, expansions, remodeling, etc., shall be subject to review by the Community Development Director. The Director shall determine which decision-making body is to review the modifications.

2. This Environmental and Design Review Permit acknowledges that construction of the project will be phased and that each construction phase of the development will be subject to all of the provisions of the Mitigation Monitoring Program and the mitigation measures listed in the FEIR and the Conditions of this Environmental and Design Review Permit. All grading and construction shall be subject to the development standards for ZC-97-7 (PD District zoning), and the conditions of approval for UP-97-45 (Use Permit). Effective date of this Environmental and Design Review Permit shall be the effective date of the ordinance adopted for the PD (Planned Development) District zoning.

3. This Environmental and Design Review Permit is approved for project development in a minimum of four phases, as follows:
   a. Phase I (ED97-89) shall consist of: (1) An approximately 29,000 square foot Recreation Center and 7,700 outdoor pool area at Forest Meadows and related Grand Avenue 215-vehicle parking lot and 38-vehicle overflow parking area; (2) Parking and landscape improvements in portions of the Academic Core, including upgrading of an existing parking lot, new walkways and pedestrian bridges, and landscape buffers along Olive and Palm Avenues: and (3) (ED96-154) The addition of four parking spaces to Caleruega West parking lot.
   b. Phase II-A shall consist of: (1) An approximately 35,000 square foot Science and Technology Building at the Academic Core; (2) A 60-vehicle parking lot aside Caleruega at Magnolia Avenue; (3) An additional landscape buffer along Palm Avenue

in front of Alemany Library; and (4) The temporary relocation of the Nursing Skills Lab to make room for the Science and Technology Building.

c. Phase II-B shall consist of: (1) A chapel at the Academic Core.
d. Phase III shall consist of (1) a Residence Hall in the residential area and related 100 vehicle parking lot.
e. Phase IV shall consist of (1) Forest Meadows outdoor facilities, including a regulation soccer field, expansion of the existing amphitheater and a 90-vehicle parking lot in the northwest comer of Forest Meadows at Belle Avenue.

Flexibility regarding timing of these phases shall be allowed after review and approval by the hearing body for the individual Environmental and Design Review permits required for each improvement so long as sufficient parking is provided concurrent with improvements and other conditions for development of each phase are fulfilled. In addition to the conditions of project approval contained herein, each phase of project development shall be subject to all requirements of applicable statutes and City Ordinances, regulations, plans and policies in effect at the time of application for permits or entitlements for that phase.

4. As proposed in the Development Standards, a 40-foot building setback shall be maintained for the Science and Technology building from Palm Avenue to allow for adequate buffer area.

5. The Master Environmental and Design Review Permit shall be revised before application for Phase II Environmental and Design Review Permit to include specific architectural standards to require design compatibility of the Chapel with surrounding campus buildings and residential areas. This would reduce visual impacts of the site from the neighborhood. The architectural standards shall include the following:
   - Consideration of the use of screening trees between the Chapel and Acacia Avenue.
   - The Chapel shall be sited to preserve the redwood trees to the west and the gate and stone fence to the north.
   - A southwest-northeast rectangular alignment shall be avoided that would intrude upon the open space to the southwest.
   - The building mass of the Chapel shall be the most efficient possible, while still being consistent with City design guidelines and policies.

6. A more detailed building description shall be included into the Phase II Environmental and Design Review Permit application for the Chapel and Science Building. The elements of the project (form, line, color and texture) shall be reviewed at this time to ensure that the building is compatible with the surrounding environment, including surrounding residential and campus buildings. A good example of buildings that fit in well with the neighborhood is the relatively new Dominican Sisters' buildings on Grand Avenue. Elements in these buildings that allow compatibility with nearby residential neighborhoods include the following and shall be considered during design of the Chapel building:
   - The use of traditional residential building materials for the buildings
   - A gradual roof pitch to fit in with nearby residential roofs
   - The use of low-reflectivity building materials such as wood
   - An articulated building footprint
   - The breaking up of the mass of the buildings by the use of different building planes

- The "stepping back" of higher floors of the buildings from Palm Avenue to avoid the appearance of a "wall" of development
- Varied building heights, colors and textures
- The building mass of the Science and Technology building shall be the most efficient design possible while still being consistent with City design policies and guidelines.
- Landscaping in the area between the Science and Technology building and Palm Avenue shall be placed so as to maximize effective screening of the building from Palm Avenue and shall be planted as part of Phase I improvements.

7. The Master Environmental and Design Review Permit shall be revised before application for Phase IV Environmental and Design Review to include specific architectural standards to require design compatibility of the Residence Hall with surrounding campus buildings and the residential area. Specific recommendations in regard to colors, materials, scale and building and site design shall be included in the architectural standards. The standards shall include the following elements and shall be considered during design of the Residence Hall:
   - The Residence Hall buildings shall be situated as close to Magnolia Avenue as possible, so the natural rise in elevation between Magnolia and Locust Avenues would hide more of the buildings from the residential areas to the north. The ultimate location would be a trade-off between the loss of trees and visual considerations. The 50-foot setback for the Residential Hall from Magnolia Avenue proposed by the applicant shall be counter to this condition, and shall be eliminated from the project description.
   - The area between the northern edge of the parking lots and the creek channel shall be heavily planted with screening trees to block as much of the view between the Residence Hall and the residential area to the north.
   - As much of the 60-vehicle parking lot shall be located next to or as close to Caleruega Hall as possible, to avoid parking spaces on the higher elevations to the northeast, to reduce grading, and to allow the higher elevations to the northeast to provide screening from the residential area to the north. Screening vegetation and/or berms shall be developed between the top of the creek bank and the parking lot to hide the parking lot from the residential areas to the north. The parking lot lighting shall be designed to direct light downward onto the parking lot and not create off-site glare.
   - The building mass of the Residence Hall shall be the most efficient design possible while still achieving consistency with City design guidelines and policies.

8. A more detailed building description shall be included into the Phase III Environmental and Design Review Permit application for the Residence Hall. The elements of the project (form, line, color and texture) shall be reviewed at this time to ensure that the building is compatible with the surrounding environment, including surrounding residential and campus buildings. The same design elements that are described in Phase II, Environmental and Design Review, above shall be utilized in the design of the Residential Hall building.

9. A more detailed description of the 90-vehicle parking lot located at Belle and Grand Avenues shall be included into the Phase IV Environmental and Design Review Permit application. The elements of the project (form, line, color and texture) shall be reviewed at this time to ensure that the parking lot is compatible with the surrounding environment. The design of this lot shall include berms and/or landscaping along the Belle and Grand Avenue frontages

to effectively screen views of the parking lot and parked vehicles to the greatest extent possible and consistent with Police Department safety requirements described in Condition 10. Any parking lot lighting shall be designed to direct light downward onto the parking lot and not create off-site glare.

10. Screening vegetation shall be developed in the proposed 50-foot buffer between the parking lot and Belle and Grand Avenues during construction of Phase IV. This means that landscaping (trees/shrubs) shall be placed to block views of 50 percent of the parking lot from Grand and Belle Avenues. A hedge or vegetated berm up to 3 ½ feet high shall be constructed to block car headlights and partially screen the parking lot, but keeping the parking lot visible from Grand and Belle Avenues for security purposes. The remaining eucalyptus trees in this buffer area shall be retained in this vegetation plan. Trees/shrubs shall be selected to block the path of light from a parked car in a parking space facing Grand Avenue to the first floors of 1610 and 1618 Grand Avenue which have unobstructed views. This shall be the minimum standard. Additional landscaping may be added with the review and approval of the Police Department.

11. The parking lot at the corner of Belle and Grand Avenues shall be designed so that inbound access is from Grand Avenue only, and outbound access is via a right-turn only onto Belle Avenue. The right-turn restriction to Belle Avenue shall include signing as well as a physical barrier, such as a median island and driveway which turns east which would make turning left difficult, if not impossible. Circulation within the parking lot shall be designed to support these access/exit restrictions.

12. In order to reduce light and glare impacts from car headlights to the homes along Locust Avenue adjacent to the new residence hall, screening vegetation shall be developed up to 3 ½ feet high in the buffer area that would block headlights but still allow visibility into the parking lot for security reasons.

Prior to Issuance of a Grading Permit for Site Grading and Improvements

Community Development Department - Building and Safety Division

13. All grading and site improvement activities shall incorporate the required mitigation measures adopted by City Council presented in the Dominican College Campus Development Plan Final Environmental Impact Report, June 1998, and the approved Mitigation Monitoring Program/Plan, both on file with the Community Development Department of the City of San Rafael.

14. A City of San Rafael grading permit is required for all grading and site improvement work.

15. All grading and construction work proposed within the City of San Rafael public right-of-way shall require the approval of an encroachment permit.

16. A detailed grading plan shall be prepared and submitted with the application for a grading permit for site improvements. The plan shall include all existing and proposed topographic contours and site characteristics.

17. A detailed drainage plan shall be prepared and submitted with the application for a grading permit for site improvements. The plan shall include the following information:
    a. All proposed drainage improvements.
    b. All drainage shall be designed to be collected and contained within a closed system, routed to public storm drains.
    c. The drainage plans shall be designed to handle the 100 year storm event, provide adequate protection to life and property in the interim, and final design compliance with FEMA guidelines.
    d. All drainage facilities shall incorporate permanent improvements that manage runoff and water quality. The detailed drainage plan shall be prepared utilizing suggested stormwater protection measures, to the extent practical, presented in Start at the Source, Design Manual for Stormwater Quality Protection, available from the Bay Area Stormwater Management Agencies Association.
    e. The final drainage plans shall be subject to the review and approval by the City Engineer, to ensure that adequate design drainage mechanisms are in-place, as may be required to accommodate the interim hydrological conditions.

18. A final geotechnical and soils evaluation shall be completed by the project geotechnical engineer. The evaluation shall determine the amount of anticipated total and differential settlement on the site and around each of the structures. In addition, the evaluation shall include the following:
    a. Special measures to accommodate differential settlement in utility connections, flat works, stair details, and the entrances and exits to the buildings/structures.
    b. Other measures such as flexible utility connections at the structures, increased slope for storm drains, articulated concrete slab-on-grades and special connections to exterior structure attachments.
    c. The evaluation shall confirm areas of fill that would require excavation and recompaction prior to the initiation of construction activities.

19. The project geotechnical/soil engineer is required to review the final plans for grading and construction of site improvements. The project geotechnical engineer shall verify, in writing, that the final plans are designed in accordance with standard engineering practices to accommodate the anticipated total and differential settlements. All earthwork shall be done under the supervision of the project geotechnical/soil engineer.

20. A construction logistics and staging plan for construction of the major grading, installation of utilities and site improvements during each Phase shall be submitted for review and approval by the Department of Public Works, Community Development Department and Fire Department. This plan shall address, at minimum, parking, truck routes, staging, material storage, and pedestrian and vehicular traffic adjacent to the construction site. Consistent with the requirements of the Mitigation Monitoring Program/Plan, the following specific measures shall be incorporated into the construction logistics and staging plan:
    a. The use of heavy rubber tired vehicles or construction equipment over the midden area to minimize damage to the archaeological resource.
    b. A staging area shall be identified on the plan for each phase of construction.
    c. Hours of operation for construction activities shall be limited to between 7:30 a.m. and 6:00 p.m. No work shall be allowed on weekends or holidays.
    d. A travel route system shall be established for construction vehicles and trucks.

21. A Stormwater Pollution Prevention Plan (SWPPP) shall be prepared and submitted with the application for a grading permit. The plan shall address different stages or phases of the grading operation to ensure that appropriate control measures are installed for erosion protection during the duration of the construction period. The SWPPP shall be prepared in coordination with the requirements and implementation of the approved Soil Management Work Plan (SMWP). The provisions of the SMWP shall take precedence over the requirements of the SWPPP. However, if not in conflict with the SMWP, the following erosion control and Best Management Practices (BMP) measures shall be incorporated into the SWPPP:
    a. Disturbed areas shall be protected from exposure by implementing measures such as covering areas with rolled plastic sheeting.
    b. Install sand bags, silt fences and hay bales to trap sediment on site.
    c. Install sand bags to control surface runoff and maintain low runoff velocities.
    d. Minimize length and steepness of slopes and stabilize sloped areas with landscaping or seeding.
    e. Install drainage system outlet protections, as well as temporary sediment basins and traps, where appropriate.
    f. An ample area shall be identified and developed for waste disposal (construction debris, etc.) during grading and construction.
    g. The SWPPP shall include a 'staging program', to address precautionary/contingency measures in the event that rain is forecast within five days and the planned erosion control measures cannot be installed.

22. The following shall be required before issuance of a grading permit for Phases 1, II and 111. The project geotechnical engineer shall conduct site and project specific Geotechnical Investigations. The resulting report shall include the recommendation for at least the minimum 25 foot building setback requirement from the high top of creek banks (both Black Canyon and Sisters Creek) to comply with Section 1.3.3 of the revised *Campus Development Plan*. Additionally, an evaluation of creek bank stability on Sisters Creek shall be performed for sections near proposed development (Chapel, stream crossing near Olive Avenue, parking lots next to Caleruega Hall and the proposed Residence Hall, the Meadowlands West parking lot. The stability evaluation shall use information developed from a subsurface exploration and laboratory analysis of soils, and shall evaluate the existing bank's safety factor for slope failure in static saturated (highest ground water) conditions under the design seismic acceleration as recommended under the 1997 UBC. If the safety factor for static conditions is less than 1.5 or for dynamic conditions is less than 1.3, site specific mitigations such as increased set backs, special foundation design or creek bank stabilization (or a combination of these) would be required.

23. The residence hall building(s) shall be set back from Sisters Creek a minimum of 50 feet, or be at least five feet higher in elevation than the adjacent creek if within 50 feet to prevent mudflows from impacting the residence hall. These setback and elevation requirements can be reduced to minimize visual impacts and loss of trees if the applicant can show through hydrologic studies that potential mudflows would affect a smaller area around Sisters Creek.

24. Grading Plans for all phases of the project shall conform to the following criteria: no slopes steeper than 2:1 (horizontal to vertical), provide permanent erosion control if slopes are as

steep as 2: 1, provide proper drainage, and provide smooth transitions from man-made cuts and fills into the existing terrain.

25. Phase I, II, and III grading and drainage plans shall incorporate the utilization of the following stormwater drainage mitigation logic, including, (a) Construction of vegetated swales with minimum lengths of 50 feet and grade breaks (appropriately spaced earthen berms to minimize local flow velocities and maximize infiltration), and (b), Local bank revegetation and stabilization with geotextiles, where supplemental bank grading and/or erosion control is required. There are enough stable reaches along Sisters Creek to locate appropriate outlet locations requiring little, if any additional bank erosion protection measures.

26. Plans for parking lot drainage for the lot proposed at Grand and Belle Avenues shall promote sheet water runoff from the lot surface onto the adjacent native ground. The stormwater runoff would then proceed over the existing native ground which would provide opportunities for natural depression storage and infiltration. The native ground shall be re-seeded to increase the density of vegetation along the flow path..

27. Subsurface and surface drains associated with earthwork (e.g. subdrains, surface drains, etc.) should be designed to discharge so as not to contribute to or cause erosion.

28. Grading plans shall retain, protect, and supplement existing vegetation wherever possible. Exposure of soils shall be limited to the immediate area required for construction operations. The existing vegetation in the area of construction shall not be destroyed, removed or disturbed more than 15 days prior to grading or related earth work.

29. Improvement plans/grading plans shall minimize the visual impacts of required retaining walls by constructing them or facing them with natural materials. Retaining walls shall be planted with trailing and creeping plants to create a natural landscaped appearance.

30. Grading plans shall be designed to minimize the need for importing soils from off-site by balancing the volume of cuts and fills. Grading plans shall provide for dust control by spraying with water. Where imported soils or aggregates may be needed, or other heavy truck or equipment traffic is required for grading, care shall be taken to prevent soils and debris from impacting the local streets by making sure trucks are free of loose soils, mud or other debris before leaving the construction site. Grading shall not occur during the wet season (November through April) so as to mitigate against the potential for siltation of the nearby creek system. Truck traffic shall be scheduled to occur in off-peak hours to eliminate any potential traffic impacts.

31. A Section 1603 Stream Alteration Agreement shall be obtained from the California Department of Fish and Game (CDFG) for any work in the stream area. The CDFG biologist/warden may specify site-specific erosion control measures if warranted in addition to SWPPP measures incorporated into the project. This condition shall be followed during construction of Phases I and IV.

32. A detailed erosion and sedimentation control plan shall be prepared and implemented during each phase of development involving grading on site in order to mitigate impacts on

jurisdictional waters. The plan shall contain detailed measures to control erosion of stockpiled earth and exposed soil, provide for revegetation of graded slopes before the first rainy season following construction, and specify procedures for monitoring the plan's effectiveness. The revegetation component of the plan should be consistent with the Landscape and Vegetation Management Plan required for each phase of construction, and shall be prepared by a qualified landscape architect in consultation with a plant ecologist experienced in management of native species. The plan should 1) provide for re-establishment of native vegetation in graded areas adjacent to forest cover and drainageways, 2) provide details on native plantings associated with proposed revegetation and mitigation, 3) identify unsuitable species which should not be used in landscaping, 4) control the establishment and spread of unsuitable species such as broom, and 5) specify long-term management provisions to ensure re-establishment of landscape improvements. Aspects of the plan shall include the following:

- Landscaping and revegetation should emphasize the use of native plant species along the fringe of Black Canyon Creek, the native forest cover in Forest Meadows, and along Sisters Creek. Suitable plant species for use in native planting include: coast live oak *(Quercus agrifolia),* valley oak *(Quercus lobata),* California buckeye *(Aesculus californica),* California rose *(Rosa californica),* common rush *(Juizcus patens),* creeping wildrye (*Leymus triticolides*), and purple needlegrass *(Nassella pulchra).*
- Non-native ornamental species used in landscape plantings shall be restricted to the immediate vicinity of the parking lots and buildings. Use of non-native, invasive species that may spread into adjacent undeveloped areas should be prohibited in landscaping plans. Unsuitable species include acacia *(Acacia* spp.), pampus grass *(Cortaderia sellona), broom (Cytisus* spp.) gorse *(Ulex europeaus), bamboo (Bambusa* spp.), giant reed *(Arundo donax),* English ivy (Hedera helix), German ivy *(Senecio milanioides),* and periwinkle (Vinca sp.).
- Graded slopes and areas disturbed as part of the project should be monitored to prevent establishment and spread of French and Scotch broom. Removal and monitoring should include annual late winter removal of any rooted plants when soils are saturated and cutting back of any remaining flowering plants in the spring before seed begins to set in late April.
- The landscape plan shall specify provisions to maintain landscaping and graded slope revegetation with replacement plantings and seeding during a minimum of five years to ensure re-establishment of cover.

The following are Building and Safety Division conditions for all phases of the project:

33. Permits, Plans and Agreements
    a. An engineered site improvement plan shall be submitted with the application for a grading or building permit
    b. An encroachment permit shall be required for any work in the Public Right of way.

34. Grading and Excavation
    a. Grading Plans shall show all proposed and existing contours as well as proposed drainage facilities.
    b. A level "B" soils report shall be submitted with the application for a grading or building permit.
    c. A grading permit shall be required for all parking lot improvements.

d. All earth and foundation work shall be done under the direction of the project soils engineer; and a final report shall be submitted prior to acceptance of the work.
e. Grading, drainage and foundation plans shall be reviewed and approved by the project soils engineer prior to the issuance of a grading permit.
f. The final grading plans shall be prepared in accordance with the mitigation measures contained in the project EIR.

35. Sanitary Sewers:
a. The improvement plans shall show all existing and proposed sanitary facilities.
b. Sanitary sewer plans shall be reviewed and approved by the San Rafael Sanitation District.

36. Frontage Improvements:
a. The improvement plans shall show all existing and proposed frontage improvements.
b. All existing curb, gutter, and sidewalk damaged during construction shall be replaced to the satisfaction of the City Engineer.
c. All unused driveway approaches shall be removed and reconstructed with standard curb, gutter and sidewalk.
d. Standard curb, gutter, sidewalk and driveway approaches will be required along Grand Avenue from Watt Avenue to Belle Avenue. Improvements shall be timed to correspond to development of the property adjacent or sooner.
e. Frontage improvements adjacent to the parking lots shall be constructed when the parking lots are constructed. Frontage improvements adjacent to the recreation building shall be constructed when the recreation building is constructed.
f. All frontage improvements shall be constructed in accordance with the "Uniform Construction Standards for the Cities and Counties of Marin"

37. Utilities:
a. All utilities shall be underground.
b. The improvement plans shall show all existing and proposed utilities.
c. Street lighting shall be provided to the satisfaction of the City Engineer.

38. Landscaping:
a. All street trees shall be provided with approved root guards.
b. Street trees shall be provided from the City's approved street tree list.

Community Development Department - Planning Division

39. Mature trees near the limits of anticipated grading should be preserved and protected where feasible from an engineering and safety standpoint and warranted based on the good to excellent health and structure of the tree. An engineering survey of oaks with trunk diameters of six inches or greater and all other tree species with trunk diameters of 12 inches or greater (measured at 18 inches above the root crown) should be performed as part of Environmental and Design submittals for each phase of development, and should map trunk locations within 50 feet of the limits of grading. Individual specimen-sized trees shall be preserved by retaining walls, short over-steepened slopes, and other methods. Protection of native oak and California bay trees should take precedence over non-native species, and larger eucalyptus with trunk diameters exceeding 24 inches which do not pose a hazard from falling should take precedence over smaller non-native trees.

40. Site development plans for all phases in the Academic Core and Residential Area shall be designed to protect the scattered pockets of native trees and mature ornamental trees. In particular, this should include protection of the:
    - Clusters of coast redwoods west of Albertus Magnus Hall in planning improvements for the Chapel;
    - Four large California bay trees north of Caleruega Hall in planning improvements for the Phase 11 60-vehicle parking lot and Phase III Residence Hall; and
    - The cluster of live oaks and valley oaks along the south bank of the tributary drainage just west of Palm Avenue.
    - Scattered mature eucalyptus, palms, and single live oak near the Nursing Skills Lab and Brown House when planning improvements for the Science and Technology Building.

41. A certified arborist shall prepare detailed guidelines to control possible damage to trees to be preserved during each phase of development. The guidelines shall be prepared as part of each Environmental and Design Review Permit submittal. Standards shall be consistent with the tree protection recommendations defined in the Tree Evaluation for the Recreation Center and Parking Lot prepared by LSA Associates, which should also be applied to tree removal in the Meadowlands area. Standards contained in the preservation guidelines shall include the following:
    - Do not "fell" any of the trees to be removed unless they are far enough away to avoid hitting and damaging protected trees. Trees that are too close to protected trees to be safely removed by felling shall be cut and lowered in sections by rope and the stump ground down, rather than pushing the tree over. Trees to be cut and lowered in sections will be identified and marked by a certified arborist
    - Where feasible, all construction activity (grading, filling, paving, equipment and materials storage) shall remain outside the root protection zone, identified as the area within the dripline. The dripline is defined as the outside edge of the tree canopy. If work is required within the dripline of preserved trees, a certified arborist shall be present to monitor root damage. Prior to work within the dripline an arborist shall be consulted to review the proposed work.
    - Temporary protective fencing shall be placed around protected trees. The fencing will be maintained throughout the period of construction.
    - Utilities shall be designed to avoid the dripline where feasible. Utility lines shall not cross any portion of the dripline unless the trenches are hand-dug and the roots treated as they are exposed.
    - Any cuts to roots shall be minimized to the extent possible. Roots shall not be pulled when contacted by construction equipment. The loss of roots could affect tree vigor. This shall be explained to all equipment operators. Any roots encountered shall be hand excavated. Shredded mulch and wet burlap shall be on-site for covering damaged roots. The removal of roots greater than two inches in diameter must be assessed by a qualified arborist for structural impacts. If canopy limb pruning is required to counter-balance root loss, a qualified arborist shall be consulted to identify and monitor pruning activities. Pruning cuts shall be clean and as close to the limb's shoulder as possible.

- All grading shall be designed to drain water away from the base of the trees and shall not create areas of ponding within the dripline, especially around the oaks. Drainage features such as v-ditches shall be utilized, as necessary, upslope from existing trees, to divert runoff away from the area within the tree dripline.

42. Improvements shall be restricted to a minimum of 25 feet from the creeks and outside the areas with native tree cover to protect the habitat value of the creek corridors. The proposed development envelope for the Phase II Calereuga Parking Lot and the Phase IV Residence Hall parking lot shall be restricted a minimum of 25 feet from the top of creek bank of Sisters Creek, and the Planned District (PD) standards for the site shall be revised to restrict all new parking lot construction to a minimum of 25 feet from the creek. The proposed bridge crossing to the Amphitheater shall be designed to avoid removal of the mature California Bay trees along this segment of the creek channel.

43. An auger boring program shall be conducted at the proposed Residence Hall and parking lot to determine whether or not potentially important archaeological resources are present. If subsurface cultural deposits are not encountered, then no further archaeological investigations or monitoring would be necessary.

44. In the event that archaeological resources are present at the proposed Residence Hall site, additional archaeological exploration shall be recommended to determine the importance of the site(s) by CEQA criteria. Should it be determined that important resources are potentially subject to significant impacts, then mitigation shall be accomplished by one of two methods:
    - The plans shall be adjusted and the project shall be built at a different location.
    - Data retrieval through archaeological excavation of those portions of the site(s) that would be damaged. The Native American community shall be consulted on all aspects of mitigation and monitoring programs.

45. Construction activities anywhere within the Campus Plan Area could disturb currently unknown cultural resources. If cultural deposits are encountered, construction activities shall be halted, and a qualified archaeologist and the Federated Coast Miwok Tribal Council shall be consulted. The archaeologist shall conduct independent review of the find, with authorization of and under the direction of the City. Prompt evaluations shall be made regarding the significance and importance of the finds and a course of action acceptable to all concerned parties shall be adopted. If mitigation is required, the first priority shall be for avoidance and preservation of the resource. If avoidance is not feasible, an alternative plan that may include excavation shall be prepared. All archaeological excavation and monitoring activities shall be conducted in accordance with prevailing professional standards as outlined in Appendix K of the *State CEQA Guidelines* and by the California Office of Historic Preservation. The Native American community shall be consulted on all aspects of the mitigation program.

Prior to Issuance of a Building Permit

Community Development Department - Planning Division

46. All construction details, documents and plans shall incorporate the required mitigation measures presented in the FEIR for the Dominican College Campus Development Plan, June 1998 and adopted by City Council, and the approved Mitigation Monitoring Program/Plan, both on file with the City of San Rafael Department of Community Development.

47. The landscaping and irrigation plans submitted for review and approval with the Environmental and Design Review Permit shall include the following information and details:

    a. The final plans for Phases II through IV shall comply with the requirements of 14.18.160 (Parking Lot Screening and Landscaping) of the San Rafael Municipal Code. A canopy tree-to-parking space ratio of 1:4 shall be required.
    b. All tree sizes shall be subject to the approval of the Design Review Board.
    c. Plant species and placement of plantings shall be reviewed by the Police Department to ensure that plantings do not impact building security. At a minimum, the landscaping shall be as stated in the EIR. Additional landscaping may be allowed if security issues are addressed after review by the Police Department.
    d. Drought, pest and disease resistance grass and landscape species shall be selected and incorporated into the plant list.
    e. Barrier or thorny plants may be proposed in areas to detour access to windows or other areas. A list of barrier plants are available from the SRPD Crime Prevention Officer (415) 485-3114.
    f. Street tree planting shall be required along all public street frontages. Tree species shall be approved by the Community Development and Public Works Departments.
    g. Prior to issuance of a building permit, landscaping and irrigation plans shall be submitted to the Marin Municipal Water District (MMWD) for review and approval. The final plans shall meet the requirements of MMWD.

48. A detailed plan shall be prepared presenting the location, specifications (for racks and/or lockers) and amount of bicycle parking, as required by Section 14.18.090 (Bicycle Parking) of the San Rafael Zoning Ordinance. The amount of on-site bicycle parking shall be 3% of the requirement for automobile parking. The plan shall show bicycle parking for each phase of the project. The bicycle parking shall be located in an enclosed, secure area where both bicycle tires and frames can be locked. Bicycle parking can be installed in phases, consistent with the approved project phasing.

49. All lighting shall comply with the approved Campus Lighting Plan. Exterior lighting details shall be prepared and submitted for review by the Police, Public Works and Community Development Departments, and shall include the following details, specifications and information:

    a. Detailed specification for all pole-mounted parking lot lighting shall be included in the final lighting plan. Fixture specifications shall include information on intensity of illumination and shielding measures to reduce glare from the public street.
    b. The final plan for all exterior lighting shall include a photometric study demonstrating the lighting coverage area for the selected fixture.

c. A minimum one-foot candle at ground level overlap shall be provided in all exterior doorways and vehicle parking areas.
d. A minimum ½ foot candle at ground overlap shall be provided along all outdoor pedestrian walkways.
e. A minimum ½ foot candle shall be required for all directional lighting.
f. All exterior lighting shall be on a master photoelectric cell to operate during evening hours (hours of darkness).
g. All pedestrian, garden and exterior lighting shall be vandal-resistant.

50. The final plans for issuance of building permits for the buildings shall include a roof plan, which presents details and specifications for reasonable screening of rooftop mechanical equipment and all other mechanical equipment (air conditioning units, meters and transformers and appurtenances that are not entirely enclosed within the building structures).

51. The design, materials and illumination for any proposed signs shall be consistent and compatible with the approved sign program for the campus.

52. The project sponsor shall comply with the conditions of the Marin Municipal Water District for obtaining water service for the project.

53. The *Campus Development Plan* shall be revised so that Ralph Minor Hall is not demolished.

Community Development Department - Building and Safety Division

54. Site-specific geotechnical investigations shall be performed for each of the proposed buildings in Phase I, Phase II and Phase III (Science and Technology Building, Chapel, Residence Hall), in order to assess liquefaction potential and ground settlement as described below:

- Liquifaction: For sites where a significant liquefaction potential is found to exist, mitigations such as deep foundations (such as drilled piers or driven piles) or re-working of the soils (if the layer of liquefiable soil is shallow) shall be employed.
- Ground Settlement: Soil conditions for each project shall be identified through exploratory borings. Soil samples shall be collected from the borings for visual characterization and laboratory testing of density and grain size distribution, void ratios, and other parameters. Where such soils are identified, the condition shall be mitigated by reworking and compacting the soils if they are near the surface. If they are deeper, a drilled pier or driven pile foundation could carry the loads through the weak layers.
- Lurching and ground cracking: For sites where a significant potential for lurching and ground cracking is found to exist, mitigation such as drilled piers or driven piles, reworking of the soils (if the layer of low density soils are shallow), or increased creek bank set backs shall be employed.

55. An engineered site improvement plan for each development phase shall be prepared and submitted with the application for a building permit(s). The engineered site plan shall include the following information:
a. All existing and proposed improvements for on-site conditions.
b. All existing and proposed off-site improvements.

c. The location of all existing and proposed sanitary sewer facilities.
d. The location of all existing and proposed frontage improvements.
e. The location of all existing and proposed utilities.

56. All structures shall be in compliance with Title 18 of the City of San Rafael Municipal Code "Protection of Flood Hazard Areas".

57. In order to insure proper implementation and performance of the geotechnical design for construction on Sisters Creek during construction of Phase II and Phase III, the project geotechinical engineer shall review plans and specifications, inspect all site preparation, over excavation, subgrade preparation, foundation excavations, pier drilling to confirm proper conditions, inspect earthwork preparation, sediment control, water diversion, and construction of any creek bank erosion protection measure required. The geotechnical engineer shall submit a final report stating that construction was in compliance with the engineer's requirements and/or any modifications authorized based on the actual site conditions encountered during construction. This report shall be submitted to the City prior to approval of the final inspection of the work or issuance of a Certificate of Occupancy.

58. Mechanical equipment associated with the Science and Technology building, Residence Hall, Recreation Center and Chapel shall be designed so that the noise generated by this equipment does not exceed 45 dBA at the nearest home. Before approval of a building permit for any new building in the Campus Plan, an acoustical report shall be prepared showing how the noise from the facilities will be controlled.

Police Department

59. The final plans for construction of buildings shall include the following crime prevention measures:
    a. Any window in or within 40 inches of an exterior door shall be stationary and non-removable.
    b. Louvered windows shall not be installed within eight feet of the ground level.
    c. All operable windows within 12 feet of the ground level shall have a secondary lock mounted to the front of the window. The secondary lock shall be a bolt lock and shall be no less than 1/8 inch in thickness. The lock shall have a hardened steel throw of 1/2 inch minimum length.
    d. Delivery doors shall have a viewer that provides a minimum 180 degrees peripheral vision.
    e. Glass on all exterior doors or window glazing within 40 inches of an exterior door shall be break-resistant or glass-like materials to the satisfaction of the Police Department.
    f. In-swinging exterior doors shall have rabbeted jambs. Exterior doors that swing outward shall have non-removal pins.
    g. Exterior jambs for doors shall be constructed or protected to prevent violation of the function of the strike plate from the outside. The strike plate shall be secured to the jamb by a minimum of two screws, which penetrate into the solid backing beyond the jamb.
    h. Metal-framed doors shall be set in metal door jambs. Metal-framed glass door shall have a deadbolt lock with a cylinder guard and a hardened steel throw that is a minimum of one (1) inch in length.

i. All exterior doors shall have a solid core construction with a minimum thickness of 1 3/4 inches or with panels not less than 9/16 inch thick.

j. All permanently fixed ladders leading to roofs shall be fully enclosed with sheet metal to a height of ten (10) feet. The covering shall be locked against the ladder with a casehardened hasp steel shackle, locking at both heel and toe, and have a minimum of five pin tumbler operation.

k. Perimeter walls, fences, trash storage areas, etc., shall be built to limit and/or prevent access to the roof or balconies.

l. Exposed roof vents and ducts shall be grated or constructed of an impact-resistant material to the satisfaction of the Police Department.

Fire Department.

60. All buildings shall comply with the following Uniform Building Code, 1994 edition, sections:

    a. Compliance with UBC Section 1006.14, requiring that one stair be provided to the roof of the building(s), if required. Final determination shall be made by the Fire Marshal before issuance of a building permit.

    b. Compliance with UBC Section 904.5.3, requiring the installation of a standpipe system at all exit stairs. Final determination shall be made by the Fire Marshal at application for building permit.

During Grading and Construction

Fire Department

61. No Parking - Fire Lane signs and curb markings shall be installed for all access roadways, parking lots/structures and driveways, as specified by the Fire Marshal, conforming to Fire Prevention Standard 204.

62. Prior to the installation of all automatic and fixed fire extinguishing and detection systems, a permit application shall be submitted to the Fire Prevention Bureau with two sets of plans for review. Specification sheets for each type of device shall be submitted for review.

63. An automatic fire sprinkler system shall be installed in all buildings and structures, as required by the Uniform Building Code (LTBC), 1994 edition, and Fire Code, 1994 edition, as amended by the City of San Rafael. The system shall conform to NFPA Std. 13.

Community Development Department - Building and Safety Division

64. The Army Corps of Engineers shall be notified of bank stabilization work planned for the project. A brief documentation of the project and a timetable for construction is all that shall be required as long as channel/bank grading were maintained within the Corps' prescribed limits for non-reporting band stabilization projects. This condition shall be implemented for construction during Phases I and IV.

65. During grading and construction of each phase, a Stormwater Pollution Prevention Plan (SWPPP) shall be prepared in accordance with guidelines set forth by the Regional Water Quality Control Board under the General Construction Permit program (all projects of five acres or more). This plan shall include all drainage controls, bank stabilization work, and other water quality mitigations, as well as normal site erosion control measures such as the

seeding and protection of bared soils against raindrop impact and detachment by overland runoff, controls on heavy equipment access and off-stream construction activities during the winter season, vegetated buffers and drainage swales, and isolation and disposal of waste construction materials. In addition, the applicant must complete a Notice of Intent (NOI) and the appropriate fee to the State Water Resources Control Board in Sacramento to obtain an NPDES General Stormwater Permit for the project (required for all project of five acres or more). The SWPPP does not have to be submitted to the RWQCB, however, it must be kept on-site during construction and is subject to review by any Board field inspector. Amendments to the SWPPP can be mandated by the field inspector(s) and sanctions imposed if warranted.

66. The project sponsor shall be responsible for overseeing and/or ensuring that the contractors properly implement the approved construction logistics/staging plan. Signs shall be posted informing workers of restricted hours and fines for violations. Any changes to the plan that are required to address changes in conditions or construction operations shall be approved by the Community Development Director, the Public Works Director, and the Fire Chief.

67. No storage of construction materials is permitted in the public right-of-way, without a City encroachment permit.

68. All earth and foundation work shall be performed under the supervision of the project geotechnical/soils engineer, consistent with the approved soils report/investigation. The project sponsor shall employ the services of a licensed geotechnical engineer (at no cost to the City) to provide appropriate inspections during grading and construction of site improvements.

69. The footings and foundations of the proposed pedestrian bridges shall be designed so as not to disrupt the flow of water in the creeks. Construction shall be planned for the dry season when the creeks are dry. No construction shall occur without meeting permit agreements from the California Department of Fish and Game and the U. S. Army Corps of Engineers. Construction shall also be consistent with the detailed drainage plan prepared by a qualified hydrologist.

70. All on-site roads, structures, and utilities shall be constructed in conformance with City's adopted Uniform Building Code. The applicant's engineer shall identify the seismic coefficients and other design criteria to be used in the final design. All roads and utilities are subject to the review and approval of the City Engineer.

71. In order to reduce fugitive dust emissions from construction activities, contractors shall be required to implement the following measures:
    - All active construction areas shall be watered at least twice daily and more often during windy periods. Active areas adjacent to residences shall be kept damp at all times.
    - All hauling trucks shall be covered or shall maintain at least two feet of freeboard.
    - All unpaved access roads, parking areas and staging areas shall be watered at least twice daily or have non-toxic soil stabilizers applied.

- All paved access roads, parking areas, and staging areas shall be swept daily with water sweepers. Streets shall be swept daily if visible soil material is deposited onto the adjacent roads.
- All inactive construction areas that have been previously graded that are inactive for ten days or more shall be hydroseeded or have no-toxic soil stabilizers applied.
- Exposed stockpiles shall be covered, enclosed or be applied non-toxic soil binders or watered twice daily.
- Speed limits shall be limited on any unpaved roads to 15 mph.
- Vegetation shall be replanted in disturbed areas as soon as grading activities are ceased.
- Any activities that cause visible dust plumes which cannot be controlled by watering shall be suspended.

73. The following mitigation measures shall be required to reduce the project's significant construction noise impacts:
    - All construction activities, including grading, excavating, paving and truck traffic coming to and from the construction site, shall be limited to non-holiday weekdays between 7:30 a.m. and 6:00 p.m.
    - All internal combustion engine-driven equipment used on site shall be fitted with intake and exhaust mufflers which are in good condition. Good mufflers with quieted compressors shall result in all non-impact tools generating a maximum noise level of 85 dB when measured at a distance of 50 feet.
    - Powered construction equipment shall be turned off when not in use.
    - All noise generating construction equipment such as air compressors shall be located as far as practical from existing nearby homes.
    - Wherever possible, quiet construction equipment shall be used, particularly air compressors.
    - Neighbors located within 500 feet of a construction site shall be notified, in writing, of the construction schedule.
    - A Disturbance Coordinator shall be designated for the site. The coordinator shall be hired by the applicant subject to the City's approval, on an on-call basis and paid for by the applicant. The site coordinator shall be responsible for receiving and acting on campus complaints about construction noise when construction activities are occurring on campus. The coordinator shall determine the cause(s) and should implement remedial measures as necessary to alleviate significant noise problems. The telephone number of the coordinator shall be clearly posted on a sign at each construction site.

Community Development Department - Planning Division

74. Construction of the Campus Plan may result in raptor nests being destroyed or abandoned. Any active raptor nests established within the vicinity of proposed grading shall be avoided until young birds are able to leave the nest (fledge) and forage on their own. Avoidance may be accomplished either by scheduling grading and tree removal during the non-nesting period (August 15 through January 14), or if this is not feasible, by conducting a pre-construction survey for raptor nests. Provisions of the pre-construction survey effort, if necessary, shall include the following:

- If grading and tree removal is scheduled during the sensitive nesting period (January 15 through August 14), a qualified wildlife biologist, chosen by the City and paid for by the applicant, shall conduct a pre-grading raptor survey to confirm the presence or absence of active nests in the vicinity of proposed construction activities.
- If raptor nests are encountered, the biologist shall prepare and implement species-specific measures to prevent abandonment of the active nest(s). At a minimum, grading in the vicinity of a nest tree shall be deferred until the young birds have fledged, and a construction-disturbance setback of at least 300 feet shall be provided. Grading or other disturbance in the vicinity of the nests shall not be permitted until the biologist confirms that the young raptors have fledged. The biologist shall submit a survey report to the City before grading in the construction-disturbance setback area is initiated verifying the young have fledged.
- Representatives of the CDFG and USFWS shall be consulted to confirm that the above guidelines are adequate to ensure compliance with the Migratory Bird Treaty Act and provisions of the State Fish and Game Code.

Prior to Completion of a Final Inspection for Building Occupancy

Community Development Department- Building and Safety Division

75. The increase in runoff volume generated during severe rainstorms and its potential impact on floodwater accumulation at 31 and 37 Palm Avenue shall be mitigated by replacing the existing 12-inch storm drain at 37 Palm Avenue. The new storm drain shall possess a slope sufficient to maintain scouring velocities that would minimize the potential for clogging via leaf litter and other debris. The replacement drain shall accommodate the anticipated stormwater runoff from the Palm Avenue corridor, including the stormwater influx from Edwards Court and the contributing area to the storm drain inlets at the intersection of Palm and Olive Avenues (encompassing a watershed area of 27.9 acres). Commonly obstructed storm drain inlets at the Palm/Olive Avenue intersection warrant the inclusion of upslope area runoff, as documented in the EIR supplemental flood assessment. *Since the flooding condition along Palm Avenue is an existing one, the applicant shall be responsible for only that portion of the cost of storm drain replacement that would accrue from increasing the pipe size due to the upslope contribution of runoff from the campus area. Therefore, the City of San Rafael would be responsible for determining the extent of the increase in the required pipe size and any ancillary increases in pipe installation costs. The* City is currently in the process of designing the replacement storm drain at 37 Palm Avenue. The storm drain design shall pay careful attention to the potential for backwater influences, since the open channel running along the backyards on Palm Avenue is narrow and tailwater conditions could affect any piped discharge to the creek. Before construction of Phase II and III, the applicant shall deposit with the City a lump sum payment, sufficient to cover the City's costs associated with the increase in storm drain size and ancillary installation expenses (time and materials) needed to deal with post-project increase in runoff as determined by the City.

76. Prior to the acceptance of all off-site improvements, "as-built" drawings and plans shall be submitted to the City. The "as-builts" shall be accompanied by a letter from the project civil engineer which confirms that the plans reflect the improvements that have been installed. In

addition, "as-built" drawings and plans shall be prepared for all on-site improvements and shall be submitted to the City.

77. As part of Phase I improvements, a sidewalk shall be provided on the south side of Magnolia Avenue along the College's frontage.

78. As part of Phase III improvements, a sidewalk shall be provided along the northwesterly side of Magnolia Avenue or other equivalent pedestrian facilities between the proposed Residence Hall and existing campus facilities.

Community Development Department - Planning Division

79. All landscaping and irrigation for each development phase shall be installed and/or bonded prior to occupancy of that phase. Replacement shall be required for any dead or dying plants.

Fire Department

80. Addresses shall be posted for each building, conforming to Fire Prevention Std. 205 and 205A.

81. A Fire Department approved Knox keyway system is required to be installed, conforming to Fire Prevention Std. 202.

82. A potential exists for the release of very small hazardous substances at the Science and Technology Building. All use of hazardous substances on the campus shall be in compliance with Cal-OSHA and San Rafael Fire Department standards on hazardous materials.

Police Department

83. The Crime Prevention Office may require a final inspection to ensure compliance with security-related requirements.

Post Construction Monitoring

Department of Community Development- Planning Division

84. After the issuance of a certificate of occupancy, all exterior lighting shall be subject to a 30 day lighting level review by the Planning Division and the Police Department to ensure compatibility with the surrounding area and to address adequate security and safety concerns.

Fire Department

85. The alarms installed for the fire detection systems and commercial fire sprinklers shall be monitored by a UL Central Station Company, approved by the San Rafael Fire Department. The alarms/systems shall be issued a UL serially numbered Certificate for Central Station Fire Alarms.

On-going (Throughout Processing and Construction)

86. City staff time required for implementation and monitoring of the Mitigation Monitoring Program/Plan shall be subject to cost recovery fees charged to the project sponsor.

87. All meetings with or inspections by the Fire Department require a minimum 24-hour advance appointment.

88. Water lines serving new development shall be required to meet MMWD's standards, which require a minimum six-inch line.

89. Replacement water lines shall be coordinated with the replacement of sewer lines to reduce the time of street closure.

90. Sewer lines serving new development shall be required to meet the City's sanitary sewer standards.

Fire Department

91. Water lines shall be upgraded to meet minimum fire flow requirements, as per SRFD and Uniform Fire Code standards. This shall be done during grading for each phase to minimize the amount of construction activity in the area.

Police Department

92. Illumination in all parking lots and exterior doorways shall be a minimum of one-foot candle per square foot.

93. All exterior lighting shall be vandal-resistant, and shall be on a master photoelectric cell to operate during hours of darkness.

Expiration Provisions

94. This Environmental and Design Review Permit shall be valid for the construction of the following phases:
    - Provisions of this Environmental and Design Review Permit related to construction of Phase I shall be valid if a building permit has been granted within three years of the effective date of this permit.
    - Provisions of this Environmental and Design Review Permit relating to construction of Phase II shall be valid if a building permit has been granted within seven years of the effective date of this permit.
    - Provisions of this Environmental and Design Review Permit relating to construction of Phase III and IV shall be valid if a building permit has been granted within twelve years of the effective date of this permit.

The applicant can apply for an extension of this time frame subject to the review and approval of the Planning Commission.

Appendix D

Dominican University Master Plant List

PLANT NAME COMMON NAME LOCATION

Dominican University Master Plant List

Revised '08

T = Tree S = Shrub P = Perennial H = Herbacous G = Groundcover V = Vine

	Sci Name	Common	Location	Date Planted	Origin
S	Abelia grandiflora	Glossy Abelia	Bertrand back wall, Edgehill Village		
S	Abelia grandiflora 'Prostrata'	Prostrate Abelia	Edgehill Village	2003	
T	Abies cephalonica	Greek Fir	A H Lawn Orchard		
T	Abies concolor	White Fir	Meadowlands	2005	
T	Abies grandis	Grand Fir	Meadowlands Front, Penn (2)	2006	
T	Abies pinsapo	Spanish Fir	Guzman East Side	Circa 1930	
T	Abies pinsapo glauca	Blue Spanish Fir	Angelico Front - Christmas Tree	Circa 1930	
S	Abutilon	Chinese Bellflower, Flowering Maple	Cal. Back Garden		
T	Acacia baileyana	Bailey's Acacia	Fan. Penn. Hillside		
T	Acacia baileyana purpurea	Purple Bailey's Acacia	Bertrand Back	2006	
T	Acacia melanozylon	Black Acacia	Various		
T	Acer tataricum ginnala 'Flalme'	Amur Maple		2009	
T	Acer griseum	Paperbark Maple	Sci	2008	
T	Acer japonicum 'Acontifolium	Fernleaf Fullmoon Maple	Rec Center - Creekside walk	2006	
T	Acer mactophyllum	Big Leaf Maple	Forest Meadows top of bank	Native	
T	Acer negundo	Box Elder	Grand Ave. at Acacia		
T	Acer palmatum	Japanese Maple	Various		
T	Acer palmatum atropurpureum	Japanese Maple Bloodgood	Cole garden, SCI		
T	Acer palmatum dissectum 'Garnet'	Garnet Japanese Maple	Cole garden- red fine cut leaf		
T	Acer palmatum ' Butterfly'	Butterfly Maple	SCI	2008	Japan
T	Acer palmatum 'Sango Kaku'	Japanese Maple Sango Kaku	Angelico Front	1995	
T	Acer palmatum 'Waterfall'	Japanese Maple	Fan. Courtyard		
T	Acer x freemanii 'Autumn Fantacy'	Autumn Fantacy Maple	Cal.near Creekside Lot		
T	Acer platanoides 'Crimson Sentry'	Norway Maple	SCI	2008	
T	Acer rubrum 'Armstrong'	Collumnar Maple	Bertrand Back	2006	
P	Achillea	Yarrow	Bertrand back wall,		
P	Acorus gramineus	(Jananese Grass)	Meadowlands West		
T	Aesculus californica	California Buckeye	Along creeks		
T	Aesculus carnea	Red Horsechestnut	Library , Caleruega		
P	Agapanthus	Lily of the Nile	Deer eating - some left at Library		
P	Agapanthus africanus 'Tinker Bell'	Verigated Dwarf	2005		
P	Agave	Agave	Donatello		
P	Agave attenuata		SCI		
H	Agave filifera	Thread- Leaf Agave	SCI	2008	Mexico
P	Agave vilmoriniana	Octopus Agave	SCI		
G	Ajuga reptans	Carpet Bugle	Ann Hathaway		
T	Albizia julibrissin	Silk Tree	Meadowlands South	2007	
T	Almond	Almond	Albertus Orchard		
T	Aloe bainsii	Tree Aloe	SCI	2007	S. Africa
S	Aloysia triphylla	Lemon Verbena	Meadowlands-Back stairs, Village Bld 200 near meadow		
S	Alyogyne huegelii	Blue hibiscus	Meadowlands		
P	Amaryllis belladonna	Naked Lady	Meadowlands, Various		
P	Anigozanthos 'Yellow Gem'	Kangaroo Paws	Lib. Front		
H	Anthurium andreanum	Anthurium	SCI	2007	Brazil
V	Antigonon leptopus	Coral Vine	Meadowlands, Cal. Garden		
T	Apple	Apple	Ann Hathaway Lawn		
G	Aptenia cordifolia	Red Apple	Library Back Stump Cal. Front Planter		
P	Aquilegia hybrid	Columbine	Lib. Front		
T	Araucaria bidwillii	Bunya-Bunya	Penn. North		
T	Araucaria heterophylla	Norfolk Island Pine	Penn. North		

	PLANT NAME	COMMON NAME	LOCATION			
T	Arbutus menziesii	Madrone	Forest Meadows back of amphitheater, Uphill			
T	Arbutus unedo	Strawberry Tree	Lib. Back			
T	Archontophoenix cunninghamiana	King Palm	Pool	2005		
S	Arctostaphylos densiflora	Howard McMinn', 'Sentinel'	Rec Center Parking Lot, SCI			
S	Arctostaphylos hookeri	Monterey Manzanita	Rec Center ?			
S	Arctostaphylos Manzanita	Common Manzanita	SCI	2008		
G	Arctotheca calendula	Cape Weed	Mail room south			
T	Arenga engleri	Formosa Palm	SCI	2008	Tiawan	
S	Argyranthemum frutescens	Marguerite Daisy	Lib. Front			
P	Armeria maritima	Common Thrift	Ann Hathaway			
S	Aucuba japonica	Japanese Aucuba	Angelico East side			
T	Azara microphylla	Boxleaf Azara	Back of Library			
	B					
S	Baccharis pilularis	Coyote Brush	Up Hill Land			
S	Bamboo	Bamboo	Guz. Back			
H	Beaucarnea recurvata	Ponytail Palm	SCI	2008	Mexico	
P	Bellis perennis	English Daisy	Campus Lawns, Back of Amphitheater			
S	Berberis darwinii	Darwin Barberry	Meadowland West near creek - oragne flowers			
S	Berberis thunbergii 'Autopurpurea'	Redleafed Japanese Barbarry	Various, Meadowlands Under Pecan, Bertrand back			
P	Berginia crassifolia	Winter Blooming Berginia	Facilities Garden			
T	Betula pendula	European White Birch	NSL Library, Sr. Nic			
T	Betula platyphylla japonica	Dakota White Birch / Dakota Pinnacle	Library	(15) 2006		
P	Bidens	'Goldmarie'	Village,Library			
T	Bismarckia nobilis	Bismark Palm	SCI	2007	Madagascar	
S	Bougainvillea	Bougainvillea	Penn. North			
T	Brahea armata 'Clara'	Blue Hesper Palm	SCI	2007	Mexico	
T	Brahea armata X brandegeei	Blue Mexican Fan Palm	Pool	(3) 2006	Mexico	
T	Brahea brandegeei	San Jose Hesper Palm	**Nursary**		Mexico	
S	Brugmansia	Brugmansia	Village, Laundry Bld.			
S	Brunfelsia pauciflora 'Floribunda'	Yesturday, Today and Tomarrow	Cal. Creekside			
S	Buddleia davidii	Butterfly Bush	Cal. Back Garden, Pool			
T	Butia capitata	Blue Pindo Palm -Feather Palm	SCI	2007	Brazil	
S	Buxus microphylla japonica	Boxwood - 'Green Beauty'	Cal. Circle planter, Meadowlands			
S	Buxus sempervirons 'Suffruticosa'	Boxwood True Dwarf	Magnolia House	2008	Europe	
	C					
S	Callistemon citrinus	Lemon Bottlebrush	Palm Ave Mound			
T	Calocedrus decurrens	Incense cedar	Various, Albertus Magnus			
S	Calycanthus occidentalis	Western Spicebush	Creeks	2008	California	
S	Camellia japonica	Camellia	Ann Hathaway			
P	Canna	Canna	Pool			
G	Carex nudata	Torrent Sedge	Creeks	2008	California	
S	Carpenteria californica 'Elizabeth'	Bush Anemone	Grand & Belle Fence Line,			
T	Carpinus betulus 'Fastigiata'	European Hornbeam	SCI	2008		
T	Carya illinoensis	Pecan	Mailroom			
T	Caryota ochlandra	Chinese Fishtail Palm	SCI	2007	China	
T	Catalpa sp.	Catallpa	Cal. At Creek			
S	Ceanothus 'Julia Phelps'	California Lilac	SCI	2008		
G	Ceanothus griseus horizontalis	Diamond Heights' Variegated	SCI	2008		
S	Ceanothus	Wild Lilac	Creek at Meadowland West			
T	Cedrus atlantica glauca	Blue Atlas Cedar	Angelico Front, Pennefort			
T	Cedrus deodara	Deodar Cedar	Meadowlands Weat			
T	Cedrus libani	Cedar of Lebanon	Cal back on retention basin	2007		
T	Cedrus libani 'pendula'	Weeping Cedar of Lebanon	Penn Patio Project	2006		
P	Cerastium tomentosum	Snow-in-summer	Meadowlads front bead			
T	Ceratonia siliqua	Carob	Brown House, Palm & Olive			

	PLANT NAME	COMMON NAME	LOCATION			
T	Cercis canadensis	Eastern Redbud 'Forest Pansy'	Cole Garden			
T	Cercis occidentalis	Western Redbud	Grand Ave Street trees			
T	Chamaedorea radicalis	Palm	SCI	2007	Mexico	
T	Chamaerops humilis	Mediterranian Fan Palm	SCI	2007	N. Africa	
T	Chamaerops humilis v. cerifera	Moroccan Blue Fan Palm	SCI	2007	N. Africa	
T	Chaenomeles japonica	Japanese Flowering Quince	Meadowlands, Ann Hathaway			
T	Chamaecyparis lawsoniana	Port Orford Cedar - Lawson Cedar	Albertus Magnus Tri.			
T	Chamaecyparis l. 'Oregon Blue'	Oregon Blue Lawson Cedar	Meadowlands South	2007		
T	Chamaecyparis obtusa	Hinoke False Cypress	Rec Center Front trees	2006		
T	Chamaecyparis obtusa 'Cryppsi'	Crypps Golden Cypress	Meadowlands Lawn	2005		
S	Chamaecyparis obtusa 'Gracillis'	Slender Hinoki Cypress	Meadowlands Lawn	2006		
H	Chamaedorea metalica	Metallic Palm	SCI	2007	Mexico	
T	Chamaedorea radicalis	Common Palm	SCI	2007	Mexico	
S	Chamaerops humilis	Mediteranian Fan Palm	SCI , Entrance to pool	2006, 2007	N. Africa	
T	Chamaerops humilis v. cerifera	Mediterranian Blue Fan Palm	SCI	2007	N. Africa	
V	Champsis grandiflora	Chinese Trumpet Creeper	San Marco Kiln			
T	Chiltalpa taskentensis	Pink Dawn	SCI	2008		
P	Cheiranthus cheiri ?????	Wall Flower	Cal. Circle planter,			
S	Choisya ternata	Mexican Orange	Lib. Front, Fan.			
T	Chorisia speciosa	Floss-silk Tree	SCI ;, Pool	2007	Brazil	
S	Chrysanthemum frutescens	Marguerite	Rec. Cen, Front			
P	Chrysanthemum maximum	Shasta Daisy	Library Front			
P	Chrysanthemum parthenium	Fever Few	NSL Front			
P	Chrysanthemum ptarmiciflorum	Dusty Miller	Cal Front			
T	Cinnamomum camphora	Camphor Tree	Facilities and Chapel Area			
S	Cistus purpureus	Orchid Spot Rockrose	Grand Ave South Sign			
T	Citrus	Lemon Tree	Caleruega Front and Back			
V	Clytostoma callistegioides ????	Violet Trumpet Vine	San Marco Kiln			
S	Cocculus laurifolius	Laurel Leaf Cocculus	Cal. Creekside			
S	Coleonema 'Gold Sunset'	Coleonema	Lib. Front			
S	Coleonema pulchrum	Pink Breath of Heaven	Guzman West side			
P	Coleus hybrids	Coleus	Annuals - Annn Hathaway			
P	Coprosma kirkii	Coprosma	Grand Ave South Ground Cover			
T	Cordyline australis	Cordyline	Meadowlands, Angelico, Library Bridge			
T	Cordyline bauerii		SCI	2007	New Zealand	
T	Cornus angustata	Chinese Evergreen Dogwood				
T	Cornus florida	Flowering Dogwood	Guzman West, Meadowland Front Lawn-'Aurora'	2000		
T	Cornus florida 'Cherokee Chief'	Dogwood Cherokee Chief	Bertrand back	2006		
T	Cornus nuttallii	Pacific Dogwood	Creeks	2008	California	
S	Cornus sericea occidentalis	Creek Dogwood	Creeks	2008	California	
T	Cornus stolonifera	Redtwig Dogwood	Bertrand back	2006		
S	Correa alba	Australian Fuchsia White	Nursing Skills Lab			
S	Correa 'Carmine Bells'	Australian Fuchsia Red	Library North side			
T	Cotinus coggygria	Smoke Tree	Cal. At street			
S	Cotoneaster	Cotoneaster	Throughout			
T	Crataegus	Hawthorn	Cal. Shield Room Planter			
S	Crateagus douglassii	Black Hawthorn	Albertus triangle			
T	Cryptomeria japonica 'Elegans'	Japanese Plume Cedar	Amphitheater mound, Fanjeaux, Meadowlands	2006		
H	Ctenanthe	Red Ctenanthe	SCI	2007	Brazil	
T	Cupressocyparis leylandii	Leyland Cypress	Cal. Retension Basin	2007	Hybrid Eng.	
T	Cupressus glabra 'Limelight'	Limelight cypress	Meadowlands	2006		
T	Cupressus macrocarpa	Monterey Cypress	Sr. Nicholas Garden, Rhodo Dell, near Champhor			
T	Cupressus sempervirens	Italian Cypress	Guzman back steps			
T	Cyathea cooperi	Australian Tree Fern	SCI	2007	Australia	
S	Cycas revoluta	Sago Palm	Pool, SCI	2005, 2007	Japan	
S	Cyprus Papyrus	Paper grass	SCI	2008		

	PLANT NAME	COMMON NAME	LOCATION		
P	Cyrtomium falcatum/rochfordian	Holy Fern	San Marco, Cole Garden		
	D				
S	Daphne odora 'Marginata'	Winter Daphne	Meadowlands, Ann Hathaway, Library Front, Bertrand back		
S	Dasylirion longissima	Mex. Plant Grass,Toothless spoon	SCI 2007		
S	Dasylirion longissima x wheeleri		SCI 2007		
S	Dasylirion wheeleri	Desert Spoon	SCI 2007		
P	Delphimium cultorum	Delphimium			
T	Dicksonia antarctica	Tasmanian Tree Fern	SCI, Cal. Creekside Patio		
P	Dierama	Fairy Wand	Bertrand Back 2006		
S	Dietes	Fortnight Lily	Angelico, Acacia side		
V	Distictis buccinatoria	Blood Red Trumpet Vine	Cal. South Lawn. On pole.		
S	Dodonaea viscosa 'Purpurea'	Purple Hopseed Bush	Meadowlands - Palm Ave.		
	E				
P	Echinacea purpurea	Purple Cone Flower	Cal. Back Garden		
S	Echium fastuosum	Pride of Madeira	Bertrand		
S	Eleagnus pungens 'Marginata'	Silverberry	Cole Garden, Penn. Front entrance		
P	Endymion	Wood Hyacinth	Cal. Planter		
S	Enkianthus campanulatus	Enkianthus	Caleruega Magnolia hedge		
S	Equisetum hyemale	Horse tail	SCI 2008		
T	Eriobotrya japonica	Loquat	Nursing Skills Lab, Back		
P	Erysium hieraciifolium	Siberian Wallflower	Cal. Circle Planter		
T	Erythrina crista galli	Cockspur Coral Tree	SCI 2007	Brazil	
T	Eucalyptus globulus	Blue Gum	Cal. Front Lawn.Smaller tree		
T	Eucalyptus sideroxylon	Iron Bark	Cal. Creekside Patio		
T	Eucalyptus viminalis	Manna Gum	Cal. Front Lawn. Big Tree		
S	Euonymus alta 'Compacta'	Winged Euonymus	???? Wanted or have???		
S	Euryops pectinatus 'Viridis'	Euryops	Throughout		
	F				
T	Fagus asplenifolia	Fern leaf Beech	Tennis Courts		
T	Fagus sylvatica	European Beech	Meadowlands Lawn		
T	Fagus sylvatica 'Artopunicea'	Copper Beech	Meadowlands Lawn 2006		
S	Fatsia japonica varigata	Varigated Japanese Aralia	Japan		
T	Feijoa sellowiana	Pineapple Guava	Hill at back of Fanjeaux Laundry room		
G	Festuca glauca	Blue Festuca	SCI 2008		
T	Ficus carica	Edible Fig	San Marco, Guzman, Albrtus Orchard		
T	Ficus macrophylla	Moreton Bay Fig	SCI 2007	Australia	
V	Ficus pumila	Creeping Fig	Library Patio		
S	Fothergilla monticola	Fothergilla	San Marco Triangle		
T	Fraxinus oxycarpa 'Raywood'	Raywood Ash	Grand Ave.,Meadowlands near Palm		
T	Fraxinus velutina 'Modesto'	Modesto Ash	Angelico, Back at Acacia		
T	Fremontodendron californicum	Common Flannel Bush	Guzman Gazebo, at Bridge		
	G				
S	Gaura lindheimeri	Gaura	Bertrand Back Planter		
V	Gelsemium sempervirens	Carolina Jessamine	Penn. Breezeway, Grand Ave North on fence		
T	Ginkgo biloba	Ginkgo	Guzman, Angelico Parking Lot, San Marco @ sculpture		
T	Grevilla robusta	Silk Oak	South of Meadowlands		
S	Grevillea 'Canberra'	Grevillea	Behind N. Sign		
S	Grewia occidentalis	Lavender Starflower	Cal. Garden		
P	Gunnera	Gunnera	Rhodo. Dell		
	H				
V	Hardenbergia	Lillac Vine	Cal. Garden, Meadowlands steps		
S	Hebe odora	Box leaf Hebe	Cal Garden		
V	Hedera canariensis	Algerian Ivy	NSL		
S	Hedychium gardnerianum	Kahili Ginger	SCI 2007		
P	Hemerocallis	Day Lilly	Poets Garden		
H	Hesperaloe parviflora	Red Yucca	S.W.U.S.		

	PLANT NAME	COMMON NAME	LOCATION		
S	Heteromeles arbutifolia	Toyon	Rec Center Parking lot, Grand & Belle Fence Line		
P	Heuchera 'Shenandoah Mountain'	Coral Bells	Lib. Front - Dark Leaf		
S	Hibiscus syriacus	Shrub Althea	Albertus Magnus		
S	Holodiscus discolor	Creambush	Creeks 2008	California	
P	Hosta	Plantain lily	Cole Garden, Penn. Front entrance		
G	Houttuynia cordata	Houttuynia	Meadowlands at white door		
T	Howea forsterana	Kentia Palm	SCI 2007	S. Pacific	
S	Hydrangea quercifolia	Oakleaf Hydrangea	2005		
T	Hyophorbe lagenicaulis	Bottle Palm	Mascarenes - Round Island		
G	Hypericum	St. Johnswort	Albertus Magnus		
S	Hypericum moseranum	Gold Flower	Village		
	I				
T	Ilex aquifolium	English Holly	Guzman Triangle		
G	Imperata cylindrica 'Rubra'	Japanese Blood Grass	SCI 2008		
	J				
T	Jacaranda mimosifolia	Jacaranda	Penn. Fan. Drive		
V	Jasminum grandifolium	Spanish Jasmine	Village, Guz. Gazebo		
S	Jasminum nesnyi	Primrose Jasmine	San Marco		
S	Juniperus procumbens	Junipers	Cole Garden		
	K				
H	Kalanchoe beharensis	Velvet elephant ear, Felt Plant	Madagascar		
P	Kniphofia uvaria	Red-Hot Poker	San Marco		
T	Koelreteria bipinnata	Chinese Flame Tree	Meadowlands Lawn 2006		
	L				
T	Lagerstromia indica	Crape Myrtle	Cal. Garden, Ann Hath Lawn, Bertrand		
T	Lagerstromia indica 'Twilight'	Crape Myrtle 'Twilight'	226 Magnolia - Corner of Parking lot 2008		
S	Lantana 'Irene'	Lantana Yellow	Lib. Front		
G	Lapeirousia laxa	Red Flowerd Grass	Ann Hathaway		
T	Laurus nobilis	Sweet Bay, Grecian Laurel	Library, Back of N. Sign		
S	Lavandula	Lavender	Throughout		
G	Lavatera	Tree Mallow 'Bi color'	Rec Center, Pool walk		
T	Lepidozamia peroffskyana	Cycad - Scaly Zamia	SCI 2007	Australia	
S	Leptospermum scoparium	New Zealand Tea Tree	Village, Bertrand, Guz Tri. - Narrow leaf		
G	Ligularia		SCI 2007		
S	Ligustrum japonicum	Wax Leaf Privet	Guzman, Throughout		
S	Ligustrum ovalifolium	California Privet	Throughout		
T	Liquidamber styraciflua	American Sweet Gum	Throughout		
T	Liriodendron tulipifera	Tuliip Tree	Ann Hathaway Lawn 2005		
P	Lithodora diffusa	Grace Ward	Cal. Planter		
T	Livistona australis	Australian Fan Palm	Meadowlands South 2008	Australia	
G	Lonicera hispidula	Honeysuckle	Creeks 2008	California	
S	Loropetalum chinense	Loropetalum	Angelico Planter		
S	Loropetalum chinense 'Razzelberri'	Razzelberry Loropetalum	Bertrand Back 2006		
	M				
T	Macrozamia communis	Burraqang Cycad	SCI 2007	Australia	
T	Magnolia 'Butterflies'		2009		
T	Magnolia grandiflora	Southern Magnolia	Throughout		
T	Magnolia grandifolia 'Little Gem'	Magnolia	Library walk @ Acacia		
T	Magnolia soulangiana	Saucer Magnolia	Library		
T	Magnolia stellata 'Royal Star'	Royal Star Magnolia	Bertrand Back 2006, Penn Patio 2007 SCI 2008		
T	Magnolia tripedata				
T	Magnolia 'Yellow Bird'				
S	Mahonia aquifolium	Oregon Grape	Village, Amphitheater Restroom		
T	Malus floribunda	Crabapple	Meadowlands (5) 2006		
?	Markhamia insignis	????????????????????????????????	SCI 2007	?	
T	Maytenus boria 'Green Showers'	Mayten tree	Caleruega Back Garden, Guzman		

	PLANT NAME	COMMON NAME	LOCATION		
T	Metasequoia glyptostroboides	Dawn Redwood	Meadolands, Ann Hath. Lawn		
S	Miscanthus sinensis	Silver grass	SCI 2008		
T	Morus	Mulberry	Meadowlands, Bertrand		
T	Musa paradisica	Banana	SCI 2007	Asia	
T	Musa sumatrana zebrina	Red Banana	Pool 2005		
S	Myoporum laetum	Myoporum 'Carsonii'	Village		
S	Myrica californica	Pacific wax Myrtle	Rec Center Grand Ave & Angelico Parking lot		
S	Myrtus communis	True Myrtle	Albetrus Magnus, Lib. Back		
	N				
S	Nandina domestica	Heavenly Bamboo	Donatello, Bertrand		
P	Nephrolepis cordifolia	Southern Sword Fern	Creekside		
S	Nerium oleander	Oleander	Albertus Magnus		
T	Nyssa sylvatica	Sour Gum, Tupelo	San Marco Triangle		
	O				
G	Oenothera	Evening Primrose	Cal. Graden		
T	Olea europaia	Olive	Grand Ave		
S	Osmanthus heterophyllus	Holly Leaf Osmanthus	Angelico Hedge, NSL, Cal Parking Lot		
P	Osteospermum	African Daisy	Grand Ave		
	P				
T	Pajaro gigante del paraiso	White Giant Bird of Paradise	Pool		
T	Parajubea cocoides	Coconut Palm	SCI 2007	Brazil	
T	Parrotia persica	Persian Parrotia	Guzman West Lawn 2006	Persia	
V	Parthenocissus Quinquenivera	Virgina Creeper	SCI 2008		
V	Parthenocissus tricuspidata	Boston Ivy	Guzman and Fanjeaux building vines		
V	Passiflora alatocaerulea	Passion Vine	Cal. Garden Fence		
V	Passiflora alatocaerulea 'Coral Seas'	Coral Seas Passion Flower	Pool 2005		
T	Paulownia kawakami	Sapphire Dragon	Cal. Front Planter, Library, Pool		
S	Penstemon 'Garnet'	Penstimon	Lib. Front		
S	Penstemon gloxinoides spp.	Penstimon	Bertrand back 2006		
T	Persimmon	Persimmon	Albertus Mag, and Cal Garden		
T	Phoenix canariensis	Canary Island Date Palm	Throughout		
T	Phoenix reclinata	Senegal Date Palm	SCI 2007	Africa	
T	Phoenix roebelenii	Pygmy Date Palm	Pool, SCI 2005, 2007	Laos	
T	Phoenix rupicola	Cliff Date Palm	**Nursary**	India	
T	Phoenix sylvestris	Silver Date Palm	**Nursary**	India	
S	Phormium tenax	New Zealand Flax	Pool, Penn Parking		
T	Photinia serrulata	Chinese Photinia	Cal . Creekside		
S	Phyllostachys nigra	Black Bamboo	Pool 2005		
S	Physocarpus capitatus	Ninebark	Creeks 2008	California	
S	Picea abies 'Pendula'	Norway Spruce Weeping Dwarf	Penn Patio Project 2006		
S	Picea abies 'Sherwoodii'	Norway Spruce Dwarf	Penn Patio Project 2006		
T	Picea excelsa 'Pendula'	Weeping Norway Spruce	Penn Patio Project 2006		
T	Picea pungens 'Glauca'	Colorado Blue Spruce	Fan. Front		
S	Pieris japonica	Lily of the Valley Shrub	Sr. Nicholas Garden		
T	Pinus canariensis	Canary Island Pine	Village		
T	Pinus mugo mugo	Mugho Pine	Penn. North Patio		
T	Pinus radiata	Monterey Pine	Albetrus Magnus, Cole Garden at Roses		
T	Pinus sabiniana	Digger Pine	Fan. Back between driveways		
T	Pinus strobaformis glauca	South West White Pine - Blue Form	SCI 5 2007	New Mexico	
T	Pinus thembergiana 'Thunderhead'	Dwarf Japanese Black Pine	Bertrand back 2006		
T	Pistacia chinensis	Chinese Pistache	Lib. Front and Back, Bertrand Mag. Side, Cole Garden		
T	Pittosporum tenuifolium	Pittosporum	Albertus Magnus near creek		
T	Pittosporum undulatum	Victorian Boxwood	Albertus Magnus East neat drain		
T	Platanus acerifolia 'Yarwood'	London Plane Tree	Rec Center Front trees		
S	Plumbago ariculata	Cape Plumbago	Rec Center Pool, Village		

	PLANT NAME	COMMON NAME	LOCATION		
T	Podocarpus gracilior	Fern Pine	Rhodo Dell		
T	Podocarpus macrophyllus maki	Shrubby Yew Piine	Angelico Acacia side		
G	Polystichum munitum	Weatern Sword Fern	Cole Garden, Creeks 2008	California	
T	Populus nigra italica	Lombardy Poplar	Fanj. & Facilities		
T	Pritchardia hillebrandii	Fan Palm	**WANTED**	Molokai	
T	Prunus cerasifera 'Krauter Vesuvius'	Flowering Plum	Village Bld 200,500 Olive Ave 2007		
T	Prunus cerasifera 'Thundercloud'	Flowering Plum	Village- Bld 100		
S	Prunus laurocerasus	English laurel	Albertus Minor		
S	Prunus lusitanica	Portugese Laurel	Lib. Back, Guz East		
T	Prunus serrulata 'Shogetsu'	Shogetsu Flowering Cherry	Library lawn -'Dedicated'		
T	Prunus serrulata 'Kwanzan'	Kwansan Flowering Cherry	Bertrand Back 2006		
T	Prunus subhirtella pendula	Weeping Cherry	Cal Garden		
T	Prunus yedoensis	Flowering Cherry	Village Meadow		
T	Punica granatum	Pomegranate	Guz. Triangle		
S	Pyracantha coccinea	Fire Thorn	Brown House		
T	Pyrus calleryana 'Chanticleer'	Flowering Pear	Bertrand Back 2006		
T	Pyrus communis	Pear	Bertrand, Cal Garden, A. H. Lawn		
	Q				
T	Quercus agrifolia	California Live Oak	Rec Center Parking Lot, Rhodo Dell, Grand & Belle Plantings		
T	Quercus coccinea	Scarlet Oak	Meadowlands at bridge.		
T	Quercus douglasii	Blue Oak	San Marco / Library walk		
T	Quercus kelloggii	California Black Oak	Forest Meadows, Grand Ave N. Of creek, SW corner of Park Lot		
T	Quercus lobata	California White Oak, Valley Oak	Grand & Belle Plantings, Guz. Gazebo		
T	Quercus rubra ???	Red Oak	Lib. Back		
T	Quercus suber	Cork Oak	San Marco Triangle		
T	Quercus wislizenii	Interior Live Oak	Meadowland west creekside		
T	Quince	Fruiting Quince	Meadowlands West		
	R				
T	Ravenea rivularis	Magjesty Palm	Pool 2005		
S	Rhamnus californica	Coffee Berry	Grand & Belle Fence Line, Palm Ave Mound		
S	Rhapidophyllum hystrix	Needle Palm	SCI 2008		
T	Rhapis excelsa	Lady Palm	SCI 2007	China	
S	Rhododendron sp.	Rhododendron sp.	Ann Hathaway, Albertus Rhodo Dell		
S	Rhododendron occidentale	Western Azalea	Creeks 2008	California	
T	Rhopalostylis baueri "cheesemanii"	Kermadec Nikau Palm	SCI 2007	New Zealand	
T	Rhopalostylis sapida	Nikau Palm, Feather Duster Palm	SCI 2007	New Zealand	
T	Rhus lancea	African Sumac	Cal. Creekside in creek.		
S	Ribes sanquinuim	Red flowering Current	Creeks 2008	California	
S	Ribes sanquinuim var. Glutinosum	Pink flowering Current	Rec Center Creek side walk		
S	Ricinus communis	Castor Bean	Albertus Magnus 2007	Africa, Asia	
T	Robinea ambigua Idahoensis	Idaho Locust (Pink)	SCI 2008		
T	Robinia psuedoacacia 'Frisia'	Friaia Black Locust	2009		
S	Romneya coulteri	Matilija Poppy	Rec Center Creek side walk		
T	Rhopalostylis baueri "cheesemanii"	Kermadec Nikau Palm	SCI 2007	New Zealand	
T	Rhopalostylis sapida	Feather Duster Palm	Pool 2008	New Zealand	
S	Rosa Banksiae	Lady Bank's Rose	Rec Center Pool & Meadowlands		
S	Rosa Californica	California Rose	Creeks 2008	California	
	Rosemarinus officinalis	Rosemary	SCI 2008		
	S				
S	Sarcococca rucifolia	Sarcococca	NSL		
T	Sabal bermudana	Bermuda Palmetto, Fan Palm	**Nursary**	Bermuda	
T	Sabal Dominguensis	Dominican Palmetto	Pool 2005		
T	Sabal Louisiana	Louisianna Palmetto	SCI 2007	Louisiana	
T	Sabal Mexicana	Rio Grande Palmetto	Pool 2005		
T	Sabal minor	Dwarf Palmetto	SCI 2007		
T	Sabal Texana	Texas Palmetto	Pool 2005		

	PLANT NAME	COMMON NAME	LOCATION		
T	Sapim sebiferm	Chinese Tallow Tree	Bertrand Front 2006		
P	Scabiosa	Pincushion flower	Lib. Front		
T	Schinus molle	California Pepper Tree	2006		
T	Sequoia sempervirens	Coast Redwood 'Simpson Silver'	Between Tennis Courts and Belle Ave.		
T	Sequoia sempervirens 'Aptos Blue'	Coast Redwood	Rec Center Grand Avebehind N. Gateway sign- Mead, old gate		
T	Sequoia sempervirens 'Soquel'	Coast Redwood	Coleman Fence line,- Mead, old gate		
T	Sequoiadendron giganteum	Giant Sequoia	Meadowlands, Albertus, An Hath		
S	Sollya heterophylla	Aust. Bluebell Creeper	San Marco Triangle		
S	Spiraea bumalda 'Anthonty Waterer'	Spirea	San Marco Triangle		
S	Spiraea bumalda 'Goldflame'	Spirea	Lib. Front		
S	Spiraea prunifolia	Bridal Wreath			
T	Stewartia	Stewartia	Cole Garden		
T	Syagrus romanzoffiana	Queen Palm	Pool 2005		
S	Symphoricarpos albus 'Laevigatus'	White Snowberry	Rec Center Creek side walk & (Creeks of '08) 2005		
S	Symphoricarpos orbiculatus	Snowberry 'Magic Berry'	Magnolia House 8		
S	Syringa vulgaris	Lilac	Brown House		
T	Syzygium paniculatum	Eugenea myrtifolia, Brush Cherry	Meadowlands, Albertus Magnus, Penn.		
	T				
S	Tamarix	Tamarix	Brown House		
T	Taxus baccata 'Stricta'	Irish Yew	Meadowlands at White Door, Bertrand front		
S	Taxus cuspidata	Japanese Yew	Angelico lawn creekside		
S	Tecomaria capensis	Cape Honeysuckle	Library lower triangle		
T	Thuja plicata 'Viresence'	Western Red Cedar	Meadowlands Lawn 2006		
S	Tibouchina urvilleana	Princess Flower	San Marco		
T	Tila cordata	Little leaf Linden	Library on Palm Ave.		
T	Tilia americana	American Linden, Basswood	Meadowlands West near creek		
V	Trachelospermum jasminoides	Star Jasmine	Cal. Walls		
T	Trachycarpus takil	Kumaon Fan Palm	SCI 2007	India	
T	Trachycarpus wagnerianus	Dwarf Chusan Palm	SCI (3) 2007	China	
T	Tristania laurina	Tristania	Village walkway 2003		
T	Trithrinax acanthocoma	Spiny Fiber Palm	SCI 2007	Brazil	
T	Tubidanthus calyptratus	Umbrella Tree, Australian Schefflera	SCI 2007		
	U				
T	Ulmus americana	American Elm	Acacia at Guzman, Magnolia at Cal.		
T	Ulmus glabra	Scotch Elm	Meadowlands West - In lawn South of roses		
T	Ulmus parvifolia 'Drake'	Chinese Elm	SCI 2008		
	V				
G	Verbena hybrida	Verbina 'Tapien'	Lib. Front		
S	Viburnum opulus "Roseum'	White Snowball	Meadowlands Girl and Dog		
S	Viburnum plicatum 'Mareisii'	Doublefile viburnum	Meadowlands 2006		
S	Viburnum plicatum tomentosum	Shasta'	2009		
S	Viburnum suspensum	Sandankwa Viburnum	Bertrand Front		
G	Vinca major	Periwinkle	In creeks		
G	Vinca minor	Dwarf Periwinkle	Ann Hathaway creekside garden		
V	Vitus californica	California Grape	Grand & Belle Fence line		
H	Vriessia imperialis	Bromeliad	SCI 2007	Brazil	
	W				
T	Washingtonia robusta	Washington Palm,	Pool 2005		
S	Watsonia	Watsonia	Library back, Rec Center, Cal planter		
S	Westringia rosmariniformis	Coast Rosemary	Edgehill Village, SCI parking lot 2008	Australia	
V	Wisteria sinensis	Chinese Wisteria	Rec Center Trellis 1999		
T	Wodyetia bifurcata	Foxtail Palm	SCI 2007	Queensland	
T	Wollemi nobilis	Wollemi Pine	Brown House 2008		
P	Woodwardia fimbriata	Giant Chain Fern	Cole Garden		
S	Xylosma congestum	Shiny Xylosma	Cal. Near Creekside Patio		
	Y				

	PLANT NAME	COMMON NAME	LOCATION		
	Z				
P	Zamiculas	ZZ plant	SCI 2008		
P	Zantedeschia	Calla lilly	Throughout		
S	Zauschneria	California fushia	Cal Garden.		
	Zingiber officinale	Ginger	Pale yellow		
P	hakonechloa macra	japanese forest grass			

Appendix E

Cultural Resources Correspondence

BMT Designers & Planners

BMT Designers & Planners Inc
2120 Washington Blvd, Suite 200
Arlington, VA 22204, United States

Tel: +1 703 920 7070
Fax: +1 703 920 7177
www.dandp.com

August 31, 2009

Office of Historic Preservation
California Department of Parks and Recreation
Attention: Milford Wayne Donaldson
1416 9th Street, Rm 1442-7
Sacramento, CA 95814

Re: Environmental Review Request

Dear Mr. Donaldson,

On behalf of the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), and Dominican University, California, BMT is conducting an Environmental Assessment for the National Ornamental Research Facilities (NORF-DU) located on Dominican University campus, San Rafael, California. Dominican University is located at 50 Acacia Avenue, San Rafael, Marin County, California. NORF-DU is a two part facility with one research nursery site located on the east end of the campus (Upper Deer Park) and the other research nursery site located on the west end (Forest Meadows). For your reference, a 7.5 Minute Topographic Map depicting the campus and the locations of the two nursery facility sites as well as a campus site map are included as Figures 1 and 2, respectively.

Dominican University of California is an independent university of Catholic heritage nestled on 80 wooded acres in San Rafael, (Marin County), California, 12 miles north of the Golden Gate Bridge. Two separate NORF nursery facilities with the same mission are planned for the campus, Upper Deer Park and Forest Meadows. The site of the Upper Deer Park Facility is located east of the heart of the campus. The Forest Meadows location will be built on an existing nursery site west of the heart of the campus, and approximately .75 miles from the Upper Deer Park site.

BMT is hereby requesting a historical review to identify if there are any sites, or locations of historical significance or any structures eligible for listing on the National Register of Historic Places on or within the vicinity of, the Dominican University Campus. If you need more information on Dominican University or the NORF-DU proposed project or have any questions, please contact me via email at mwegener@dandp.com or via telephone at (703) 920-7070. Thank you in advance for your help.

Respectfully,

Michelle Wegener
Environmental Specialist

Appendix F

Biological Correspondence

BMT Designers & Planners

BMT Designers & Planners Inc
2120 Washington Blvd, Suite 200
Arlington, VA 22204, United States

Tel: +1 703 920 7070
Fax: +1 703 920 7177
www.dandp.com

August 31, 2009

California Department of Fish and Game
1416 9th Street, 12th Floor
Sacramento, CA 95814

Re: Environmental Review Request

To whom it may concern,

On behalf of the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), and Dominican University, California, BMT is conducting an Environmental Assessment for the National Ornamental Research Facilities (NORF-DU) located on Dominican University campus, San Rafael, California. Dominican University is located at 50 Acacia Avenue, San Rafael, Marin County, California. NORF-DU is a two part facility with one research nursery site located on the east end of the campus (Upper Deer Park) and the other research nursery site located on the west end. For your reference, a 7.5 Minute Topographic Map depicting the campus and the locations of the two nursery facility sites as well as a campus map are included as Figures 1 and 2, respectively.

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BMT is hereby requesting an environmental review to identify any known rare, threatened, or endangered species and habitats at, or within the vicinity of, the Dominican University Campus. If you need more information on Dominican University or the NORF-DU proposed project or have any questions, please contact me via email at mwegener@dandp.com or via telephone at (703) 920-7070. Thank you in advance for your help.

Respectfully,

Michelle Wegener
Environmental Specialist

BMT Designers & Planners

BMT Designers & Planners Inc
2120 Washington Blvd, Suite 200
Arlington, VA 22204, United States

Tel: +1 703 920 7070
Fax: +1 703 920 7177
www.dandp.com

August 31, 2009

U.S. Fish and Wildlife Service
2800 Cottage Way
Sacramento, CA 95825

Re: Environmental Review Request

To Whom It May Concern:

On behalf of the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), and Dominican University, California, BMT is conducting an Environmental Assessment for the National Ornamental Research Facilities (NORF-DU) located on Dominican University campus, San Rafael, California. Dominican University is located at 50 Acacia Avenue, San Rafael, Marin County, California. NORF-DU is a two part facility with one research nursery site located on the east end of the campus (Upper Deer Park) and the other research nursery site located on the west end. For your reference, a 7.5 Minute Topographic Map depicting the campus and the locations of the two nursery facility sites as well as a campus map are included as Figures 1 and 2, respectively.

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Respectfully,

Michelle Wegener
Environmental Specialist

Appendix G

Zoning Approvals from the City of San Rafael

CITY OF San Rafael

Mayor
Albert J. Boro

Council Members
Greg Brockbank
Damon Connolly
Barbara Heller
Cyr N. Miller

October 16, 2009

Michael Henkes
Associate Director of Facility Services
Dominican University of California
50 Acacia Avenue
San Rafael, CA 94901

RE: Master Use Permit Determination; Portion of Forest Meadows on the Dominican University Campus as a National Ornamentals Research Site 1425 Grand Avenue (APN: 015-141-02)

Dear Mr. Henkes:

Thank you for your request for a determination as to whether using a portion of Forest Meadows, on the Dominican University campus, as a National Ornamentals Research Site (NORS) is consistent with the existing Master Use Permit (File No. UP97-045) approvals. When the Master Use Permit was approved by the City Council on August 17, 1998, it primarily provided a 'blueprint' for future development and land uses of the Dominican University campus. For the Forest Meadows area of the campus (approximately 21.5 acres in size and located between Grand, Belle and Watt Avenues), the Master Use Permit approved an expansion of the existing recreational facilities, outdoor amphitheater and a new, 90-stall, parking lot. The Master Use Permit also permits ancillary outdoor storage and temporary buildings in Forest Meadows. Hours of operation are allowed 24-hours a day, seven days a week, as needed.

Based on attached proposal (Exhibit 1), dated September 8, 2009, the NORS will expand a temporary holding site, approximately .25 acres total, for ornamental nursery plants, for the purpose of performing pest and disease studies on nursery stock in a controlled outdoor environment. The NORS will be covered with shade cloth and secured with perimeter fencing, setback 50' from Black Canyon Creek. This area is already served with utilities, though a special drainage system is proposed to collect runoff from the site for special study. A small, 'Tuff Shed"-type structure is proposed to provide temporary office and storage space. Minimum removal of existing site plantings, including some small trees, is proposed. The proposed duration of the NORS is tentatively set for June 30, 2013. After construction, traffic to the site will limited primarily to research visits up to six times a year for up to three day periods, though daily inspections will be performed by campus maintenance using small, electric golf cart-type vehicles. Larger trucks will occasionally, on a monthly basis or less, deliver materials to the site.

The City has determined that the NORS, as proposed in the attached Exhibit 1, is consistent with the allowable uses for the Forest Meadows area on the Dominican University campus by the Master Use Permit (UP97-045). Staff has determined that the proposed outdoor plant nursery facilities use is in 'substantial conformance' with the allowable outdoor storage uses for Forest Meadows, in that: 1) the Master Use Permit does not differentiate *types* of outdoor storage allowed at Forest Meadows and the outdoor storage of plants is a common practice for a University campus with an in-house grounds maintenance operations; and 2) the conducting of outside research is a common practice for a University campus offering a variety of science-based curriculums like Dominican University. Additionally, staff notes that the NORS will provide a 50' creek setback, which is the uniform buffer distance between new development and existing streets and creeks under the Master Use Permit.

Please note that it is the responsibility of Dominican University to obtain all necessary permit approvals, and pay all associated fees, from any required City departments and non-City agencies for the expansion and operation of the proposed NORS at Forest Meadows. Any modification, addition or change of operation or use to the proposed NORS at Forest Meadows shall require prior review and approval by the Community Development Department, Planning Division. Please be advised that the operation of the NORS at Forest Meadows shall comply with the Master Use Permit at all times. This determination does not approve signage for the NORS at Forest Meadows.

Should you have any questions please do not hesitate to contact me at (415) 458-5048 or steve.stafford@cityofsanrafael.org.

Sincerely,

Steve Stafford
CITY OF SAN RAFAEL
Associate Planner

Enc. Exhibit 1 (NORS proposal, Dated September 8, 2009)

cc: Michelle Wegener; BMT Designers & Planners, Inc.; 2120 Washington Blvd., Suite 200; Arlington, VA 22204

Steve Stafford
City of San Rafael

Sept. 8,2009

Proposal: Dominican University of California proposes to expand a temporary holding site for ornamental nursery plants.

The purpose of this expansion supports our intention of increasing research in the nursery. This will be a secure site modeled to reflect a simulated nursery for the purpose of performing pest and disease studies on nursery stock in a "real world" environment while ensuring high level safeguards to reduce the possibility of the escape of pathogens and pests. Research scientists from the national and international community will be encouraged to submit proposals for work at this site. This site will provide (1) valuable data that will aid in reducing the long range spread of plant pests and pathogens through infested nursery stock shipments, (2) validation of established and development of new Best Management Practices for nursery stock production, (3) new treatment or remediation options for soil, water and plant materials to exclude, contain and eradicate plant pathogens and pests, (4) valuable data on new and emerging pests and pathogens on ornamentals, and (5) provide outreach through reporting results of studies and by engaging students in the research activities.

Location of Nursery: This site is located at the West edge of Forest Meadows. Black Canyon Creek is approximately fifty feet south of the site. Our property line with Coleman School is between twenty and thirty feet west of the site.

The Forest Meadows site has been designated as the Phase I short-term location. The Forest Meadows Site is a level area with an established nursery. Therefore, establishment of the Forest Meadows site is expected to proceed quickly and be operational by the end of fall 2009. Initial field inspections revealed no *P. ramorum* at this location.

Site Description: The site has a gentle slope away from the creek. It is a currently surrounded by mature eucalyptus trees, and an understory of *Quercus agrifolia* (coast live oak), *Acacia* spp., *Umbellularia californica* (California bay), *Arbutus menziesii* (madrone) and *Cytisus monspessulanus* (french broom) .

Traffic: Most traffic to the site will use small carts like those used by our grounds department. Three to four small cars and trucks will be at the site once a month for area wide inspection. After construction, larger trucks will occasionally go to the site to deliver materials.

Initial set up by a researcher could take up to one week, every day on site. Followed by site visits 4-6 times a year for 2-3 days each.

Monday thru Friday, Dominican Nursery Manager will make an inspection of site and perform maintenance as needed.

Dominican's researcher could go to the site one to two times a week to observe plants and or collect data.

EXHIBIT 1

Timeline: Currently we have funding only for: FY09-10 (July 1, 2009 – June 30, 2010) We propose to have half of the site ready for research at the end of October with the second have to follow in one month. Although this is also the proposed site for the new multi use field, the University has agreed to allow this expanded nursery site to continue until the area is required for new construction.
Duration of this research is tentatively set for: FY09-13 (July 1, 2009 - June 30, 2013)

Stakeholders: Dominican University is working with numerous governmental agencies including:
United States Department of Agriculture – Program Leader
California Department of Food and Agriculture - The site will operate under a California State Permit.
California Association of County Agricultural Commissioners - Marin County Agricultural Commissioner will oversee the site as needed in a regulatory capacity. County staff will assist in plant inspections as needed.
US Forest Service -

Approach, Methods or Experimental Design: The goal of this project is to build and develop a research nursery site to complete studies on ornamental nursery stock under the same conditions as are found in commercial nurseries. Best Management Practices of nursery sanitation will be observed. Separate pads will be designed to facilitate various types of research with safeguards built into the site, including:

- *Physical separations, such as screened fencing, to prevent spread from plot to plot and into the surrounding area*
- *Foot baths at egress and ingress*
- *Cleaning and disinfestation apparatus*
- *Ground barriers designed to capture all runoff from each study plot*
- *Fencing to provide security from unauthorized entry and protection from deer*
- *Retention pond and holding tank to collect all water runoff from plots*

All standard equipment used in nursery operations will be installed, in addition to all laboratory equipment necessary to identify and research various plant pests and pathogens in a secure environment. The initial purpose is to conduct research on diseases of ornamental nursery stock, initially focusing on *Phytophthora ramorum*, with a long-term vision of studying other plant pests and pathogens that move in the nursery trade.

All locations will be subject to monthly inspections of surrounding environs within 50 meters of the site perimeter will be established. Any infected, sporulating hosts found on University property within one quarter mile will be removed to ensure *P. ramorum* inoculum does not enter the site from surrounding plants. Quarterly surveys will be conducted in the greater surrounding area. Any infected, sporulating hosts found on private properties will be addressed on a case by case basis.

Appendix H

CEQA Exemptions from the California Department of Food and Agriculture

2655

NO PERMIT WILL BE ISSUED TO MOVE AND USE LIVE INSECTS OR PLANT PESTS OR NOXIOUS WEEDS UNTIL A COMPLETED APPLICATION IS RECEIVED.

DEPARTMENT OF FOOD AND AGRICULTURE
PLANT HEALTH AND PEST PREVENTION SERVICES
1220 N STREET, ROOM 210
SACRAMENTO, CALIFORNIA 95814

APPLICATION AND PERMIT TO MOVE AND USE LIVE PLANT PESTS OR INSECTS OR NOXIOUS WEEDS

SECTION A TO BE COMPLETED BY APPLICANT

1. NAME AND ADDRESS (Include Zip Code)
Kathleen L. Kosta
California Dept Food + Ag
1220 N Street
Sacramento, CA 95814

2. TELEPHONE NUMBER/FAX NUMBER/EMAIL
916-653-1440 KKosta@cdfa.ca.gov

3. TYPE OF ORGANISM
☐ Arthropod ☒ Pathogen ☐ Noxious Weed
☐ Biocontrol Agent ☐ Other

4. SCIENTIFIC AND COMMON NAMES OF ORGANISMS	CLASSIFICATION (Order, Family, etc.)	LIFE STAGES	NUMBER OF SPECIMENS	MOVED OR SHIPPED FROM	WHAT HOST MATERIAL WILL ACCOMPANY PEST?
Phytophthora ramorum	Stramenopili	all	multiple	CA	none-cultures

5. ADDRESS OF USE LOCATION IF DIFFERENT THAN ITEM 1.
Dominican University
Acacia Ave
San Rafael CA

6. NAME AND ADDRESS OF SUPPLIER
Isolates may be provided by CDFA, UC, USFS or other approved source. Limited to NA-1 CALIF ISOLATES ONLY

7. DESTINATION COUNTY
Marin

8. APPROXIMATE DATE OF MOVEMENT
12-1-09

9. NUMBER OF SHIPMENTS
multiple

10. METHOD OF SHIPMENT
☐ Mail ☐ Freight ☐ Baggage ☒ Auto

11. INTENDED USE (Be specific; state whether use will be in a laboratory and/or greenhouse and/or in the field, and, in the case of pathogens, state whether use will include plant inoculation.) Isolates will be used for field studies done at the National Ornamental Research Site @ Dominican University. High security and safeguards are established to prevent the escape of the pathogen. Marin Co. is heavily infested w/ P.r and under quarantine

12. METHODS TO BE USED TO PREVENT ESCAPE OF THE ORGANISMS
Fencing, bed liners, all water from study plots Captured, Sentinel plants, physical barriers, foot baths + steam sterilizer for soil

13. METHOD OF FINAL DISPOSITION
Autoclave, site clean up + sanitation

14. I/We agree to comply with the conditions attached to this form, and understand that the permit is subject to other conditions which may be prescribed.

SIGNATURE OF APPLICANT Kathleen L Kosta DATE 9-7-09

SECTION B – TO BE COMPLETED BY STATE OFFICIAL

PERMIT

(Permit not valid unless signed by an authorized official of Plant Health and Pest Prevention Services Division)

PERMIT NUMBER 2655

Under authority of Section 6305 of the Food and Agricultural Code, permission is hereby granted to the applicant named above to move and use the organisms described, except as deleted, subject to the conditions stated on, or attached to, this application. (See attached standard conditions.)

SUBJECT TO THE ATTACHED ADDITIONAL CONDITIONS

VIOLATION OF ANY OF THE CONDITONS OF THIS PERMIT SHALL BE SUFFICIENT CAUSE FOR ITS IMMEDIATE REVOCATION.

15. SIGNATURE OF STATE OFFICIAL	16. DATE ISSUED	17. EXPIRATION DATE
	October 8, 2009	October 31, 2014

Attachments may accompany application if space on application is insufficient.

FORM 66-026 (6/05)
Plant Health and Pest Prevention Services

Copy to: County Agricultural Commissioner
Pest Exclusion Area Biologist
Plant Pest Diagnostics Branch
Supplier
File

STANDARD CONDITIONS OF PERMIT

1. All organisms shall be shipped in sturdy, escape-proof containers and a copy of this permit shall accompany each shipment.

2. Arrival of each shipment shall be immediately reported to the office of the County Agricultural Commissioner and held for inspection prior to use (telephone: N/A).

3. All packing material and shipping containers shall be sterilized or destroyed immediately after removing the organisms.

4. Organisms, and inoculated plants if any, shall be kept and used only within the laboratory or designated area at the permittee's address and/or the address specified in Item 5, Section A.

5. No living organisms kept under this permit, and inoculated plants if any, shall be removed from the confined, designated area except by prior approval from State and, if applicable, federal agricultural regulatory officials.

6. Without prior notice and during regular business hours, State and county agricultural regulatory officials shall be allowed to inspect the conditions under which the organisms are kept and used.

7. All necessary precautions must be taken to prevent escape of pests. In the event of pest escape, this office shall be immediately notified (916) 654-1017.

8. All organisms kept under this permit, and inoculated plants if any, shall be destroyed at the completion of the intended use, and not later than the expiration date, unless an extension is granted by this issuing office. Written request for an extension of the expiration date should be submitted at least 30 days in advance of the expiration date.

National Ornamental Research Site and Dominican University of California

Studies on the diseases caused by Phytophthora ramorum will be performed at a site on the campus of Dominican. This temporary site is planned to operate no less than five years. Studies on P. ramorum will be completed by visiting scientists. All research proposals will be vetted thru the NORSDUC Research Committee, the Steering Committee and finally the Executive Committee. Once accepted as fulfilling the goals and purpose of the NORSDUC, the proposal will be submitted to CDFA for final approval and issuance authorized under the terms of the permit.

One permit will be issued to Kathleen Kosta, Primary Plant Pathologist, CDFA. All approved research projects will be attached to the primary permit as an addendum.

Plots have been prepared with the utmost security in mind. All studies will be required to adhere to the safeguards mandated for use at this site, including but not exclusive to:

1. Access to individual studies limited to permittee and Dominican University personnel approved for entry to the research plots.
2. Records kept of all times the plot was visited with log in/log out records.
3. All phytosanitary measures implemented at the site will be followed, ie. Foot baths, sanitation of the materials used in the studies, clean up of the study plot.
4. Periodic reports will be required as studies go on.
5. Dominican University Collaborators will be responsible for maintaining copies of all approved permits, ensuring adherence to the conditions on a daily basis, and facilitating research for visiting scientists.
6. The Primary Permit holder will review the records and complete a site inspection monthly.

Notice of Exemption

Form D

To: ☑ Office of Planning and Research
PO Box 3044, 1400 Tenth Street, Room 212
Sacramento, CA 95812-3044

☐ County Clerk
County of _____

_____

_____

From: (Public Agency) California Department of Food and Agriculture, 1220 N Street, Sacramento, CA 95814
(Address)

Project Title: State Plant Pest Permit #2655

Project Location - Specific:

See Attachment

Project Location – City: See Attachment **Project Location – County:** See Attachment

Description of Project:

See Attachment

Name of Public Agency Approving Project: CDFA, PHHPS, Permits and Regulations

Name of Person or Agency Carrying Out Project: See Attachment

Exempt Status: (*check one*)

- ☐ Ministerial (Sec. 21080(b)(1); 15268);
- ☐ Declared Emergency (Sec. 21080(b)(3); 15269(a));
- ☐ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- ☑ Categorical Exemption. State type and section number: CEQA Section 15306
- ☐ Statutory Exemptions. State code number: _____

Reasons why project is exempt:

Class 6- including either basic data collection, research and experimental management and evaluation activities which do not result in a serious or major disturbance to an environmental resource.

Lead Agency Contact Person: Stephen S. Brown Area Code/Telephone/Extension: (916) 654-1017

If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project? ☐ Yes ☑ No

Signature: _____ Date: 10/8/09 Title: Special Assistant

☑ Signed by Lead Agency

☐ Signed by Applicant

Date received for filing at OPR: _____

January 2004

DEPARTMENT OF FOOD AND AGRICULTURE
DIVISION OF PLANT HEALTH AND PEST PREVENTION SERVICES
PERMITS AND REGULATIONS

Guidelines for the Evaluation of Applications for Permits to Move and Use Live Plant Pests or Noxious Weeds

Applicant KDSTA

Application Date 10/7/09

Please Check

_____ 1. The organism is not a plant pest or live insect; therefore, the applicant should be notified that no permit is necessary.

__✓__ 2. The organism is a plant pest or live insect; I have reviewed the application using the attached check list; and, in my professional judgment, there would be no significant impact on the environment if the proposed use is approved. I recommend that a permit be issued.

_____ 3. The organism is a plant pest and the proposed use presents a pest introduction and/or spread risk; therefore, permit request should be denied.

_____ 4. The organism is a plant pest or a live insect which may have significant impact on the environment. The applicant from the private or public sector should be contacted for additional information to assess the environmental impact of the proposed action.

_____ 5. The organism is a plant pest or live insect and is altered or produced through genetic engineering:

a. The applicant is a representative of a public agency. To determine the impact on the environment, an Environmental Impact Report or Negative Declaration prepared by that agency or an exemption will be required.

b. The applicant is a representative of the private sector. To determine the impact on the environment, an environmental review will be required. The applicant will be required to submit information to assess the environmental impact of the proposed action.

_____
(Signature)

Plant Health and Pest Prevention Services

10/8/09
(Date)

Form 66-109
(Rev. 5/05)

DEPARTMENT OF FOOD AND AGRICULTURE
DIVISION OF PLANT HEALTH AND PEST PREVENTION SERVICES
PERMITS AND REGULATIONS

Environmental Checklist

Applicant KOSTA

Application Date 10/7/09

Will the proposal result in:

		Yes	Maybe	No
1.	Any increase in wind or water erosion of soils, on or off the site?	___	___	✓
2.	Changes in current, or the course of species, or direction of water movements, in either marine or fresh waters?	___	___	✓
3.	Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, and aquatic plants)?	___	___	✓
4.	Reduction of the number of any unique, rare or endangered species of plants?	___	___	✓
5.	Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species?	___	___	✓
6.	Reduction in acreage of any agricultural crop?	___	___	✓
7.	Change in the diversity of species, or numbers of any species of animals (birds, and animals including reptiles, fish and shellfish, benthic organisms or insects)?	___	___	✓
8.	Reduction of the number of any unique, rare or endangered species of animals?	___	___	✓
9.	Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?	___	___	✓
10.	Deterioration to existing or wildlife habitat?	___	___	✓

Form 66-110
(Rev. 5/05)

Will the proposal result in:

11.	Land Use. Will the proposal result in a substantial alteration of the present or planned land use of an area?	___	___	✓
12.	Creation of any health hazard or potential health hazard (excluding mental health)?	___	___	✓
13.	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?	___	___	✓
14.	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	___	___	✓

Comments:

(Signature)

Plant Health and Pest Prevention Services

10/8/09
(Date)