INITIAL STUDY OF POTENTIAL ENVIRONMENTAL IMPACTS

1. **Project title**: **Saint Mary's College High School Use Permit Application (April 2011)**

2. **Lead agency name and address:** City of Albany, 1000 San Pablo Avenue, Albany CA 94706.

3. **Contact person and phone number:** Anne Hersch, City Planner; (510) 528-5765, FAX (510) 524-9359, e-mail: ahersch@albanyca.org

4. **Project location:** 1600 Posen Avenue, Albany, CA

5. **Project sponsor's name and mailing address:** Saint Mary's College High School, 1294 Albina Avenue, Berkeley, CA 94706-2599

6. **General Plan designation:** Public/Quasi Public

7. **Zoning:** Public Facilities (PF)

8. **Description of project:** The Applicant is applying for a new Use Permit to allow construction of new building space and alterations to existing structures on its 12.5-acre campus (see aerial photograph of the campus in **Figure 1**, below). An enrollment increase is **not** part of the application, and approval of the requested Use Permit would not result in any increase in enrollment beyond that currently allowed under the existing enrollment cap of 630 students, established in 1995 (600 students, which may be exceeded on an absolute basis by up to five percent [30 students] to allow for attrition and other student body changes). Enrollment as of February 16, 2012 is 609 students.

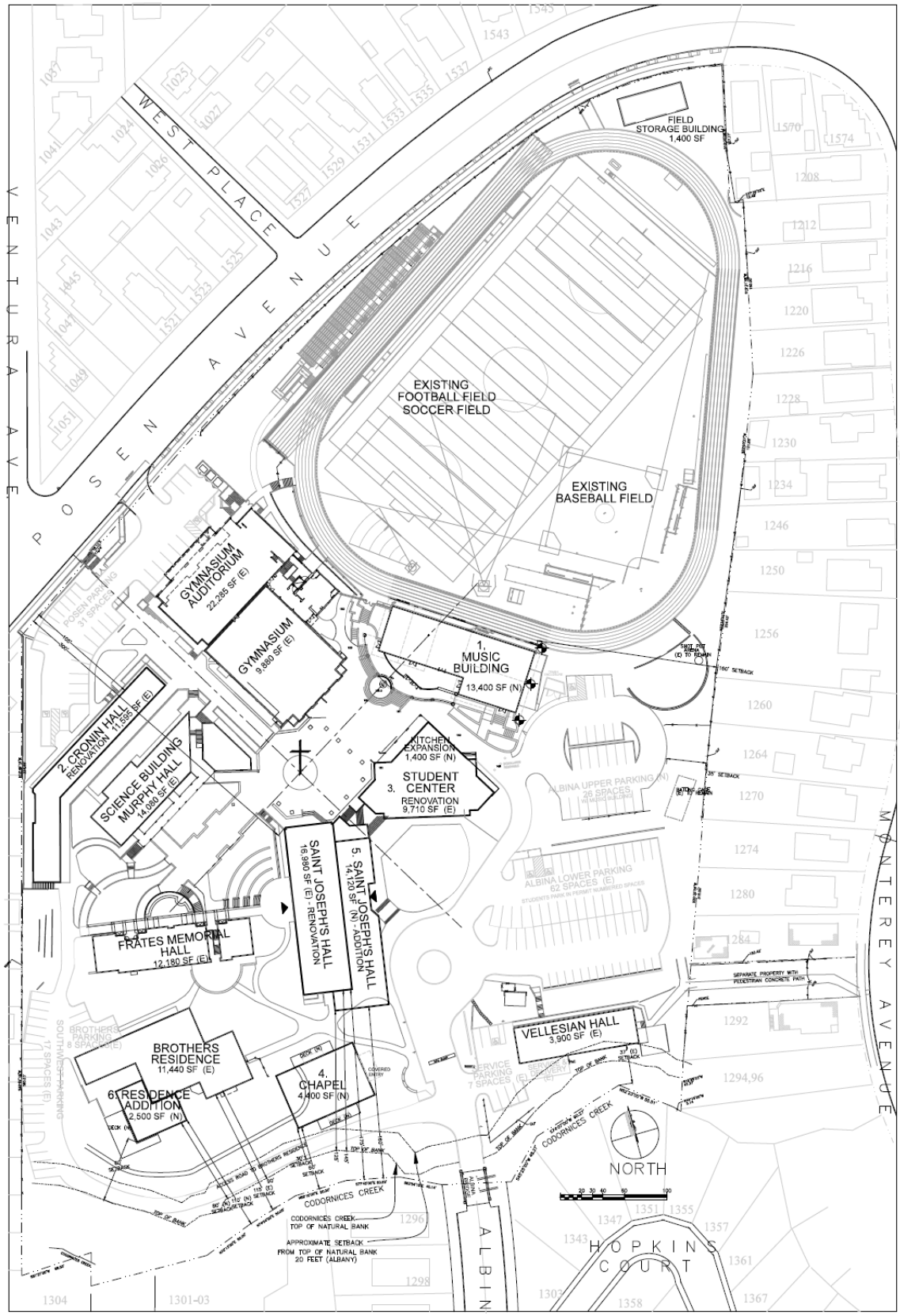
   The new use permit will include a consolidation of Use Permit 93-27 (school operations) as well as operating parameters for the athletic fields which were approved as part of PA 06-091Design Review for the athletic fields. This consolidation is intended to create one cohesive document that will encompass all school operations.

   Existing facilities at the Saint Mary's College High School campus total 116,380 square feet of gross floor space (the total horizontal area in square feet within and including the exterior walls of a structure, but not including the area of inner courts, shaft enclosures, and mechanical equipment rooms – areas include arcades and covered outdoor space, but not eaves or open structures). With development under the Use Permit, the campus would provide a total of 150,270 square feet of gross floor space, a net increase of 33,890 square feet. None of the proposed structures would exceed the City's current height limitation of 40 feet.

   The current application requests approval of a new Use Permit to allow a phased development project that would be constructed over a period of at least ten years as funds become available. The component Use Permit projects, which are shown on the Proposed Site Plan (**Figure 2**, below) are:

Figure 1: Aerial Photograph of SMCHS Campus

Figure 2: Proposed Site Plan



1. Construction of a new Music Building to replace existing Music Pavilion
2. Cronin Hall Classroom
3. Shea Student Center renovation and kitchen addition
4. Construction of a new Chapel
5. Saint Joseph's Hall renovation and addition
6. Brother's Residence addition

Development under the Use Permit (see **Appendix A**) is intended to achieve three overarching objectives:

1. Replacing and renovating aged and inadequate facilities such as the band room, student center snack bar kitchen, and small or inadequate classrooms;

2. Reinforcing the community values of LaSallian education by providing a chapel that will serve as a sacred space for prayer, worship, liturgy, and instruction; and

3. Consolidating and improving central functions such as administrative offices and the library.

Another project objective is to increase scheduling flexibility. More classrooms will permit smaller class sizes and reduce the challenges involved in scheduling for events such as Advanced Placement testing. As indicated above, there would be no expansion of student enrollment beyond the existing enrollment cap in force since 1995. Under the proposed Use Permit, student activities would remain similar to those of today, with the opportunity to allow for more flexible scheduling. Student activities could be accommodated in more appropriate and updated facilities. Currently, activity space is limited and is shared so that multiple activities may be accommodated on campus.

<u>Use Permit Projects</u>

The individual projects to be implemented under the Use Permit are shown in **Figure 2**, above. These are:

1. Music Building

The Applicant is requesting both zoning and design review approval for a new 13,400-square foot Music Building and an adjacent 26-space parking area. Depending on the availability of funding, it is anticipated that this project will be the first to be constructed under the Use Permit. The new building would replace the existing 1,930-square foot Band Pavilion structure, which will be demolished. The new building would include a 1,700 square foot space for vocal and dance programs, a 2,250 square foot band room, small practice rooms and 300 square feet of offices. The new building would also have a 3,300 square foot partial basement storage area.

The new building would accommodate music and dance programs that now use the Gymnasium-Auditorium, as well as the instrumental programs that currently occupy the Music Pavilion. The new building would accommodate band, chorus, dance, and theater programs in spaces that would be comparable to the facilities offered by most high school music programs. The spaces have been designed to provide flexibility so that vocal, dance, theater, and other uses such as cheerleaders' practice can share the same space.

In order for the spaces in the building to function properly, the principal design consideration for the building is its spatial volume. The volume is a function of the floor area needed to accommodate the anticipated number of musicians and their instruments and ceiling height necessary to provide the proper acoustical environment. The minimum recommended ceiling height for the music rooms is 20 feet. In order to fit within the maximum permitted building height of 40 feet and have a sloped roof at a 5:12 ratio (which is comparable to other campus buildings), the ceiling slopes from 18.5 feet above the floor to approximately 30 feet at the ridge. The high point under the ridge compensates for the low ceiling at the perimeter of the

room. The resulting floor area and ceiling height would provide an opportunity for a well-tempered acoustical space.

The large instrumental and vocal/dance rooms with the required high clear ceiling heights, clerestory windows, and an abundance of natural light would be similar to the adjacent Shea Student Center. The sloped roofs and ceilings are oriented toward the front of the room, the music director, and projection surfaces. Skylights similar to those in Frates Hall would provide natural light and ventilation avoiding the need for air-conditioning. Clerestory windows at the gable ends, also similar to the Shea Student Center, would contribute to the natural lighting. Skylights and clerestory windows would have operable shades. Smaller, less vulnerable windows would face the athletic field and parking area.

The apparent height of the structure would be minimized by building into the natural slope of the site. From the north, the building would appear to be single story while the height of the music rooms viewed from the center of the campus will be similar in height to the Student Center. The 3,300 square foot basement storage area under the eastern end of the building would take advantage of the grade and incorporate the retaining wall.

The music building has been designed to fit in with existing buildings on the campus. The dramatically sloped tile roof over the two-story high spaces would echo the roof shape of the adjacent Student Center. Like other buildings on the campus, the exterior walls would be white plaster stucco with colored aluminum-framed windows. A parapet wall in the center portion of the building would conceal the roof-mounted mechanical equipment. Roof overhangs would be similar to Frates Hall, and, like most buildings on the campus, the new building would have an arcade to provide access to the interior spaces.

The Music Building project includes construction of a 26-space parking area including one handicapped accessible space to the east of the new building. The new parking area would be landscaped and screened from the adjacent residential properties to the east by a solid wall as required by Section 20.24.110 of the Zoning Ordinance. The design of the wall will be submitted for design review approval along with the landscaping plan. The area where the new parking lot is proposed would be used for construction staging during demolition of the existing Pavilion and construction of the new Music Building. The parking area would have pervious paving to help control storm water runoff.

This project, which requires demolition of the existing band room, is the school's highest priority because the existing band room is not adequate to accommodate the school's music and dance programs. Because of the project's high priority, the Applicant has submitted an application for design review approval along with the Use Permit application. The project would proceed immediately after approvals are received and funding is finalized, but depending upon the availability of funding may begin following the Cronin Hall Renovation. To avoid the cost and impact of installing a portable building, construction would be scheduled to start as soon as school closes for the summer. Band and vocal programs would be accommodated in existing classrooms and office spaces as necessary during the construction period. Dance programs already share other campus facilities.

The Project Applicant has estimated that construction of the Music Building would take approximately one year (e.g., 1 month for demolition, 2 months for excavation/trenching, 7 months for building, and 1 month for paving and coatings). It would require the movement of approximately 3,900 cubic yards of earth (3,300 cubic yards exported, 300 cubic yards imported), and the movement of approximately 50 to 100 cubic yards of demolition materials. During construction, the movement of earth and demolition material would require approximately 200 truck trips total for the project, to and from the Project site, assuming each truck can carry approximately 15 cubic yards per load. The total number of trips will be spread out over the course of construction.

During construction of the Music Building, three on-campus parking spaces would be temporarily unavailable.

Construction would interfere with access to the athletic field, making it necessary to access the field from the Posen Avenue parking lot and through the Gymnasium-Auditorium lobby. There would be protection along the edge of track to allow continued use of the field.

The softball infield, proposed parking area, would be used for construction staging during construction of the Music Building.

As part of the Music Building project, a rain garden will be created in the area between Vellesian Hall and the school-owned residential property to the east. The rain garden will be designed to manage stormwater runoff from a drainage area that includes the proposed new Music Building, the existing athletic field and an existing parking lot (see **Figure 3**, below). The rain garden will detain 80 percent or more of average annual runoff from the impervious portions of the drainage area. Most pollutants will be removed from the runoff by filtering through a soil mix. Most of the detained runoff will be infiltrated into the ground. During sustained rainfall, some treated runoff will enter a system of buried perforated pipes and be directed back to the existing drainage system.

Control and treatment of runoff from the proposed Music Building and proposed new parking lot will allow SMCHS to comply with the requirements of Provision C.3 of the Municipal Regional Permit issued by the California Regional Water Quality Control Board for the San Francisco Bay Region. Control and treatment of runoff from existing areas will be an offsetting mitigation of runoff from future on-campus projects and will address the need for C.3 compliance for those projects when they are proposed.

The rain garden will appear as a landscaped garden area at existing grade or a few inches above or below existing grade. The surface area of the rain garden will be up to 2,500 square feet. The perimeter may be outlined by low curbs of concrete or stone.

An inlet, consisting of a pipe directed to small boulders (1 – 2-foot diameter), and an outlet, consisting of a standard 2-foot – by- 3-foot drop-inlet structure topped with a grating, will be visible at the western end. The inlet and outlet of the rain garden will both be connected to an existing drainage pipe that collects runoff from the drainage area described above, and discharges to Codornices Creek through an outfall just upstream of Vellesian Hall.

The surface of the rain garden will be topped with mulch and plantings suitable to the rain garden location and consistent with the SMCHS landscape design. Popular plant choices for the many existing rain gardens in the Berkeley-Albany area include no-mow fescue and native bunchgrasses.

The top layer of soil will consist of an engineered mix of sand and compost 18 inches deep. The sand (60 - 70 percent by volume) will be ASTM C33 sand (fine aggregate). The compost (30 – 40 percent by volume) will be well decomposed, stable weed-free organic matter meeting standards developed by the U.S. Composting Council. Below this layer will be a layer of gravel 12 inches deep. The gravel will be “Class 2 permeable”, Caltrans specification 68-1.025. Buried within the gravel layer will be a network of perforated pipes (PVC Schedule 40 or equivalent), which will be connected to the outlet structure (see **Figure 4**).

Construction of the rain garden will include excavation of existing soil, which will be hauled off-site for reuse or disposal, followed by installation of gravel, soil and drainage infrastructure, followed by reconstruction of the entrance walkway and planting of the rain garden.

Maximum depth of the required excavation will be 3 feet. This would require removal and off-haul of approximately 190 cubic yards of existing soil, or 13 truckloads if 15-cubic yard dump trucks are used. Fill material would be approximately 95 yards of engineered soil mix and 63 cubic yards of Class 2 permeable gravel, for a total of 158 cubic yards (or 11 truckloads assuming 15 cubic yards each).

Figure 3: Location of Proposed Rain Garden

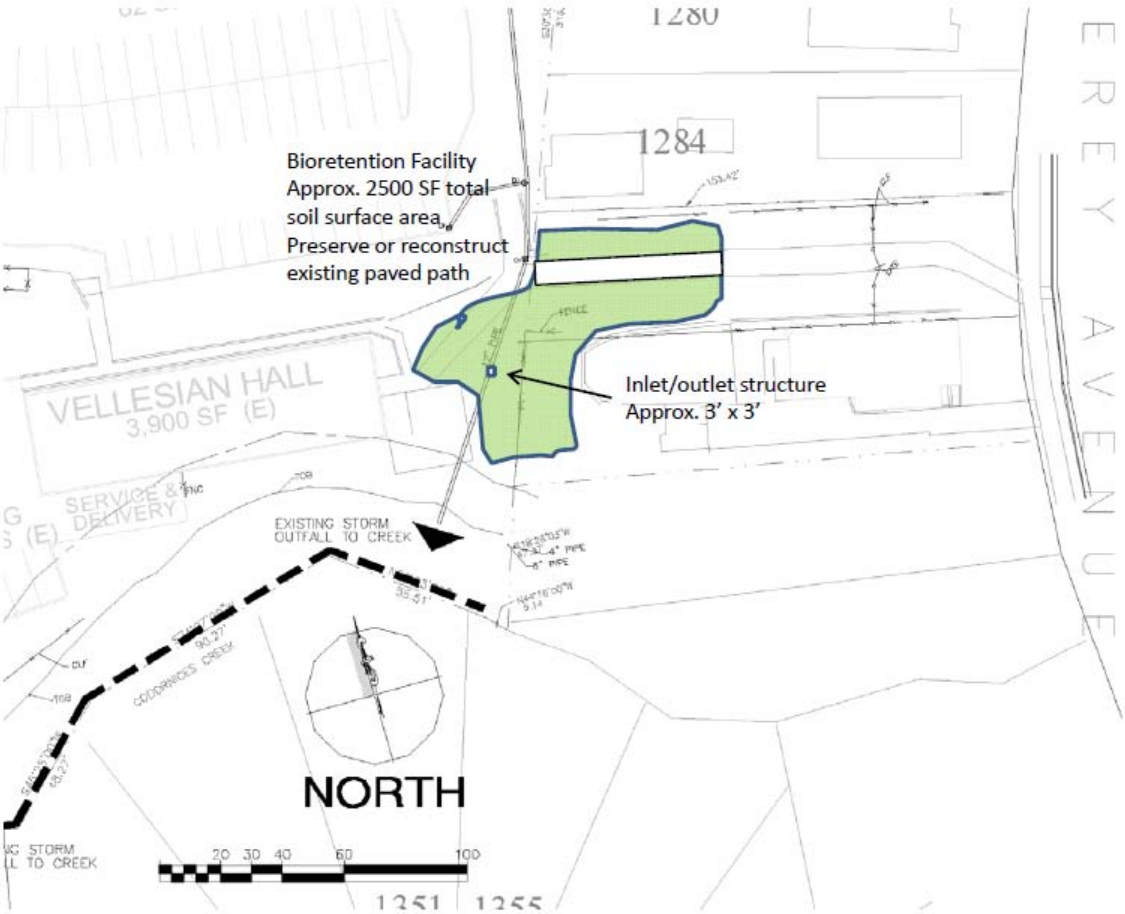
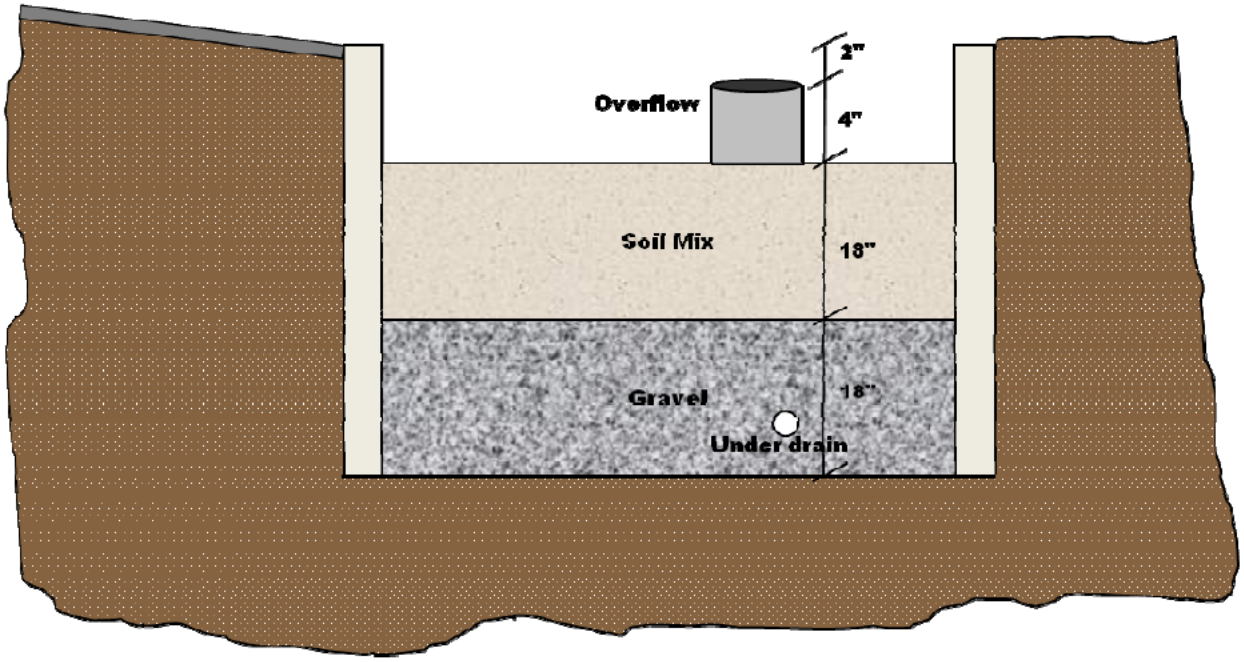


Figure 4: Typical Rain Garden Cross Section



The design of the rain garden promotes infiltration to the underlying native soil. Following storms, this will result in a perched saturated layer below and in the immediate vicinity of the rain garden. Because Codornices Creek is nearby and is deeply incised, the general direction of flow for groundwater in this area can be assumed to be toward the creek. Although the native soils are clayey, they can be expected to drain readily toward the creek because of the steep gradient. Further, the underdrain pipe in the subsurface gravel layer provides an upper bound to soil saturation; soils above the underdrain elevation will drain toward the underdrain. For these reasons, based on currently available information, it is considered unlikely that the rain garden would have any effect on groundwater or drainage in the vicinity of nearby structures. This conclusion shall be confirmed once the elevations of the rain garden overflow and underdrain have been determined as discussed below.

During final design of the project, the elevations of the rain garden overflow and underdrain will be compared to the basement floor elevations of nearby structures. If the comparison shows reason for concern, the rain garden could be designed to incorporate an impermeable cut-off wall to prevent movement of groundwater temporarily perched beneath the rain garden toward the structures of concern. In this case, a drainage trench should be placed on the outboard side of the cut-off wall. Drain pipes within this trench could daylight downslope or be connected to the existing pipe leading to the existing creek outfall.

Long-term maintenance requirements for the rain garden are minimal, and consist of semi-annual or annual landscape maintenance. Typically, it is best and most efficient to cut back plants severely in January and to remove any accumulated organic debris at that time, along with any trash that may have found its way into the rain garden. Mulch should be replenished as necessary. Maintenance should also include inspection of drainage structures; if built properly, repairs to structures should be minimal for 20 years or more. Maintenance may include removal of accumulated sediments near inlets.

2. Cronin Hall Classroom

Cronin Hall is a two-story wood-frame building with 11,595 square feet of gross floor area. The building has nine classrooms including four on the lower level that are substandard because of their inadequate size, awkward shape, and poor light and ventilation. Renovation of the classrooms would involve improving wiring and lighting, and adding insulation. In addition, some existing classroom area would be converted into science laboratory space.

As part of this project, the Applicant proposes to return a closed lower level classroom to use. In 1994, as a condition of approving Use Permit 93-27 (allowing SMCHS to become co-educational and approving construction of the Gymnasium Addition), the City imposed a restriction limiting the school from exceeding 90,675 square feet of “classroom facilities”. As a result, one of the conditions the City imposed when granting design review approval for Frates Hall was a requirement to remove 3,032 square feet of classroom space. To meet this requirement, the City required SMCHS to close the 652-square foot classroom and not use it as habitable space. Although the school is not proposing to increase enrollment above the maximum 630 allowed by Use Permit 93-27, it needs more space to fulfill its mission and maintain facilities that meet national standards for independent schools.

Except for receiving approval to return the unused lower level space to classroom use (which is included in the current application), this project will not require further discretionary review because there are no changes proposed to the use of the building, there is no increase in existing floor area, and there will be no changes to the building exterior except for in-kind replacement of windows.

3. Shea Student Center Renovation/Addition

This project includes renovation of the existing 9,710 square foot student center and construction of a 1,400 square foot addition to the kitchen. The existing building (completed in 1977) includes a snack bar food preparation area and open multi-use space on the main level and two classrooms on the lower level.

Removal of the building's eastern interior wall and elimination of an existing office would allow an increase in the size of the multi-use area, which serves as an indoor space where students eat. The project would also convert the food preparation space in the existing snack bar into a workable kitchen extending into what is now the covered arcade.

The Shea Student Center is one of the most heavily used facilities on campus. The existing Shea Student Center kitchen is no more than a snack bar. Food service is provided by an outside contractor and is a small operation due to the lack of a fully equipped kitchen. Food is available for purchase before school, during break, and during lunch. In part due to the limited food options, many senior and junior students go off campus to purchase food during lunch. Expanding the snack bar and creating a working kitchen would make it possible to accommodate both a snack bar and catering for occasional larger gatherings. The expanded kitchen would include a mop sink suitable for washing kitchen mats to reduce generation of pollutants into site runoff.

This project, which will require design review approval, is expected to proceed within five to seven years. To minimize disruption to campus life, the work would start as soon as school closes for summer vacation. The anticipated duration of construction is about six months. Other than during construction, no existing on-campus parking would be affected. It is expected that approximately three on-campus parking spaces would not be available during construction.

4. Chapel

The proposed chapel is intended to serve as a focal point for the campus, symbolizing the faith life and the mission of the school and emphasizing the religious beliefs and values of the school community. Since the demolition of De La Salle Hall 35 years ago, the school has been without a chapel, which has made it necessary to use classrooms, the Shea Student Center, and the gymnasium/auditorium for the religious functions that are integral to Saint Mary's mission. The proposed 4,400 square foot building would be an expression of the school's Catholic identity; a special place of gathering, worship and prayer; a point of orientation; and a place for meditative reflection. The proposed location on the tree-covered sloped hillside above Codornices Creek would allow the building to be visible to those arriving at the campus and partially visible from residences on Albina Avenue across from the creek. Additional trees are proposed on the south and east sides of the building to provide additional screening from neighboring residences. The building would be somewhat separate from buildings that accommodate day-to-day school activities.

The one-story building will be designed as a space for worship, religious services, quiet prayer and meditation, religious instruction and a place for the Blessed Sacrament. The proposed floor area is the size needed to allow gatherings of up to 200 people, which is equivalent to students and faculty from one grade level and a few guests. Specific uses may include:

- Adoration of the Blessed Sacrament
- Class Masses
- Brothers Community Masses and Morning and Evening Prayers
- Masses during lunch, especially during Advent and Lent
- Alumni Masses
- Group Prayer Services (immersion programs, athletic teams, faculty and staff, new teachers, student leadership, etc.)
- Memorial Services, especially on All Soul's Day and throughout November
- Observance of Liturgical Year

- Programmatic: Ritual and Worship Class, World Religion Class, Reconciliation Services, Day of the Dead prayer service, etc.

The chapel would be set back 30 feet from the top of the bank of Codornices Creek and 60 feet from the southern property line. The building would reach a height of 40 feet above the existing grade of the sloping building site and would have a roof more steeply sloped than the other campus buildings. To distinguish the chapel from other campus buildings, the cladding would be stone, concrete, or another material that is more precious than the stucco plaster of the typical campus structures. The entrance to the building would be from the eastern side of the building, connecting the chapel to the campus's pedestrian circulation system. The entry would include an ADA-compliant ramp to provide easy access from the walkway and parking area. The specific features of the building design will be subject to a separate review and approval process.

Construction of this project would occur as soon as funding is available following design review approval. Start of construction is anticipated within five to seven years. No existing structures or parking spaces would be removed. The Project Applicant has estimated that construction of the Chapel would take approximately one year, and would require the movement of approximately 1,000 cubic yards of earth.

5. Saint Joseph's Hall Renovation and Addition

Saint Joseph's Hall is the most central building on campus. This project includes renovation of the existing 16,980 square foot building and construction of 14,120 square feet of new floor area on the eastern side of the existing building. Like the existing structure, because of the topography, the addition would have two stories on the northern side and three on the southern part. The addition would maintain the existing 40-foot height and, like the existing building, would have an entry at the second floor oriented toward the 62-space parking area to the east. The current plan is to design the addition to match and continue the image of the original mid-20th century building by using similar fenestration and comparable materials. To maximize the floor area within the height limit, the roof would likely have a relatively low pitch.

The upper level (once a student dormitory) is now administrative offices and a reception area; the main floor is occupied by the library, media center and a classroom; the lowest story houses a mechanical room, an office, a classroom, and a small storage area. The project would allow eventual relocation of the financial and development offices from Vellesian Hall. This reorganization would increase efficiency by locating administrative offices in the center of campus with a new reception area on the main floor. The addition would improve accessibility, as well as allow for more visual contact between students and administrators. The renovation would update systems, materials and finishes of the existing library, media center, and offices. An important component of the renovation would be a seismic upgrade.

Although the building was well designed and constructed for its time (1957), there are deficiencies in several areas that can be corrected to improve the way the structure would respond during a seismic event. The wood roof system should be more securely tied to the concrete walls and supplementary bracing should be added in this area. The length of the building also needs to be more adequately braced; an intermediate transverse wall should be added near the building midpoint. Some windows may need to be closed to provide additional lateral resistance. Because the brick veneer is probably unsecured; it should be removed or reinforced.

The renovation and expansion of Saint Joseph's Hall would take up to a year and a half to complete (with construction of the proposed addition to take approximately one year), and would have the most disruptive effect on school activities of any of the Use Permit projects. The Project Applicant has estimated that completion of this project could require the movement of up to 9,000 cubic yards of earth. The project would require design review approval, and work is not anticipated to start before 2017 at the earliest. Because the project involves extensive renovation of the existing building as well as construction of an

addition, it will require temporary relocation of the school's administrative offices and the library to other buildings on campus. Several on-campus parking spaces would be displaced during construction.

6. Brother's Residence

This project entails construction of a 2,500 square foot two-story high addition to the existing 11,440 square foot single-family structure. The additional floor area would be used to provide additional living and dining area and storage space for the Brothers who occupy the private residence. The addition, which would be built on the southwestern corner of the residence, would not exceed 40 feet in height and would be set back at least 80 feet from the top-of-the bank of Codornices Creek. There are currently eight parking spaces assigned to the residence (the Zoning Ordinance requires two spaces), which would not be affected by this proposal. The Applicant requests approval of the proposed building envelope of the addition. Design review approval will be required prior to obtaining construction permits for this project.

This project could be commenced within five to seven years depending on the availability of funding. The Project Applicant has estimated that construction of the proposed addition could take approximately nine months, and could be expected to require the movement of approximately 250 cubic yards of earth. Because the parking area adjacent to the building would probably be used for storage of equipment and materials, the parking spaces used by the residents of the building will probably have to be relocated for about six months during construction.

<u>Use Permit Project Phasing</u>

Constructing the Use Permit projects in phases will allow time for the school to raise funds for construction, make it possible for the school to continue functioning during the building process, and reduce construction period impacts. The Applicant is requesting zoning and design review approval of the Music Building to allow this project to begin construction at the earliest possible date. The remaining five projects are independent of one another and could be built at any time, in any sequence, as funding becomes available. Except for the renovation of Cronin Hall (where Posen Avenue would provide access during renovation activity), all construction projects will require access from Albina Avenue. In addition to requiring compliance with the City's standard conditions for construction projects, which impose restrictions on the days and hours when work is permitted, the Applicant will work with the City to tailor other measures that will be taken to minimize construction impacts. Such restrictions could, for example, require construction personnel to park at designated locations.

<u>Parking</u>

The Saint Mary's College High School Campus is currently supported by 44 parking spaces along Posen Avenue and 119 parking spaces on-site (this does not include 8 private parking spaces provided at the Brothers Residence on-site). Under the Use Permit, existing parking areas on-site would be reconfigured, and 26 new on-site parking spaces would be added (a net increase of 24 on-site spaces). Since no increase in enrollment would result from implementation of the Use Permit, existing parking demand during a normal school day would not increase.

9. **Surrounding land uses and setting:** The Saint Mary's College High School campus is located in the Peralta Park neighborhood, a predominantly residential area with some homes located in Albany, and others located in Berkeley (see **Figure 1**, above). The campus is adjacent to residences fronting on Ordway Street along the westernmost edge of the property, and adjacent to Posen Avenue to the west and north, with residences located along the opposite side of Posen Avenue (and up the hill behind the houses along Posen Avenue, including residences on Ventura Avenue and Beverly Place). To the east, the campus is adjacent to residences which front along Monterey Avenue in Berkeley. To the south, the campus is adjacent to Codornices Creek, with residences on the opposite side of the creek in Berkeley. No portion of the campus is located outside of the City of Albany, although portions of two adjacent eastern parcels owned by

SMCHS, which would be utilized for a rain garden under the Use Permit are located in the City of Berkeley (one of those parcels currently provides pedestrian access to the campus from Monterey Avenue).

10. **Other public agencies whose approval is required:** The Applicant will be required to submit a Notice of Intent to the State Water Resources Control Board and to develop an acceptable Storm Water Pollution Prevention Plan (SWPPP) prior to obtaining coverage under the NPDES General Permit for construction activity prior to the start of demolition, site preparation or construction at the campus.

    SMCHS will meet the requirement to treat stormwater runoff using LID treatment measures by installing and maintaining a rain garden in a currently open area on the easterly side of Vellesian Hall. The facility, which will be approximately 2,500 square feet in area, will extend into portions of two separate parcels owned by SMCHS and within the City of Berkeley. Based on information from the City of Berkeley's Planning and Development Department, construction of this facility would likely require a ministerial Building Permit.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklists on the following pages. (***NONE – All potentially significant environmental impacts identified in the Initial Study can be reduced to a level of less than significant through implementation of the mitigation measures recommended in the Initial Study***)

	Aesthetics		Agriculture Resources		Air Quality
	Biological Resources		Cultural Resources		Geology/Soils
	Hazards & Hazardous Material		Hydrology/Water Quality		Land Use/Planning
	Mineral Resources		Noise		Population/Housing
	Public Services		Recreation		Transportation/Traffic
	Utilities/Service Systems		Mandatory Findings of Significance		

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

	I find that the project COULD NOT have a significant effect on the environment, and the project qualifies for a Categorical Exemption pursuant to CEQA Guidelines Section 15303, which allows exemption of construction of small or appurtenant structures such as fences; and Section 15304, which allows exemption of minor alterations of land, such as grading of a slope of less than 10%. A NOTICE OF EXEMPTION will be filed with the County Clerk.
	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
X	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or MITIGATED NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or MITIGATED NEGATIVE DECLARATION, including revisions or mitigation measures that have been made or agreed to by the project proponent, nothing further is required.

Signature: _____ Date: 6/1/12

Printed Name: Anne Hersch, City Planner
For: City of Albany Community Development Department

EVALUATION OF ENVIRONMENTAL IMPACTS:

I. AESTHETICS -- Would the project:

		Potentially significant impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Have a substantial adverse effect on a scenic vista?				**X**
b	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				**X**
c.	Substantially degrade the existing visual character or quality of the site and its surroundings?				**X**
d.	Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?				**X**

Existing Conditions: The Saint Mary's College High School campus is visible from adjacent residences along Monterey Avenue, from adjoining residences along Posen Avenue, from vehicles traveling to the end of Albina Avenue, from residences on the opposite side of Posen Avenue (and also from some residences further up the hill behind Posen Avenue, including some residences on Ventura Avenue and Beverly Place), and from vehicles moving along Posen Avenue. Trees and other vegetation currently screen views of the campus from the residences along Monterey Avenue and Codornices Creek to a large extent, and the view along Posen Avenue is characterized by the athletic field [Thomas M. Brady Park], the gymnasium/auditorium and the adjacent parking area. The campus is located in a residential area where light from homes, streetlights and passing vehicles is visible at night. Existing campus buildings are sometimes used in the evenings, at which time there may be interior lights visible through some windows from some off-campus locations. Portions of the campus have limited security lighting, and lighting is provided at all on-campus parking areas. There is no athletic field lighting. Although light from the campus is visible to those living in (or moving through) the surrounding area at night (particularly in areas above Posen Avenue which are located above the campus) this has not been the basis for any formal complaints associated with light or glare.

Explanation:

a. Scenic vistas: There are no formally-identified scenic vistas in the vicinity of the campus. Therefore, development under the Use Permit would not have any substantial adverse effect on any scenic vista. [Sources: 1, 17]

b. Scenic resources: There are no scenic resources (formally identified by the City of Albany or any other agency) on, or in the vicinity of, the campus that would be adversely affected by development under the Use Permit. [Sources: 1, 17]

c. Visual character: Development under the Use Permit as proposed (e.g., the demolition or modification of existing structures, the construction of new structures, the modification of existing landscaping, etc.) would result in a change in the existing visual character of the campus, but would not substantially degrade the visual character of the campus. Saint Mary's College High School has indicated that the Use Permit projects are intended to improve and enhance the visual character of the campus. Following development under the Use Permit, the basic visual elements of the campus (e.g., buildings, the athletic field, parking areas, etc.) would remain generally similar in visual appearance to what is currently seen on campus, although the placement of buildings and parking areas on some portions of the campus would be modified to some extent. No new structure proposed under the Use Permit would exceed the City of Albany's current 40-foot height restriction. [Sources: 7, 17]

d. Glare: The construction of new buildings (e.g., the Music Building and the Chapel, and related parking area), additions to existing structures, and the demolition and/or renovation of existing buildings would be expected to result in some changes in the placement of exterior lighting fixtures (e.g., light poles in parking areas, bollards along walkways, security lighting along buildings) on campus, but the basic concept and purpose behind the existing lighting patterns at the campus would not change. Some buildings on campus that would be used during evening hours would be illuminated internally, with light visible from the windows when in use after dark, as is the case with existing structures on the campus today. Lights in the interior of the building will be manually operated. Lights on the exterior of the building will be on clock timers and photocells. The placement, mounting height, photometric characteristics, and glare shielding of the outdoor lights will be designed to provide illumination levels as recommended by the Illuminating Engineering Society of North America (IESNA). Although some living near the campus (particularly those living in homes above Posen Avenue) may be able to see light coming from the campus under existing conditions or following development anticipated under the Use Permit, the proposed increase of existing floor space under the Use Permit would not be expected to represent a new source of substantial light or glare, given the intent of Saint Mary's College High School to maintain its current approach toward facility lighting on campus, the level of visual screening present around the campus and compliance with City height limitations. The proposed addition of on-campus parking spaces would not be expected to require any substantive increase in existing parking area lighting. [Sources: 7, 17]

II. AGRICULTURE AND FORESTRY RESOURCES -- Would the project:

		Potentially significant impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				**X**
b.	Conflict with existing zoning for agricultural use, or a Williamson Act contract?				**X**
c.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				**X**
d.	Result in the loss of forest land or conversion of forest land to non-forest land?				**X**
e.	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				**X**

Existing Conditions: There are no farmlands or forest lands on, or in the vicinity of, the Saint Mary's College High School campus. No land on, or in the vicinity of, the campus has been zoned for agricultural use or for forest use. No portion of the campus is currently protected by an active Williamson Act contract. [Source: 1]

***Explanation*:** The campus is located in an urbanized area that has essentially been built-up with residential and institutional uses. The area is not zoned for agricultural use, and does not contain farmland or otherwise relate to agricultural resources. There are no forests located on or near the campus. Development under the Use Permit as proposed would not result in the conversion of any agricultural land to non-agricultural uses, or the conversion of any forest land to non-forest uses. [Source: 1]

III. AIR QUALITY AND GREENHOUSE GAS EMISSIONS -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

		Potentially significant impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Conflict with or obstruct implementation of the applicable air quality plan?				**X**
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		**X**		
c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?		**X**		
d.	Expose sensitive receptors to substantial pollutant concentrations?		**X**		
e.	Create objectionable odors affecting a substantial number of people?				**X**
f.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			**X**	
h.	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				**X**

Existing Conditions:

Climatological Conditions

The Project site falls within the Northern Alameda and Western Contra Costa Counties climatological subregion. This area is affected by the Oakland-Berkeley Hills, which act as a significant barrier to air flow.

In this area, marine air traveling through the Golden Gate, as well as across San Francisco and through the San Bruno Gap, is a dominant weather factor. The Oakland-Berkeley Hills cause the westerly flow of air to split off to the north and south of Oakland, which causes diminished wind speeds. The prevailing winds for most of this

subregion are from the west, though at the northern end, near Richmond (and the Project site), prevailing winds are from the south-southwest.

Temperatures in this subregion have a narrow range due to the proximity of the moderating marine air. Maximum temperatures during summer average in the mid-70's, with minimums in the mid-50's. Winter highs are in the mid- to high-50's, with lows in the mid- to high-40's.[1]

Pollutants and Current Air Quality

The Project site is situated within the San Francisco Bay Area Air Basin and the Bay Area Air Quality Management District (BAAQMD) administers air quality regulations applicable to this Air Basin.*

Recent air quality monitoring data collected in Alameda County shows air quality in the county periodically exceeds State and national air quality standards for ozone and fine particulate matter ($PM_{2.5}$) and State particulate matter standards for respirable (PM_{10}) particulate matter. The San Francisco Bay Area Air Basin has been designated as a non-attainment area for the State ozone, PM_{10} and $PM_{2.5}$ standards, and non-attainment for the federal ozone and 24-hour $PM_{2.5}$ standards.[2]

The BAAQMD California Environmental Quality Act: Air Quality Guidelines ("BAAQMD CEQA Guidelines") provide guidance for consideration by lead agencies, consultants, and other parties evaluating air quality and greenhouse gas emissions impacts conducted pursuant to CEQA. The document provides guidance on evaluating air quality impacts of development projects and local plans, determining whether an impact is significant, and mitigating significant air quality impacts.

The BAAQMD CEQA Guidelines include standards and recommended methodologies for evaluating health risk and hazards, and also include thresholds of significance for annual emissions of Particulate Matter (PM_{10} and $PM_{2.5}$), Reactive Organic Gases (ROG), and Nitrogen Oxides (NO_X), the latter two of which are precursors of ozone.

Carbon Monoxide (CO) is also a common pollutant in urban air. Primary sources of CO in ambient air are passenger cars, light-duty trucks, and residential wood burning. Emission controls placed on automobiles and the

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[1] BAAQMD, December 1999, *CEQA Air Quality Guidelines*, p. D-13.

[2] BAAQMD, Air Pollution Summaries, http://www.baaqmd.gov/Divisions/Communications-and-Outreach/Air-Quality-in-the-Bay-Area/Air-Quality-Summaries.aspx

*On March 5, 2012, the Alameda County Superior Court issued a ruling in *California Building Industry Association v. Bay Area Air Quality Management District* (Superior Court Case No. RG10548693). Pursuant to the ruling, the Court found that the adoption of BAAQMD's CEQA Guidelines is a "project" requiring CEQA review. The court issued a writ of mandate ordering the District to set aside the Thresholds and cease dissemination of them until the Air District had complied with CEQA.

In view of the court's order, the Air District is no longer recommending that the Thresholds be used as a generally applicable measure of a project's significant air quality impacts. Although lead agencies may rely on the Air District's CEQA Guidelines (updated May 2011) for assistance in calculating air pollution emissions, obtaining information regarding the health impacts of air pollutants, and identifying potential mitigation measures, the Air District has been ordered to set aside the Thresholds and is no longer recommending that these Thresholds be used as a general measure of a project's significant air quality impacts. Lead agencies may continue to rely on the Air District's 1999 Thresholds of Significance and they may continue to make determinations regarding the significance of an individual project's air quality impacts based on the substantial evidence in the record for the project.

reformulation of vehicle fuels have resulted in a sharp decline in CO levels, especially since 1991. The Bay Area has met the state and federal CO standards for over a decade, and is classified attainment maintenance by the U.S. EPA. However, CO hotspots, where levels of CO reach levels with the potential to cause health impacts, can still be found around high volume congested intersections.

Besides the "criteria" air pollutants, there is another group of substances found in ambient air referred to as Hazardous Air Pollutants (HAPs) under the Federal Clean Air Act and Toxic Air Contaminants (TACs) under the California Clean Air Act. These contaminants tend to be localized and are found in relatively low concentrations in ambient air. However, they can result in adverse chronic health effects if exposure to low concentrations occurs for long periods. They are regulated at the local, state, and federal level.

TACs are a broad class of compounds known to cause morbidity or mortality (cancer risk). TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., benzene near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level.

Diesel exhaust is the predominant TAC in urban air, and is estimated to represent about two-thirds of the cancer risk from TACs (based on the statewide average).

Sensitive Receptors

Sensitive receptors are facilities that house or attract children, the elderly, people with illnesses or others who are especially sensitive to the effects of air pollutants. Hospitals, schools, convalescent facilities, recreational areas, and residential areas are examples of sensitive receptors. The Saint Mary's College High School campus is located in a predominantly residential area, and both the school itself as well as surrounding residences would be regarded as sensitive receptors.

Although campus-related traffic, facility heating/maintenance, and other day-to-day campus activities may generate air pollutants in relatively small quantities, routine operations at the campus do not expose sensitive receptors either on- or off-campus to substantial concentrations of air pollutants.

Greenhouse Gases

There is a general scientific consensus that global climate change is occurring, caused in whole or in part, by increased emissions of greenhouse gases (GHGs) that keep the Earth's surface warm by trapping heat in the Earth's atmosphere, in much the same way as glass traps heat in a greenhouse. While many studies show evidence of warming over the last century and predict future global warming, the precise causes of such warming and its potential effects are far less certain.[3] In its "natural" condition, the greenhouse effect is responsible for maintaining a habitable climate on Earth, but human activity has caused increased concentrations of these gases in the atmosphere, thereby contributing to an increase in global temperatures.

Carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), ozone (O_3), and water vapor (H_2O) are the principal GHGs, and when concentrations of these gases exceed the natural concentrations in the atmosphere, the

[3] "Global climate change" is a broad term used to describe any worldwide, long-term change in the earth's climate.
"Global warming" is more specific and refers to a general increase in temperatures across the earth, although it can cause other climatic changes, such as a shift in the frequency and intensity of weather events and even cooler temperatures in certain areas, even though the world, on average, is warmer.

greenhouse effect may be enhanced. CO_2, CH_4, and N_2O occur naturally, as well as through human activity. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely byproducts of fossil fuel combustion, whereas CH_4 results from off gassing associated with agricultural practices and landfills.[4] GHG emission levels are generally expressed as CO_2 equivalent (CO_2e), which combines emissions of different GHGs using their relative warming potential (e.g., CH_4 has a 21-times higher warming potential than CO_2).

BAAQMD most recently updated the GHG emission inventory in 2010 using a base year of 2007.[5] In the Bay Area, fossil fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) is the single largest source of GHG emissions, accounting for 36.41 percent of the Bay Area's 95.8 million tons of GHG emissions in 2007. Industrial and commercial sources were the second largest contributors of GHG emissions with about 36.40 percent of total emissions. Domestic sources (e.g., home water heaters, furnaces, etc.) account for about 7 percent of the Bay Area's GHG emissions, and energy production accounted for 15.9 percent. Off-road equipment and agriculture make up the remainder with approximately 3 percent and 1.2 percent of the total Bay Area 2007 GHG emissions, respectively.

Explanation:

a. Air Quality Plans: With no increase in student enrollment, implementation of the Project would not result in any substantive increase in the use of the campus relative to current use patterns, and would not result in any substantive change in existing traffic patterns or traffic volumes in the vicinity of the campus. With no significant changes in existing local traffic patterns or traffic congestion resulting from implementation of the Project as proposed, there would be no conflict with the current Bay Area Clean Air Plan. [Sources: 4, 5]

b. and c. Violation of Air Quality Standards/Net Increase in Criteria Pollutants:

Construction at the Project site would involve demolition, excavation and site preparation, and building erection. Although these construction activities would be temporary, they would have the potential to cause both nuisance and air quality impacts related to fugitive dust and exhaust emissions.

The Project involves a number of construction phases that are anticipated to be completed over an approximately 10-year period as funds become available. The first phase, the Music Building, is the only one for which details of construction are known, but it is also expected to be the most intensive because of the higher level of demolition, earth-moving and paving. Because it is both the most intensive as well as the earliest (when construction vehicles are assumed to be older, with higher emissions levels), the first phase has been used to provide a worst-case emissions analysis, as shown below. In actuality, emissions during subsequent phases of construction would be anticipated to be lower than that shown below.

Construction emissions for the Project were computed using the URBEMIS2007 model based upon the specifics of the construction-period provided by the applicant. The specifics of the construction period are presented in the Project Description and in the URBEMIS results in **Appendix B**. Emissions from construction are shown in **Table 1**.

[4] CalEPA, April 2006, *Climate Action Team Report to the Governor and Legislature.*

[5] BAAQMD, February 2010, *Source Inventory of Bay Area Greenhouse Gas Emissions*.

Table 1: Daily Regional Air Pollutant Emissions for Construction (Pounds per Day) [1]

Description	Reactive Organic Gases (ROG)	Nitrogen Oxides (NO_X)	Particulate Matter (PM_{10})[2]	Fine Particulate Matter ($PM_{2.5}$)[2]
Highest Daily Levels	10.32	28.96	1.33	1.22
BAAQMD Thresholds	*54*	*54*	*82*	*54*

[1] Unmitigated emissions are shown.

[2] Applies to exhaust emissions only. The threshold for particulate matter as fugitive dust is implementation of appropriate best management practices, as discussed in the text following.

Construction-period emissions levels are below BAAQMD thresholds presented in **Table 1**. However, BAAQMD recommends implementation of construction mitigation measures to reduce construction-related emissions and fugitive dust for all projects, regardless of the significance level of construction-period impacts. These basic measures are included in the mitigation below and would further reduce construction-period criteria pollutant impacts.

Demolition and earth-moving activities can also result in fugitive dust, which contributes to particulate matter levels. Construction-period dust emissions of 0.14 lbs./day $PM_{2.5}$ and 0.65 lbs./day PM_{10} have been calculated using the URBEMIS2007 model (calculation sheets can be found in **Appendix B**). BAAQMD does not have a threshold of significance for fugitive dust impacts, but instead regards fugitive dust impacts as mitigated if appropriate management practices are implemented, as outlined in the mitigation below.

> *Mitigation*: Basic Construction Best Management Practices. The Project shall demonstrate proposed compliance with all applicable regulations and operating procedures prior to issuance of demolition, building or grading permits, including implementation of the following BAAQMD "Basic Construction Mitigation Measures".
>
> a. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
>
> b. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
>
> c. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
>
> d. All vehicle speeds on unpaved roads shall be limited to 15 mph.
>
> e. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
>
> f. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
>
> g. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

h. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

The BAAQMD significance thresholds for construction dust impacts are based on the appropriateness of construction dust controls. With implementation of the Basic Construction Best Management Practices, impacts related to construction period emissions and dust would be considered ***less than significant*** with mitigation. Because construction-period emissions do not exceed applicable significance thresholds, additional construction mitigation measures would not be required to mitigate impacts.

With no increase in student enrollment, implementation of the Project would not result in any substantive increase in the use of the campus relative to current use patterns, and would not result in any substantive change in existing traffic patterns or traffic volumes in the vicinity of the campus. With no changes in local traffic congestion resulting from implementation of the Project as proposed, there would be no cumulative increase during operations of any criteria pollutant or carbon monoxide hotspots related to traffic congestion. [Sources: 2, 5, 7, 14, 17]

d. Sensitive Receptors: For the purpose of assessing impacts of a proposed Project on exposure of sensitive receptors to risks and hazards, the threshold of significance is exceeded when the project-specific cancer risk exceeds 10 in one million, the non-cancer risk exceeds a Hazard Index of 1.0 (or cumulative risk of 100 in one million or a Hazard Index of 10.0 respectively), and/or the annual average $PM_{2.5}$ concentration would exceed 0.3 ug/m^3. The school itself is considered a sensitive receptor, as are residential areas, which are adjacent to the Project site. The discussion of sensitive receptors is divided into construction-period and operational period below.

Construction Period Exposure

Due to the proximity of sensitive receptors to the construction activities, a Construction Health Risk Assessment was completed (included in **Appendix B**) using the EPA dispersion model SCREEN3 to determine the potential health risks related to diesel exhaust from construction equipment. As discussed under items b. and c. above, construction of the first phase is the only one for which full construction details are known at this point. The first phase has been used to provide a worst-case analysis of health risks, as it is the most intensive construction phase. In actuality, health risk during subsequent phases of construction and/or the entire Project would be anticipated to be lower than shown below.

For the maximum exposed individual, including conservative age sensitivity factor of 10 to account for small children, the inhalation cancer risk would be 19.38 in 1 million (compared to a threshold of 10 in 1 million), the chronic hazard index would be 0.119 (compared to a threshold of 1.000) and the annual average $PM_{2.5}$ concentration would be 0.596 ug/m^3 (compared to the threshold of 0.300 ug/m^3). The inhalation cancer risk and annual average $PM_{2.5}$ levels are higher than threshold levels and therefore considered a significant impact.

It should be noted that there is nothing particular or unusual about the proposed Project that would cause it to generate uncharacteristically high diesel exhaust and $PM_{2.5}$ emissions during construction. Based on new thresholds and recommended methodologies, many construction projects proximate to sensitive receptors are likely to result in similar conclusions prior to mitigation. The identification of an impact for this Project, when such an impact may not have been identified previously, is a result in changed understanding of the health risks of short-term exposure to diesel exhaust and recommended methodology for assessing such an impact.

Mitigation: Diesel Emission Reduction. Construction contracts for the Project shall include diesel emission reduction measures that reduce particulate emissions a minimum of 49.6 percent for PM10 and PM2.5 compared to the most recent California Air Resources Board (CARB) fleet average. Diesel emission reduction measures can include, but are not limited to alternatively fueled equipment, engine retrofit technology, after-treatment products and add-on devices such as particulate filters, and/or other options as they become available.

With respect to phases beyond construction of the Music Building (Phase One), when more is known of the specifics of construction for future phases, the applicant can chose to instead have a more detailed health risk assessment prepared by a qualified consultant to modify or remove the need for these emissions reductions to meet threshold levels.

Annual emissions from the URBEMIS model were adjusted to account for the above reduction and the health risk assessment reevaluated for the resulting emissions levels. The mitigated health risk levels were found to be within threshold levels: the maximum inhalation cancer risk per million would be 9.76 compared to the threshold of 10, the maximum chronic hazard index would be 0.060 compared to the threshold of 1.000, and the maximum exposed individual would be exposed to annual average $PM_{2.5}$ concentrations of 0.3 ug/m3 compared to the threshold of 0.3 ug/m3. There are no other known construction projects planned within 1,000 feet of the Project site within the same construction period that would contribute to cumulative construction impacts.

Therefore, with implementation of diesel emissions reductions meeting the minimum reduction levels specified (or refined levels), as included in the above mitigation, the impact related to construction-period would be ***less than significant***. [Sources: 2, 14, 17]

It also worth noting that the majority of construction will occur when school is not in session, and fewer students and faculty will be present on campus.

Operational Period Exposure

Following construction, none of the proposed uses would be considered a significant stationary source of air toxins. The Project would not increase student enrollment or result in any substantive increase in the use of the campus relative to current use patterns and would not result in any substantive change in existing traffic patterns or traffic volumes in the vicinity of the campus. Operation of the Project would not be a source of new health risks to on-site or off-site sensitive uses.

However, in an effort to provide full disclosure, the following health risk analysis is provided for informational purposes. This analysis uses the current recommended methodologies regarding operational health risk. The Health Risk Assessment was conducted for the construction period only, and is presented as **Appendix B**. Since the use of the school following construction would not change from current conditions, and no new sensitive receptors are proposed in the vicinity of the school, no Health Risk Assessment was conducted for operation of the school following construction.

The Project site is located over 3,000 feet east of Highway 123, the closest high volume roadway in BAAQMD's Highway Screening Analysis Tool. Risk from the highway at the Project site would be negligible. According to BAAQMD's Stationary Source Screening Analysis Tool, the only additional source of air emissions that would contribute above negligible levels to risk at this site is the Coffee Market located approximately 425 feet to the southeast of the Project at 1578 Hopkins Street, which contributes up to 0.0744 ug/m^3 of $PM_{2.5}$ and a health risk of 0.025 in one million, both below the single and cumulative threshold levels. Therefore, the health risk at this

location is below threshold levels and the impact would be considered less than significant even if the existing school campus was analyzed as a new use.

The school itself is considered a sensitive receptor; however, it is not a new use, thus, CEQA does not require the Project to conduct an analysis as a new sensitive receptor. The impact related to operational health risk would be ***less than significant***.

e. Odors: Implementation of the Project would not result in the development of any new facilities that would create objectionable odors. Typical sources of objectionable odors include chemical plants, sewage treatment plants, large composting facilities, rendering plants, and other large industrial facilities that emit odorous compounds. In addition, the Project would be required to comply with the Performance Standards, Section 20.36 of the Zoning Ordinance and BAAQMD Regulation 7, both of which include standards for avoidance of odors. Therefore, the Project would have ***no impact*** in relation to odors. [Sources: 2, 7]

f. Greenhouse Gas Emissions:
Pursuant to guidance contained in the CEQA Guidelines and issued by BAAQMD, a project's global climate change impacts should be considered on a cumulative basis. No single project is large enough to result in a measurable increase in global concentrations of GHG emissions to noticeably change the global average temperature, but the combination of GHG emissions from past, present, and future projects may contribute substantially to the phenomenon of global climate change and its associated environmental impacts.

Since BAAQMD is no longer recommending that its thresholds be used as a generally applicable measure of a project's significant air quality impacts (including from GHG emissions) due to a court order (see footnote 2), this Initial Study evaluates the Project's consistency with strategies outlined in the California Air Resources Board's (CARB) Scoping Plan in accordance with the GHG reduction goals of Assembly Bill 32 (AB 32) to determine whether the Project's individual emissions would be cumulatively considerable.[6] Further, the Project has been evaluated for its consistency with the City of Albany's Climate Action Plan.

BAAQMD does not have an adopted threshold of significance for construction-related GHG emissions, though recommends quantification using URBEMIS for proposed land use development projects and a determination regarding significance in relation to meeting AB 32 goals.

AB 32's 2020 target requires a total emissions reduction of 169 MMTons, 28.5 percent from the projected emissions of the business-as-usual (BAU) scenario for the year 2020 (i.e. 28.5 percent of 596 MMTons). (The CARB Scoping Plan defines BAU as emissions levels that would occur if California continued to grow and add new GHG emissions but did not adopt any measures to reduce emissions. Under CARB's definition of BAU, new growth is assumed to have the same carbon intensities as was typical from 2002 through 2004.)

Temporary construction-related exhaust would be an additional source of GHG emissions that could contribute to regional GHG emissions. Sources of construction-related GHGs only include exhaust, for which the CO_2 emissions have been calculated using the URBEMIS2007 model with the same inputs used to calculate emissions of air pollutants and precursors (included in **Appendix B**). Construction-period CO_2e would total up to 173 metric

[6] State of California guidance and goals for reductions in GHG emissions are generally embodied in AB 32, the Global Warming Solutions Act, and Executive Order S-03-05. AB 32 was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in Executive Order S-3-05, signed June 1, 2005. Executive Order S-03-05 set a GHG reduction targets for the State including reaching 1990 levels by 2020.

tons[7] over a one-year period. As discussed under items b. and c. above, this is based on worst-case calculations for the first phase of construction, and actual emissions levels would be anticipated to be lower for the remaining construction phases. Further, because construction emissions are short term and would cease upon completion, GHG emissions from construction activities would nominally contribute to GHG emission impacts, and therefore are not assumed to significantly contribute to cumulative GHG emission impacts of the Project. In addition, the Project would comply with the mitigation measures set out above in this section further reducing emissions. Consequently, the Project's construction GHG emissions would not be cumulatively considerable and would be considered ***less than significant***.

With no increase in student enrollment, implementation of the Project would not result in substantive changes in existing traffic volumes or related GHG emissions. Implementation of the Project would ultimately result in a net increase of approximately 33,890 square feet of building area at the Project site. Further, key elements of CARB's GHG reduction plan are applicable to the Project including expanding and strengthening existing energy efficiency programs as well as building standards that are more energy efficient (as discussed in item g) as compared to prior BAU standards. Also, the Project will implement, and is consistent with, the City's Climate Action Plan (as discussed in item g). As such, the Project is consistent with the GHG reduction goals of AB 32 and thus, the Project's impacts from GHG emissions are not cumulatively considerable and would be considered ***less than significant***. [Sources: 7, 14]

g. Greenhouse Gas Reduction Plans: The Albany City Council adopted the Climate Action Plan (CAP) in April 2010. Additionally, the State's Green Building Standards Code (CALGREEN) requires all new buildings and major remodels in the state to be more energy efficient and environmentally responsible. This code took effect on January 1, 2011 and would be applicable to the Project. These comprehensive regulations are targeted to achieve major reductions in greenhouse gas emissions, energy consumption and water use to create a greener California.

CALGREEN requires:

- A reduction in water consumption by 20 percent,
- The diversion of 50 percent of construction waste from landfills,
- Installation of low pollutant-emitting materials,
- Separate water meters for nonresidential buildings' indoor and outdoor water use,
- Moisture-sensing irrigation systems for larger landscape projects, and
- Mandatory inspections of energy systems (e.g., heat furnace, air conditioner and mechanical equipment) for nonresidential buildings over 10,000 square feet to ensure that all are working at their maximum capacity and according to their design efficiencies.

The Albany CAP additionally includes goals to implement regulations beyond those required as a minimum by CALGREEN. Construction/remodeling under the Project will be required to comply with the City's Green Building Standards which requires a minimum of LEED GOLD compliance. As a construction project with no substantial change to operations other than expanded building square footage, the Project would have ***no impact*** and would be consistent with GHG reduction plans. [Sources: 7, 18]

[7] URBEMIS short tons of CO_2 output was converted to CO_2e using a conversion factor of 100/95 (the general ratio of CO_2e from other GHGs relative to that from CO_2 emissions for exhaust) and to metric tons using the standard conversion factor of 0.907.

IV. BIOLOGICAL RESOURCES -- Would the project:

		Potentially significant impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		**X**		
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or region-al plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			**X**	
c.	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				**X**
d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				**X**
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			**X**	
f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?				**X**

Existing Conditions: The Saint Mary's College High School campus has been in active use for more than 100 years. Although there are trees and other vegetation along the edges of the athletic field (between the track and the homes fronting on Monterey Avenue, between the track and the sidewalk along Posen Avenue), and along Codornices Creek, these trees are not known to support any candidate, sensitive, or special-status species. However, raptors are known to nest in at least one tree in the vicinity of the campus.

The Federal Migratory Bird Treaty Act (MBTA, 16 U.S.C., Sec. 703, Supp I) prohibits any person to:

> "…pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means

> whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention ... for the protection of migratory birds ... or any part, nest, or egg of any such bird."

The list of migratory birds includes almost every native bird in the United States. This law also extends to parts of birds, nests and eggs. It is, therefore, a violation of the MBTA to directly kill or destroy an active nest of any bird species. The MBTA is typically applied on domestic projects to prevent injury or death of nesting birds and their chicks.

Explanation:

a. Effects on species: Development under the Use Permit would result in the replacement of existing facilities and in the construction of new facilities in an area that already supports similar facilities (e.g., buildings, parking areas, etc.). Development under the Use Permit would not have a substantial adverse effect on any species identified as a candidate, sensitive, or special-status species, as none are currently known to inhabit this previously-developed site. However, the possible disturbance of any nesting raptors (or any other species covered by the MBTA that may be nesting on, or in the vicinity of, the campus), during tree removal (four Acacia trees are proposed to be removed) or construction activity associated with development under the Use Permit would represent a potentially significant impact.

> *Mitigation*: If proposed tree removal were to occur during the period August through February, no pre-construction survey for nesting birds would be required. If tree removal occurs during the March through July breeding season, however, a biologist shall conduct a pre-construction survey to determine if special-status birds are nesting on or near the site. The biologist shall conduct the survey no more than 30 days prior to initiation of tree removal. If there were no nest observed, tree removal or grading could proceed.
>
> If a nest is observed in or near a tree on the site, it will be monitored for bird egg-incubation, including:
>
> - Incubation behavior (e.g., regular periods of “disappearance” into the same location followed by short, secretive flights to forage),
> - Extreme distress and alarm calls when in close vicinity of the nest tree, and
> - Observation of food carried in the beak or claws to the nest.
>
> If the biologist observes incubation behavior, incorporating the following measures should protect the nest location:
>
> - Establishment of a buffer using orange construction fencing around the tree in accordance with CDFG recommendations until the young have fledged. The nest tree should be monitored a minimum of once per week to confirm that the young have fledged and that no new nesting pairs are present before the buffer is removed.
> - If it is not feasible to delay or modify construction activities around the tree, the biologist shall contact the CDFG to discuss alternative buffer options.

Implementation of the above mitigation measure would reduce the environmental impacts associated with development under the Use Permit on nesting raptors (or any other species covered by the MBTA) to a level of ***less than significant***. Surveying for active nests prior to the start of construction for each Use Permit project

would confirm either the presence or absence of such nests, and if active nests are found, appropriate measures to establish an effective buffer to be enforced during all construction activity (or other measures acceptable to CDFG) can then be taken. [Sources: 7, 17]

b. Sensitive biological community: There are no areas of the campus which would be affected by the Use Permit construction projects that provide riparian habitat, or that have been formally identified as sensitive natural communities. Storm drainage from the campus would ultimately be directed primarily into a proposed rain garden (see discussion in **IX. Hydrology and Water Quality**, below), with drainage from that facility's overflow/outlet structure routed to the existing storm drainpipe and from there to the existing outfall to Codornices Creek (some stormwater also flows from western portions of the campus toward Posen Avenue where it would enter the existing storm drains along that street, but such storm drainage would not have the potential to adversely affect any sensitive biological community in a significant way). Although the creek and immediately adjacent areas may provide some riparian habitat values, compliance with all RWQCB stormwater collection and treatment requirements would effectively limit any possible adverse effects that drainage from the campus could have on these areas to a level of less than significant. [Sources: 7, 13, 17]

c. Wetlands: There are no federally-protected wetlands located at the campus, and development under the Use Permit would not have any adverse effects on any wetlands. [Sources: 13, 17]

d. Wildlife movement: The majority of the Saint Mary's College High School campus is currently fenced (as are most residential lots in the vicinity), which already limits the movement of native resident or migratory wildlife species through the site and the surrounding residential neighborhood to a large extent. No aspect of development under the Use Permit would interfere with the movement of fish, as no improvements are proposed in the vicinity of nearby Codornices Creek as part of the Use Permit. The campus is not located within a wildlife corridor, and does not provide any wildlife nursery sites. [Sources: 13, 17]

e. Policies on biological resources: There is no City tree preservation ordinance in force in this portion of the City. In the absence of such a an ordinance or similar policy, removal of existing trees at the campus as shown on the project plans would be considered a less than significant impact. [Sources: 2, 7, 13, 17]

f. Habitat conservation plans: The City of Albany has not adopted any Habitat Conservation Plan, Natural Community Conservation Plan, or other similar local plans intended to protect habitat areas or natural communities, and there are no similar regional or state habitat conservation plans in force at the Saint Mary's College High School campus. [Sources: 1, 2]

V. CULTURAL RESOURCES -- Would the project:

		Potentially significant impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?		**X**		
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?		**X**		
c.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		**X**		
d.	Disturb any human remains, including those interred outside of formal cemeteries?		**X**		

Existing Conditions. There are four buildings located on the Saint Mary's College High School campus that are either more than 50 years old (St. Joseph's Hall, the original portion of the Gymnasium, and part of Cronin Hall) or are approaching age 50 (Vellesian Hall). However, despite the age of these structures, none have been formally identified as "historic resources' by the City of Albany or any other agency.

JRP Historical Consulting, LLC (JRP) inventoried and evaluated Saint Joseph's Hall and Cronin Hall because they are the only buildings that development under the Use Permit would impact that have potential to be considered historical resources (a third building, Vellesian Hall was also evaluated by JRP during the inventory). This evaluation was intended to assess whether any of these buildings should be considered a historical resource for the purposes of CEQA (i.e., whether they are listed in, determined to be eligible for listing in, or appear to meet the criteria for listing in the California register of Historical Resources [CRHR] or national Register of Historic Places [NRHP]). Because the City of Albany does not have a historic preservation ordinance, there were no local criteria to apply. These buildings are described and evaluated on Department of Parks and Recreation Primary and Building Structures and Objects Record (DPR 523) forms, provided in **Appendix C**.

JRP concluded that the buildings evaluated do not appear to meet the criteria for listing in the NRHP/CRHR. Thus, Saint Joseph's Hall, Cronin Hall, and Vellesian Hall are not historical resources for the purpose of CEQA.

There are no known archaeological, paleontological or unique geologic resources at the Saint Mary's College High School campus. No portion of the campus has been previously used as a cemetery, and no human remains are known to be present.

Explanation:

a. Historical Resources: The campus has been previously developed, no historic structures are present at the site, and no unidentified historical resources are known to exist below the soil surface at the site. However, if historical resources were to be uncovered during site preparation associated with individual Use Permit projects, and subsequently damaged, this would represent a potentially significant environmental impact.

Mitigation: In the event that any previously unidentified historical resources are uncovered during site preparation, excavation or other construction activity, all such activity shall cease until these resources have been evaluated by a qualified archaeologist and specific mitigation measures can be implemented to protect these resources.

Incorporation of this mitigation measure will reduce the impacts associated with possible disturbance of unidentified historical resources at the campus to a level of ***less than significant***. [Sources: 1, 17]

b. Archaeological Resources: The campus has been previously developed, and no archaeological resources are known to exist at the site. Development under the Use Permit would not be expected to affect any archaeological resources. However, if archaeological resources were to be uncovered during site preparation associated with individual Use Permit projects, and subsequently damaged, this would represent a potentially significant environmental impact.

Mitigation: In the event that any previously unidentified archaeological resources are uncovered during site preparation, excavation or other construction activity, all such activity shall cease until these resources have been evaluated by a qualified archaeologist and specific mitigation measures can be implemented to protect these resources.

Incorporation of this mitigation measure will reduce the impacts associated with possible disturbance of unidentified archaeological resources at the campus to a level of ***less than significant***. [Sources: 1, 17]

c. Unique Paelontological Resources /Geologic Features: The campus has been previously developed, and no paleontological resources or unique geologic features are known to exist at the site. Development under the Use Permit would not be expected to affect any paleontological resources or unique geologic features. However, if paleontological or unique geologic resources were to be uncovered during site preparation associated with individual Use Permit projects, and subsequently damaged, this would represent a potentially significant environmental impact.

Mitigation: In the event that any previously unidentified paleontological or unique geologic resources are uncovered during site preparation, excavation or other construction activity, all such activity shall cease until these resources have been evaluated by a qualified archaeologist and specific mitigation measures can be implemented to protect these resources.

Incorporation of this mitigation measure will reduce the impacts associated with possible disturbance of unidentified paleontological or unique geologic resources at the campus to a level of ***less than significant***. [Sources: 1, 17]

d. Human Remains: The campus has been previously developed, and no human remains are known to exist at the site. Development under the Use Permit would not be expected to disturb any human remains. However, if human remains were to be uncovered during site preparation associated with individual Use Permit projects, and subsequently damaged, this would represent a potentially significant environmental impact.

Mitigation: In the event that any human remains are uncovered during site preparation, excavation or other construction activity, all such activity shall cease until these resources have been evaluated by the County Coroner, and appropriate action taken in coordination with the Native American Heritage Commission.

Incorporation of this mitigation measure will reduce the impacts associated with possible disturbance of human remains at the campus to a level of ***less than significant***. [Sources: 1, 17]

VI. GEOLOGY AND SOILS -- Would the project:

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

Existing Conditions:

Regional Seismicity and Geology

The Saint Mary's College High School campus lies in the tectonically active Coast Ranges Geomorphic Province of Northern California in Alameda County, a region characterized by frequent seismic activity along the margin between the North American and Pacific Plates. Tectonic stress is periodically released when there is slip along one of the area faults, causing an earthquake. Active faulting and crustal deformation affects the topographic geometry of the region; ridges and valleys trend northwest to southeast, parallel to the strike of the faults. In the San Francisco Bay region, fault displacement is primarily right lateral strike-slip (horizontal) with lesser dip-slip

(vertical) components. Active earthquake faults may include several fault strands in a broad zone, or a single actively creeping identifiable fault. Most slip is accommodated along fault planes that cause surface rupture along fault traces, but slip may also occur in the subsurface and not cause surface rupture, instead occurring along "blind" thrust faults. The California Geological Survey has mapped active faults in the area, which show evidence of rupture during the past 11,000 years. These faults, most of which have had historical earthquakes, are summarized on the official Alquist-Priolo Earthquake fault zone maps published by the State of California Geological Survey (California Division of Mines and Geology, *Digital Images of Official Maps of Alquist-Priolo Fault Zones of California, Central Coast Region*, DMG CD 2000-004, 2000). The fault nearest to the campus is the Hayward fault, located 0.9 miles east of the site (DCM Engineering, *Geotechnical Engineering Investigation Report – Field Renovation Project - Saint Mary's College High School, Albany, California*, 2004).

Area Geology

The campus is located in Albany, California, in an area of gently sloping topography located near the toe of the Berkeley Hills. According to published geologic mapping of the area (Dibble, *Preliminary Geologic Map of Richmond Quadrangles Alameda: U.S. Geological Survey Open-File Report 1100*, 1980; Helley, E.J. and Graymer, R.W., *Quaternary Geology of Alameda County and Surrounding Areas, California: derived from the Digital Database, U.S. Geological Survey Open-File Report 97-97*, 1997), the site is underlain by alluvial soil deposits identified as older alluvium and Pleistocene age alluvial fans and fluvial deposits at depth. Geologic mapping shows bedrock consisting of Ryolite volcanic rock and sheared greenstone, sandstone, and shale about 3,000 feet northeast of the campus. No bedrock was encountered within the borings drilled for the athletic field renovation project (currently underway), but variably hard alluvial deposits were encountered. The geologic mapping is generally consistent with native subsurface conditions encountered within the borings drilled for the athletic field renovation project and the adjacent previous gymnasium addition project.

Existing Site and Subsurface Conditions

Although much of the campus lies on a relatively level graded pad, historic topographic maps and the general lay of the land indicate that prior to grading, an east-west trending ridge occupied the site. The north side of the ridge sloped down towards present-day Posen Avenue, and the south side of the ridge sloped down towards Codornices Creek.

According to the Geotechnical Engineering Investigation Report (DCM Engineering, *Geotechnical Engineering Investigation Report - Field Renovation Project - Saint Mary's College High School, Albany, California*, 2004), fill used to grade the level track and field pad consists of borrowed materials excavated from natural ridge areas of the Project site generally described as stiff or hard sandy clay with some medium dense to very dense clayey sand. Soil was found to be moist and moderately plastic, with occasional gravels. Penetration resistance within the native fill indicates the fill is presently in a compacted state. Overlying the bulk fill soils is an approximately 1½- to 2-foot thick layer of clayey fill imported for the natural turf field. In the geotechnical report, this is described as dark gray and dark brown, highly plastic clay with sand that was very moist to wet at the time of sampling.

Existing fills are underlain by native alluvial soils. These occur at or near the surface at the east end of the level pad at the athletic field, and below the fill elsewhere. The alluvial soils consist of moderately plastic clay, sandy clay, clayey sand, and silty or poorly graded sand. During the geotechnical investigation for the athletic field renovation project (currently underway), occasional gravels were found within the alluvial layers.

According to an earlier Geotechnical Investigation (Treadwell & Rollo, *Geotechnical Investigation – Saint Mary's College High School Classroom Building, Berkeley, California*, 2000), the portions of the campus nearest Frates Memorial Hall are underlain by fill ranging in thickness from seven feet to 12 feet. The fill consists of a 1- to 1½-foot thick layer of highly expansive clay at the existing ground surface, with the remainder of the fill consisting of dense to very dense clayey and gravelly sand and hard sandy clay. The fill was underlain by stiff clay and sandy clay to the depths explored (except at one boring, where a five-foot-thick layer of medium dense clayey sand was encountered below the fill.

Groundwater

Groundwater levels fluctuate with the rainy season and schedule of irrigation. Due to the hill slope nature of the site, there is no permanent underlying aquifer in the shallow subsurface, but a transient layer of perched water. Groundwater seepage is apparently limited to the northwestern end of the campus within two boreholes, at 23 and 9 feet below the ground surface. In this area, very moist soil was found in the upper 15 feet (DCM Engineering, *Geotechnical Engineering Investigation Report - Field Renovation Project - Saint Mary's College High School, Albany, California*, 2004), with some seepage at or near the interface of the fill and alluvial soils. No groundwater seepage was encountered at any of the other borehole locations. Groundwater was not encountered during the earlier Geotechnical Investigation (Treadwell & Rollo, *Geotechnical Investigation – Saint Mary's College High School Classroom Building, Berkeley, California*, 2000).

Regulatory Setting

State Laws and Regulations

<u>Alquist-Priolo Earthquake Fault Zoning Act</u>

The California Legislature passed the Alquist-Priolo Earthquake Fault Zoning Act in 1972 to mitigate the hazard of surface faulting to structures for human occupancy (California Division of Mines and Geology, *Fault-Rupture Hazard Zones in California, DMG Special Publication 42*, 1997 revision). The Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act addresses only the hazard of surface fault rupture and is not directed toward other earthquake hazards. Local agencies must regulate most development in fault zones established by the State Geologist. Before a project can be permitted in a designated Alquist-Priolo Earthquake Fault Zone, the city or county with jurisdiction must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active or potentially active faults.

<u>California Seismic Hazards Mapping Act</u>

The California Seismic Hazards Mapping Act of 1990 (California Public Resources Code Sections 2690-2699.6) addresses seismic hazards other than surface rupture, such as liquefaction and seismically induced landslides. The Seismic Hazards Mapping Act specifies that the lead agency for a project may withhold development permits until geologic or soils investigations are conducted for specific sites and mitigation measures are incorporated into plans to reduce hazards associated with seismicity and unstable soils.

California Building Code

The California Building Code (CBC) has been adopted by the City of Albany to oversee construction. The CBC defines four Seismic Zones in California, which are ranked according to their seismic hazard potential. Zone 1 has the least seismic potential and Zone 4 has the highest seismic potential. The Bay Area is located in Seismic Zone 4, and thus development is required to comply with all design standards applicable to Seismic Zone 4. The earthquake protection law (California Health and Safety Code section 19100 et seq.) requires that structures be designed to resist stresses produced by lateral forces caused by wind and earthquakes. Specific minimum standards for seismic safety and structural design to meet earthquake protection requirements are set forth in Chapter 16 of the CBC.

Local Laws and Regulations

City of Albany Municipal Code

Chapter 23 of the Albany Municipal Code, the Grading Ordinance, regulates grading work on private property. A Grading Permit must be obtained if a project includes excavation in excess of 50 cubic yards. In order to obtain a Grading Permit, the developer must submit an application that includes a Drainage Plan, Soils Report, Grading Plan, and Erosion and Sedimentation Control Plan (among other requirements). According to the City of Albany Municipal Code, projects must also comply with the California Building Code, as amended by Chapter 23 of the Albany Municipal Code. A building permit is required for retaining walls greater than 4 feet high, measured from the base of footing.

Explanation:

Geology-related impacts associated with development under the Use Permit would occur should structures become unstable and prone to damage or collapse, therefore posing a physical hazard to people. This may occur as a result of unstable underlying soils, geologic conditions, seismicity, erosion, or some other geotechnical constraint. Impacts could also occur should there be a disruption in drainage causing soil erosion or flooding, creation of unstable slopes, cuts or other foreseeable hazards as a result of grading and construction. Impacts may be confined to the construction period or be present over the long term. Impacts are described below pertinent to the CEQA significance criteria.

a. Seismic Hazards: Seismic hazards are generally classified as two types, primary and secondary. The primary seismic hazard is surface fault rupture. Secondary seismic hazards, caused by the sudden movement along a fault, include strong ground shaking, liquefaction, dynamic densification and seismically-induced ground failure.

i) Surface Fault Rupture: No active faults cross the campus, and the campus is not located within an Alquist-Priolo Special Studies Zone (Hart, E.H., and Bryant, W.A., *Fault-Rupture Hazard Zones in California: Division of Mines and Geology Special Publication 42*, 1997, referenced in the Geotechnical Engineering Investigation Report [DCM Engineering, 2004]). Therefore, the probability of ground surface rupture due to faulting across the campus is low. Consideration of ground cracking not directly caused by fault movement, but sometimes related, is discussed under the potential impact of geologic instability, below. Development under the Use Permit would have *no impact* related to the exposure of people or structures to danger from surface rupture of a known earthquake fault. [Sources: 4, 15]

ii) Strong Seismic Ground Shaking: The campus is subject to strong ground shaking. The campus is located approximately 0.9 miles southwest of the nearest active fault (Hayward Fault). The California Division of Mines and Geology ranks the Hayward Fault as a Type A fault with a maximum magnitude of M=7.1.

Paleoseismic studies by the Working Group on California Earthquake Probabilities conclude that there is a 27 percent probability of a magnitude 6.7 or greater earthquake on the Hayward-Rogers Creek Fault by the year 2032 (Working Group on California Earthquake Probabilities [WGCEP], *Earthquake Probabilities in the San Francisco Bay Region: 2002-2031: U.S. Geological Survey Open-File Report 02-214*, 2003, referenced in the Geotechnical Engineering Investigation Report [DCM Engineering, 2004]). Consequently, the campus will likely be subject to strong ground shaking during the lifetime of new structures and other improvements proposed under the Use Permit.

A joint U.S. Geological Survey and California Division of Mines study concluded that a peak horizontal bedrock acceleration of 0.7 to 0.8g has a 10 percent probability of being exceeded in 50 years within the vicinity of the campus (Cao, T., and others, *The Revised 2002 California Probabilistic Seismic Hazard Maps: California Geological Survey*, an update to DMG Open-File Report 96-08, 2003, referenced in the Geotechnical Engineering Investigation Report [DCM Engineering, 2004]). The actual ground surface acceleration that would occur at the campus depends upon the engineering characteristics of, and the interaction between, the underlying bedrock and overlying soils at the campus during seismic shaking. These characteristics and interactions may result in ground shaking amplification. The potential for shaking amplification at the campus is considered moderate (Association of Bay Area Governments, *Earthquake Hazard Map for Albany based on Underlying Geologic Material*, 1997, referenced in the Geotechnical Engineering Investigation Report [DCM Engineering, 2004]).

Earthquake hazard maps by the Association of Bay Area Governments for the campus area indicate a Modified Mercalli Intensity of IX (or violent ground shaking) during either a rupture of the north segment of the Hayward Fault or during full-length rupture of the Hayward Fault (Association of Bay Area Governments, *Earthquake Hazard Maps for Albany: Scenarios: Hayward Fault*, http://quake.abag.ca.gov, 2003, referenced in the Geotechnical Engineering Investigation Report [DCM Engineering, 2004]). Less intense shaking ranging from moderate to very strong is expected to occur from a more distant earthquake on faults such as the San Andreas, Calaveras, Concord, or Rodgers Creek faults. Seismic shaking is a potentially significant environmental impact.

Mitigation: The Project plans shall be reviewed by a qualified Civil Engineer employed or retained by the City of Albany to assure conformance with seismic safety design requirements; no grading permit or building permit shall be issued until plans are approved as meeting all code requirements.

Mitigation: All foundation and structural work shall be monitored for construction quality and assurance in accordance with design recommendations. Construction observation and testing shall be completed for foundation excavations, grading, and filling, to make sure material and compaction specifications are met, keyways are excavated into suitable material and are of suitable size, and that foundations are constructed properly in accordance with design recommendations and modified or augmented where necessary since subsurface conditions may differ from those initially encountered during the geotechnical investigation.

Work shall be completed under the direction of a state-licensed Geotechnical Engineer. Special Inspection of structural elements such as shear walls, foundation bolting, steel reinforcement rods, and concrete work shall be completed under the supervision of a licensed Civil Engineer by a qualified Special Inspection firm.

Incorporation of seismic construction standards will reduce the potential for catastrophic effects of ground shaking such as complete structural failure to an acceptable standard, but will not completely eliminate the hazard of seismically-induced ground shaking. Prior to use of improvements, all construction inspection documents (as-built plans) shall have been submitted and recorded by the appropriate regulatory agency with approval granted prior to occupancy.

Implementation of the Mitigation Measures identified above would reduce the impact of seismically-induced ground shaking to a level of ***less than significant***. [Sources: 7, 15]

iii) Liquefaction and Lateral Spreading: Liquefaction is a phenomenon in which soil deposits undergo a loss of internal strength as a result of increased pore water pressure generated by cyclic loading. Such cyclic loading is commonly induced by strong ground shaking during earthquakes. Soils that have historically experienced liquefaction are typically saturated silts and sands of low to medium density that are relatively free of clay.

A published liquefaction potential map by Knudson and others indicates that the subsurface soils in the area of the campus have a low likelihood of being liquefied in an earthquake (Knudsen, Keith L., Sowers, Janet M., Witter, Robert C., Wentworth, Carl M., and Haley, Edward J., *Preliminary Maps of Quaternary Deposits and Liquefaction Susceptibility, Nine-County San Francisco Bay Region, California*, 2000, referenced in the Geotechnical Engineering Investigation Report [DCM Engineering, 2004]). The mapping is consistent with the soils encountered in test borings taken during the Geotechnical Engineering Investigation for the athletic field renovation project which is currently underway (DCM Engineering, *Geotechnical Engineering Investigation Report - Field Renovation Project - Saint Mary's College High School, Albany, California*, 2004), which were found to have a low potential for liquefaction (i.e., stiff to hard clayey soils, dense sand and gravels).

Lateral spreading may occur during seismic ground shaking when an area of land moves towards a free face such as an open body of water. Lateral spreading is often associated with liquefaction. The Geotechnical Engineering Investigation for the athletic field renovation project (currently underway) did not specifically identify or discuss lateral spreading as a potential impact, and soils at the site have a low potential for liquefaction.

Development under the Use Permit would have a *less than significant* impact related to exposing people or structures to potential substantial adverse effects associated with seismic related ground failure, including liquefaction and lateral spreading. [Sources: 7, 15]

iv) Landslides: A landslide is a mass of rock, soil and debris displaced down-slope by sliding, flowing or falling. Steep slopes greater than 50 percent are especially prone to landslides in areas of weak soil and/or bedrock. The campus is located in an area of gently sloping topography, without any extreme slopes at or surrounding the site. According to the ABAG Landslide Information Hazards Map, the campus is not in an earthquake-induced landslide zone (Association of Bay Area Governments, *Earthquake-Induced Landslide Hazard Map for Albany*, 2005, retrieved from http://www.abag.ca.gov/bayarea/eqmaps/landslide/). Development under the Use Permit is anticipated

to create *no impact* relating to landslides. The campus does, however, exhibit evidence of long-term soil creep (DCM Engineering, *Geotechnical Engineering Investigation Report - Field Renovation Project - Saint Mary's College High School, Albany, California*, 2004). These impacts are addressed in section c) Unstable Geologic Unit, below. [Sources: 7, 15]

b) Erosion or Loss of Topsoil: Although the majority of the existing buildings present at the campus would remain in place following development under the Use Permit, the demolition of the existing band pavilion/snack bar, and the construction of the proposed Music Building and the Chapel would involve either post-demolition grading, or pre-construction grading and site preparation, respectively. The grading for the proposed Music Building is anticipated to be the most extensive (comparable to that required to provide a basement), as this structure is intended to be set down lower into the hillside (at the site of the existing softball field) in order to reduce its apparent height and potential visual effects. During grading and soil surcharging activities, site soils and surcharge soils would be subject to soil erosion. Construction activities associated with individual Use Permit projects could include clearing, grubbing, and grading that will remove ground cover and expose/disturb soil on slopes. Exposed and disturbed soil is vulnerable to erosion from stormwater runoff and site watering during construction when soil is likely to be mobilized and flow down slope. The risk of erosion is most significant on steep slopes, but erosion can also occur on relatively flat slopes. Absent effective erosion control measures, resulting runoff would be muddy, and could greatly increase the turbidity of adjoining waterways, including the adjacent Codornices Creek. Turbid water is known to be harmful to aquatic organisms, while turbid runoff and mud or sludge could easily clog drains. Clogged drains could become restricted enough to overflow and then unexpected redirected and concentrated runoff would further exacerbate the erosion problem. Unchecked erosion would have numerous unintended and detrimental consequences such as slope failure and habitat disruption. This is considered to be a potentially significant environmental impact.

Mitigation: The Project applicant shall prepare and implement an updated Stormwater Pollution Prevention Plan (SWPPP) for each phase identified in the Use Permit that would involve soil disturbance (e.g., grading, demolition of existing structures, construction of new structures). A Notice of Intent (NOI) must be submitted to the State Water Resources Control Board to receive a Construction General Permit. The updated plan for each phase with the potential for soil disturbance shall address National Pollutant Discharge Elimination System (NPDES) requirements and be designed to protect water quality both during and after construction. The updated SWPPP shall include the following mitigation measures for the construction period:

Erosion Control Plan. The updated plan shall include erosion control/soil stabilization techniques such as straw mulching, erosion control blankets, erosion control matting, and hydro-seeding. Silt fences used in combination with fiber rolls shall be installed down slope of all graded slopes. Fiber rolls shall be installed in the flow path of graded areas receiving concentrated flows and fiber rolls or proven sediment traps shall be placed around all storm drain inlets. The construction entrance shall be stabilized to prevent tracking of dirt onto roads next to the site through use of a gravel base, erosion control blankets or other approved elements. Additionally, rock checks, fiber rolls, or other suitable material shall be placed below any culvert outfalls to Codornices Creek to prevent soil erosion from concentrated flow in these areas.

"Best Management Practices" shall be implemented for preventing the discharge of other construction-related NPDES pollutants beside sediment (i.e. paint, concrete, etc.) to downstream waters.

After construction is completed, all drainage facilities shall be inspected for accumulated sediment, and these drainage structures shall be cleared of debris and sediment.

Long-term mitigation measures to be included in the updated SWPPP shall include, but are not limited to, the following:

Description of potential sources of erosion and sediment at the proposed Project site, and any hazardous or potentially hazardous materials and chemicals. This will include a thorough assessment of existing and potential pollutant sources.

Development of a monitoring and implementation plan. Maintenance requirements and frequency shall be carefully described including vector control, clearing of clogged or obstructed inlet or outlet structures, vegetation/landscape maintenance, replacement of media filters, regular sweeping of parking lots and other paved areas, etc. Wastes removed from BMP facilities may be hazardous, therefore, maintenance costs should be budgeted to include disposal at a proper site.

The monitoring and maintenance program shall be conducted at the frequency agreed upon by the RWQCB and/or City of Albany. Monitoring and maintenance shall be recorded and submitted annually to the SWRCB. The SWPPP shall be adjusted, as necessary, to address any inadequacies of the BMPs.

Following development, a maintenance plan shall be implemented addressing groundskeeping and the protection of storm drain inlets, proper storage of potentially hazardous chemicals, proper use of landscaping chemicals, clean-up and appropriate disposal of hazardous materials and chemicals, and prohibition of any washing and dumping of materials and chemicals into storm drains.

City of Albany Community Development staff shall visit the site during grading and construction to ensure compliance with the grading ordinance and SWPPP, and note any violations, which shall be corrected immediately.

The City of Albany Municipal Code, Chapter 23, mandates that an Erosion and Sedimentation Control Plan be developed in order to obtain a Grading Permit. The SWPPP described can potentially address these requirements, and shall be developed accordingly. Alternatively, a supplemental Erosion and Sedimentation Control Plan that meets City requirements shall be developed as part of the Project.

Implementation of the Mitigation Measure above would reduce the potential impact of soil erosion associated with the construction activities related to individual Use Permit projects to a level of ***less than significant*** [Sources: 7, 15]

c) Unstable Geologic Unit: As previously described, there is a little to no potential for landslides, lateral spreading, or liquefaction at the campus. There is, however, evidence of geologic instability at the site, including soil creep, soil expansion and compaction, and vertical shrink-swell movement. Evidence of these occurrences includes cracks and slumping on the athletic track, exposure of the bleacher footings, and vertical cracks and concrete spalls in the wall of the concrete block retaining wall (west of the bleachers).

According to the Geotechnical Engineering Investigation Report for the earlier athletic field renovation project (DCM Engineering, *Geotechnical Engineering Investigation Report - Field Renovation Project - Saint Mary's College High School, Albany, California*, 2004), there is significant instability due to existing soils conditions at that portion of the campus, which indicates that similar conditions may be present elsewhere on the campus. The Geotechnical Engineering Investigation found that the upper two feet of soil underlying the field area consists of highly plastic, dark grey and dark brown clayey fill, likely imported to support the growth of the natural turf. An earlier Geotechnical Investigation (Treadwell & Rollo, *Geotechnical Investigation – Saint Mary's College High School Classroom Building, Berkeley, California*, 2000) also found that the portions of the campus nearest Frates Memorial Hall are underlain by a 1- to 1½-foot thick layer of highly expansive clay at the existing ground surface. Clay soils are potentially expansive and susceptible to significant vertical shrink-swell movements with changes in soil moisture content and loss of shear strength upon wetting. The imported clayey fill that has been identified below the existing track and near Frates Memorial Hall may also be present elsewhere on campus, and this fill would not be a suitable subgrade material for support of structures proposed under the Use Permit. This is considered a potentially significant environmental impact.

> *Mitigation*: As a condition of Project approval, the Project Geotechnical Engineer and/or City Engineer shall review and approve the Final Design Plans to ensure that each of the proposed Use Permit projects that involve the construction of new structures will implement and/or adhere to the recommendations from the site-specific Geotechnical Engineering Investigation Report (to be provided by Saint Mary's College High School as each Use Permit project comes forward for environmental review). Alternative designs and/or construction procedures may be implemented, subject to review and approval by the Project Geotechnical Engineer and/or City Engineer.

Implementation of the Mitigation Measure identified above would reduce the impact of unstable soils at the Project site to a level of ***less than significant***.

If there is insufficient stabilization of fill slopes, soil creep could persist, threatening the condition of structures and other improvements proposed under the Use Permit. At worst, existing retaining walls could potentially collapse causing slides, erosion, and possible bodily injury. This is considered a potentially significant environmental impact.

> *Mitigation*: A structural engineer shall evaluate the ability of the existing retaining walls to support existing and new fills required for the Project and recommended herein. This shall include an analysis of existing structures, as well as proposed structures, according to final construction details.
>
> *Mitigation*: In the event that existing and proposed structures are determined to provide insufficient support of fills at the site, the Project shall supplement or replace existing retaining walls with improvements of sufficient structural integrity to prevent soil creep and retaining wall failure.

Implementation of the Mitigation Measures identified above would reduce the impact of insufficient structural stabilization of fill slopes to a level of ***less than significant***. [Sources: 7, 15]

d) Expansive Soils. The Geotechnical Engineering Investigation found that the upper two feet of soil underlying the athletic field area are highly expansive and are susceptible to significant vertical shrink-swell movements with changes in soil moisture content and loss of shear strength upon wetting (DCM Engineering, *Geotechnical Engineering Investigation Report - Field Renovation Project - Saint Mary's College High School, Albany, California*, 2004). An earlier Geotechnical Investigation (Treadwell & Rollo, *Geotechnical Investigation – Saint Mary's College High School Classroom Building, Berkeley, California*, 2000) also identified a 1- to 1½-foot thick

layer of highly expansive clay at the existing ground surface in the area near Frates Memorial Hall. These expansive soils may be present elsewhere on the campus. Impacts associated with expansive soils are analyzed in the previous section, c) Unstable Geologic Unit. Implementation of the Mitigation Measure (identified above in association with Unstable Geologic Unit) would reduce impacts of expansive soils to a level of ***less than significant***. [Sources: 4, 7, 15]

e) Capability of Soils to Support Septic Tanks: The Applicant does not propose to build any new septic tank or alternate waste disposal systems. Development under the Use Permit would not generate any substantial new sources of wastewater. The school facilities are already served by the local sewer system. Therefore, there is *no impact* due to soils incapable of supporting septic systems. [Sources: 7, 15]

VII. HAZARDS AND HAZARDOUS MATERIALS - Would the project:

		Potentially significant impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				**X**
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				**X**
c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				**X**
d.	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				**X**
e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				**X**
f.	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				**X**
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				**X**
h.	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				**X**

Existing Conditions: Limited applications of herbicides have been employed for landscape maintenance on campus, and limited quantities of hazardous materials (e.g., cleaning agents, motor fuels, lubricants, etc.) are used for routine building and grounds maintenance and in classroom training (e.g., chemistry and biology lab work). Activities at the campus do not involve the routine use, transport or disposal of significant quantities of hazardous materials. No portion of the campus has been included on a list of hazardous materials sites. The campus is not located within two miles of any public use airport, within an area covered by an airport land use plan, or near a private airstrip. The campus is not located in an area identified by the Albany Fire Department as a "high fire hazard zone".

Explanation:

a. Development under the Use Permit, and the subsequent use of the facilities built or renovated under the Use Permit, would not involve the routine transport, use, or disposal of significant quantities of hazardous materials. [Sources: 7, 17]

b. Development Under the Use Permit, and the uses of the facilities built or renovated under the Use Permit, would not entail any reasonably foreseeable upset or accident involving the release of any hazardous materials. [Sources: 7, 17]

c. Although the Saint Mary's College High School campus is within one-quarter mile of Martin Luther King Jr. Junior High School in Berkeley, none of the activities associated with demolition, construction, renovation or subsequent uses of facilities proposed under the Use Permit would involve hazardous emissions or the handling of significant quantities of hazardous materials, substances or wastes. [Sources: 7, 17]

d. No portion of the campus has been included on a list of hazardous materials sites. [Sources: 1, 17]

e. The campus is not located within two miles of any public use airport, or within an area covered by an airport land use plan. Development under the Use Permit would have no impact on aviation safety, or place those using the new or renovated facilities at increased risks associated with aviation operations. [Source: 1]

f. The campus is not located within the vicinity of any private airstrip. Development under the Use Permit would have no impact on aviation safety, or place those using the new or renovated facilities at increased risks associated with aviation operations. [Source: 1]

g. With no increase in enrollment, development under the Use Permit would not result in any substantive changes in existing traffic patterns in the local area, and would have no effect on the implementation of any adopted emergency response plan or emergency evacuation plan. [Sources: 1, 13, 17]

h. The campus is not located in an area identified by the Albany Fire Department as a "high fire hazard zone", and those using the new or renovated facilities associated with development under the Use Permit would not be subject to the risks associated with wildland fires. [Sources: 1, 17]

VIII. HYDROLOGY AND WATER QUALITY -- Would the project:

		Potentially significant impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Violate any water quality standards or waste discharge requirements?		**X**		
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pro-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				**X**
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			**X**	
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			**X**	
e.	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?		**X**		
f.	Otherwise substantially degrade water quality?		**X**		
g.	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				**X**
h.	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				**X**
i.	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				**X**
j.	Inundation by seiche, tsunami, or mudflow?				**X**

Existing Conditions:

Codornices Creek

The campus is sloped to the south where runoff enters a series of storm drain drop inlets located along the edge of the athletic field. Runoff is conveyed to an existing drain line approximately 430 feet uphill from the creek that discharges via a 12" culvert to Codornices Creek to the south. The discharge point is an open, concrete-lined segment of the creek, immediately upstream of the Albina Avenue Bridge.

Codornices Creek is one of five creeks that flow within and along Albany's borders from the Berkeley Hills to the San Francisco Bay, including Cerrito, Marin, Middle, and Village Creeks (City of Albany Environmental Clean Water Program, *Our Local World of Water*, from http://www.albanyca.org/dept/ERcleanwaterprog.html, updated 2007). Codornices Creek forms the municipal boundary between the cities of Albany and Berkeley in this area. The Codornices Creek watershed encompasses an area of approximately 1.42 square miles in a largely urban setting (Waterway Restoration Institute, *Codornices Creek-1301 Oxford Street Channel Assessment and Concept Design Study for Congregation Beth El*, calculation from Figure 1, 1999). It is a perennial stream with headwaters in the Berkeley Hills near the Berkeley-Oakland boundary at Grizzly Peak. The Creek empties to San Francisco Bay near Golden Gate Fields. There are significant lengths of Codornices Creek that are culverted, the longest being an approximate 500-foot section from Henry Street to Milvia Street (Questa Engineering Corporation, *Congregation Beth El EIR Hydrology, Water Quality and Stream Corridor Protection*, 1999), and the creek appears to have several straight sections with some right angle turns, suggesting the creek is not in its natural alignment throughout some of its length. (The documents referenced are the most current available. No new scientific information is available).

The creek along the southern edge of the Saint Mary's College High School campus is likely in its historic alignment, given that the school has been located on the north bank for over 100 years. This section of the creek is characterized by a narrow and deep channel, with a variety of hard bank armor (including poured concrete, riprap and retaining walls), especially along the south bank (City of Albany, *City of Albany Watershed Plan*, 1998, referenced in the *Riparian Enhancement Plan for Codornices Creek, Saint Mary's College High School, Albany, CA*, prepared by Questa Engineering Corporation, 2001). The slope of the channel is steep, at about 3 to 4 percent, with the depth of the channel (measured from top of bank to channel bed) varying from approximately 12 to 15 feet upstream of the Albina Bridge, to nearly 40 feet downstream at the lower boundary of the school property (Questa Engineering Corporation, *Riparian Enhancement Plan for Codornices Creek, Saint Mary's College High School, Albany, CA*, 2001*)*. In some areas, concrete drop structures and concrete lining have been added to the bottom and lower slopes of the channel, possibly intended to arrest further channel bed incision. The most noticeable of these structures occur: 1) at the upper or east end of the creek at the campus boundary, 2) just upstream of the Albina Avenue Bridge, and 3) at the lower (or west) end of the campus. The drop structures are typically less than 14 inches high.

SMCHS has managed and participated in the preservation and stewardship of Codornices Creek. Existing measures to prevent the discharge of pollutants to the creek include:

- Implementation of source control best management practices (BMPs) for the cafeteria, trash pickup areas, and for surface cleaning throughout the campus;
- Implementation of erosion and sediment control and pollution prevention BMPs for construction sites during major and minor construction at the campus;
- Use of Integrated Pest Management for campus landscaping;

- Education programs for staff and students regarding stormwater pollution prevention and creek protection;
- Regular cleaning of leaves, litter, and other debris from plazas, walks, and drives to prevent them from flowing to the creek;
- Roof and gutter maintenance on all structures to assure proper drainage;
- Regular cleaning and maintenance of storm drains; and
- Prevention of sediment and debris from entering the storm drainage system through the use of screens and filter bags placed in drop inlets.

Creek Erosional Features

Drainage from the campus discharges to Codornices Creek, and any changes or alterations to runoff and stream discharge have the potential to contribute to further channel instability. There are visible erosion problems along the creek alignment adjacent to the Saint Mary's College High School campus. Problem areas were identified in the Riparian Enhancement Plan for Codornices Creek (Questa Engineering Corporation, *Riparian Enhancement Plan for Codornices Creek, Saint Mary's College High School, Albany, CA.* 2001), and recently observed by Questa Engineering staff (February 9, 2007, site visit by Environmental Scientist Nicolas Duffort, Questa Engineering Corporation). There is significant downcutting immediately downstream of the Albina Avenue Bridge, likely a result of increased runoff volumes from urbanizing of the watershed. The south bank of the creek, away from the Saint Mary's College High School campus, is experiencing slope instability and erosion. Riprap and other hard structures have been installed (likely by neighboring residents) to alleviate these problems, with little apparent success. Generally, the north bank adjacent to the Saint Mary's College High School campus is in fair condition, with no widespread areas of significant bank erosion and exposed/bare soil areas, although there are several isolated soil slumps or cavities along this length.

Creek Restoration Activities

Unrelated to the requested Use Permit, the Urban Creeks Council (a locally-based non-profit stream advocacy group) has completed a project that flattened and stabilized bank slopes upstream of the crossing near the parking lot at Saint Mary's College High School. The project involved excavating the steepened portion of the bank and flattening existing slopes, reducing slope steepness from ½:1 (existing) to 2:1 (post-project). In addition to this project, Saint Mary's College High School commissioned a report from Josh Bradt of the Urban Creeks Council to identify additional methods to stabilize the creek bank near the campus, and there will likely be more bank stabilization projects in the future.

Regulatory Setting

Site development under the Use Permit is required to proceed in accordance with the laws, regulations, and regulatory programs administered by local, state, and federal regulators. In some cases, federal laws are administered and enforced by state and local government. In other cases, state and local regulations in California are stricter than those imposed by federal law. This section summarizes relevant regulatory programs, laws, and regulations with respect to hydrology including drainage, stormwater management, flooding, erosion control, and water quality regulations.

Federal Laws and Regulations

Clean Water Act

The Federal Water Pollution Control Act Amendments of 1972 were enacted to protect water quality in the United States. As amended by Congress in 1977, this Act became commonly known as The Clean Water Act (CWA) and it has been amended several times since its inception. It is the primary federal law regulating water quality in the United States, and forms the basis for several state and local laws throughout the country. Its objective is to reduce or eliminate water pollution in the nation's rivers, streams, lakes, and coastal waters. The CWA prescribes the basic federal laws for regulating discharges of pollutants and sets minimum water quality standards for all waters of the United States. At the federal level, the U.S. Environmental Protection Agency (EPA) administers the CWA. At the state and regional level, the CWA is administered and enforced by the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCB). The State of California has developed a number of water quality laws, rules, and regulations to assist in the implementation of the CWA and related federally mandated water quality requirements. In many cases, the federal requirements set minimum standards, and the laws, rules, and regulations adopted by the State and Regional Boards are more restrictive, i.e., more protective of the environment.

State Laws and Regulations

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act established the SWRCB and the RWQCB as the principal state agencies having primary responsibility for coordinating and controlling water quality in California. The Porter-Cologne Act establishes the responsibility of the RWQCB for adopting, implementing, and enforcing water quality control plans (Basin Plans), which set forth the state's water quality standards (i.e., beneficial uses of surface waters and groundwater) and the objectives or criteria necessary to protect those beneficial uses.

San Francisco Bay Water Quality Control Plan (Basin Plan)

The San Francisco Bay RWQCB is responsible for the development, adoption, and implementation of the Water Quality Control Plan (Basin Plan) for the San Francisco Bay Region. The Basin Plan is the master policy document that contains descriptions of the legal, technical, and programmatic bases of water quality regulation in the San Francisco Bay Region. The Basin Plan identifies beneficial uses of surface waters and groundwater within its region and specifies water quality objectives to maintain the continued beneficial uses of these waters. The proposed Project will be required to adhere to all applicable water quality objectives identified in the Basin Plan.

NPDES Permit Requirements

The CWA has nationally regulated the discharge of pollutants to the waters of the U.S. from any point source since 1972. In 1987, amendments to the CWA added section 402(p), which established a framework for regulating non-point source (NPS) storm water discharges under the National Pollutant Discharge Elimination System (NPDES). In California, the NPDES storm water program is administered by the State Water Resources Control Board and by nine Regional Water Quality Control Boards. The Water Boards issue NPDES permits through Water Quality Orders as authorized by the California Water Code (Porter-Cologne Act). General NPDES permits issued by the SWRCB regulate storm water discharges from industrial facilities, small municipal separate storm water systems, and construction sites that disturb one or more acres of land. A municipal stormwater NPDES permit (Municipal Regional Permit, or MRP) issued by the San Francisco Bay RWQCB regulates

discharges from municipal separate storm sewer systems (MS4s) operated by 76 municipalities within the San Francisco Bay Area, including the City of Albany.

Local Programs and Regulations

San Francisco Bay Water Quality Control Plan (Basin Plan)

The San Francisco Bay RWQCB is responsible for the development, adoption, and implementation of the Water Quality Control Plan (Basin Plan) for the San Francisco Bay region. The Basin Plan is the master policy document that contains descriptions of the legal, technical, and programmatic bases of water quality regulation in the San Francisco Bay Region. The Basin Plan identifies beneficial uses of surface waters and groundwater within its region and specifies water quality objectives to maintain the continued beneficial uses of these waters. The proposed Project will be required to adhere to all applicable water quality objectives identified in the Basin Plan.

Alameda Countywide Clean Water Program

The Alameda Countywide Clean Water Program (ACCWP) was established in 1991 as an entity to receive NPDES permits. As part of the program, each of the 17 member agencies is a co-permittee of the NPDES Permit requirements and is responsible for verifying compliance with the NPDES permit requirements for storm water discharges.

The NPDES municipal storm water permit (2003 to 2008) requirements (administered by the ACCWP) were expanded by the San Francisco Bay Regional Water Quality Control Board to require, beginning in February 2005, that projects of one acre size and greater provide permanent water quality treatment for storm water. The program includes requirements to treat water to reduce the potential for pollution. While soil- and land-based treatment measures are preferred, mechanical solutions are acceptable where soil- and land-based features are not feasible. The program also requires that projects limit increases in stormwater flow to downstream receiving channels. The program requires that maintenance requirements for treatment features be determined prior to finalization of a proposed project. Property owners are required to provide maintenance of storm water quality controls. The ACCWP requires a maintenance plan to be recorded with the property deed.

Municipal Regional Permit – Requirements for New Developments and Redevelopments (Provision C.3)

The proposed Project will be a Regulated Project as defined in Provision C.3 of the Municipal Regional Permit (Order R2-2009-0074) issued by the California Regional Water Quality Control Board for the San Francisco Bay Region. Provision C.3 applies to the Use Permit projects as follows:

- The proposed Project is a Regulated Project because it will create or replace more than 10,000 square feet of impervious surface collectively over the campus.
- Treatment of runoff will be provided as described below.
- Less than 50 percent of the previously existing impervious area (i.e. the sum of all roofs, plazas, walkways, and driveways on the school campus) is to be altered; therefore, only new and/or replaced impervious surfaces must be included in the treatment design.
- Source Control measures will be incorporated for identified potential sources of stormwater pollutants. In particular, wash water from washing floor mats and other kitchen equipment will be directed to the sanitary sewer.

- The Project site design will avoid disturbance of water bodies and drainage by re-using previously developed portions of the campus and minimizing grading.
- Trees, vegetation, and soils will be conserved to the extent practicable within the overall Project design.
- Runoff will be reduced by the use of permeable surfaces as noted below.
- 100 percent of the amount of runoff calculated by the formulas in Provision C.3.d. for the Project drainage area will be treated with LID treatment measures onsite.
- The feasibility of achieving treatment of this amount of runoff by harvesting and reuse, infiltration, and/or evapotranspiration will be evaluated. If treatment by harvesting and reuse, infiltration, and/or evapotranspiration is infeasible, treatment by a biotreatment system with a surface area no smaller than what is required to accommodate a 5 inches/hour surface loading rate will be used.
- The Project will create and/or replace less than one acre of impervious surface. Therefore, the Project will not be a hydromodification management (HM) project.
- SMCHS will provide a signed statement accepting responsibility for the operation and maintenance of the installed stormwater treatment system. SMCHS will grant access to staff from the City of Albany and the Regional Water Quality Control Board for the purpose of performing operation and maintenance inspections of the installed stormwater treatment system.

Alameda County Watercourse Protection Ordinance

The Alameda County Watercourse Protection Ordinance (Sections 13.12.010 et seq. of the County ordinances) was enacted for the purpose of regulating development located near or adjacent to watercourses. The ordinance includes a list of requirements related to: storm water discharges; drainage pattern and/or watercourse modifications; earthwork; the placement, modification, or removal of structures within a watercourse; and setback requirements. Section 13.12.030 of the Alameda County Code defines a watercourse as:

> "…any conduit or appurtenant structure or any natural or man-made channel through which water flows continuously or intermittently in a definite direction and course or which is used for the holding, delay or storage of water. Natural channels shall generally be limited to those designated by a solid line or dash and three dots as shown in blue on the most recent U.S. Geological Survey 7.5 minute series of topographic maps. At the discretion of the director of public works the definition of natural channel may be limited to those channels having a watershed area of fifty (50) acres or more…"

Codornices Creek meets the above definition. Therefore, development under the Use Permit would be required to comply with the Alameda County Watercourse Protection Ordinance.

City of Albany Municipal Code

Chapter XXIII of the Albany Municipal Code, the Grading Ordinance, regulates grading work on private property. This ordinance mandates, among other requirements, that a Drainage Plan and Erosion and Sedimentation Control Plan be developed to receive a grading permit (projects including excavation in excess of 50 cubic yards). All construction projects need also comply with the Uniform Building Code, as amended by Chapter XII of the Albany Municipal Code.

Explanation:

Development under the Use Permit would increase impermeable surface areas by replacing existing areas of landscaping, grass, and other permeable surfaces with buildings, parking spaces, and hardened pedestrian walkways. These anticipated surface area changes are described in **Table 2** and **Table 3**, below, which summarize the existing and proposed impervious areas for the entire campus and for areas where Use Permit projects are proposed, respectively.

Table 2: SMCHS Campus-Wide Existing and Proposed Impervious Areas

Area	Existing (SF)	Proposed (SF)
Total Campus	544,453	544,453
Roof Area	72,820	94,020
Paved Area	180,590	180,390
Total Impervious Area	253,410	274,410

Table 3: Existing and Proposed Impervious Areas Associated with SMCHS Use Permit Projects

Impervious by Project Area	Existing Conditions (SF)	New and Replaced Impervious Area (SF)	Total New and Replaced Impervious Area (SF)
Music Building Total Existing	47,905		
Impervious Area *	17,800		
Music Building Roof	2,300	11,400	
Paved Areas	14,600	12,600	
Total Music Building			24,000
*Includes storage containers and basketball hoop but not unpaved softball infield			
Hillside Area Total Existing	36,000		
Chapel		4,400	
Chapel Terraces		500	
Saint Joseph's Hall Addition		5,400	
Brothers Residence Addition		2,500	
Brothers Terrace		1,000	
Hillside Walkways	5,900	3,800	
Total Hillside Area			17,600
TOTAL NEW AND REPLACED			41,600

Implementation of the Use Permit projects would not significantly alter the existing slope along the Posen Avenue (western) side of the campus, so there should be no measurable increase in either the volume or velocity of runoff coming from this area toward the Posen Avenue streetscape. Overall storm drainage improvement plans for the Posen/Ventura area have been schematically designed to solve existing drainage problems in that area. Under the

terms of the current Conditional Use Permit, Saint Mary's College High School paid the City of Albany a pro-rated share of the cost of those improvements prior to the issuance of an occupancy permit for the gymnasium. The need for an overall drainage solution for the Posen Avenue area is recognized by the City, although sufficient funding for such a project is not currently available. When sufficient funding has been secured, a drainage improvement project can be expected to be included in the City's Capital Improvement Program.

Runoff Treatment under the Use Permit

Turfblock, porous asphalt, permeable concrete, or permeable pavers would be used to pave a new 14,600-square-foot parking area adjacent to the proposed Music Building. This area would be graded so as not to produce runoff during a rainfall event with an intensity of 0.2 inches per hour or less; therefore, this area is considered self-retaining and has not been included in the treatment design.

SMCHS would meet the requirement to treat stormwater runoff using LID treatment measures by constructing a rain garden in a currently open area on the easterly side of Vellesian Hall. The facility, which would be approximately 2,500 square feet in surface area, would extend into portions of two separate parcels owned by SMCHS and within the City of Berkeley. Based on information from the City of Berkeley's Planning and Development Department, construction of this facility would likely require a ministerial Building Permit.

The rain garden would receive inflow diverted from the existing storm drain conveying runoff from the easterly portion of the campus, including the proposed Music Building and adjacent plaza areas. The facility would also receive inflow from most (about 17,400 square feet) of the existing 62-space (22,500-square-foot) parking lot and from the athletic fields at the northerly end of campus. Overall, the impervious area within the catchment tributary to the facility would be approximately 46,500 square feet.

The rain garden would infiltrate and evapotranspirate this runoff to the extent feasible given the density and nature of the Use Permit projects and the potential geotechnical conditions and tight clay soils present on the site.

Treatment of runoff from the existing 22,500 square-foot parking lot (which is not subject to the C.3 requirements) would be in lieu of providing treatment for the planned Chapel, Brother's Residence Addition, and Saint Joseph's Hall addition. The square footage of the existing parking lot exceeds the combined square footage of impervious area associated with the Chapel, Brother's Residence Addition, and St. Joseph's Hall addition by 7,200 square feet. Accordingly, no separate stormwater treatment will be provided for those facilities.

The rain garden will appear as a landscaped garden area at existing grade or a few inches above or below existing grade. The perimeter may be outlined by low curbs of concrete or stone.

An inlet, consisting of a pipe directed to small boulders (1 – 2-foot diameter), and an outlet, consisting of a standard 2-foot – by - 3-foot drop-inlet structure topped with a grating, will be visible at the western end. The inlet and outlet of the rain garden will both be connected to an existing drainage pipe that collects runoff from the drainage area described above, and discharges to Codornices Creek through an outfall just upstream of Vellesian Hall.

The surface of the rain garden will be topped with mulch and plantings suitable to the rain garden location and consistent with the SMCHS landscape design. Popular plant choices for the many existing rain gardens in the Berkeley-Albany area include no-mow fescue and native bunchgrasses.

The top layer of soil will consist of an engineered mix of sand and compost 18 inches deep. The sand (60 - 70 percent by volume) will be ASTM C33 sand (fine aggregate). The compost (30 – 40 percent by volume) will be well decomposed, stable weed-free organic matter meeting standards developed by the U.S. Composting Council. Below this layer will be a layer of gravel 12 inches deep. The gravel will be "Class 2 permeable", Caltrans

specification 68-1.025. Buried within the gravel layer will be a network of perforated pipes (PVC Schedule 40 or equivalent), which will be connected to the outlet structure (see **Figure 4**, above).

Construction of the rain garden will include excavation of existing soil, which will be hauled off-site for reuse or disposal, followed by installation of gravel, soil and drainage infrastructure, followed by reconstruction of the entrance walkway and planting of the rain garden.

Maximum depth of the required excavation will be 3 feet. This would require removal and off-haul of approximately 190 cubic yards of existing soil, or 13 truckloads, assuming 15 cubic yards per load. Fill material would be approximately 95 yards of engineered soil mix and 63 cubic yards of Class 2 permeable gravel, for a total of 158 cubic yards (or 11 truckloads).

The design of the rain garden promotes infiltration to the underlying native soil. Following storms, this will result in a perched saturated layer below and in the immediate vicinity of the rain garden. Because Codornices Creek is nearby and is deeply incised, the general direction of flow for groundwater in this area can be assumed to be toward the creek. Although the native soils are clayey, they can be expected to drain readily toward the creek because of the steep gradient. Further, the underdrain pipe in the subsurface gravel layer provides an upper bound to soil saturation; soils above the underdrain elevation will drain toward the underdrain. For these reasons, based on currently available information, it is considered unlikely that the rain garden would have any effect on groundwater or drainage in the vicinity of nearby structures. This conclusion shall be confirmed once the elevations of the rain garden overflow and underdrain have been determined as discussed below.

During final design of the project, the elevations of the rain garden overflow and underdrain will be compared to the basement floor elevations of nearby structures. If the comparison shows reason for concern, the rain garden could be designed to incorporate an impermeable cut-off wall to prevent movement of groundwater temporarily perched beneath the rain garden toward the structures of concern. In this case, a drainage trench should be placed on the outboard side of the cut-off wall. Drain pipes within this trench could daylight downslope or be connected to the existing pipe leading to the existing creek outfall.

Long-term maintenance requirements for the rain garden are minimal, and consist of semi-annual or annual landscape maintenance. Typically, it is best and most efficient to cut back plants severely in January and to remove any accumulated organic debris at that time, along with any trash that may have found its way into the rain garden. Mulch should be replenished as necessary. Maintenance should also include inspection of drainage structures; if built properly, repairs to structures should be minimal for 20 years or more. Maintenance may include removal of accumulated sediments near inlets.

<u>Municipal Regional Permit - Construction-Phase Activities (Provision C.6)</u>

During the construction period, grading and excavation activities would result in exposure of soil to runoff, potentially causing erosion and entrainment of sediment and contaminants in the runoff. Soil stockpiles and excavated areas on the campus would be exposed to runoff and, if not managed properly, the runoff could cause erosion and increased sedimentation and pollutants in stormwater.

The potential for chemical releases is present at most construction sites given the types of materials used, including fuels, lubricants, paints, solvents, etc. Once released, these substances could be transported to Codornices Creek and to San Francisco Bay in stormwater runoff, wash water, and dust control water, potentially reducing water quality. Erosion of contaminated soils could result in the transport of pollutants (along with the sediments) to the Bay.

Construction of the Use Permit projects would be in phases, and less than an acre would be disturbed during any one phase or concurrent phases. Therefore, it is not expected that the Use Permit project would be required to

obtain coverage under the Construction General Permit issued by the State Water Resources Control Board (Order 2009-0009-DWQ).

SMCHS will submit a comprehensive SWPPP that meets all applicable City of Albany Municipal Code relating to grading projects, erosion control, and discharge regulations and requirements (Chapter XX, Section 15-4.7). The SWPPP will also include specific measures to reduce potential impacts to surface water quality during the construction period of the Use Permit projects. The Plan will include specific and detailed Best Management Practices (BMPs) designed to mitigate construction-related pollutants. These will include practices to minimize the contact of construction materials, equipment, and maintenance supplies (e.g., fuels, lubricants, etc.) with stormwater. The SWPPP will also shall specify properly designed centralized storage areas to ensure that these materials will not be added to site runoff during rainy periods.

An important component of the stormwater quality protection effort is the knowledge of the site supervisors and workers. To educate on-site personnel and maintain awareness of the importance of stormwater quality protection, site supervisors shall conduct regular tailgate meetings to discuss pollution prevention. The frequency of the meetings and required personnel attendance list, along with summary of topics of discussion, shall be specified in the SWPPP.

BMPs designed to reduce erosion of exposed soil may include, but are not limited to: soil stabilization controls, watering for dust control, perimeter silt fences, placement of straw wattles, and sediment basins. Because the potential for erosion is generally increased if grading is performed during the rainy season when disturbed soil may be exposed to rainfall and storm runoff, construction will be phased to avoid grading during the rainy season. The SWPPP will incorporate BMPs designed to control erosion by keeping sediment on the site. End-of-pipe sediment control measures (e.g., basins and traps) will be used only as secondary measures. Entry and egress from the construction site will also be controlled to minimize off-site tracking of sediment, especially on or near the Albina Avenue bridge and the Monterey Avenue pedestrian entrance. Construction access for the rain garden will be from Monterey Avenue. Vehicular traffic on Albina Avenue will not be affected. Some interruption of pedestrian access from Monterey Avenue is expected, though the project will be constructed during summer when school is out of session. As a result, students' access should not be an issue. Vehicle and equipment wash-down facilities will be designed to be accessible and functional during both dry and wet conditions and will not discharge to storm drains or to Codornices Creek.

Setbacks from Codornices Creek

The Albany Creek Restoration Program, adopted by the City Council in 1977, required a series of zoning amendments for protecting and preserving the creeks. The proposed Chapel and the proposed addition to the Brothers' Residence would be set back to ensure compliance with the requirements of the City's Watercourse Combining (WC) Zoning District, which applies to areas within 75 feet of the centerline of each creek, and areas designated on the Flood Insurance Rate Map as a Special Flood Hazard Zone. The Zoning Ordinance prohibits structures be within 20 feet of the natural creek bank. The proposed site plan (see **Figure 2**, above) has also been designed to conform to General Plan Policy CHS 1.1, which proposes to "Conserve riparian and littoral habitat within the area 100 feet from creek centerline in appropriate areas both for its importance in reducing flood impacts and for its aesthetic value."

a. Violation of Water Quality Standards or Waste Discharge Requirements: Development under the Use Permit will not significantly degrade runoff water quality, as the current patterns of land use on campus would remain basically the same. Maintenance activities on campus are not expected to significantly increase or add pollutants entering the creek, nor will they violate existing water quality standards or waste discharge requirements.

During construction associated with individual Use Permit projects, grading and excavation will remove protective vegetation and disturb the ground, thereby exposing soil to increased erosion from stormwater runoff, site watering, and wind. As a result, development under the Use Permit could potentially generate temporary

increases in sediment loads and associated urban pollutants to vicinity waterways during the construction period. Eroded soil contains nitrogen, phosphorus, and other nutrients, which when transported to water bodies, can trigger algal blooms that reduce water clarity, deplete oxygen, and create odors. The overall increase in turbidity and resulting decline in photosynthesis can be detrimental to the entire aquatic ecosystem. Eroded sediment may also contribute to flooding and erosion downstream by clogging drains or natural waterways, thereby rerouting stormwater into areas not designed to handle the flow. This can cause channel incision and slope instability, and flooding, among the unintended consequences.

Construction activities associated with development under the Use Permit could result in increased erosion and temporary increases in sediment loads and associated urban pollutants to vicinity waterways, a potentially significant environmental impact.

As indicated above, SMCHS will submit a comprehensive SWPPP that meets all applicable City of Albany Municipal Code relating to grading projects, erosion control, and discharge regulations and requirements (Chapter XX, Section 15-4.7). The SWPPP will also include specific measures to reduce potential impacts to surface water quality during the construction period of the Use Permit projects. The Plan will include specific and detailed Best Management Practices (BMPs) designed to mitigate construction-related pollutants. Implementation of the SWPPP, as approved by the City of Albany, would reduce the potential impact of soil erosion associated with the construction phase of Master Plan projects with the potential to disturb soils to a level of *less than significant* [Sources: 7, 15]

b. Deplete or Interfere Substantially with Groundwater: Development under the Use Permit as proposed would not significantly deplete groundwater. There would be an increase in impermeable surfaces as a result of development under the Use Permit, but increased runoff would be treated on-site with the implementation of the storm drainage infrastructure indicated above. It is not expected that these improvements would intercept flow that would otherwise go to replenish the shallow groundwater zone. Increases in impermeable surface area and drainage system alterations resulting from development under the Use Permit would result in a minimal effect upon shallow zone groundwater recharge. The campus is located in a highly urbanized area, and the underlying groundwater body that may be impacted by development under the Use Permit is not considered a suitable source of drinking water, nor would it serve agricultural or industrial uses. Development under the Use Permit would not affect any of these water sources, and would have *no impact* with regards to groundwater depletion. [Sources: 7, 15]

Implementation of a rain garden south of Vellesian Hall, designed to capture and treat a portion of runoff from some of the site, would result in temporary local perched groundwater beneath the rain garden up to the level of the rain garden underdrains for some period following storms. The rain garden location is low-lying and is set back from structures. Because of the proposed rain garden's proximity to deeply incised Codornices Creek, the perched groundwater will drain toward the creek and will not affect groundwater levels or surface drainage in upgradient properties (a *less than significant* impact).

c. Alter Existing Drainage Patterns/Erosion and Siltation Effects: Development under the Use Permit would incorporate construction of a rain garden to treat stormwater runoff using LID treatment measures. This facility would reduce stormwater discharge velocities to levels equal to or below those of existing conditions, thereby eliminating any potential erosion problems along Codornices Creek associated with development. This would result in *less than significant* impacts related to erosion and siltation.

d. Alter Existing Drainage Patterns/Flooding Effects: As discussed above, the proposed post-construction drainage patterns would be altered by construction of a rain garden designed to offset any potential increase in peak runoff resulting from increased impermeable surface area.

The Federal Emergency Management Agency (FEMA) shows that the campus is located outside the FEMA-designated 100-year floodplain (FEMA-Issued Flood Map Berkeley, CTY/Alameda CO, 1978, from http://map1.msc.fema.gov/idms/IntraView.cgi?KEY+96518986&IFIT=1, February 13, 2007). The City of

Berkeley Storm Drainage Master Plan also reports that the Codornices Creek system is capable of transporting 100-year storm flows (CH2MHill, *City of Berkeley Storm Drainage Master Plan*, 1994, referenced in the *Congregation Beth El EIR Hydrology Section* by Questa Engineering Corporation, 2000).

With the construction of the rain garden, and given the low likelihood of flooding at the campus, development under the Use Permit would be expected to have a *less than significant* impact in relation to increased flood risk due to increased off-site runoff. [Sources: 7, 15]

e. Runoff Capacity of Drainage Systems/Additional Sources of Polluted Runoff: Development under the Use Permit would include construction of a rain garden that would prevent increased stormwater flows that could potentially occur as a result of increased impermeable surfaces. As indicated above, SMCHS will submit a comprehensive SWPPP that meets all applicable City of Albany Municipal Code relating to grading projects, erosion control, and discharge regulations and requirements (Chapter XX, Section 15-4.7). The SWPPP will also include specific measures to reduce potential impacts to surface water quality during the construction period of the Use Permit projects. The Plan will include specific and detailed Best Management Practices (BMPs) designed to mitigate construction-related pollutants. Development under the Use Permit would be expected to result in a *less than significant* impact with regard to exceeding the capacity of drainage systems or creating new sources of polluted runoff. [Sources: 7, 15]

f. Otherwise Degrade Water Quality: As previously discussed, construction activity associated with individual Use Permit projects could potentially generate temporary increases in sediment loads and associated urban pollutants to vicinity waterways. However, the potential for such impacts is addressed in the Mitigation Measure associated with a. Violation of Water Quality Standards or Waste Discharge Requirements, above, resulting in an impact that is *less than significant*. Development under the Use Permit is not expected to increase non-point source pollution, nor degrade water quality in any other way. [Sources: 7, 15]

g. Place Housing Within 100-Year Flood Hazard Area: According to the FEMA National Flood Insurance Program Map (FEMA-Issued Flood Map Berkeley, CTY/Alameda CO, 1978, from http://map1.msc.fema.gov/idms/IntraView.cgi?KEY+96518986&IFIT=1, February 13, 2007), the campus is not located within a FEMA designated 100-year floodplain. Although development under the Use Permit would create 2,500 square feet of additional living/dining/storage space at the Brother's Residence, this would create *no impact* related to the placement of any housing within the 100-year flood hazard zone. [Sources: 7, 15]

h. Redirect or Impede Flood Flows Within 100-Year Flood Hazard Area: Development under the Use Permit would incorporate construction of a rain garden that would be expected to reduce flood flows, and no portion of the campus is located within a FEMA designated 100-year floodplain. Therefore, there would be *no impact* as a result of impeding or redirecting flows in a 100-year flood hazard area. [Sources: 7, 15]

i. Dam Inundation Hazard: The ABAG Dam Failure Inundation Hazard Map (Association of Bay Area Governments, *Dam Failure Inundation Map*, 1995) shows the campus as being located in the Dam Failure Inundation Area of Berryman Dam. However, Berryman Dam was drained and permanently removed from service in March, 2006 (East Bay Municipal Utility District, Berryman Reservoir replacement, 2006, from http://www.ebmud.com/water&environment/water_supply/current_projects/berryman_reservoir_replacement/default.htm, February 14, 2007). The nearest existing dam inundation area is at Fairmount Avenue in El Cerrito, less than two miles from the campus. This area (not the Saint Mary's College High School campus) would be inundated with water in the event of a complete failure of San Pablo Clearwell Dam. There are no major levees in the vicinity of the campus. Development under the Use Permit would have *no impact* related to exposure of people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam. [Sources: 7, 15]

j. Tsunami Hazards: A tsunami is a series of long waves generated by any sudden displacement of a large volume of water, triggered by events including earthquakes, volcanic eruptions, landslides, meteor impacts, and even

onshore slope failures that fall into the ocean or a bay. Tsunami waves can travel across ocean basins as well as into bays and bay inlets. When they impact land they can rise to as much as 40 feet high. A seiche is a periodic oscillation of water in an enclosed basin such as the San Francisco Bay. These tsunami-like waves are similarly caused by sudden displacements of water.

The United States Geological Survey has estimated that the San Francisco Bay will experience a 20-foot high tsunami at a frequency of once every 200 years. The wave height would be reduced by half the height by the time it reaches the Albany/Berkeley shoreline (Design, Community & Environment, *County of Alameda Eden Area General Plan Draft EIR*, Hydrology and Flooding Section, 2006, retrieved from http://www.edenplan.net/Pubkications/DraftEIR/4-9_HydrologyFlooding.pdf, February 14, 2007). The largest known wave to have occurred in the San Francisco Bay Area was recorded in April, 1964, following the Alaskan earthquake. This event generated a wave that reached a height of seven and one half feet at the Golden Gate. The largest seiche wave ever measured in the San Francisco Bay, following the 1906 earthquake, was four inches high. At elevation 158-feet above sea level, the campus is well above tsunami and seiche hazard elevation.

Mudflows are common where there are thick soils on a long slope that start to flow when saturated (see **VIII. Geology and Soils**, above, for discussion of slope stability). The gentle topography and urbanized nature of the campus suggests that mudflows are highly unlikely. Development under the Use Permit is expected to create *no impact* related to exposing people or structures to inundation by seiche, tsunami or mudflow. [Sources: 7, 15]

IX. LAND USE AND PLANNING - Would the project:

		Potentially significant impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Physically divide an established community?				**X**
b.	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				**X**
c.	Conflict with any applicable habitat conservation plan or natural community conservation plan?				**X**

Existing Conditions: The Saint Mary's College High School campus is currently designated "Public/Quasi Public" in the Albany General Plan, and this designation includes educational activities. The zoning classification of the site is "Public Facilities (PF)". Use of the campus is subject to the provisions of a Conditional Use Permit that has been approved by the City of Albany and amended from time to time.

The Albany Zoning Code contains an objective about the orderly expansion of and establishment of community facilities, such as educational institutions.

It should be noted that existing access points to the campus from Monterey Avenue and Albina Avenue are within the jurisdiction of the City of Berkeley. No changes to the existing access conditions are proposed as part of the application.

Explanation:

a. The Saint Mary's College High School has been in operation at the site for more than 100 years, and is centrally located within the Peralta Park neighborhood. Development under the Use Permit would not provide any new limitations to campus access, and would not result in any further division of the established Peralta Park neighborhood. The existing access points to the private Saint Mary's College High School campus would remain in place following the development under the Use Permit. [Sources: 1, 17]

b. Development under the Use Permit would not be in conflict with any applicable City of Albany land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Development under the Use Permit would result in the development of campus facilities that would support existing uses of the campus, consistent with the current General Plan land use designation (Public/Quasi-public) and zoning classification (PF – Public Facilities). Although development under the Use Permit would be inconsistent with the provisions of the current Conditional Use Permit (CUP #93-27, as revised), in order to pursue such development the Applicant has submitted a Use Permit Application, which, if approved, would allow such development to take place. If the City of Albany approves the Use Permit, such development would then be consistent with the

approved Use Permit. On the other hand, if the City of Albany does not approve the Use Permit as requested by Saint Mary's College High School, then future development at the campus may be limited to those elements of the Use Permit that could be completed under the existing Conditional Use Permit, with the major limitation being the existing restriction on the total floor area of campus buildings. [Sources: 1, 17]

c. The City of Albany has not adopted any Habitat Conservation Plan, Natural Community Conservation Plan, or other similar local plans intended to protect habitat areas or natural communities, and there are no similar regional or state habitat conservation plans in force at the campus. [Sources: 1, 17]

X. MINERAL RESOURCES -- Would the project:

		Potentially significant impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				**X**
b.	Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				**X**

Existing Conditions: There are no known locally-important mineral deposits located at the campus.

Explanation:

a. No mineral resources have been identified at the campus. [Sources: 1, 17]

b. The campus does not support any locally important mineral resource recovery sites. [Sources: 1, 17]

XI. NOISE -- Would the project result in:

		Potentially significant impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			**X**	
b.	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				**X**
c.	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			**X**	
d.	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			**X**	
e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				**X**
f.	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				**X**

Existing Conditions: Saint Mary's College High School is located in Albany, on the border of Berkeley, at the end of Albina Avenue. Although routine use of the campus buildings by faculty, students and staff does not usually generate noise loud enough to be heard off-campus, use of the athletic field represents a major source of noise that may be heard beyond the campus during normal operation.

Regulatory Setting

<u>City of Albany General Plan Noise Element</u>

The City of Albany General Plan Noise Element establishes policies applicable to assess noise impacts to noise-sensitive land uses. The General Plan specifies that a 3-dBA increase or decrease in noise level is required before the average person can hear it.

<u>City of Albany Municipal Code, Chapter 8-1, Noise</u>

The City of Albany's Municipal Code includes provisions to "control noise nuisances, which are not necessary to the normal functioning of the City, and which, because of their disturbing nature, have an adverse impact on the

health and welfare of people residing within the City of Albany". The following policies would be applicable to the Project:

e. Regularly Scheduled School Athletic Events. The provisions of this Chapter shall not apply to regularly scheduled athletic events conducted by public schools or licensed private schools, the City Recreation and Community Services Department, or other seasonal, organized athletic and recreational programs such as the little league, soccer leagues, etc. This exception shall apply only between the hours of 8:00 a.m. and 11:00 p.m.

g. Construction/Demolition.

1. Construction and demolition activities conducted within the City of Albany are permitted in the City of Albany, except as follows, which are prohibited: Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration, or demolition work between weekday and Saturday hours of 6:00 p.m. and 8:00 a.m., or 6:00 p.m. and 10:00 a.m. on Sundays or legal holidays such that the sound there from creates a noise disturbance across a residential or commercial real property line, except for emergency work of public service utilities shall be prohibited.

2. All construction equipment used in the City of Albany shall be equipped with appropriate sound muffling equipment, which shall be properly maintained, and used at all times such equipment is in operation.

3. The City of Albany Director of Public Works may impose additional restrictions on construction activity if such activity is determined to be creating a noise disturbance, as defined in subsection 8-1.2 n. of this Chapter. Restrictions shall be limited to those restrictions, which are necessary to protect the public health, safety and welfare. In any case, the restrictions imposed may not be more restrictive than the general noise limits specified in this Chapter.

Athletic Field Use Restrictions

Although the City noise ordinance is specifically inapplicable to regularly scheduled school athletic events, in response to demands by the Peralta Park Neighborhood Association, in October, 2007, the City required Saint Mary's College High School to accept a number of restrictions on the use of the athletic field as a condition of the Planning & Zoning Commission's approval of the athletic field renovation project. The school is not proposing any changes to the athletic field or to its use or to the conditions that the City imposed at that time. These requirements commit the school to the following:

Weekday Use of Panther Park for Practices

- Team practices will end by 6:30 p.m.
- Team practices will cease use of whistles at 6:00 p.m.
- Batting-cage practice will cease at 6:00 p.m.
- On seven (7) occasions in the Spring athletic season (February 1 – May 31) team practices may last until 7:15 p.m. Batting practice and use of whistles will cease by 6:00 p.m. on those days.
- No whistles, batting practice, hitting of baseballs, or repetitive shouting will occur before school on the athletic field.

Weekend Use of Panther Park for Practice

- Organized team practices will begin Saturdays after 9:00 a.m. and end by 3:00 p.m.
- Panther Park will not be used on Sundays by Saint Mary's athletic teams or by outside organizations.

Use of Panther Park for Interscholastic Athletic Contests (These conditions apply to games held on weekdays and Saturdays.)

- Saint Mary's will continue to follow the existing practices of using amplified sound for football games and, when appropriate, at NCS playoff games. Volume will be kept at a level so that neighborhood impacts are minimized. Amplified music will not be used on the field, with the exception of half-time cheerleader routines at football games. Non-amplified live music (e.g., pep bands) is allowed.
- Litter produced by the crowd during games will be removed immediately following interscholastic athletic contests.
- Activities surrounding Saturday interscholastic athletic contests will begin after 9:00 a.m. and generally end by 5:30 p.m. unless extended by overtime or extra innings. Exceptions to the ending time may occur if the Bay Shore Athletic League (BSAL), North Coast Section (NCS), or California Interscholastic Federation (CIF) determines the starting times for post-season contests (i.e., playoffs).
- Panther Park will not be used on Sundays by Saint Mary's athletic teams or by outside organizations.
- Saint Mary's may host one special athletic event per year sponsored by an outside organization (e.g., CYO, American Cancer Society).
- Number of CIF Regular-Season Athletic Contests on Saint Mary's Athletic Field:

  5 Football games per team (with every 4th year a 6th game)
  4 Track (with every 4th year a 5th meet)
  24 Baseball
  39 Soccer
  3 Lacrosse

- North Coast Section (NCS) playoff contests may be hosted by Saint Mary's in baseball, soccer, and lacrosse only in those years when Saint Mary's teams qualify for the post-seasons and the team is seeded high enough to host a contest.

Summertime (June 1 – August 15) Use of Panther Park

- Summer Programs will begin after 9:00 a.m. and end by 5:00 p.m. Only activities involving Saint Mary's students and staff will use the field.
- Summer Sports Camps on the field will include the Sports & Fitness Camp (which runs concurrently with Saint Mary's Summer School program), a one-week football camp for elementary- and middle-school-aged students (1 p.m. to 5 p.m.), and a one-week baseball camp for elementary- and middle-school-aged students (9 a.m. to 4 p.m.).
- The field will not be used on Saturdays by Saint Mary's teams or by outside organizations.
- Panther Park will not be used on Sundays by Saint Mary's teams or by outside organizations.

Since use and maintenance of the athletic field is the major source of noise associated with the operation of Saint Mary's High School that may be heard off-campus, these concessions are presented here to provide reviewers with some context regarding efforts made by Saint Mary's College High School to reduce noise levels at the

athletic field. Noise effects associated with the current and future use of the athletic field were evaluated in a previous Initial Study/Mitigated Negative Declaration for the athletic field renovation project, which was adopted by the City of Albany in September, 2007. The City of Albany has not received noise complaints associated with other activities that routinely take place at the campus.

Explanation:

The City of Albany defines 3 dBA as the noise level increase that is considered noticeable to the average person. Typically, this increase would be assessed with respect to an increase in the day-night average noise level, L_{dn}. However, outdoor school activities would only take place during daytime hours; therefore, a significant impact would be identified if the average noise level over the period of time from 7:00 a.m. to 7:00 p.m. would increase by 3 dBA L_{eq} as a result of the Project.

Normal activities associated with the day-to-day operation of the campus, including use of the athletic field, are also subject to existing use permit conditions. Although the City of Albany's Noise Ordinance (Municipal Code Chapter 8-1) specifically exempts regularly scheduled school athletic events between 8:00 AM and 11:00 PM from regulation, the City required SMCHS to limit the use of Panther Park, the school athletic field, in order to obtain approval for renovating the field. These restrictions include ending team practice by 6:30 PM and not using whistles or allowing batting-cage practice after 6 PM on weekdays. The only exception is to allow practice (without whistles or batting practice) to continue to 7:15 PM seven times during the spring season. On Saturdays, team practice is restricted to the hours of 9:00 AM and 3:00 PM. Use of the field on Sunday is prohibited. The Use Permit application does not propose any changes to the use or design of the athletic field.

Sound from Music Building Activities

The project includes construction of a new building that will replace the existing 1,930-square foot Music Pavilion. The new building will include a 1,700 square foot space for vocal and dance programs, a 2,250 square foot band room, and small practice rooms to accommodate band, chorus, dance, and theater programs and other uses such as cheerleaders' practice. The new building will have operable skylights similar to those in Frates Hall to provide natural light and ventilation avoiding the need for air-conditioning.

In response to concerns from some neighbors about possible noise impacts from use of the building, the school engaged Charles M. Salter Associates, acoustical consultant, to provide baseline information for assessing potential impacts from the new building. To measure noise levels from existing activities, the loudest musical group, pep band, conducted a special after school practice at 2:30 p.m. in order to measure the noise. Included in this band were brass, woodwinds, and percussion. A selection of music was chosen as the test piece and calibrated inside the building. The average noise level of this piece was 89 dBA. This same piece was played twice and measured at the property line under two conditions: doors open and doors closed. Additionally, an ambient measurement without music was also made.

The acoustic test showed that the ambient noise level at the property line remained at 45 dBA with or without the band playing. Testing was done with the door to the practice room both opened and closed. A 10-foot solid wood fence located 20 feet from the property line runs the length of the football field and shields nearby homes from athletic field activities such as football and track. It also shields the neighbors from band activity. The consultant concluded that the noise from the existing music building was attenuated by the distance from the building to the nearest residence and the 10-foot tall sound wall between them. Noise from the future building is likely to have the same acoustical result of no increase to the background noise level. While the building is larger in size, the sound wall and distance will provide sufficient attenuation. Development under the Use Permit would include construction of a fence that will be designed to reduce noise as well as visual impacts from the new parking area adjacent to the Music Building.

Construction Noise

Construction and demolition activities conducted within the City of Albany are permitted, so long as construction activities fall within the specified hours of construction, and all construction equipment is equipped with appropriate sound muffling equipment and properly maintained.

Equipment used in construction activities associated with implementation of the individual Use Permit projects would be expected to generate noise that could be heard on- and off-campus. Typical hourly average construction noise levels range from about 75 to 85 dBA as measured 50 feet from the center of the activity. Construction-related noise levels would temporarily elevate noise levels at residential properties located in the vicinity of the campus. The City of Albany's Noise Ordinance specifies that construction and demolition activities be prohibited between hours of 6:00 p.m. and 8:00 a.m. on weekdays and Saturdays, or 6:00 p.m. and 10:00 a.m. on Sundays or legal holidays, and that all construction equipment used in the City of Albany shall be equipped with appropriate sound muffling equipment, which shall be properly maintained. The implementation of the following standard controls would result in compliance with the City's Code:

- Limit construction to the hours of 8:00 a.m. to 6:00 p.m. on weekdays and Saturdays, and to the hours of 10:00 a.m. to 6:00 p.m. on Sundays or holidays.

- Equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment.

- Utilize "quiet" models of air compressors and other stationary noise sources where technology exists.

- Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction project area.

- Prohibit unnecessary idling of internal combustion engine.

- Designate a "noise disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaints (e.g., starting too early, bad muffler, etc.) and institute reasonable measures warranted to correct the problem. Conspicuously post a telephone number for the disturbance coordinator at the construction site.

Although the movement of trucks along local roadways during construction periods would generate noise temporarily, these truck trips would take place between 8:00 AM and 6:00 PM on weekdays, or a period of ten hours each day (with less time available for construction-related activity on weekends). The duration of a single truck passing a specific location along any local roadway would be brief, and the number of daily truck trips would depend on the level of excavation and construction activity taking place at the project site on any particular day. For example, construction of the Music Building is anticipated to involve approximately 200 truck trips, but these would be spread out over the construction period, and would be limited by the number of trucks that could actually be loaded/unloaded at the site during the 8:00 AM to 6:00 PM period, most likely over the course of several weeks. Since noise associated with construction-related truck traffic would be limited to a portion of the total number of construction days only, and the noise generated by these trucks moving along local roadways would be intermittent and temporary, it is not considered a significant impact (although such noise would represent an unfavorable temporary change in the existing noise environment for those living along the truck routes during excavation and construction activity at the site).

a. Residences are located west, north, south and east of the campus, and classroom facilities are located to the south of the athletic field. As indicated above, those living in the nearby residences, and those using portions of the Saint Mary's College High School campus not directly associated with construction activity related to individual Use Permit projects could be exposed to noise levels above those normally associated with routine use of the campus during site preparation and construction activity. However, compliance with the Performance Standards, Section 20.36 of the Zoning Ordinance would reduce the potential impacts associated with possible exposure of sensitive receptors to construction-related noise to a level of ***less than significant***. [Sources: 7, 16, 17]

b. Development under the Use Permit would not be expected to generate excessive groundborne vibration or groundborne noise that could adversely affect those nearby. [Sources: 7, 17]

c. Music and other programs that would be anticipated following construction of a new Music building to accommodate these programs is not anticipated to generate noise levels that exceed 45 dBA at the property line based on acoustic testing.

d. Although there have been neighborhood concerns about existing noise levels associated with the use of the track and athletic field, the Use Permit does not propose any development or changes that would result in increased use of these facilities. Approval of the project would not be expected to result in more noise generated during athletic events than is already experienced by those in the area. As indicated above, noise associated with the use and maintenance of the field is intermittent (limited to daytime periods), rather than continuous. Development under the Use Permit would not result in any substantial increase in the use of the facilities, and, as indicated above, would not be expected to generate more noise during athletic events, P.E. classes and training sessions/practices than is already experienced by those living in the surrounding area. The provisions of the October 2007, agreement to restrict the use of the athletic field (discussed above, that are intended to reduce some of the noise associated with the use of the athletic field) would continue to apply. Following construction of individual Use Permit projects (which would each need to be evaluated in a project-specific acoustical report as each individual project is formally proposed), day-to-day indoor use of new classrooms and student activity space would not be expected to result in any substantive temporary increase in ambient noise levels. [Sources: 7, 17]

e. The campus is not located within two miles of any public use airport, or within an area covered by an airport land use plan. Development under the Use Permit would not expose those using the campus to excessive aviation-related noise. [Source: 1]

f. The campus is not located within the vicinity of any private airstrip. Development under the Use Permit would not expose those using the campus to excessive aviation-related noise. [Source: 1]

XII. POPULATION AND HOUSING -- Would the project:

		Potentially significant impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				**X**
b.	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				**X**
c.	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				**X**

Existing Conditions: There is one existing residential structure (the Brother's Residence) located on the southwestern portion of the Saint Mary's College High School Campus, which would be modified under the Use Permit (2,500 square feet of living/dining/storage space would be added).

Explanation:

a. Development under the Use Permit would not induce any population growth, as it would not provide any new homes or businesses, and would not result in an extension of infrastructure to areas, which could subsequently be developed following such extensions. Under the Use Permit, there would be no increase in student enrollment beyond that currently permitted under the existing Conditional Use Permit [Source: 7]

b. No existing homes would be displaced as a result of development under the Use Permit. [Sources: 7, 13, 17]

c. Development under the Use Permit would not displace any persons currently living at the Brother's Residence on campus [Sources: 7, 13, 17]

XIII. PUBLIC SERVICES

		Potentially significant impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
	Fire protection?				**X**
	Police protection?				**X**
	Schools?				**X**
	Parks?				**X**
	Other public facilities?				**X**

Existing Conditions: Those using the campus are currently served by the Albany Fire Department (for fire and emergency medical response) and the Albany Police Department (for police protection). Since Saint Mary's College High School is a private school owned by a religious order, those involved in campus activities do not place any demands on the public school system, and those using the campus athletic fields and gymnasium for recreational purposes do not place any additional demand on public parks and recreational facilities in the area while they are at the campus. Since most of those using the campus are not residents of Albany, they place limited demands on other public facilities (e.g., the local library, etc.).

Explanation:

a. Development under the Use Permit would not result in any substantive increase in the use of the campus relative to current use patterns, as enrollment would not exceed the level currently authorized under the existing Conditional Use Permit. For this reason, there would be no noticeable change in the existing demand for fire protection/emergency medical response services, police protection, public school facilities, parks or other public facilities that is currently associated with the day-to-day use of the campus. [Sources: 7, 17]

XIV. RECREATION

		Potentially significant impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				**X**
b.	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			**X**	

Existing Conditions: Those using the athletic fields and gymnasium at the campus for recreational purposes do not place any additional demand on public parks and recreational facilities in the area while they are at the campus.

Explanation:

a. Development under the Use Permit would not result in any substantive increase in the use of the campus relative to current use patterns. Since the athletic field and the gymnasium would continue to serve the current users, development under the Use Permit would not be expected to increase the use of existing neighborhood and regional parks to any noticeable extent. [Sources: 7, 17]

b. Development under the Use Permit would result in construction of a Music Building, which would accommodate band, chorus, dance and theater programs, as well as cheerleader's practice. The physical effects associated with the development of the proposed Music Building are addressed in this Initial Study, which has determined that any potentially significant physical effects on the environment associated with development under the Use Permit (including the Music Building) could be reduced to a level of *less than significant* through the implementation of the identified mitigation measures. [Source: 7]

XVI. TRANSPORTATION/TRAFFIC -- Would the project:

		Potentially significant impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?				**X**
b.	Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				**X**
c.	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				**X**
d.	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				**X**
e.	Result in inadequate emergency access?				**X**
f.	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				**X**

Background: Saint Mary's College High School is located in the middle of a mostly residential neighborhood straddling the border between the City of Berkeley and the City of Albany. Historically, neighbors of the school have cited the following traffic-related concerns with the school:

- Speeding and high traffic volumes on Albina Avenue;
- Speeding on Posen Avenue
- On-street parking in non-designated areas; and

- Use of Hopkins Court by school-related traffic.

Korve Engineering (now DMJM+HARRIS, Inc.) prepared traffic studies for Saint Mary's College High School (July 2, 2003, updated March 17, 2005) that evaluated traffic conditions in the vicinity of the campus and addressed neighborhood concerns. The study in 2005 also evaluated the effectiveness of the following improvement measures implemented after the 2003 study:

- A new drop-off zone along Posen Avenue;
- Monitoring of school traffic at the intersection of Albina Avenue/Hopkins Court by school staff;
- Installation of bicycle racks on campus; and
- The reopening of the Monterey Avenue access as a drop-off zone with pedestrian access.

The 2005 study conducted speed surveys, 24-hour traffic counts, and on-street parking occupancy surveys, and made the following conclusions:

- The 50th and 85th percentile speeds during school peak periods are generally at or below the 50th and 85th percentile daily speeds along Albina Avenue and Posen Avenue;

SPEED SURVEY ON ALBINA AVENUE NEAR SMCHS ENTRANCE (SOURCE: 2005 KORVE TRAFFIC STUDY)

Time	Direction	50th Percentile Speed (MPH)		85th Percentile Speed (MPH)	
		2003	2005	2003	2005
7:30 -7:45 AM	NB	16-20	16-20	16-20	21-25
	SB	16-20	16-20	21-25	16-20
7:45 – 8:00 AM	NB	0-15	16-20	16-20	21-25
	SB	16-20	16-20	16-20	21-25
3:00 – 3:15 PM	NB	16-20	21-25	16-20	26-30
	SB	0-15	21-25	16-20	26-30
3:15 – 3:30 PM	NB	0-15	21-25	21-25	26-30
	SB	16-20	16-20	26-30	21-25
All Day	**NB**	**19**	**20**	**24**	**25**
	SB	**19**	**20**	**24**	**25**

NUMBER OF VEHICLES SPEEDING OVER 30 MPH – ALBINA AVENUE (SOURCE: 2005 KORVE TRAFFIC STUDY)

		30 to 35 MPH			35 to 40 MPH		
Time	Direction	2003	2005	Change	2003	2005	Change
7:30 – 8:00 AM	NB	0	2	2	0	0	0
7:30 – 8:00 AM	SB	2	0	(2)	0	1	1
3:00 – 3:30 PM	NB	1	0	(1)	0	0	(0)
3:00 – 3:30 PM	SB	7	0	(7)	2	1	(1)

DAILY 50TH AND 85TH PERCENTILE SPEEDS ALONG POSEN AVENUE (SOURCE: 2005 KORVE TRAFFIC STUDY)

		Speed at Location 4 (MPH)		Speed at Location 5 (MPH)	
Percentile	Direction	2003	2005	2003	2005
50th Percentile	EB	23	24	21	25
50th Percentile	WB	23	31	26	26
85th Percentile	EB	29	30	28	31
85th Percentile	WB	31	31	32	32

Location 4 on Posen Avenue is between Ventura Avenue and the school driveway, and Location 5 on Posen Avenue is between Ventura Avenue and Ordway Avenue.

NUMBER OF VEHICLES SPEEDING OVER 30 MPH – LOCATION 4 (SOURCE: 2005 KORVE TRAFFIC STUDY)

		30 to 35 MPH			35 to 40 MPH		
Time	Direction	2003	2005	Change	2003	2005	Change
7:30 – 8:00 AM	EB	1	3	2	0	0	(0)
7:30 – 8:00 AM	WB	3	13	10	1	3	2
3:00 – 3:30 PM	EB	5	4	(1)	1	1	(0)
3:00 – 3:30 PM	WB	12	16	4	0	3	3

NUMBER OF VEHICLES SPEEDING OVER 30 MPH – LOCATION 5 (SOURCE: 2005 KORVE TRAFFIC STUDY)

		30 to 35 MPH			35 to 40 MPH		
Time	Direction	2003	2005	Change	2003	2005	Change
7:30 – 8:00 AM	EB	1	12	11	1	4	3
7:30 – 8:00 AM	WB	2	7	5	2	1	(1)
3:00 – 3:30 PM	EB	4	7	3	2	4	2
3:00 – 3:30 PM	WB	13	9	(4)	0	1	1

The 2005 Korve Traffic Study found that speeding is not significant (i.e., greater than 31 MPH) either on Albina Avenue or Posen Avenue near the school. During the before and after school peak periods, 50th and 85th percentile speeds are lower than the all-day 50th and 85th percentile speeds. Based on speed trends throughout the day, speeding seems not to be related to school traffic.

- On-street parking occupancy rates are below 85 percent occupancy for all streets immediately surrounding the campus, with most streets having well below 85 percent occupancy (see following page); and

- One percent of school-related traffic uses Hopkins Court (the 2005 Korve Traffic Study indicated that during the 15 minute before school peak period, use of Hopkins Court to access the Saint Mary's College High School entrance dropped from five percent in 2003 to one percent in 2005).

The 2005 study also proposed the following improvement measures:

- Implement angled parking on the south side of Posen Avenue fronting the school property east of the driveway, which would reduce lane width and discourage speeding;

- Continue traffic enforcement by school staff along Albina Avenue and Posen Avenue; and

- Encourage use of non-vehicular transportation, including BART, bus and walking.

ON-STREET PARKING OCCUPANCY SURVEY (SOURCE: 2005 KORVE TRAFFIC STUDY)

Roadway Segment	Side	Capacity	2003 Cars Parked	2003 % Occupied	2005 Cars Parked	2005 % Occupied	Change
Posen between Peralta and Colusa	N	80	35	44%	38	48%	3
	S	83	65	78%	60	72%	(5)
Monterey between Hopkins and Sonoma	E	51	38	75%	26	51%	(12)
	W	47	38	81%	18	38%	(20)
Beverly between Ventura and Colusa	N	62	25	49%	24	39%	(1)
	S	65	12	18%	19	29%	7
Ventura between Posen and Sonoma	E	40	8	20%	9	23%	1
	W	32	20	63%	19	59%	(1)
Ordway between Gilman and Sonoma	E	89	36	40%	37	42%	1
	W	89	35	39%	36	40%	1
West north of Posen	E	7	4	57%	4	57%	0
	W	6	2	33%	2	38%	0
Acton north of Gilman	E	29	7	24%	7	24%	0
	W	28	12	43%	11	39%	(1)
Hopkins Ct. between Albina and Hopkins	E	15	11	73%	10	67%	(1)
	W	15	12	80%	9	60%	(3)
Hopkins St. between Gilman and Monterey	N	13	9	69%	8	62%	(1)
	S	21	18	86%	16	76%	(2)
Albina north of Hopkins St.	E	20	10	50%	13	65%	3
	W	22	13	59%	14	64%	1
Carlotta between Hopkins St. and Posen	E	35	22	63%	14	40%	(8)
	W	34	22	65%	16	47%	(6)
TOTAL		**883**	**454**	**51%**	**410**	**46%**	**(44)**

Saint Mary's College High School implements a number of measures to manage traffic and parking on, and in the vicinity of, the campus. On days when classes are in session, in the mornings staff members are posted at the intersection of Albina Avenue and Hopkins Court (to monitor traffic speed, noise level, and student behavior, to assist with traffic flow, and to ensure that students and parents do not use Hopkins Court), at the Monterey Avenue entrance to the campus (to monitor traffic speed, noise level, and student behavior, and to ensure that students do not park on Monterey Avenue), and at the Posen Avenue entrance to the campus (to ensure that parents drop off students in a safe and efficient manner, to prevent traffic congestion on Posen Avenue, to assist students with parking in designated areas along Posen Avenue, and to ensure that students do not park in restricted areas). During lunch periods, staff members are posted at both the Albina Avenue entrance to the campus and the Posen Avenue entrance to the campus to monitor traffic speed, noise level, and student behavior. During special events at the campus, security guards are used to enforce traffic, parking, noise, and behavior guidelines, while staff members direct traffic. The Monterey Market parking lot is sometimes used as an overflow parking area during special events, and during dances, the Posen Avenue entrance to the campus is used exclusively for drop-off and pick-up. The school has installed signs asking individuals to drive slowly and safely (and to have music at low volumes), and issues regular reminders to students regarding appropriate neighborhood behavior. The school is able to enforce driving and parking regulations through the use of detention, suspension of parking or driving privileges, or student suspension from school.

Saint Mary's College High School also implements a number of measures to increase the use of alternative transportation modes by students, faculty and staff. The school encourages students and parents to carpool, providing preferential treatment for parking permits for students who carpool, and distributing carpool lists and related information to parents. The school encourages the use of AC Transit Bus #688, which serves more than 40 student riders daily, and is actively promoting the creation of another dedicated bus route serving the campus by

AC Transit. SMCHS sells half-price ($16) BART tickets. During the 2008-09 school year, the school sold 738 BART tickets and 184 AC monthly bus passes. From August, 2010, to February 9, 2011, students purchased 524 BART tickets. Because students are now only able to purchase reduced price transit passes directly from AC Transit, the school has no information about the total number of students who currently use buses. As stated in the report submitted to Community Development Director Ann Chaney in October, 2009, about 40 students use AC Transit Line 688 on a regular basis. At present, about 70 school employees regularly drive to the campus.

Existing Conditions: Access to and from the campus is provided at three points:

- Albina Avenue (pedestrian and vehicular);
- Monterey Avenue (pedestrian only, with drop-off zone); and
- Posen Avenue (pedestrian only, with drop-off zone).

The drop-off zone at Posen Avenue is the most heavily used access point, followed by the Albina Avenue access. The drop-off zone along Monterey Avenue is the least used of all the access points. Vehicles heading to and from the campus entrance on Albina Avenue are prohibited by school policy from using Hopkins Court.

The current Conditional Use Permit requires Saint Mary's College High School to provide a maximum of 119 parking spaces on campus, and allows for 44 on-street parking spaces along the south side of Posen Avenue for the use of students, faculty and staff. In September 2006, the following information was provided by Saint Mary's College High School regarding the utilization of designated parking areas:

Parking Area	Total Parking Spaces	Total Permits Issued	Student Permits Issued	Staff/Faculty Permits Issued
Total Albina Lot	62	60	35	25
Total Posen Lot	35	21		21
Total Maintenance Yard	7	5		5
Total Shea Center –Service Area	2			
Total Southwest Property Lot	13	18		18
Total On-Campus	119	104	35	69
Total Off-Campus (Posen Avenue)	44	34	34	
Total Spaces	163	138	69	69

Notes: At the Southwest Property Lot, there were 13 "proper" parking spaces for staff-faculty parking. Four of these spaces were parallel parking spaces. In 2005, gravel was placed on the area to the west of the road supporting these parallel parking spaces. This permitted nine cars to park on the gravel perpendicular to the road, and eliminated the parallel parking. This is why there are currently 18 staff-faculty parking permits issued for the area, while there are only 13 "proper" parking spaces listed above. It should also be noted that there are an additional 8 parking spaces on the campus that are used for Brothers Residence vehicles, and that are not included in the above tabulation.

Students with school-issued permits are allowed to park on-site or on the south side of Posen Avenue along the school frontage. The on-site student parking is accessed via Albina Avenue. The staff/faculty parking on-campus is accessed via Posen Avenue.

Traffic Conditions

Field observations of normal school day traffic conditions in the area were conducted before school begins (January 23, 2008) and after school lets out (January 17, 2008). Traffic was observed to flow smoothly considering the constraints of Hopkins Street, a two-lane residential roadway which carries significant traffic during peak periods, including heavy vehicles such as trucks and buses. Some queuing was observed during the AM school peak period (between 7:00 AM and 9:00 AM) from northbound school-related vehicles on Hopkins Street attempting to access Albina Avenue. However, the queues dissipated fairly quickly, as there were sufficient gaps in southbound traffic to accommodate these turning movements.

Intersection Levels of Service

Intersection turning movement counts were conducted for the before school (7:00 AM to 9:00 AM) and after school (1:00 PM to 3:00 PM) periods on one non-school weekday (during Easter recess) and one school weekday between Tuesday and Thursday in the Spring of 2008. The following study intersections in the vicinity of the school were selected for analysis:

- Hopkins Street/Gilman Street (all-way stop-controlled);
- Hopkins Street/Albina Avenue (one-way stop-controlled);
- Hopkins Street/Sacramento Street (signalized);
- Hopkins Street/Hopkins Court (one-way stop-controlled);
- Hopkins Street/Monterey Avenue (all-way stop-controlled); and
- Albina Avenue/Hopkins Court (one-way stop-controlled)

The locations of these intersections in relation to the school, the turning movement counts, and the intersection level of service analysis are provided in **Appendix D**.

The effect of school traffic on the level-of-service at the six study intersections is generally negligible, and all study intersections operate at level-of-service (LOS) C or better (LOS A indicates no meaningful congestion, while LOS F indicates gridlocked conditions). The City of Berkeley has a general intersection standard of LOS D or better.

It should be noted that some intersections appear to operate worse without the school in session than when the school is in session. This is primarily due to the variability of daily traffic conditions, which can vary up to ten percent from one day to another.

Roadway Traffic Volumes

Twenty-four-hour pneumatic hose counts were conducted at eight locations in the vicinity of the school on one non-school weekday (during Easter recess) and one school weekday between Tuesday and Thursday in the Spring of 2008:

- Hopkins Street between Gilman Street and Albina Avenue;

- Albina Avenue between Hopkins Street and Hopkins Court;
- Albina Avenue north of Hopkins Court;
- Hopkins Court between Hopkins Street and Ada Street;
- Sacramento Street between Monterey Avenue and McGee Avenue;
- Posen Avenue between Ordway Street and Ventura Avenue; and
- Posen Avenue between Ventura Avenue and West Place.

The eight hose count locations and hose count data are presented in **Appendix D**.

The hose count data illustrates the variability of traffic throughout the day, as well as the difference in traffic volumes with and without the school in session. Traffic on school days peaks during the before school (7:00 AM to 9:00 PM) and after school (2:00 PM to 4:00 PM) periods. There is also some peaking around the lunchtime (12:00 PM to 1:00 PM) and evening (5:00 PM to 6:00 PM) periods. The former is likely associated with faculty, students, and staff going outside of campus for lunch; the latter is likely associated with extracurricular events which keep students on campus after school and residents returning home from work and other activities. Along those street segments studied that provide direct access to the campus (Albina Avenue between Hopkins Street and Hopkins Court, Hopkins Court between Hopkins Street and Albina Avenue, and Posen Avenue between Ordway Street and Ventura Avenue), the highest volume occurs during the before school period, but does not exceed 100 vehicles.

Vehicles Using Hopkins Court

As shown in **Appendix D**, traffic volumes on Hopkins Court are higher with school in session than when school is not in session. This indicates that school-related traffic is likely using Hopkins Court to access the Albina Avenue entrance to campus. Volumes in the northbound direction are noticeably higher than the southbound direction, indicating that most traffic on Hopkins Court is traveling primarily northbound. Based on the location of Hopkins Court in relation to access roadways, these school-related vehicles are likely coming from east Berkeley and traveling down westbound Hopkins Street. Traffic in the northbound direction peaks during the lunchtime period and after school periods, which would indicate that this increase in traffic is likely a directly related to the school.

Observations during the before school peak period indicated that the number of vehicles using Hopkins Court appears to have increased since the 2005 study. On the day of observation (January 23, 2008), there were no school staff present at the intersection of Albina Avenue and Hopkins Court.

On-Street Parking

On-street parking surveys were conducted during the school mid-day (1:00 PM to 3:00 PM) and weekday evening (5:00 PM to 7:00 PM periods on February 4, 2008. The results for selected key roadways in the vicinity of the campus are summarized below:

On-Street Parking Occupancy

Segments	Street Side	Occupancy	
		Midday	Evening
Ordway Street between Sonoma Street and Posen Avenue	West	71%	79%
	East	54%	77%
Ordway Street between Posen Avenue and Gilman Street	West	52%	57%
	East	43%	45%
Ventura Avenue between Sonoma Street and Posen Avenue	West	56%	53%
	East	55%	58%
Posen Avenue between Ordway Avenue and Ventura Avenue	North	36%	27%
	South(1)	67%	33%
Posen Avenue between Ventura Avenue and Monterey Avenue	North	33%	38%
	South(2)	100%	34%
Monterey Avenue between Posen Avenue and Hopkins Street	West	73%	51%
	East	64%	60%
Acton Street between St. Mary's School and Hopkins Street	West	39%	29%
	East	39%	39%
Albina Avenue between St. Mary's School and Hopkins Street	West	48%	48%
	East	100%	53%
Hopkins Street between Gilman Street and Monterey Avenue	North	100%	42%
	South	83%	74%
Hopkins Court between Albina Avenue and Hopkins Street	West	53%	59%
	East	55%	60%

Source: DMJM Harris – February 2008

Notes:

(1) Does not include school student parking adjacent to school property.

(2) School student parking only.

As shown above, during the school mid-day period, the designated on-street school spaces along Posen Avenue are at 100 percent occupancy. High occupancies were also observed along Hopkins Street between Albina Avenue and Monterey Avenue, although some portions of curb along Hopkins Street serve as bus stops or are otherwise marked as red zones.

Speeding

Speed surveys were conducted on Albina Avenue between Hopkins Street and Hopkins Court in November, 2007, by the City of Berkeley. The results indicate that the 85th percentile speed for traffic using this stretch of Albina Avenue is between 24 and 26 miles per hour both during and outside the weekday school peak periods, which is consistent with the posted speed limit of 25 mph. The data would also seem to confirm conclusions from the 2005 Korve study, which stated that speeding was not a significant problem.

Explanation: Although the Use Permit proposes several projects to improve facilities for student, faculty and staff use, it does not propose any increase in enrollment. Therefore, an increase in the number of normal school-day-related vehicle trips is not expected to change as a result of development under the Use Permit. A traffic analysis was prepared and is contained in **Appendix D**.

a. As indicated above, development under the Use Permit would not result in any increase in student enrollment. Therefore, it is unlikely that normal school-day-related traffic volumes will increase as a result of development under the Use Permit. Since the Use Permit does not propose any changes to existing campus access, it is unlikely that circulation patterns will change as a result of development under the Use Permit. [Sources: 5, 6, 7, 17]

Construction of each phase could cause significant impacts to the surrounding neighborhood if not properly managed. Construction activity would temporarily require the use of trucks to haul soil/fill and construction materials. While some construction activities could feasibly occur outside of the school year, the proposed renovation and construction of other campus facilities could run into the school year.

Since funding is dependent upon donations, the school has no definite schedule for the proposed phases, but has indicated that construction of the Music Building is the highest priority. Renovation of Cronin Hall may take place earlier, depending on the availability of funds for this work. Renovation of the Shea Student Center, construction of the new chapel and the addition to the Brother's Residence would be expected to take place over the next five to seven years. The renovation and expansion of Saint Joseph's Hall is not anticipated to start before 2017.

Because school student parking is at capacity, any temporary removal of on-campus parking due to construction activities would likely force students who currently park on campus to use on-street spaces in areas not specifically designated for student parking, a potentially significant environmental impact.

> *Mitigation:* **S**taging for materials, parking for construction vehicles, and other construction activities shall be done on-site in areas not currently used for on-campus parking. On-site parking space shall be managed in such a way to ensure no net reduction in the amount of available on-site parking space from one Use Permit development phase to the next.

Implementation of the above mitigation measure would reduce the environmental impacts associated with development under the Use Permit on the supply of on-site parking space to a level of ***less than significant***.

It should also be noted that because of the predominantly residential nature of the neighborhood (including many narrow streets), it will be necessary to ensure that construction truck traffic does not cause unnecessary traffic, safety, or noise impacts. Saint Mary's College High School should consult with City of Albany and City of Berkeley staff to draft a truck routing plan and ensure that construction-related impacts to local traffic are kept to a minimum. The City of Albany can limit trucks moving to and from the campus to off-peak hours as a condition of approval, and can require the Applicant to develop and implement a Construction Traffic Management Plan (to be approved by the City), which would reduce the potential for construction-related traffic congestion associated with truck movement.

b. With no increase in enrollment, development under the Use Permit would not be expected to generate any additional normal school-day-related vehicle trips. It would not contribute to any exceedance of level of service standards on CMA-designated roads or highways. [Sources: 5, 6, 7, 17]

An LOS analysis of six key intersections in the vicinity of the school indicated that the effect of school traffic on intersection performance is most noticeable at the intersections of Hopkins Street/Albina Avenue, Hopkins Street/Hopkins Court, and Albina Avenue/Hopkins Court. However, the overall effect of school traffic on the performance of nearby intersections was generally negligible, as the intersections already perform at LOS C or better. All study intersections performed better than the City of Berkeley policy standard of LOS D. Average delays were generally only one to two seconds higher with school in session relative to periods when school was not in session. Since the Use Permit does not proposed any increases in student enrollment, it is unlikely that school-related traffic volumes will increase as a result of development under the Use Permit, in which case any future deterioration in LOS would not be a direct result of the school. Additional evening functions would not impact peak hour volumes and LOS.

Furthermore, since the Use Permit does not proposed any changes in campus access, it is unlikely that circulation patterns will change as a result of development under the Use Permit.

c. Development under the Use Permit would have no effect on air traffic patterns, or result in substantial safety risks associated with flight operations in the region. [Sources: 7, 17]

d. There are no transportation system or roadway improvements associated with development under the Use Permit, so there would be no increase in traffic hazards resulting from any campus-related design feature. During those events expected to have a large crowd (e.g., some home football games, track and field meets, etc.), security guards will enforce traffic and parking guidelines, and staff will direct traffic as necessary to reduce traffic hazards, as they do currently during these events. [Sources: 7, 17]

e. Emergency access to the campus is currently regarded as adequate, and would remain unchanged following development under the Use Permit. [Sources: 7, 13, 17]

f. There is no element of the Use Permit that would conflict with City of Albany policies, plans or programs intended to support transportation modes other than private motor vehicles. [Sources: 1, 7]

With no increase in student enrollment resulting from development under the Use Permit, no increases in automobile, pedestrian, or bicycle traffic are expected, and adverse impacts to transit operations are not anticipated. The City of Albany encourages Saint Mary's College High School to continue efforts to expand the use of transit, and to encourage walking and the use of bicycles for those coming to the campus. Transit services in the area currently operate with excess capacity.

Since development under the Use Permit will not change traffic volumes or circulation patterns in the area, no adverse impacts to pedestrian or bicycle safety are anticipated. Pedestrian and bicycle access to the campus is generally safe (given the constraints of Hopkins Street), and this would not change as a result of development under the Use Permit.

<u>Parking</u>

Although parking-related effects that may be associated with development under the Use Permit are not considered potential environmental impacts under CEQA, a review of the parking situation is provided here for informational purposes. The Albany Zoning Code (Sec. 20.28.030.B) requires 145 spaces for the site at the rate of 1 space per/10 students (63), 1 space per employee (80), and two for the Brothers' residence. The Applicant is proposing to increase the number of on-site parking spaces from 127 to 151. With the additional 44 spaces on Posen Avenue adjacent to the school property, this will increase the total parking available to accommodate school-related demand to 195.

Development under the Use Permit would result in the reconfiguration of existing parking space within the campus, and the addition 24 new on-campus parking spaces (increasing to 143 on-campus parking spaces, from the current 119 total on-campus parking spaces, which does not include the 8 parking spaces serving the Brother's Residence). This would be expected to relieve some of the school's existing mid-day on-street parking demand, as some students currently park in on-street spaces in areas not specifically designated for student use. However, this would not require any changes in existing parking arrangements at the Saint Mary's College High School campus and the immediate vicinity, as with no increase in enrollment there would be no substantive change in the total demand for parking space, with campus use patterns remaining basically similar before and after development under the Use Permit. [Sources: 5, 6, 7, 13, 17]

The proposed chapel is intended primarily for student and faculty use, and Saint Mary's College High School has indicated that it will likely not be used for regular Sunday services. Although special services would occasionally be offered, turnout for similar services in the school's existing facilities has historically been relatively low. Given that the chapel will only have capacity for 200 persons, and any special events held in the chapel would likely involve parents and their schoolchildren (who would likely be carpooling together), on-campus parking is expected to be sufficient to handle parking demand for these events. The school should encourage all visitors for such events to use only on-campus parking.

SMCHS has developed and implements a traffic and parking management plan (**Appendix E**) in response to City requirements and in consideration to the school's neighbors. The Student-Parent Handbook includes a section that spells out the parking and traffic rules. A major emphasis of the plan is on actions to reduce vehicle trips to and from the campus by encouraging transit use and carpooling. Key elements include:

1. Student and staff parking by permit only.
2. Designating three student drop-off zones: one at the Posen entrance, one at the Monterey entrance, and one on the school campus at the Albina entrance. To disburse traffic and reduce congestion, parents of freshmen are directed to use the Monterey entrance drop off zone.
3. Monitoring traffic on Posen, Monterey, and Albina at peak traffic times before school, during lunch, and after school.
4. Permit parking system that provides priority and discounted parking permits for carpooling. A graduated fee structure that rewards carpools of three or more and penalizes single drivers and, less so, two-person carpools. (This new fee structure appears to have reduced parking in the neighborhood.)
5. Encouraging parents who drive their children to car pool and helping parents who want to form car pools to identify other parents with whom they can partner.
6. Bicycle usage is encouraged and 3 secure bike rack locations are located on campus.

The Parking Management Plan includes measures that are triggered by events that attract significantly more cars than typically park on the campus on a daily basis. Along with measures intended to reduce the impact of after-school and weekend activities such as football games and school dances, these rules help to control the extent to which high impact events such as Open House, Crab Feed, and Baccalaureate Mass may adversely affect the school's neighbors. They include the following:

<u>Football Games</u>

1. Request visiting schools to access Saint Mary's via Marin /Colusa/Posen instead of Gilman/Hopkins/Albina.
2. Provide a coned area on the south side of Posen Avenue for the visiting team buses to park.
3. Deploy A-frame street signs that read "No Saint Mary's Game Parking" at the corners of Monterey Avenue and Beverly Place, Posen Avenue and West Place, and Sonoma Avenue and Ventura Avenue to deter individuals from parking on those streets.
4. Post security on Posen Avenue and Albina Avenue to monitor traffic and to ensure safety and orderly behavior.
5. Make all campus parking available to people attending the games.
6. Do not schedule other activities or events during times of football games.

7. Inform the Albany Police Department of the game schedule and request them to periodically drive by before, during, and after the games.

School Dances

1. Close the Albina Avenue entrance and require students and parents to use the Posen Avenue entrance for drop-offs, pick-ups, and parking.

2. Post security on Posen Avenue and Albina Avenue to monitor traffic and to ensure safety and orderly behavior.

3. Request the Albany Police Department to assist with traffic management, particularly at the end of the dances.

Non-Athletic Events

1. Do not schedule simultaneous events that together would create a parking demand that exceeds the parking capacity on campus and the south side of Posen Avenue.

2. Limit the number of non-athletic events that may exceed parking capacity to an average of ten per year.

3. When parking demand is expected to exceed the capacity on campus and on the south side of Posen Avenue:

    - Maximize on-campus parking by having security and students direct on-campus traffic and parking and, if necessary, providing valet parking.

    - Utilize the Monterey Market parking lot for satellite parking when available and with Monterey Market's permission.

Explanation:

Based on observations of existing conditions, more consistent school enforcement of traffic rules and regulations is recommended. On the day of observation (January 23, 2008), the number of vehicles using Hopkins Court was observed to have increased since the 2005 study. Counts indicated that traffic on Hopkins Court is significantly higher when school is in session than when school is not in session. Because Hopkins Court has an extremely narrow roadway and sidewalk, the school asks that parents, students, and employees refrain from driving on Hopkins Court. Alternative routes including, though not limited to, Albina Avenue are encouraged. School staff should be present on Albina Avenue before school to discourage use of Hopkins Court.

It is also recommended that school staff monitor speeding vehicles, particularly along Albina Avenue. While the data indicates that there is not a significant difference in 85th percentile speeds between school peak and school off-peak periods, school staff should continue to take an active role to prevent student speeding, as this a particularly sensitive issue with City of Berkeley neighbors. Since there is significant student pedestrian traffic along Albina Avenue, voluntary enforcement of speeding laws would seem to benefit all stakeholders. The school has utilized speed monitors to help reduce the incidence of speeding. If the school receives complaints that identify specific vehicles, it follows up by contacting the likely driver or drivers. If complaints indicate that speeding on Albina is a problem, the school can also post a monitor on Albina closer to Hopkins. The school has contacted the City of Berkeley about creating a three-way stop at

Hopkins Court and reducing the speed limit on Albina. If speeding is perceived to be a serious issue, a speed bump would be an effective deterrent for speeding along Albina Avenue, but any traffic calming measures would need approval from the appropriate City of Berkeley staff before implementation.

In addition, parents should be encouraged to use the Monterey Avenue drop-off zone, which is currently significantly underutilized. One goal could be to require that a certain percentage of school-generated vehicle trips use the Monterey Avenue drop-off zone. Compliance could be enforced by having school staff present at each of the drop-off zones. This solution is simple, but would more equitably distribute school-related vehicle trips among the three access points.

Recommended in the 2005 Korve study was the introduction of angled parking along the south side of Posen Avenue east of the existing school driveway. Angled parking would not only increase the number of available school parking spaces, but would also reduce the travel lane width in the eastbound direction and encourage drivers to drive slower. Neighborhood residents, however, have expressed opposition to this idea. The 2005 Korve study conducted a survey which indicated that 7 percent of students (42 students) drove to campus either alone or with others and parked in on-street spaces surrounding the campus. It is expected that the implementation of angled parking could relieve some of the existing demand for on-street spaces due to school-related traffic. In response to neighborhood concerns, angled parking is not proposed by the school. The school encourages parents to drop-off students on arterial streets and having students walk the remaining distance (on residential streets).

Although bike racks were recently installed at three locations on campus, only two to three staff and faculty bike regularly to the school. Transit use, however, could be encouraged among school students, faculty, and staff by providing incentives, such as discounted transit passes or tickets. Such programs have proven successful at other high schools. In conjunction with encouraging transit use, a free shuttle running between North Berkeley BART station and the school, timed to the arrival of BART trains or AC Transit buses at the station could be provided. By removing the ten- to fifteen-minute walk between the station and campus, more students could find BART or AC Transit an attractive transportation alternative.

Based on the parking occupancy surveys, occupancy rates along Hopkins Street between Gilman Street and Monterey Avenue are higher during the school mid-day period than in the weekday evening period. However, the problem appears to be concentrated to Hopkins Street, as most other streets in the area have relatively underutilized on-street parking.

XVII. UTILITIES AND SERVICE SYSTEMS -- Would the project:

		Potentially significant impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				**X**
b.	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				**X**
c.	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				**X**
d.	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				**X**
e.	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				**X**
f.	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				**X**
g.	Comply with federal, state, and local statutes and regulations related to solid waste?				**X**

Existing Conditions: Water and wastewater collection/treatment services at the campus are provided by the East Bay Municipal Utility District. Solid waste generated at the campus is collected as part of the overall solid waste collection/recycling efforts of Saint Mary's College High School.

Explanation:

a. All development under the Use Permit would be required to comply with the requirements of the Regional Water Quality Control Board related to wastewater treatment. [Sources: 1, 2]

b. Although some new facilities capable of generating wastewater have been proposed as part of the Use Permit (e.g., an addition to the kitchen in the Shea Student Center), there would be no substantive impact on existing wastewater treatment facilities serving the area. [Sources: 7, 17]

c. Development under the Use Permit includes storm drainage improvements, and the effects associated with implementing those drainage improvements are addressed in the Hydrology and Water Quality section, above. [Sources: 7, 17]

d. Development under the Use Permit would not be expected to alter the existing demand for water in any substantive way, as the enrollment and staffing levels at the school would remain unchanged. Water has been supplied at the campus for decades, and is expected to remain available in sufficient supply. [Sources: 7, 17]

e. Although some new facilities capable of generating wastewater have been proposed as part of the Use Permit (e.g., an addition to the kitchen in the Shea Student Center), there would be no substantive impact on existing wastewater treatment facilities serving the area. [Sources: 7, 17]

f. With no increase in enrollment, development under the Use Permit would not result in any substantive increase in the use of the campus relative to current use patterns, and there would be no significant increase in the amount of solid waste generated in connection with the proposed improvements. Sufficient solid waste disposal capacity is expected to remain available to serve the campus. [Sources: 7, 17]

g. Those involved in development under the Use Permit and subsequent use of the campus will be required to comply with all federal, state and local statutes and regulations related to solid waste. [Sources: 7, 17]

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE –

		Potentially significant impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				**X**
b.	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" .means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				**X**
c.	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				**X**

Explanation:

a. The Saint Mary's College High School campus is located in an urban area, and has been used as an educational institution for over 100 years. With the implementation of the mitigation identified in the discussion of potential impacts to nesting birds in the Biological Resources section, above, development under the Use Permit would not degrade the quality of the environment, would not reduce habitat for fish or wildlife, would not cause a reduction in the population of any fish or wildlife population, would not eliminate any plant or animal community, and would not adversely affect any rare or endangered animal. Development under the Use Permit would not have any effect on any examples of the major periods of California history or prehistory, as none are present at the campus. [Sources: 7, 13, 17]

b. Since development under the Use Permit would not result in any substantive increase in the use of the campus relative to current use patterns, there would be no "cumulatively considerable" impacts associated with development under the Use Permit. [Sources: 7, 13, 17]

c. With effective implementation of the measures identified above to reduce potential construction-related effects associated with individual Use Permit projects, equipment exhaust emissions and noise, development under the Use Permit would not have any substantial adverse effects on human beings. [Sources: 1, 2, 3, 7, 14, 17]

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18. City of Albany, Climate Action Plan, April 2010.

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