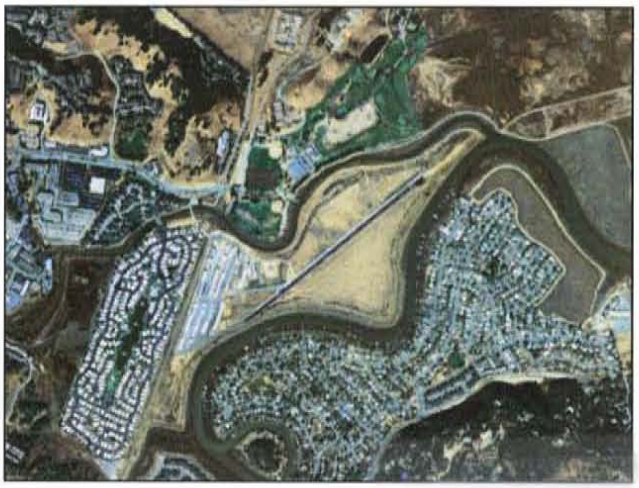
San Rafael Airport Recreational Facility

Final Environmental Impact Report

SCH No. 2006012125



August 2011

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FINAL ENVIRONMENTAL IMPACT REPORT

SAN RAFAEL AIRPORT RECREATIONAL FACILITY

State Clearinghouse No. 2006012125

City of San Rafael
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RESPONSE TO COMMENTS

A. INTRODUCTION

The San Rafael Airport Recreational Facility Draft Environmental Impact Report (Draft EIR, or DEIR; SCH No. 2006012125) was circulated for a 60-day public review period beginning March 12, 2009 and ending May 12, 2009 (due to a 15-day extension of the review period), as assigned by the State of California Governor's Office of Planning and research State Clearinghouse and consistent with the California Environmental Quality Act Guidelines (*CEQA Guidelines*). Copies of the document were distributed to state, regional and local agencies, as well as organizations and individuals, for their review and comment.

Section 15088(a) of the *CEQA Guidelines* states that:

> "The lead agency shall evaluate comments on environmental issues received from persons who reviewed the Draft EIR and shall prepare a written response. The lead agency shall respond to comments received during the noticed comment period and any extension and may respond to late comments."

In accordance with Section 15088(a) of the *CEQA Guidelines*, the City of San Rafael (City), as the lead agency, has evaluated the comments received on the DEIR for the Airport Recreational Facility Project and has prepared written responses to the comments received.

All comments on the DEIR, and the responses thereto, are presented in this document. Section D of this Chapter provides a list of all agencies, utilities, organizations and persons who submitted comments on the DEIR during the 60-day public review period. Section E contains Master Responses which are related to a number of comments that address the same issues and topic areas of potential impact, as a way to avoid repetition in responding to similar comments on the DEIR. Section F contains all of the comments received on the DEIR along with responses to each. These responses include identifying text revisions in the DEIR. Text changes resulting from comments on the DEIR, as well as staff-initiated text changes, are presented in **Chapter 2** (Revisions to the Draft EIR). Revisions to the DEIR text are indicated by underline text (<u>underline</u>) for text additions and strike out (~~strike-out~~) for deleted text. Revised figures and tables are identified with the word "revised" in front of the figure or table number.

The text changes included in **Chapter 2** do not add significant new information to the DEIR but merely provide clarification or make minor modifications to an adequate EIR. Further, the comments and responses do not result in any new significant impacts that have not been previously identified. New or expanded mitigation measures are included to expand current mitigation in order to further reduce impacts identified in the DEIR. For these reasons, a recirculation of all or portions of the DEIR is not required pursuant to CEQA Guidelines Section 15088(b). The FEIR Appendices has also been included which contains additional information that has been prepared and provided in response to the comments on the DEIR, in order to clarify or amplify the information in the already adequate EIR.

Since the close of the DEIR public review period in May, 2009, City Staff and the EIR consultants have gathered additional information to provide clarification regarding the characteristics of the Project and the types of environmental effects that may be associated with construction and operation of the Project in order to be able to provide detailed responses to comments received on the DEIR. Although the additional information presented in this FEIR provides clarification of some issues addressed in the DEIR, it does not substantially alter either the description of the Project or the environmental effects as discussed in the DEIR.

B. CONTENT OF FINAL EIR

The Final EIR (or FEIR) is composed of the following elements:

- The Draft EIR and Appendices to the Draft EIR
- A list of persons, organizations and public agencies that commented on the Draft EIR (**Chapter 1**, Section D)
- Copies of all comments received (**Chapter 1**, Section F)
- Written responses to those comments (**Chapter 1**, Section E and Section F)
- Revisions to the Draft EIR resulting from comments (**Chapter 2**)
- Appendices to the Final EIR

C. CERTIFICATION OF FINAL EIR AND APPROVAL PROCESS

For a period of at least ten days prior to any public hearing during which the lead agency will take action to certify an EIR, the Final EIR will be made available to, at a minimum, the trustee and responsible agencies that provided written comments on the Draft EIR. Pursuant to Section 15090(a) of the *CEQA Guidelines*, the Final EIR must be certified before the lead agency can take action on the Project.

Following Final EIR certification, but prior to the public agency taking action on the Project (planning applications), the lead agency will prepare a Mitigation Monitoring and Reporting Program (MMRP). Before approving (or conditionally approving) the Project, the City must prepare written CEQA findings for each significant impact identified for the Project, accompanied by a brief explanation of the rationale for the finding, in accordance with Section 15091 of the *CEQA Guidelines*.

Certification of the Final EIR may occur at a public hearing independent of and prior to project approval. Prior to approval of the Project, the City must adopt CEQA findings and a Mitigation Monitoring and Reporting Program. These actions may be considered during one final public hearing. The certification of the Final EIR must be the first in the sequence of approvals.

D. LIST OF COMMENTORS

All commentors on the Draft EIR are listed below. Each comment is identified with a two part numbering system. The first number corresponds to the number assigned to the comment letter. The second number corresponds to the order of the comment within the comment letter.

PUBLIC AGENCIES

LIST OF LETTERS **Page**

GENERAL PUBLIC

LIST OF LETTERS

PLANNING COMMISSION

These were verbal comments made at the Planning Commission Public Hearing on the DEIR on May 12, 2009.

* These comments were received after the close of the 60-day public comment period.

E. MASTER RESPONSES

In reviewing the comments received on the DRAFT EIR, it was evident that many of them addressed the same topic areas or raised similar questions. In the interest of reducing repetition in responding to those similar comments, 24 Master Responses have been provided below.

1. Maximum Number of People at the Project Site/Risks Associated with Single-Acre Use

MASTER RESPONSE PD-1 responds to the question: *What is the maximum number of persons who would be present at the site at the busiest period, and to what extent would that change what has been said in the DEIR about the risks associated with single-acre use and risk reduction design features?*

Several comments raised questions regarding the maximum number of persons who would be present at the site during the period of highest demand. Questions primarily focused attention on the airport hazards impact analysis contained in Chapter 10 of the DEIR, which is based on the technical report prepared by Mead & Hunt, Inc., *San Rafael Airport Sports Center Aeronautical Safety Review*, provided as DEIR **Appendix H**. Comments indicated need for clarification on the maximum intensity assumptions provided in the airport hazards impact analysis, and whether these assumptions were consistent with the assumptions made to evaluate Project-related impacts in other studies, such as the evaluation of traffic impacts.

Data regarding the number of persons anticipated to use the facilities has been provided in several locations of the DEIR and DEIR Volume II: Technical Appendices. The DEIR page 3-13, **Table 3-1** identifies the proposed use schedule, which anticipates a maximum number of users between 700 to 1000 people per day, plus 12 full-time-equivalent employees within all facilities (i.e., indoor and outdoor uses). **Table 3-1** also shows that the recreational facility proposes to operate from 9:00 AM to 11:00 PM Sunday through Thursday, and 9:00 AM and Midnight Friday through Saturday; for a total of 14 hours per day on Sunday through Thursday and 15 hours per day on Friday and Saturday. A description of the proposed use is also contained in DEIR **Appendix K**, page 1, Traffic, Fehr & Peers, *San Rafael Airport Recreational Facility Transportation Impact Report,* September 2007. This description matches the detailed Project Description contained on DEIR pages 3-9 through 3-13. A similar description of use is also found in DEIR **Appendix H**, page 2, Hazards, Mead & Hunt, Inc., *San Rafael Airport Sports Center Aeronautical Safety Review*, April 15, 2008. The components of the use, as described in the DEIR Project description, are summarized as follows:

- 85,700 square foot indoor recreational building , consisting of the following:
    - Two 80' x 180' indoor soccer fields and locker rooms; 44,000 sq. ft. (approx.)

- Mezzanine level with a viewing area, meeting room, café (in 4,092 sq. ft. with 20 seats and serving food, beverages, and beer and wine), restrooms, sports shop and administrative offices; 14,400 sq. ft.

- Dance and gymnastics studios (designed to be large enough to house a third full size indoor field/court/rink in order to provide maximum use flexibility of use over time); 26,000 sq. ft. (approx.)

- Regulation sized, lighted, outdoor soccer field with all weather Field Turf, or an unlighted grass field, and an unlighted grass warm-up and stretching area

The maximum number of persons anticipated to be present on the site during the most intense, or busiest period has been determined in the technical report prepared by Mead & Hunt, Inc., *San Rafael Airport Sports Center Aeronautical Safety Review*, provided as DEIR, **Appendix H**. The maximum intensity assumption for the entire proposed recreational facility that was used for purposes of conducting the aeronautical safety review is 475 occupants (see DEIR pages 10-18 and 10-19, and DEIR Volume II: Technical Appendices, Appendix H, Mead & Hunt, *Aeronautical Safety Review*). This intensity reflects the maximum number of persons anticipated to be present within the entire recreational facility site area at one given time during the period of most intense usage; i.e., including all users within the indoor recreational facility building, and all the outdoor areas including the soccer field and warm-up field. The intensity of use is based on occupancy assumptions using the California Building Code (CBC) methodology. This approach is considered to be a reasonable and conservative estimate of use, and is the appropriate method for determining the building occupancy. . This intensity is also consistent with the assumptions used for the traffic impact analysis, which has based its review on Institute of Traffic Engineers (ITE) *Trip Generation* (7th Edition), 2003, and traffic count data conducted of similar facilities. The purpose of the traffic study is to identify anticipated trip generation, which relies on the trip count data collected for such uses. The traffic study does not provide information that would correspond to building occupancy rates, as that is not its focus. However, both study methodologies use accepted industry approaches for identifying the building occupancy and the traffic generation rates based on the proposed use of the building and site, and they are considered to be compatible approaches for determining intensity of use for purposes of DEIR analysis of potential impacts. Thus, at the estimated maximum occupancy that has been identified for the building in the hazards analysis using the CBC methodology, 130 people would be using the outdoor facilities, and 345 people would be inside the 1.6-acre indoor facility. The 1.6-acre size of the building is derived based on the 71,300 sq. ft. building footprint divided by 43,560 (i.e., the area of one acre). For the purposes of the Single-Acre Intensity analysis discussed in the DEIR Hazards Chapter 10, it was assumed that the highest intensity of use per acre would occur within the indoor facility, with an average of 216 people per acre based upon the estimated maximum capacity of 375 people (i.e., 375 people inside the 1.6-acre structure = 216 people per acre). As indicated in the DEIR, this value would exceed the single-acre criterion of 200 people, which was identified as a potentially significant impact

on DEIR page 10-17 (**Impact Haz-1a**). As indicated on DEIR page 10-20, these impacts would be mitigated through the implementation of the risk-reduction design features identified in **Mitigation Measure Haz-1**, which would reduce impacts associated with the adjacent airport operations to a level considered less than significant. The risk-reduction design features that have been identified as required to mitigate this impact include the following:

- limiting intensity of use to a maximum of 200 people per single acre, or,
- at a minimum, adding one additional emergency exit within the structure beyond the number required by the CBC, providing the structure with an enhanced sprinkler system, and adding a sign at the entrance to the warm-up field indicating the maximum occupancy of the field is 50 people.

The building enhancements and signage restrictions described in the second alternative above would be easily accommodated within the project design and reduce the risk within acceptable thresholds. Further, the proposal to install a sign identifying the occupancy limitation of the warm-up field is a feasible approach given that it would allow for a level of use intensity that would be consistent with the demand anticipated for the warm-up area. For example, the warm-up field would be expected to be used by up to two soccer teams before their upcoming scheduled game on the outdoor field. Two standard sized 11-person soccer teams with 2 coaches and a team manager would result in 28 persons using the warm-up area before their next scheduled game. Most teams also include additional (substitute) players. The 50 person limit would provide the capacity for up to 11 additional players per team, which is more than adequate and anticipated for a standard-sized soccer team. Furthermore, it is worth noting that the soccer field could also be used as a venue for other similar sports, such as lacrosse, which would also field similar team sizes, ranging from 10 to 12 players per team. The field has not been designed or proposed to accommodate baseball or American football games, which typically maintain larger team sizes.

It is important to understand that in estimating maximum site occupancy for the purposes of the hazards analysis, there were three different metrics referenced in the Aeronautical Study and the Traffic Study contained in the DEIR, and that each metric measures different aspects of usage of the proposed facility. While different, the metrics are interrelated and produce consistent results in terms of the total number of people expected to occupy the facility at any given time under *normal busy use*, also referred to as *intensity*. The intensity results show that between 405 and 475 people could be present on the site during normal peak use. A description of each metric and resulting intensity calculations follows:

Metric 1: Vehicle Trips

The Traffic Study uses projected vehicle trips to determine the design requirements for parking, site access, and traffic circulation for the proposed Project. The study indicates that peak use of the proposed sports center would occur on a weekday in the PM. The study

estimates approximately 135 vehicle trips into the facility during PM peak-hour use. It is reasonable to assume that there are also some vehicles present at the site before this peak-hour occurs. In other words, not all vehicles are arriving and departing the facility at the same time. It can also be assumed that some patrons are staying at the facility for more than one hour. For the purposes of the intensity calculations, a conservative approach was taken to assume that patrons are staying on-site for an average of two hours. The next question to be answered is how many people are in each vehicle. Data from the Research and Innovative Technology Administration (RITA), Bureau of Transportation Statistics, indicates that the average vehicle occupancy load for a weekday is 1.5 people per vehicle. Together, this information can be used to calculate the maximum number of people on the site during peak use as follows:

135 PM peak-hour vehicle trips in

2 average hourly stay

x 1.5 people per vehicle

405 maximum number of people on-site during PM peak-hour use

Metric 2: Parking Spaces

Both studies reference a total of 270 parking spaces (184 paved and 86 gravel). Using this date derives the following intensity:

270 parking spaces

x 1.5 people per vehicle

405 maximum number of people on the site at any given time

Metric 3: Occupancy Level

The Aeronautical Study uses the occupancy levels (minimum number of square feet per person) provided in the Building Code to calculate the intensity. The maximum occupancy requirements are established to determine the maximum number of people that can occupy a space and safely evacuate the building in the event of a fire. As indicated in the California Airport Land Use Planning Handbook (January 2002), published by the California Division of Aeronautics, surveys of actual occupancy levels indicate that many retail and office uses are generally occupied at no more than 50 percent of their maximum occupancy levels, even at the busiest times of day. Even with this 50 percent reduction, this methodology typically produces intensities at the high end of the likely range because it assumes that all component uses of a facility are operating at full capacity at the same time. In other words, the dance studio, gymnastic studio, and all of the soccer fields at the proposed recreational facility would be fully occupied at the same time. This scenario is unrealistic. Therefore, for the

purposes of the intensity calculations, the occupancy level methodology represents the most conservative approach of the three methodologies as it generates the highest intensity. Applying the assumptions noted above results in the following intensity:

949 maximum building occupancy

x 50% assumed typical peak occupancy

475 maximum number of people on the site at any given time

As can be seen, all three methodologies generate comparable intensity results. The occupancy level methodology represents the high end of the likely range while the numbers based on the traffic metrics (i.e., vehicle trips and parking spaces) are probably more realistic. However, for the purposes of the Aeronautical Study, the safety analysis took a conservative approach by utilizing the highest intensity number to determine the compatibility of the proposed facility with airport operations. The intensity of use metrics are discussed in the DEIR Chapter 10, pages 10-18 and 10-19 and **Appendix H**, Mead & Hunt, *Aeronautical Safety Review* report, pages 7 and 8.

The hazards analysis in DEIR Chapter 10 and DEIR **Appendix H** (*Mead & Hunt, San Rafael Airport Sports Center Aeronautical Safety Review*) identifies the various safety zones that need to be analyzed, and adequately identifies the maximum occupancy which is anticipated to occur within the proposed recreation facility building. Therefore, no change to single-acre use and risk reduction design features would be warranted, because the hazards analysis adequately assumes the highest-intensity of use using conservative estimates, and the risk reduction design features that are identified in **Mitigation Measure Haz-1** would be required and could be readily accommodated as part of building design enhancements.

2. Declaration of Restrictions

MASTER RESPONSE PD-2 responds to the question: *What does the Declaration of Restrictions say, and how does this affect what can be done at the Project site?*

As indicated on DEIR page 4-6, a Declaration of Restrictions was recorded for the airport site in December 1983, which limited future use of the site to the following:

- Existing uses consisting of the airport and related uses.
- Future utility uses as approved by the appropriate government agencies, including flood control, sanitary sewer, gas and electricity, and public safety facilities.
- Airport and airport-related uses.
- Roadways.

- Open Space.
- Private and public recreational uses.

The Project represents a private recreational use, which is one of the future permitted uses listed in the Declaration of Restrictions. The Declaration of Restrictions identifies limits on the types of future uses at the airport site only, and does not place a limitation on the construction of structures for establishment of any proposed future uses that are consistent with the permitted uses that have been identified in the Declaration of Restrictions.

The land use restriction (i.e. Declaration of Restrictions, recorded at the County of Marin on December 15, 1983, as document no. 83062935) has been analyzed in full in the DEIR in the following areas: a) Chapter 4: Land Use and Planning, pages 4-18 and 4-19; b) Appendix A, Initial Study/Notice of Preparation, on pages 69 and 70; and c) Appendix C, Land Use and Planning *Table Analyzing Project Consistency with San Rafael General Plan 2020*, page 3 of 25 (discussion of Policy LU-23). The Declaration of Restrictions was provided as Source Reference 12 to Appendix A, and identifies six specific uses and improvements that may be allowed for the entire 119.52 acre airport property identified as Parcel B of the Civic Center North Parcel Map. All proposed uses must be consistent with these restrictions. The land use restrictions have been carried forward in the City of San Rafael General Plan 2020. The Project has been found to be consistent with these land use restrictions, and all impacts of the proposed development were found to be fully mitigable, which also supports the less than significant impact finding in DEIR Chapter 4. The Declaration of Restrictions states the following restrictions. (Note: Section 1(f) of the Declaration of Restrictions confirms the DEIR conclusion that the proposed recreational facility use is consistent with the underlying land use restrictions):

Declaration of Restrictions

> This declaration of restrictions is made and entered into by and between the City of San Rafael, a municipal corporation (hereinafter referred to as "City"), the First National State Bank, a national banking association (hereinafter referred to as "Owner"), and the County of Marin, a political subdivision of the State of California (hereinafter referred to as "County"), in connection with the following circumstances:
>
> (a) City is processing at the request of Owner a tentative subdivision map and final subdivision map relating to certain real property of Owner, including the real property designated as "PARCEL B" in the exhibit attached hereto and incorporated herein;
>
> (b) As a condition for approval of said tentative subdivision map and final subdivision map, City has required, and Owner has agreed to, this declaration of restrictions on the terms and conditions hereinafter set forth.

NOW, THEREFORE, the Owner declares that the real property designated as "PARCEL B" in the exhibit hereto shall be held, transferred, encumbered, used, sold, conveyed, leased, and occupied, subject to the restrictions and covenants herein contained, expressly and exclusively for the use and benefit of said real property and for each and every parcel of real property owned by City and by County and by each of them.

1. Limitations On Use. No use of said real property described shall be made or permitted except the following:

(a) Existing uses consisting of an airport and related uses.

(b) Public utility uses as approved by the appropriate government agencies, including flood control, sanitary sewer, gas and electric, and public safety facilities.

(c) Airport and airport related uses.

(d) Roadways.

(e) Open space.

(f) Private and public recreational uses.

~~(g) Any other related uses agreed to by the City, County, and Owner.~~*[This restriction was stricken-out on the recorded document].*

2. Run With Land. This declaration of restrictions and the covenants contained herein are to run with the land, and for the benefit of the City and County, and each of them, and shall be binding on all parties and all persons claiming under them, including the successors and assigns of Owner.

3. Enforcement. Enforcement hereof shall be by proceedings at law or in equity against any person or persons violating or attempting to violate any provision herein contained, either to restrain violation or to recover damages, or both. In the event of litigation arising from or relating to this Declaration of Restrictions, the prevailing party therein shall be entitled to an award in a reasonable amount to be set by the Court for attorney fees and costs incurred.

4. Severability. Invalidation of any one of these covenants by a judgment or court order shall in no way affect any other provision hereof, and the same shall remain in full force and effect.

A copy of the recorded document can also be found in the Project file, and has also been included as an attachment to comment Letter 68, included herein (see recorded document 83062935, December 15, 1983, Official Records of Marin County, Calif.).

3. Story Poles

MASTER RESPONSE AES-1 responds to the question: *Was the placement of the story poles and selection of vantage points adequate?*

Story poles were erected at the Project site as directed by the City of San Rafael, and placement was intended to provide observers with an accurate sense of the relative height of the tallest portions of the proposed structure. Vantage points used in the photo simulations of the proposed Project were intended to provide those reviewing the DRAFT EIR with a sense of the size of the proposed structure and the anticipated visual effects of the placement of the proposed structure at the Project site as seen from several public viewpoints. The vantage points were selected to provide representative views, with the understanding that computer modeling for all possible views toward the Project site from additional locations was beyond the scope of the EIR. The four vantage points used for modeling and analysis in the DEIR were included for review during the EIR scoping sessions, and were selected to represent prominent locations most widely used by the public. These views include the most proximate public views of the building, and longer more distant public views. As discussed and shown on DEIR pages 5-6 through 5-22, this includes, i) views from the McInnis Park trailhead and McInnis Park parking lot that are located directly across the North Fork of Gallinas Creek from the proposed building; ii) a view from the levee trail at the pump house directly across from the proposed building, and; iii) a distant view from the levee trail at the bend in the North Fork of Gallinas Creek near the north end of the airport site. These vantage points were introduced and considered during public hearings before the Design Review Board and during the scoping sessions held on the Project, and were accepted as adequate for purposes of this DEIR analysis. Thus, the analysis was identified as adequate during the scoping session to provide a sufficient and conservative evaluation of the Project visual impacts.

4. Vehicle Headlights

MASTER RESPONSE AES-2 responds to the question: *What would be the effect of vehicle headlights on nearby residences?*

There are several factors which would be expected to limit exposure of nearby residents to light coming from headlights from vehicle traffic moving to and from the Project site at night. Several comments identified concerns with potential glare from vehicle headlights as cars travel along the access road, which would be shining headlights in the direction of homes located within Captains Cove development at the end of Sailmaker Court. Development on Sailmaker Court consists of four, two-story buildings with ground floor carport parking with four-units in each building. The North Fork of Gallinas Creek and the

bridge are visible from this neighborhood, which generally is developed with the front of the buildings oriented to face south/southeast toward the creek and airport property.

The concern with headlight glare was previously identified by the City and residents as a project merits issue that needed to be considered and addressed. The nearest affected building is located within 70 feet of the airport site access roadway, and consists of a four-unit townhouse condominium building at 33, 37, 41 and 45 Sailmaker Court. The residence at 37 Sailmaker Court is a one-story unit which is located closest to the roadway, and vehicles entering the site would be oriented toward the rear side of this unit before making the turn left and crossing over the bridge. Vehicles exiting the site would orient to the sides of the two story units at 37 and 45 Sailmaker Court, before crossing the bridge to leave the site. There is a residential window on the rear of the unit at 37 Sailmaker Court, and several small residential windows on the side of the building that face toward the airport site and bridge.

The buildings are currently landscaped with low hedges and a wall along the southeast facing side of the building (side facing the airport site and bridge). The units closest to the road are oriented at an angle to the access road, and the roadway and affected units are at similar grade elevations. Thus, in consideration of the building orientation and relationship to the existing roadway, including similar grade elevation of the road and affected units, the number, size and height of residential windows facing the roadway, and the existing vegetation around the buildings, it is unlikely that vehicle headlights would significantly affect the existing residential units.

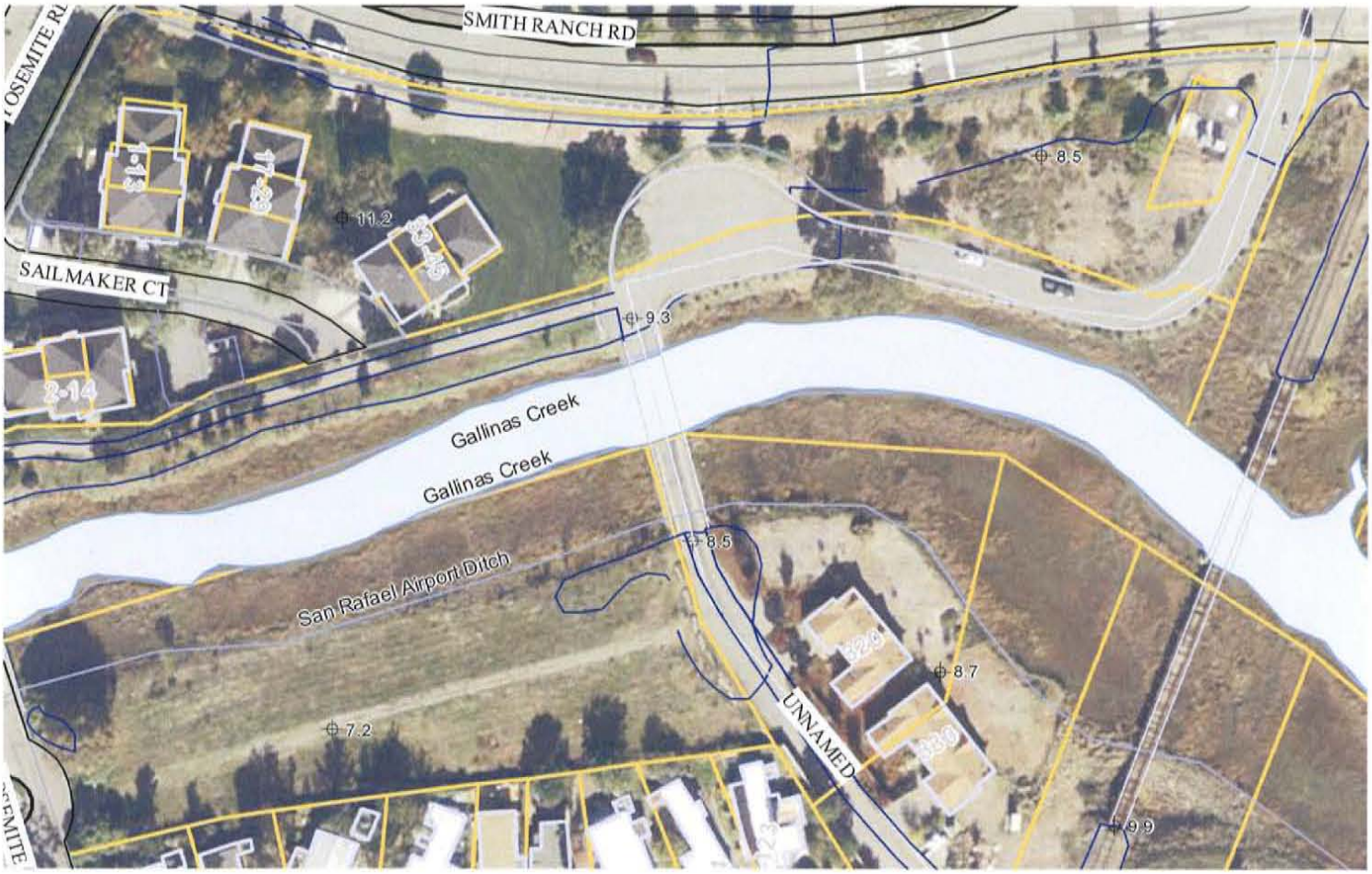
Although the site already experiences vehicle traffic entering and exiting the site at night, the Project would increase the number and frequency of cars that drive by Captains Cove residences at night. The Applicant previously has offered to install a barrier along the grassy area between the access road and nearest residences on Sailmaker Court. This could consist of a low solid fence, hedge or similar solid barrier which would be high enough to block vehicle headlights. Given that the roadway and adjacent development at Captains Cove are at similar grade elevations, the wall height would need to only be tall enough to block the height of car headlights. A height of four feet would be tall enough to block vehicle headlights. Thus, a 6-foot tall residential fence or wall (as currently exists along the adjacent Contempo Marin residential neighborhood) would not be deemed necessary. The impact of a low screen hedge, wall or fence would be considered of little visual significance, as it would be consistent with typical residential fencing that would be allowed, and consistent with the residential character of Captains Cove and Contempo Marin neighborhoods. **FEIR Figure 1** illustrates the relationship of the homes in Captains Cove to the access road that lies to the east/southeast and crossing Gallinas Creek. **FEIR Figure 2** provides photographs toward the affected residences as viewed from the access road at the turn before crossing the bridge to enter the site (Photo #1), and before crossing the bridge to exit the site (Photo #2).

It is also noted that upon exiting the Project site between dusk and midnight, vehicle headlights would be directed toward the Contempo Marin Mobile Home Park, but the

existing airplane hangars and solid fencing would block headlight glare from reaching homes in that area.

Comments on the DEIR also expressed concern that headlight glare from the parking lot (which will be raised approximately 3.5 feet) could impact homes in the Santa Venetia residential neighborhood that is located to the south, across the South Fork of Gallinas Creek. Homes nearest the South Fork of Gallinas Creek are located along Vendola Drive. These homes are single-story and located from 750 feet to over 1,500 feet from the edge of the proposed parking areas. The Project currently proposes to install a 5-foot screened fence along the south side of the parking lot, between the site and the Santa Venetia neighborhood to the south. Also, the existing levees that border the subject site and Santa Venetia neighborhood are located along both sides of the South Fork of Gallinas Creek (at a height of 9 feet). Therefore, the proposed fence and existing levees would block the glare from vehicle headlights from impacting Santa Venetia residents. For these reasons, the potential glare from vehicle headlights is not considered a significant environmental impact.

FEIR Figure 1: Aerial View of Captains Cove Development at Sailmaker Court



FEIR Figure 2: Photographs of Views Toward Captains Cove Development

Photo #1 (View West Entering the Site - Toward the Rear of 33-45 Sailmaker Court)

Photo #2 (View North Exiting the Site – Toward the Side of 33 - 45 Sailmaker Court)

In response to concerns regarding the effects of vehicle headlights associated with Project-related traffic on the off-site residents at Captains Cove, the following condition of approval will be required:

> *"The Project Applicant shall provide a solid wall, fence or hedge, or combination of both, along the edge of the access roadway that runs along the street edge (adjacent to the grassy area) from the edge of the Captains Cove development to the bridge crossing Gallinas Creek. This fence shall be of sufficient height to effectively screen vehicle headlights and reduce the potential effects of vehicle-related headlight glare on the off-site residences, The final height and design of screening, which is anticipated to be no taller than 4-feet (consistent with residential fencing), shall be subject to review and approval by the City to ensure the height, design and location effectively block the headlight glare, and to confirm that a design solution is*

implemented that is consistent with typical residential fencing/screening that would be compatible with the residential character of the neighborhood."

As noted above, the Applicant has previously indicated agreement to implement this improvement as a requirement of the project, and has confirmed their agreement with implementation of this as a Project condition.

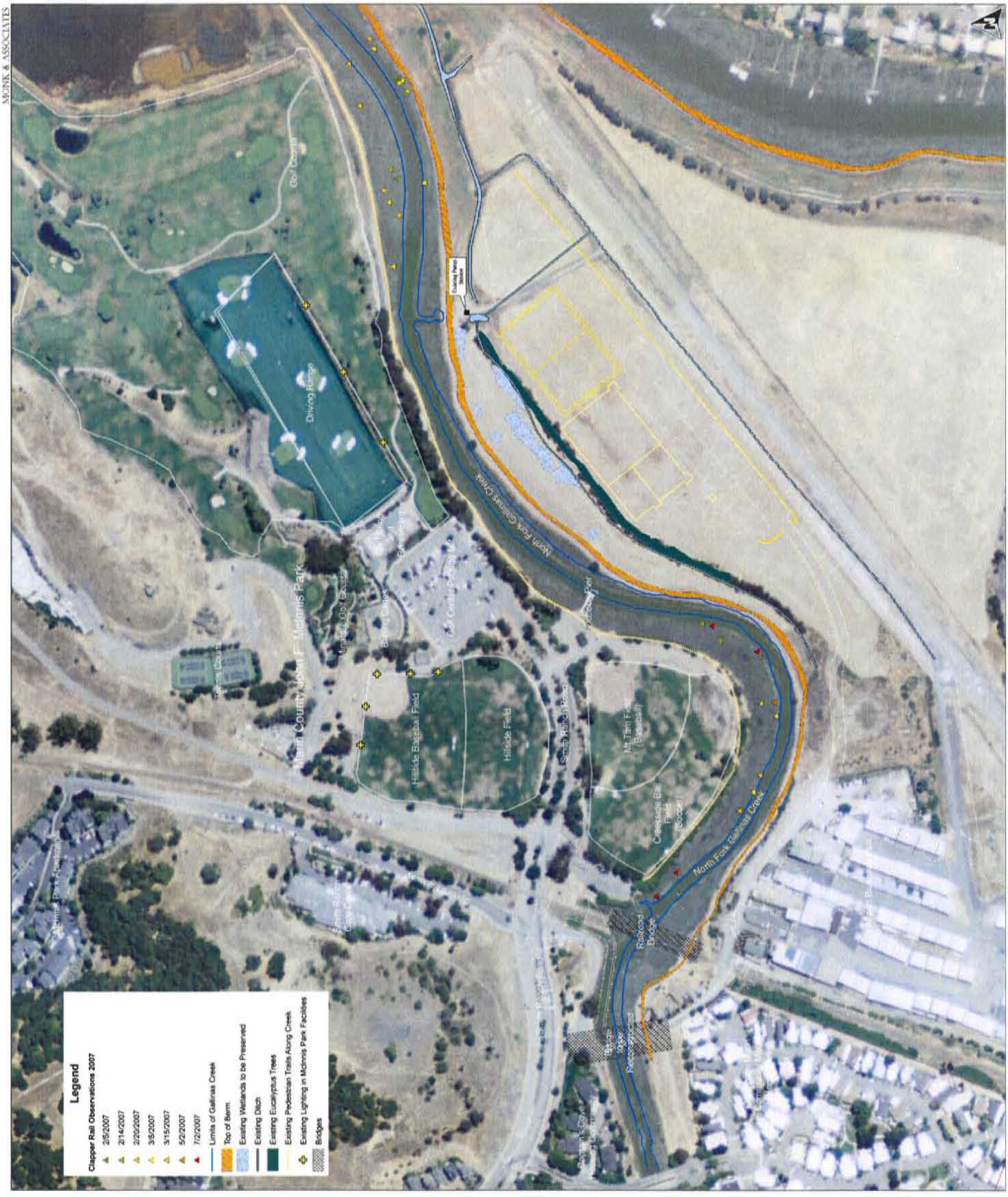
Thus, vehicle headlight glare was not identified as a potentially significant impact that warranted analysis in DEIR Chapter 5, and based on the existing Project setting and design, as described in the DEIR and summarized in this response, there would be no significant impacts from vehicle headlight glare even without mitigation or conditions of approval.

5. California Clapper Rail

MASTER RESPONSE BIO-1 responds to the question: *What are the effects of Project-related noise on California clapper rail?*

The multiple surveys conducted along Gallinas Creek indicate that California clapper rails establish nesting territories during the nesting season and thus likely successfully nest and reproduce in the marsh habitats along this creek. The DEIR describes the high level of disturbance associated with all sides of the two branches of Gallinas Creek in the vicinity of the Project site (see **FEIR Sheet 1,** below). Hence, for clapper rails to persist in this area they must be successfully reproducing. Thus, as confirmed in the DEIR by the biological consultant, Monk & Associates, one must assume that the clapper rails have become accustomed to heavy human disturbances in this area. Survey data indicates that they nest adjacent to a pedestrian walking path with frequent dog traffic, and adjacent to a golf course and two active athletic fields. Please note that the protective buffers established between the top of the levee along the south bank of the North Fork of Gallinas Creek and the Project development envelope (between 130 feet and over 250 feet) far exceed the distance between the existing public pedestrian pathway on the north side of the creek and the marsh habitat. This pathway is virtually at the top-of-bank of this creek, and yet the California clapper rails not only use the north side of the creek, but likely nest on the north side of the creek. Disturbance on the Project development envelope will remain at a minimum 130 feet away from the top-of-bank of the south bank of this creek. Additionally, a permanent conservation area restriction is required under **Mitigation Measure MM Bio-2b.** This would establish a permanent 100-foot (minimum) upland buffer in this area, adjacent to the North Fork of Gallinas Creek, which will ensure that the buffer that would be provided between the Project and sensitive habitat is permanently maintained. This setback distance has been confirmed by the DEIR biologist, Monk & Associates, as adequate to provide a suitable buffer, and would be consistent with the San Rafael General Plan 2020 conservation policies and the –WO zoning regulations.

FEIR Sheet 1: Proposed San Rafael Airport Recreational Facility and Surrounding Land Uses



As indicated on DEIR pages 7-63 through 7-69, although the proposed Project would not impact marsh habitats or adjacent upland habitats along the North Fork of Gallinas Creek, Project construction and operations could have potentially significant indirect impacts to California clapper rails (and possibly to California black rails) as a result of noise generated from those activities (see **Impact Bio-2**). The discussion on DEIR page 7-65 indicates that noise associated with pile driving during construction could result in nest abandonment, loss of young and/or reduced health and vigor of eggs and/or nestlings, but that noise associated with operation of the recreational facility would not result in impacts that would be considered significant, given the existing noise levels associated with activity nearby (e.g., aircraft operations, traffic noise along U.S. 101 and sporting events at McInnis Park).

The DEIR indicates that implementation of **Mitigation Measure Bio-2d** (California Clapper Rail and California Black Rail - Avoidance Measures [as modified]) and **Mitigation Measure Bio-2e** (California Clapper Rail and California Black Rail – Event Curfew), as well as **Mitigation Measure N-3** (which requires that quiet pile-driving procedures be implemented) would reduce potential noise impacts to these two species to a level considered less than significant. The mitigation measure for pile driving activities would include pre-drilling of piers, and utilizing multiple pile drivers to minimize the number of hammer blows required to drive the piles the estimated minimum distance of 5 feet into the underlying bedrock, thereby substantially reducing the duration of noise. The mitigation measures include limiting construction of the recreation facility until July 1st, when the rails can be expected, in most cases, to have fledged young. Construction of the recreational facility could extend through January, with interior work allowed throughout the year. All work associated with the new bridge, including the demolition of existing bridge deck, installation of the new deck, and other bridge improvements, shall be restricted to August 1 to October 15. The bridge pile-driving dates shall be further restricted to September 1 and October 15 when potentially occurring anadromous fish would not be expected to occur in the channel. This "avoidance window" is outside of the California clapper rail, California black rail, and other special-status birds breeding seasons, thereby eliminating the potential that bridge reconstruction activities would disrupt breeding attempts.

In addition, the supplemental report letter prepared by John C. Hom, dated February 23, 2010 (**FEIR Appendix B**) confirms the number of piles anticipated for construction of the building, at 40-50 piles, are well within estimates used for analysis of the Project noise impacts (which assumed a much higher potential of 100 piles being required). The supplemental report estimates that 15 to 20 piles could be driven per day. The piles, which must be driven 5 feet into bedrock, would only require hammer blows to be delivered at full force at the point the pile is driven into the bedrock; which is estimated to take approximately 5 minutes per pile. This information provides additional clarification on the amount of time it would take to drive piles required for the Project (i.e., between 2 days to under 3.5 days), and the duration that significant noise would be generated from the hammer blows required to drive the piles into bedrock (i.e., a total of 75 - 100 minutes per day). Monk & Associates,

consulting biologist for the DEIR, has reviewed this supplemental information in preparing their response to comments and confirms that it correlates with their assumptions and recommendations made to reduce impacts on wildlife, including the California clapper rail and black rail species that have been identified in the area.

6. Extent to which California Clapper Rail Adapts to Exposure to Humans

MASTER RESPONSE BIO-2 responds to the question: *To what extent do California clapper rail adapt to exposure to humans?*

As indicated above, along Gallinas Creek California clapper rails establish nesting territories during the nesting season and thus likely successfully nest and reproduce in the marsh habitats along this creek. For clapper rails to persist in this area they must be successfully reproducing. Thus the DEIR biologist, Monk & Associates, has confirmed their conclusion that one must assume that the clapper rails have become accustomed to heavy human disturbances in this area. The presence of California clapper rail in the vicinity of the Project site indicates that they have been able to adapt to the presence of humans and their activities, including the noise and motion associated with nearby aircraft operations, noise and lighting associated with sporting events at nearby McInnis Park, lighting associated with nearby residential development, and the presence of hikers along trails adjacent to Gallinas Creek.

7. Lighting Effects on Wildlife

MASTER RESPONSE BIO-3 responds to the question: *How will Project-related lighting affect wildlife?*

The presence of California clapper rail species have been documented in the area and evaluated in the DEIR. The DEIR evaluation of Project impacts on this identified sensitive species also addressed impacts on other occurring and potentially occurring wildlife species in the area, including potential light and glare impacts. **FEIR Sheet 1** (page C&R-21, above) shows that there are existing active outdoor soccer and baseball fields on the northern side of the North Fork of Gallinas Creek, immediately adjacent to the marsh habitats, with no buffer area provided. The daily activities on these athletic fields do not appear to disturb or disrupt California clapper rail reproductive efforts. In addition, it is important to note that the driving range at the John F. McInnis Park and Golf Center has existing nighttime lighting immediately next to the North Fork of Gallinas Creek; next to areas where the California clapper rails have been observed.

The potential light and glare impacts of the Project on the surrounding community are analyzed in **Chapter 5: *Aesthetics***, of the DEIR. **Chapter 5** notes that the Applicant proposes a state-of-the-art lighting system designed by Musco Lighting that uses 50 percent less electricity and produces 50 percent less spill and glare than traditional fixtures. This will keep light impacts to the Gallinas Creek channel minimized to an extent that the impact is not considered significant. Additionally, **Mitigation Measure Bio-3a** and **Mitigation Measure**

Bio-3b [as corrected] will be implemented as part of the proposed Project to minimize lighting impacts, to protect the habitats associated with the North Fork of Gallinas Creek.

Implementation of **MM Bio-3a** and **MM Bio-3b** [as corrected] (establishing a lighting curfew requiring outdoor events to end and field lighting to be turned off at 10:00 PM and use of cut off shields on lighting fixtures to assure light spillover would not occur) will reduce potential nocturnal lighting impacts to a level considered ***less than significant*** pursuant to CEQA. The 100-foot creek setback/buffer will further reduce this potential impact. Therefore, implementing the mitigation measures above, nocturnal lighting impacts to off-site areas, such as the North Fork of Gallinas Creek, are considered to have been reduced to the greatest extent possible, and are not expected to have a significant impact on wildlife species in the Project vicinity.

The effects of nocturnal lighting on wildlife in the vicinity of the Project site are addressed on DEIR pages 7-69 through 7-71. As indicated in the DEIR, lighting of the outdoor soccer field for evening games as proposed could result in potentially significant impacts to wildlife species and habitat in the North Fork of Gallinas Creek (**Impact Bio-3**). This impact would be reduced to a level considered less than significant through implementation of **Mitigation Measure Bio-3a** (ensuring shield cut-offs so that there is no light spill-over or light directed into off-site areas) and **Mitigation Measure Bio-3b** (establishing a restriction that outdoor event lighting shall be turned off after 10:00 PM to assure that the nocturnal wildlife activity patterns will not be disrupted). Please note that this curfew, which has been confirmed as appropriate based on the Project analysis prepared by the DEIR consulting biologist, Monk & Associates, is based on the following factors:

1. The sensitive species are also present on the opposite bank of Gallinas Creek adjacent to fields at McInnis Park, which similarly operate field lights that have the potential to spill over into the area at night, and the species remains in the area, thus demonstrating they have become accustomed to this condition.

2. Outdoor field lighting fixtures would be shielded and directed downward onto the field area, and would not be allowed to spillover into the 100-foot buffer zone or the adjacent creekside bank of the levee, where the sensitive species nests.

3. The outdoor fields could be used without the need for artificial lights until 9:00 PM during summer months, when daylight hours are longest. Outdoor field lighting would allow consistent evening use year round, and the 10:00 PM lighting curfew would maintain sufficient periods of darkness for nocturnal movement.

4. Furthermore, the City design review standards require all lighting be shielded to prevent spillover, and lighting is subject to a 90-day post-installation review period which would assure light spillover into adjacent habitat would not occur. This requirement has been reflected in **Mitigation Measure Aesth-1a**.

8. Noise Effects on Wildlife

MASTER RESPONSE BIO-4 responds to the question: *How will Project-related noise affect wildlife?*

As indicated above, the presence of California clapper rail in the vicinity of the Project site has been documented and analyzed in the DEIR (the clapper rail is identified as a noise-sensitive species). The DEIR also provided discussion of potential impacts to species that, although they were not found to be present at the site, could be discovered during pre-construction surveys and, therefore, must be addressed in the DEIR. Mitigation addressing the clapper rail, which is particularly sensitive to noise, would sufficiently also mitigate potential noise impacts on other wildlife species that could inhabit the site. Presence of the clapper rail indicates that they have been able to adapt to the presence of humans and their activities, including the noise associated with nearby aircraft operations and noise associated with sporting events at nearby McInnis Park. Potential Project-related noise effects on the California clapper rail and California black rail are addressed on DEIR pages 7-63 through 7-69. While Project-related noise effects on other wildlife species in the area are not directly addressed in the DEIR, since implementation of **Mitigation Measure Bio-2d** (California Clapper Rail and California Black Rail - Avoidance Measures) and **Mitigation Measure Bio-2e** (California Clapper Rail and California Black Rail – Event Curfew), as well as **Mitigation Measure N-3** (which requires pile-driving procedures be implemented that would reduce the number and duration of hammer blows) would reduce potential noise impacts to these two species to a level considered less than significant. Implementation of these measures to protect the sensitive California clapper rail and the California black rail species that are known to exist in the area, would also similarly reduce potential noise impacts to any other wildlife species in the area to a less than significant level.

9. Effects of Ball Retrieval on Wildlife

MASTER RESPONSE BIO-5 responds to the question: *Will ball retrieval have adverse effects on wildlife?*

As part of **Mitigation Measure Bio-2a** on DEIR page 7-66 and 7-67 (as modified), to reduce potentially significant impacts to California clapper rail and California black rail to a level considered less than significant, the perimeter fence called for in this measure would be ten-feet tall for the purpose of preventing balls from the soccer fields from entering the nearby marsh. This fence could consist of a standard 6-foot tall cyclone fence with a 4-foot netting extension, which is commonly used at fields and golf courses, including the nearby McInnis golf course. The proposed fencing would provide a reasonable height, which would not penetrate the flight safety zone 5 restriction discussed in DEIR Chapter 10 (see DEIR **Figure 10-1**), and would minimize the potential that soccer balls would be kicked off the field and into the protected area. The potential that balls would enter the protected and fenced area is considered to be a low and infrequent potential occurrence, given that the soccer field is oriented to run parallel with the protected habitat area. Nevertheless, to mitigate against the

potential for human intrusion into this area, retrieval of items from the fenced protected buffer area (including any balls that get over the fence) shall be done by authorized recreation facility personnel only. As indicated in this measure, without a fence, there is no realistic expectation that the marsh habitat along the North Fork of Gallinas Creek and the adjacent upland areas will remain protected. Implementation of **MM Bio-2a** (as revised) will reduce potential intrusion impacts to the marsh habitats to a level considered ***less than significant*** pursuant to CEQA. The 100-foot creek setback/buffer will further reduce this potential impact.

10. Effects of Levee Mowing on Wildlife

MASTER RESPONSE BIO-6 responds to the question: *What are the effects of mowing the levees on wildlife?*

As indicated on DEIR page 7-2, the operators of the San Rafael Airport have implemented an on-going vegetation control effort to discourage wildlife populations (particularly birds) from using the ruderal grasslands within the proposed Project area, in order to reduce potential hazards to aviation (e.g., "bird strikes"). Periodic mowing of the existing levees is currently part of this on-going effort, and is intended to reduce the attractiveness of the grassy areas on the levees for use as wildlife habitat. In the interests of aviation safety, the current practice of mowing the levees is intended to have an adverse effect on wildlife, since it intentionally reduces the area available at for possible wildlife habitat at the Project site. However, **Mitigation Measure Bio-2c** (DEIR page 7-68) recognizes that vegetation removal along the interior (airport-facing) sides and tops of the levees will need to continue, but to ensure that California clapper rails in the area have necessary vegetative cover to escape predators during high tide events, no mowing would be allowed on the slopes of the levees that face the creek.

11. Datum Value and Assessment of Flooding Impacts

MASTER RESPONSE HYD-1 responds to the question: *What is the appropriate datum value to be used in addressing Project-related flooding impacts?*

It should be noted that the vertical datum used in the DEIR analysis does not influence the level of significance with regards to potential flooding impacts, given that the commercial recreational building Project must be wet-flood proofed in accordance with the Federal Emergency Management Agency (FEMA) standards, pursuant to **Mitigation Measure MM Hyd-2a** (FEMA establishes the requirements for development within its established flood zones). The Project evaluation and its identification of potentially significant impacts would not change whether the Project uses the 1929 NGVD or the 1988 NAVD. The correction between NGVD and NAVD is 0.815 meters or 2.67 feet on the Project site. NAVD *datum* elevations are greater than NGVD, thus 4.0 NGVD is equivalent to 6.67 NAVD. The change in the datum values are not based on new hydrology, thus this does not materially change the actual physical elevation of flood waters that would potentially impact the site. Therefore, no

change in grading or finish grades would be required to adjust for this change in the flood datum. **Mitigation Measure MM Hyd-2a** is proposed to be modified to reflect the change in measurement from NGVD to the newly established NAVD datum points, consistent with FEMA requirements. Thus, no further revision to the Project is needed, given that this change to flood proofing does not require any change to overall building heights, nor significantly alter the design or functionality of the building.

12. Existing Condition and Maintenance of Levees

MASTER RESPONSE HYD-2 responds to the question: *What is the current condition of the levees at the Project site, and who is responsible for maintenance and repair of the levee and related flood protection improvements?*

The levee system surrounding the property crosses between private (airport) and public (state lands/county) ownership and responsibility. The 12,000-linear-foot perimeter levee system that surrounds the Project site, bordering the North and South Forks of Gallinas Creek, were constructed by previous land owners by placing fill on the flat marshy areas of the property in the 1940's to reclaim lands for agricultural purposes. These levees now protect the airport site and adjacent Contempo Marin residential development from inundation by flood waters, which are both situated below the current 9-foot NAVD flood elevation. The condition of the levees has been discussed in DEIR Chapter 11 **Impact Hyd-2**, pages 11-30 to 11-32, which discusses impacts associated with potential levee failure. The levees require routine maintenance, primarily consisting of topping off the levees with fill soils to address settlement and erosion. Assessment of the levees in the DEIR included an analysis of liquefaction potential, as part of a discussion of potential flooding impacts on the site in the event of a levee failure. This assessment was prepared by John C. Hom (JCH) and Associates, Inc., contained in a report letter dated February 24, 2006 (included as DEIR **Appendix I**). Assessment of the levee condition primarily was based upon visual inspection by JCH & Associates, Geotechnical Consultants, which identified that the levees consist of on-site Bay Mud and imported clayey fill. The assessment concluded that the levees were not susceptible to liquefaction. Furthermore, following construction of the levee system in the 1940's, it had not failed after the 1969 Santa Rosa or the 1989 Loma Prieta earthquakes.

Further amplification of the levee analysis has been conducted in response to the comments received on the DEIR. In their letter report of February 10, 2010 (**FEIR Appendix B**), Jon C. Hom and Associates, Inc. indicate that they drilled three boreholes in the levees at the Project site in order to verify the assumed fill material used in construction of the levee system. These boreholes penetrated medium stiff, silty clay fill in the upper 6 to 7 feet, underlain by soft Clay-Bay Mud to the total depth of boreholes at 10.5 to 14.5 feet below the top of levee. These borings confirm the assumptions made regarding fill material used to construct the levees. Based on the number of years since the fill was placed, and the thickness of Bay Mud from the test borings, the settlement due to consolidation of the Bay Mud from the levee fill load has been completed. In a nearby borehole drilled in the proposed athletic facility

location, the soft Clay-Bay Mud was found to extent to a depth of 27 feet below ground surface, at which depth very stiff Sandy Clay alluvium was penetrated. The alluvium was underlain by Shale bedrock at a depth of approximately 43 feet below ground surface. These soil and bedrock materials are not susceptible to the effects of seismically-induced liquefaction. The soft clay soils may amplify the ground shaking effects during severe ground shaking, and will tend to shake for longer periods than bedrock, but will not fail due to liquefaction, a loss of shear strength experienced by loose and saturated sand soils during strong ground shaking.

Based on this further investigation prepared by JCH and Associates, provided in **FEIR Appendix B**, the fill material that was used to construct the levees should perform adequately during earthquake-induced ground shaking, and the potential of seismically-induced ground failure is less than significant. The JCH analysis of the levees has been peer reviewed and confirmed by Questa Engineering Corporation. Furthermore, it is worth noting that the County also recently completed additional maintenance repairs to portions of the levee under its jurisdiction, in order to address sinking of the levees by depositing additional fill material onto the tops of the levee. (This portion of the levee is located at the north end of the airport runway, and was also the subject of emergency repairs that the County completed in 2006).

Questa Engineering Corporation contacted the County of Marin, Public Works - Flood Control and Water Conservation District staff to inquire further about the ownership and maintenance responsibility of the levees and pump station at the airport site. This agency was contacted in order to respond to comments regarding concerns with maintenance of the levees, and identifying who is responsible for maintaining the levee and related flood protection equipment. At present, a significant portion of the levees surrounding the airport site are in private ownership and the pump station and levees that protect the property from storm and flood waters are maintained by the airport site property owner. As noted above, sections of the levee system are located on public lands and maintained by the County, including the portion located at the tip of the airport peninsula. The County also is responsible for portions of the levee located south of the Project site along North Fork of Gallinas Creek, and a section along the South Fork of Gallinas Creek (see **FEIR Figure 3**, below). The County maintains these levees from its General Fund, with maintenance consisting primarily of mowing and periodic inspection. Marin County does not maintain any other parts of the airport site's drainage system. The Project Applicant currently has a large incentive to maintain the drainage system and levees that protect the airport site, considering the potential for damage and loss of use of their existing airport facilities, as well as the proposed recreational facility; which would occur if the levees and pump station were not maintained.

FEIR Figure 3: Levee Ownership at Project Site and Vicinity

While further analysis of the levee has confirmed the DEIR conclusions that potential impacts to the levee as a result of earthquake-induced failure would be less than significant, it is worth noting that the improvement and maintenance of the levee system has been previously documented as a project merits issue by the City. This is referenced on DEIR page 4-5 discussing a prior use permit entitlement granted in 1975. The levee surrounding the airport property is recognized as currently serving an important function in protecting the airport site in particular, and adjacent properties also located below flood elevation, such as the Contempo Marin residential park to the west. (As noted on DEIR page 11-2, the airport site and Contempo Marin are located within the 100 year flood zone; pursuant to the current FEMA Panel 06041C0293D Effective May 4, 2009, and former FEMA Panel 06041C0294D) The Marin County Flood Control District has pursued establishment of assessment districts to fund maintenance of other levees and drainage improvements that are within its jurisdiction. However, the subject levee currently is not a part of any assessment district program, and has been historically maintained by the Applicant and County on an as-needed basis.

It is further worth noting that after release of the DEIR, the County pursued additional maintenance work on the portion of the levee under county authority (during Fall of 2009). The County must cross over the subject airport property in order to access the county-owned portions of the levee. The Applicant and County staff have discussed the possibility of developing a more formal program for joint-maintenance of the levee system. If the Applicant and County enter into a joint maintenance agreement, this would help to ensure that consistent maintenance practices are employed for the entire levee system. However, a requirement establishing a formal maintenance agreement does not need to be included as part of the DEIR analysis, particularly given that the proposed recreational building has been designed to comply with FEMA flood requirements for construction of a commercial building within the flood plain. Rather, this response addresses the questions regarding the ownership and maintenance responsibilities for the levee, and confirms the previously presumed integrity of fill used for its construction.

For purposes of this response, the Project Applicant has also submitted the following additional information regarding "Maintenance Practices for Levees and Grassland Fields" at the airport site (see **LETTER 68**, below).This is considered worth noting in this response to further document the maintenance practices that are already in place for the levee system and that would be expected to continue whether or not the subject Project were pursued:

> "Annually in late spring (April/May) after the grasses have bloomed, we mow the levee tops and inside levee slopes with brush mowers and tractor pulled mowers. At the same time, we disk the grassland fields between the levees with a heavy duty agricultural tractor and disker. The mowing and disking is done for fire control and to remove wildlife attractants pursuant to FAA guidelines for aircraft safety. Doing the work before April/May is ineffective because the grasses will immediately grow back. Doing it later defeats the purpose of the work, which is to remove the

vegetation as soon as possible so that it does not create a fire and aviation hazard through the rest of the year.

In the late fall before the heavy winter rains (October/November), we condition the levee tops by running a track mounted loader along the tops of the levees. This is done to smooth and re-compact the levee tops in preparation for winter. At this time we also add new material to the levees in any small areas needing repair. This material is delivered by dump trucks which drive through the grassland fields adjacent to the levees. Periodically (every 5-10 years), we perform a more extensive levee capping process where we add 1-2 feet of new material onto entire large sections of the levee top. This work is done in the dry season from June to October using heavy construction equipment including dump trucks, bulldozers, cranes, and excavators. The work is staged, including stockpiling of levee capping material, in the grassland fields adjacent to the levees.

Also in the late fall (October/November) we perform a second disking or mowing of the grassland fields and levee side slopes. The purpose is to remove any new vegetation that has re-established itself over the summer. At this time we also add seed and soil amendments to the fields to enrich the soils for agricultural purposes and to ensure consistent growth of grass types suitable for feed stock and future livestock grazing.

Stormwater is drained from the airport property via a series of long linear earthen drainage ditches and swales that traverse the property. These ditches are cleaned out with a backhoe as needed every 1-2 years to remove accumulated sediment and plant matter that restricts the flow and carrying capacity of the ditches. As there are well over 2 miles of ditches on the property, this is an on-going job that is performed throughout the dry season and occasionally as needed during the wet season. The clean-out procedure is augmented, where needed, by hand mowing to remove grasses that could serve as a wildlife attractant."

The airport site also uses goats for grazing of the non-native grasslands, in-lieu of discing or mowing in these areas. This is documented in the DEIR and existing entitlement record as a recognized ongoing maintenance practice. This practice includes grazing along the interior banks of the levee system. Thus, the clarifications and responses provided above confirm the conclusions in the DEIR regarding the levee, and address all pertinent aspects regarding the condition of the levee, including past, present and future maintenance practices, which are deemed relevant to the integrity and longevity of the levee system.

13. Levee Breach

MASTER RESPONSE HYD-3 responds to the question: *What could be expected to occur during a levee breach?*

Flooding that may be associated with a potentially significant levee failure at the Project site is addressed on pages 11-30 through 11-33 of the DEIR. Placement of the structure within the 100-year floodplain zone is specifically addressed in **Impact Hyd-2** on DEIR page 11-30. The impact discussion addresses potential flooding resulting from levee failure. The subsequent levee analysis conducted by Jon C. Hom (**FEIR Appendix B**), discussed in **MASTER RESPONSE HYD-2**, above, has confirmed shown that the levees are sound and not susceptible to seismically-induced failure, such as liquefaction. The DEIR goes on to discuss that the Project is not constructing housing within the 100-year floodplain zone. It also makes plain that the City of San Rafael's Municipal Code, which allows for the construction of non-housing types of structures within the 100-year floodplain zone, must comply with FEMA-mandated floodplain ordinances and policies. Specifically, **Mitigation Measure Hyd-2a** mandates compliance with FEMA flood-proofing specifications. These discussion and others within the DEIR indicate that the significance threshold is exceeded, but that the incorporation and implementation of the recommended mitigation measures reduces these potentially significant impacts to a level below the significance threshold.

Although the effects of a levee breach at the Project site cannot be predicted with certainty due to the number of variables involved (e.g., water surface elevation at the time of breach, the linear extent of the breach, etc.) Oberkamper & Associates prepared an analysis of a potential levee breach at the time of a 100-year flood event, which is summarized on DEIR page 11-31. In this scenario involving an initial breach 100 feet in length, it was determined that although the Project site would be inundated, there would be enough time for those using the facilities at the Project site to leave the area before the depth of water were to present a hazard exposing people to significant risks of loss, injury or death. In this scenario, it would take between 45 minutes and 2.5 hours for water to fill the Project site to the extent that a car could not be used to evacuate the site. With these assumptions, it would take more than 45 minutes for water to start flooding the proposed parking area, then another hour and 15 minutes to render the access road impassable. Given the short distance to higher ground (approximately 0.44 mile, or 2,300 feet), this rate of flooding at the Project site would permit adequate time for an evacuation to take place, either in motor vehicles or on foot.

To reduce the potential impacts associated with flooding as a result of levee failure to a level considered less than significant, the DEIR recommends implementation of **Mitigation Measure Hyd-2a** (floodproofing) and **Mitigation Measure Hyd-2b** (finalizing hydrology report and grading and drainage plans), as modified to adjust for change in datum from NGVD to NAVD flood elevation measurement.

14. Future Sea Level Rise

MASTER RESPONSE HYD-4 responds to the question: *What is to be expected in terms of future sea level rise, and how would this affect the Project?*

On April 7, 2009 (after publication of the DRAFT EIR in March, 2009), the San Francisco Bay Conservation and Development Commission released a DRAFT Staff Report titled "Living with a Rising Bay: Vulnerability and Adaptation in San Francisco Bay and on its Shoreline". In Figure 1.12 (page 37) of said report, the Project site (along with the remainder of the airport site and the nearby residential areas of Santa Venetia and Contempo Marin) are identified as being within an "area vulnerable to an approximate 16-inch sea level rise".

On December 2, 2009 (after publication of the DRAFT EIR in March, 2009), the California Natural Resources Agency published the 2009 California Climate Adaptation Strategy, which provides recommendations to state agencies and other jurisdictions on how to address the anticipated effects of a changing climate during the 21st century. On page 15, the Strategy document indicates that anticipated sea level rise ranges from 12 inches to 18 inches by 2050, and from 21 inches to 55 inches by 2100 (compared to an approximately 7-inch rise in sea level along the California coast during the 20th century). It should be noted that the anticipated sea level rise values presented by the Strategy document do not take into account any additional rise in sea level that could result from melting of the Greenland or West Antarctic ice sheets, which could drive sea levels along the California coast even higher.

On page 20 of the Strategy document, it is stated that the frequency of large coastal storms and heavy precipitation events do not appear to change over the 21st century, based on the 2009 Scenario Project. However, even if storm intensity or frequency were not to change, storms will impact the California coast more severely due to higher average sea levels that can result in higher storm surges, more extensive inland flooding, and increased erosion along the state's coastline.

The Strategy document recommends that project alternatives that avoid significant new development in areas that cannot be adequately protected from flooding due to climate change be considered. It continues (on page 7): "The most risk-averse approach for minimizing the adverse effects of sea level rise and storm activities is to carefully consider new development within areas vulnerable to inundation and erosion. State agencies should generally not plan, develop, or build any new significant structure in a place where that structure will require significant protection from sea level rise, storm surges, or coastal erosion during the expected life of the structure."

On page 11-34, the DEIR indicated that in 1995, the U.S. EPA had predicted a sea level rise of 0.5 foot (or six inches) by 2050, which would be only 50 percent of the State of California's lowest anticipated sea level rise and only 33 percent of the State of California's highest anticipated sea level rise for the period to 2050. Based on that estimate for sea level rise, and on the existing flood control features (e.g., levees, drainage infrastructure, pump,

etc.) already in place, Project-related impacts were considered to be less than significant through 2050 based on the conclusion that the 0.5 foot predicted sea level rise would not lead to on-site flooding. The DEIR continues, on page 11-35, to acknowledge that the incremental increase in inundation through 2050 would be less than significant, but that no impact conclusion beyond the horizon year of 2050 can be made because there is significant uncertainty involved in making such predictions, and the existing predictions cover a considerable range. Thus, analysis after 2050 is considered too speculative.

Were sea level to rise by the now-predicted 12 to 18 inches before 2050 above the +6 NGVD flood elevation (+8.67 NAVD) before 2050, the potential inundation impacts at the Project site would be greater than if the sea level rise were only 6-inches during the same period (as assumed in the DEIR, based on the 1995 EPA estimate). However, the existing flood control features which provide protection from inundation at the Project site would be expected to remain in place and continue to operate as they do today; including the 9-foot tall levee system at +8 NGVD elevation at top of bank (+10.67 NAVD), and pump station that ejects the drainage from the site into the North Fork of Gallinas Creek. Therefore, the potential impacts related to an incremental sea level rise of this magnitude would continue to be reduced to a level of less than significant.

Were sea level to continue to increase after 2050 (as now formally anticipated by the State of California), at some point it is likely that the proposed Project might not be able to continue to operate at the site without additional measures to prevent possible inundation (e.g., upgrading levee height and strength to resist possible overtopping and infiltration, increasing pump capacity and upgrading on-site drainage infrastructure, etc.). Over time, a gradual rise in sea level can be monitored, and as increases in sea level occur, any necessary measures to upgrade existing facilities intended to reduce the risk of possible inundation at the site can be implemented when considered appropriate by the property owner. If sufficient upgrading of existing flooding prevention facilities cannot be completed in sufficient time to provide adequate protection of those who would use the facilities currently proposed at the site, the use of those facilities would need to be discontinued in the interests of public safety. Depending on the estimated useful economic life of each of facilities proposed at the Project site, at some point it may become unreasonable for the property owner to make the necessary investment in infrastructure improvements intended to continue protecting those facilities from inundation, and at that point those uses would be discontinued and abandoned.

It is also worth noting again that this is an existing developed site, and these additional protective measures to address anticipated sea level rise and levee protection would be required to protect the currently existing airport site improvements, and Contempo Marin residential development. Thus, the proposed recreational facility would not change the fact that there are existing developed conditions on and around the property that already necessitate ongoing maintenance and repair (as needed) of the levee and pump station stormwater and flood protection systems. Rather, further evaluation of these systems in this Project EIR has been conducted in order to verify that they would continue to protect the

existing site, along with the proposed additional property improvements and people that would be on-site using the proposed facilities, for the duration of the Project life.

15. Water Quality Impacts

MASTER RESPONSE HYD-5 responds to the question: *What are the water quality impacts associated with development of the Project site as proposed?*

The Project site is relatively level and contains a private storm drainage system that serves the entire airport property. As indicated on page 11-21 of the DEIR, Project construction and operational activities may result in increased pollution of receiving waters, which would represent a potentially significant impact (**Impact Hyd-1**). The effective implementation of **Mitigation Measure Hyd-1a** (as modified to further clarify the erosion control plan measure requirements) through **Mitigation Measure Hyd-1f** (DEIR pages 11-23-11-25) would reduce this potential impact to a level of less than significant.

The City Department of Public Works (DPW) locally enforces the dictates of the Regional Water Quality Control Board in regards to stormwater and water quality measures that must be employed by developers during construction and grading projects. DPW enforces stormwater and urban runoff pollution prevention ordinances (i.e., provisions of San Rafael Municipal Code (SRMC) Chapter 9.30 and SRMC Title 18) and has established an ongoing program for evaluating projects at the design stage, final construction level stage, and for conducting inspections during construction operations. This has included provision of a standard stormwater pollution prevention plan and "Best Management Practices" erosion control plan sheet to applicants, and requiring that grading permits and improvement plans be reviewed and approved by DPW prior to issuance of construction permits to ensure compliance with all standards is achieved.

The Project Applicant has not yet developed an Erosion Control Plan (**Mitigation Measure Hyd-1a**, as modified to further clarify the erosion control plan measure requirements), a Storm Water Pollution Prevention Plan (**Mitigation Measure Hyd-1c**) or a Stormwater Management Plan (**Mitigation Measure Hyd-1d**, as amended), specifically related to Project construction documents. Typically, the Erosion Control Plan is submitted during tentative map submittal of plans for permits for the Project (e.g., improvement plans, grading plans or building permit plans) as a requirement prior to issuance of a grading permit from the City. When prepared and submitted, each of these plans will be reviewed by the Stormwater Program Manager of the City of San Rafael for compliance with all City and National Pollution Discharge Elimination System (NPDES) Permit requirements. DPW has approved similar plans for other projects in the past, and it is reasonable to assume that when these three Project-related plans are developed, following City approval the implementation of these Plans would effectively reduce water pollution resulting from construction and operations at the Project site to a level of less than significant, in compliance with all current City and NPDES Permit requirements. As noted above, **MM Hyd-1a Erosion Control Plan**

has been modified (as shown in FEIR Chapter 2) to further clarify the erosion control plan requirements that would apply to the Project.

The Project Applicant will also have to submit the Erosion Control Plan as part of the overall application to attain a 401 permit from the Regional Water Quality Control Board. Because of the interior drainage nature of the project site (i.e., all of the drainage must be pumped from the site). Drainage and erosion control on the site is fairly straight-forward and presents no technical problems for the project Applicant. As part of obtaining a permit from the Regional Water Quality Control Board, the Project Applicant will have to proposed and demonstrate compliance with all applicable State of California Best Management Practices (BMPs) and meet performance standards for the sediment detention basin sizing. Given the proposed land use type, there are no known specific water quality standards that development of the Project site will have to comply with. Current regulations specify mitigation for increased peak runoff volumes and mandate that all practical BMPs shall be used to address and reduce non-point source pollution from the Project site.

It is further worth noting that DEIR **Appendix E - Biological Resources** also includes discussion of the potential stormwater pollution impacts, and references the requirements for implementation of Best Management Practices (BMPs), preparation of SWPPP and SWMP plans and compliance with NPDES permit requirements of the RWQCB and MCSTOPPP, enforced locally by the City of San Rafael Department of Public Works (DPW) and County of Marin. The DPW has reviewed **Mitigation Measures Hyd-1a** through **Hyd-1f**, confirmed that they are adequate, and that the site drainage (which primarily consists of existing swales that carry runoff to a holding pond, at which point water is pumped at a consistent rate into the Gallinas Creek) would be required to be improved with vegetation, as grassed swales, which would filter pollution runoff. Swales also have been required by DPW to be included in the final landscape plan, to the maximum extent feasible, to carry drainage from the improved site area into the existing drainage ditches.

The City would review the final Project plan details prior to issuance of permits, and assure that the standard BMP sheet is included in Project construction documents to ensure contractors are aware of the erosion control requirements that must be employed during construction. The City engineering division has a demonstrated history, publicly available resources and materials, extensive experience and inspectors accustomed to reviewing such plans and inspecting projects for compliance with the state and local ordinances. Therefore, the Project impacts on water quality pre- and post- construction would be less than significant based on the City's existing ordinances and requirements enforced to comply with RWQCB mandates. These measures have proven to be effective, when implemented appropriately.

16. Noise Ordinance

MASTER RESPONSE NOI-1 responds to the question: *What does the City's Noise Ordinance state about limits on nighttime noise levels, and how is this addressed?*

As indicated on DEIR page 12-8, the City of San Rafael has adopted a noise ordinance (Chapter 8.13 of the Municipal Code) to control excessive, unnecessary and unreasonable noise in the City. The ordinance, which is enforced Citywide, establishes noise limits that must be considered in evaluating this Project. In this case, there are residential land uses near the site that would be sensitive to Project-generated noise, particularly at night. The City's Noise Ordinance specifies the following noise limits (measured on any residential property):

- Between 7:00 AM and 9:00 PM, Sunday through Thursday: 60 dBA (L_{max}) and 50 dBA (L_{eq})

- Between 7:00 AM and 10:00 PM, Friday and Saturday: 60 dBA (L_{max}) and 50 dBA (L_{eq})

- Between 9:00 PM and 7:00 AM, Sunday through Thursday: 50 dBA (L_{max}) and 40 dBA (L_{eq})

- Between 10:00 PM and 7:00 AM, Friday and Saturday: 50 dBA (L_{max}) and 40 dBA (L_{eq})

Aircraft events which may take place at any time of the day or night adjacent to the Project site generate up to eleven 18-second events per day with a L_{max} of 100 dBA (DEIR page 12-15), and this would be expected to continue either with or without the Project.

As indicated on DEIR page 12-16, outdoor soccer at the Project site would not raise the existing ambient noise levels by more than 3 dBA (Ldn). However, the City Noise Ordinance (Chapter 8.13.040.A.1) establishes a higher threshold and states that "No person shall produce, suffer or allow to be produced by any machine, animal or device, or by any other means, a noise level greater than the following when measured on any residential property: Daytime: 60 dBA intermittent, 50 dBA constant; Nighttime: 50 dBA intermittent, 40 dBA constant. The DEIR has applied this more restrictive Noise Ordinance standard as an environmental threshold for the Project, and concludes that the Project could be expected to generate additional noise that would potentially exceed the City Noise Ordinance standard between 9:00 PM and 11:00 PM Sunday through Thursday and between 10:00 PM and midnight Friday and Saturday; when the Project-related noise levels generated at the nearest residences (41 dBA L_{eq} and 45 dBA L_{max}) may exceed the 40 dBA L_{eq} standard for those time periods. Outdoor soccer activity at the Project site between 9:00 PM and midnight would not be expected to exceed the 50 dBA L_{max} single-event standard in the Noise Ordinance. Although this noise level would be below the existing ambient noise levels measured in the closest nearby residential neighborhoods (49 dBA to 54 dBA south of the

Project site, and 54 dBA to 56 dBA at the Contempo Marin Mobile Home Park), this Project, soccer field-related exceedance of the City Noise Ordinance nighttime standard was identified as a potentially significant impact. **Mitigation Measure N-1** (as modified), if effectively implemented, would reduce this potential impact to a level of less than significant by requiring monitoring of the use during initial operations to establish whether the noise ordinance limits would actually be exceeded as a result of Project-related noise, and if so, limiting use of the outdoor fields to end activities at 9:00 PM Sunday through Thursday and at 10:00 PM on Friday and Saturday.

The Applicant's noise consultant, Illingworth and Rodkin, provided a supplemental letter response dated April 23, 2009 (attached to **LETTER 68**, below) in which they explain that their noise analysis did not include a detailed analysis of nighttime noise levels. Had a detailed nighttime noise analysis been conducted. it would have included a more detailed calculation to determine whether or not excess noise attenuation would occur from ground absorption and the existing earth berms (levees); that would likely reduce the noise levels below the standard. Furthermore, their letter further clarifies that their weeklong study of noise impacts (DEIR **Appendix J**) demonstrated that the existing ambient noise levels regularly exceed the 40dBA Leq between 9:00 PM and midnight. Thus, the less than 1 dBA potential noise increase above the 40dBA nighttime noise threshold, when added to existing ambient levels (which already exceed 40dBA), would still be a less than significant change.

Project **Mitigation Measure Bio-2e** also establishes a 10:00 PM curfew on use of the outdoor fields, which means that the fields could only potentially violate the Noise Ordinance nighttime noise threshold for 1 hour, between 9:00 PM and 10:00 PM Sunday through Thursday. Thus, this mitigation already further minimizes the potential for Project noise from outdoor field usage to result in a substantial temporary or permanent nighttime noise increase. Finally, it is also worth noting that any violation of the City's Noise Ordinance of San Rafael Municipal Code Chapter 8.13 would be subject to enforcement under the provisions of the ordinance. This would apply to implementation of the Project, as proposed, and should violations of the noise ordinance occur, enforcement of the City Noise Ordinance can be imposed on the Project.

The text of **Mitigation Measure N-1: Evening Noise** has been modified, to more definitively specify the performance-based measure that would be required to ensure nighttime noise levels would not violate the City Noise Ordinance, to read as follows:

"**MM N-1:** **Evening Noise.** To address the potential that noise from late evening games becomes an annoyance to neighbors to the south due to the potential of a 1 decibel increase over maximum allowable nighttime noise levels, ~~either of~~ the following measures ~~shall~~ shall be implemented:

- ~~Close the outdoor fields at 9 p.m., Sundays through Thursdays, and 10 p.m. on Fridays and Saturdays. Alternatively,~~ During the first full year of operations, the project sponsor shall ~~annually~~ monitor

noise levels during a minimum of five nighttime games to determine whether the use of outdoor fields and warm-up areas actually causes the 40 dBA (Ldn) nighttime noise threshold to be exceeded at the closest residential property boundary as a result of the outdoor field use. The City shall be consulted in determining which games are to be monitored. This shall include at least 3 mid-week games and 2 weekend games. A copy of the noise consultant's analysis shall be submitted to the City. If the noise ordinance nighttime noise threshold is exceeded, the outdoor facilities shall close at 9 p.m., Sundays through Thursdays, and 10 p.m. on Fridays and Saturdays. ~~or~~

- ~~Project sponsor shall revise the site plan to provide sufficient space to accommodate a noise wall along the southern boundary of the parking lot and soccer warm-up areas. If noise measurements of nighttime games indicate that the ordinance noise limits are exceeded, the project sponsor could build a noise wall instead of closing the outdoor fields at 9 p.m. If a noise wall is constructed, it shall be subject to the following requirements:~~

  ~~o Pursuant to General Plan Policy S-4, the wall's location shall be subject to a geotechnical investigation, and the wall's design and construction shall proceed in accordance with the recommendations of the geotechnical investigation, as set forth in the City's Geotechnical Review Matrix.~~

  ~~o The design of the sound wall shall be subject to review and approval by the City's Design Review Board.~~

  ~~o The sound wall shall be constructed consistent with Part 77 of the Federal Aviation Regulations, *Objects Affecting Navigable Airspace,* specifically, the 7:1 transitional surface that governs Airport Safety Zone 5 – Sideline Zone, as analyzed by airport hazards safety specialist.~~"

Based on the further discussion contained in this response, it is evident that this change to **Mitigation Measure N-1** would remain sufficient to ensure nighttime noise levels would not violate the City noise ordinance during the 1 hour period of nighttime use that would remain available (after implementation of the 10:00 PM event curfew established by **MM Bio-2e)**, i.e., 9:00 PM to 10:00 PM Sunday through Thursday. Therefore, Project noise impacts would remain less than significant.

17. Intermittent Noise

MASTER RESPONSE NOI-2 responds to the question: *What are the effects of intermittent noise (e.g., whistles, crowd roars, etc.)?*

As indicated on DEIR page 12-17, evening activity on the outdoor fields would be expected to slightly exceed the City's Noise Ordinance standards, but the characteristics of the sound (e.g., noise from spectators, referee whistles, parking cars, etc.) would contrast with the ambient noise environment and, therefore, would be noticeable. Effective implementation of **Mitigation Measure N-1** would achieve compliance with the City's Noise Ordinance standards. Under this **Mitigation Measure**, while the character of the sounds associated with activity on the outdoor fields would remain noticeable, it would either not be heard after use of the outdoor fields has ceased (at 9:00 PM Sundays through Thursdays and at 10:00 PM Fridays and Saturdays), or the noise levels associated with those distinct sounds would not exceed City Noise Ordinance standards. The Applicant has confirmed that the Project does not propose use of loudspeakers or bullhorns, thus these devices would not be allowed. Furthermore, the City could enforce confirmed violations of the City Noise Ordinance, which applies City-wide and applies to intermittent noise. The potential for these noise occurrences would be considered as part of the Project merits review; which may include the imposition of conditions of approval to control use of and types of whistles and crowd/spectator controls utilized in order to assure ongoing compatibility is maintained with the nearby neighborhoods and compliance with the City Noise Ordinance. **Mitigation Measure N-1,** as modified, would also help provide monitoring of this potential concern during the initial operations of the use, and allow any unusual noise impacts to be addressed in compliance with the City Noise Ordinance.

18. Traffic Effects at Additional Intersections

MASTER RESPONSE TRA-1 responds to the question: *Why were three additional intersections with Smith Ranch Road (Yosemite, Deer Valley and Cresta) not evaluated as part of the traffic analysis?*

The General Plan 2020 Policy C-5A Traffic Level of Service (LOS) Standard establishes signalized intersection operations during the AM and PM peak hours as the City's LOS standard, and these three additional intersections are not signalized. For this reason, the level of service impacts at these intersections were not evaluated as part of the traffic analysis.

19. Timing of Traffic Study

MASTER RESPONSE TRA-2 responds to the question: *Why was the traffic analysis not conducted when the McInnis fields were in active use?*

The traffic study was conducted on a weekday, at peak hours when McInnis Park is active, to analyze the worst case scenario at the study intersections that are impacted by Project traffic. The Park's peak use on weekends and other times may be different than the intersection peak hours used for this analysis, which analyzes signalized intersection level of service (LOS) for the worst case scenario. The prevailing peak hours at the signalized intersections impacted by this Project are weekday AM and PM, which constitute the worst case conditions at these intersections and, therefore, were the time periods used for conducting the traffic analysis.

20. Sonoma-Marin Area Rail Transit

MASTER RESPONSE TRA-3 responds to the question: *How will the future operation of SMART affect the Project?*

The Sonoma-Marin Area Rail Transit (SMART) project is intended to provide passenger rail service between Cloverdale and Larkspur. Construction is expected to begin in 2011, with operations beginning in 2014. SMART trains will utilize the existing rails which pass along the western edge of the airport property, approximately 1,250 feet northwest of the proposed entry gate to the Project site at its nearest point.

As presently proposed (SMART Supplemental DRAFT EIR, March 2008), SMART would operate up to 11 roundtrips to and from Larkspur Monday through Friday (or 22 pass-bys near the Project site per day), and up to 4 roundtrips to and from Larkspur on weekends (or 8 pass-bys near the Project site per day). These trains would cross the access road to the Project site at-grade, and while the SMART trains are crossing, traffic along the access road would be required to wait until trains are safely past the crossing. Information obtained from SMART in May, 2010, regarding this issue indicated that SMART had not made a determination regarding the type of controls that it might require at the airport access road; e.g., control arm and/or audible signal. The airport site access consists of an "at grade" crossing over the SMART rails, which is secured through a license agreement between SMART and the property owner that provides access over the rails to the entire airport facility. SMART has over 100 private crossings to address in Marin and Sonoma counties. Given the frequency of service SMART is proposing on the rail line, SMART has indicated that it would most likely require crossing arms and warning lights at the private crossing along its tracks at the subject site; e.g., "quiet zone" crossing. SMART expects to operate trains consisting of Diesel Multiple Units (DMUs) in either 2-car or 3-car sets, which would be expected to pass through this at-grade crossing within a matter of seconds as they approach or depart from the nearest station at the Marin Civic Center. Primary service is anticipated to occur during daytime commute hours. As a result of the relatively rapid pass-bys, delays for vehicles entering or departing from the Project site at this at-grade crossing would be minimal, and significant vehicle queuing would not be anticipated.

When approaching the at-grade crossing, the operators of the SMART trains would be required to sound the train horns to warn motorists, bicyclists and pedestrians of the train's

approach. Although the environmental documentation for SMART has indicated that train horn noise would represent a significant unavoidable impact associated with SMART operations (except perhaps where "Quiet Zones" can be formally established along the SMART route), given the distance of the outdoor playing fields at the Project site from the at-grade crossing, and the limited number of momentary SMART train horn soundings over the course of a day (22 on weekdays and 8 on weekends), it is not expected that train horn noise would result in substantive interference with activities at the Project site.

The SMART DMUs will be required to burn Ultra Low Sulfur Diesel (ULSD) fuel. As a result, each DMU would be expected to emit particulate matter (black smoke) equivalent to that of 1 automobile or $1/20^{th}$ of that of a 40-passenger diesel bus, oxides of nitrogen equivalent to that of 8 automobiles or $1/5^{th}$ that of a 40-passenger diesel bus, and carbon dioxide equivalent to 12 cars or two 40-passenger diesel buses. Although diesel particulate emissions are considered a toxic air contaminant (TAC), given the distance of the operating SMART DMUs from the outdoor fields at the Project site, the limited number of SMART trains passing through the area each day, and the relatively low particulate emission levels associated with DMUs operating on ULSD fuel, health risks associated with potential exposure of those at the Project site to SMART-related TACs would be considered less than significant.

21. Growth Inducement

MASTER RESPONSE GI-1 responds to the question: *Would the Project be expected to induce growth?*

Growth inducement is addressed on DEIR pages 14-14 and 14-15. Development of the Project site as proposed would require the extension and sizing of water lines and sanitary sewer lines to serve the proposed facilities, but these extensions would not extend beyond the Project site and would not be sufficient to support additional development beyond that proposed at the Project site. Sewer service to the site is currently limited through an existing service agreement that exists between the property owner and LGVSD (see **RESPONSE 6-1**, below). Given the existing airport use of the remainder of the undeveloped portion of the Project site, and the absence of any proposal to discontinue airport activities to pursue additional non-airport related development in the future, no element of the Project as proposed would be considered growth-inducing. Although development of the project site would generate some employment (**Table 3-1** on DEIR page 3-13 indicates a total of up to four FTE employees), even if all future employees at the Project site were to seek housing locally, current residential vacancy rates indicate that they might be accommodated without a need for the development of additional housing in the area. Given the limited number of employees that would be working at the site, and the unlikelihood that the recreational facility would, in itself, be sufficient to attract new permanent residents to the local area, the Project would not be considered to have a significant growth-inducing impact.

22. Climate Change

MASTER RESPONSE GHG-1 responds to the question: *How would development of the Project site as proposed impact or be impacted by climate change, including the level of Project-related greenhouse gas emissions (GHG)?*

The DEIR Chapter 15 discusses global climate change and estimated greenhouse gas (GHG) emissions based on the methodology available at the time of the DEIR preparation (page 15-1 through page 15-16). Page 15-1 of the DEIR indicates that at the time the DEIR was produced (Spring 2009), no current CEQA regulation or statute outlined how CEQA analysis of GHG emission impacts should be performed. As noted on Page 1-2 of the DEIR, the decision to prepare an EIR was made following review of an initial study prepared for the Project and circulated on January 26, 2006. The City executed a contract with its consultant on October 16, 2006, and issued a notice of preparation (NOP) on October 10, 2007. As further noted on DEIR page 15-2, the Senate passed SB 97 in August 2007 directing that the State Resources Agency adopt regulations by January 1, 2010. The scope of the DEIR was finalized following issuance of the NOP, and expanded to include Chapter 15: Climate Change analysis, which discussed the anticipated Project impacts with regard to greenhouse gas emissions and climate change. DEIR Chapter 15 responded to the Governor of California's Executive Order S-03-05, AB 32, California Air Resources Board (CARB) approved GHG reduction action measures and SB 97.

When the DEIR was released in March of 2009, the State of California Air Resources Board had not yet adopted any guidelines or thresholds to implement State AB 32 (The Global Warming Solutions Act). Thus, given that no industry-wide accepted method to evaluate the significance of greenhouse gases generated by specific development projects had been developed at time the DEIR was prepared and released, the City had to develop an acceptable approach for evaluating the Project impact on climate change in response to the recent state mandates, in a manner consistent with CEQA.

The DEIR indicates that the Project could be adversely affected by climate change, particularly in terms of rising sea level (DEIR page 15-11 through page 15-12), although impacts associated with sea level rise would be expected to be less than significant at least through 2050. DEIR page 15-14 identifies GHG emissions anticipated with development and operation of the Project, as proposed. The DEIR subsequently identifies characteristics and design features of the Project which would reduce anticipated GHG emissions during construction and operation, such as the Project proposal to achieve LEED certification and to install energy efficient lighting. The GHG impact analysis contained on DEIR pages 15-9 through 15-11 and 15-13 through 15-16 concluded that a determination of significance based on quantification of emissions was too speculative, but found that a project could likely be considered to make a less-than-cumulatively-considerable contribution to climate change impacts if it implements strategies to reduce GHG emission consistent with AB 32 and Executive Order S-03-05. Based on this significance criterion, the DEIR concluded that the Project's contribution of GHG emissions was likely less than significant.

When the DEIR was published in Spring 2009, the Project was found to be consistent with the current regional Bay Area Air Quality District Air Quality Management Plan, and URBEMIS 2007 modeling of operational emissions were provided on DEIR Page 6-17, **Table 6-4**, **Table 6-5** and **Table 6-6**. Note that **Table 6-6** incorrectly labeled emissions as "tons/day"; the emissions calculated were actually "tons/year." **Table 6-6** (as corrected) is reproduced below. These tables presented the most current available and quantifiable data regarding Project-related air quality impacts, including the quantifiable annual amount of CO_2 greenhouse gas emissions provided in **Table 6-6** (with correction), as follows:

TABLE 6-6:
COMBINED ANNUAL EMISSIONS

	Criteria Pollutants (tons/~~day~~year)						
	ROG	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**
Area Source Emissions	0.13	0.1	0.51	0.0	0.0	0.0	125.88
Operational (Vehicle) Emission Estimates	2.20	3.01	26.64	0.02	3.94	0.75	2,115.07
Area Source and Operational Total	**2.33**	**3.12**	**27.15**	**0.02**	**3.94**	**0.75**	**2,240.95**

Source: URBEMIS 2007 9.2.4

As shown in DEIR **Table 6-6** (as corrected) the proposed Project would result in approximately 2,240.95 tons of CO_2 greenhouse gas emissions per year, using the URBEMIS modeling. The Project (including vehicle operational emissions) would be subject to any regulations developed under Assembly Bill 32 and Senate Bill 97. Thus, while the amount of GHG emissions in terms of CO_2 contribution has been estimated, and this shows that the Project would have the potential to result in greenhouse gas emissions and impact climate change, a conclusion on the extent to which the Project operations would have an effect on greenhouse gas emissions and global climate change could not be reached due to the significant level of uncertainty in methods used to quantify emissions, the emission reduction measures that could be used (and required by the State) to reduce emissions, and lack of established thresholds for making predictions regarding the extent that operations would affect GHG and global climate change.

Discussion of Thresholds Adopted After DEIR Preparation

Following release of the DEIR and during preparation of the responses to comments, the Bay Area Air Quality Management District (BAAQMD) updated its CEQA guidance on GHG analysis. Also, on January 10, 2010, Sections 15130(b)(1)(B), 15126.4(c) and 15183.5 of the CEQA Guidelines were amended to provide some direction regarding assessment of GHG emissions. These amendments address requirements for assessment of cumulative impacts of plans for the reduction of greenhouse gas emissions, mitigation measures related to GHG emissions and tiering of analysis of GHG emissions.

BAAQMD's new guidance provides significance thresholds and tools to assess GHG emissions. On June 2, 2010, BAAQMD adopted the thresholds of significance to be used in evaluating the GHG-related effects of projects being evaluated under CEQA. However, the District has also indicated that new significance thresholds are only to be applied to those projects for which a Notice of Preparation (NOP) has been circulated following June 2, 2010, and not applied to projects which have NOP circulation dates before June 2, 2010. The NOP for the San Rafael Airport Recreational Facility EIR was circulated for a 30-day public review between January 26, 2006 and February 27, 2006, and the newly adopted thresholds of significance do not apply to the proposed Project.

The City, therefore, has not applied these new thresholds to the Project. Rather, for this Project, the City has established the following threshold which is reflective of the approach taken in the DEIR:

> *Will the project's GHG emissions impede compliance with the GHG emissions reductions mandated in AB 32?*

In order to assess the Project compliance with the threshold established by the City for this Project, discussion of the Project conformance with the suggested GHG reduction strategies identified by the California Environmental Protection Agency and the Climate Action Team to reduce GHG emissions to the levels proposed by Executive Order S-3-05 and AB 32, is provided below.

FEIR TABLE 1: APPLICABLE GLOBAL CLIMATE CHANGE STRATEGIES

STRATEGIES FOR REDUCING GREENHOUSE GAS EMISSION REDUCTION[1]	PROJECT CONFORMANCE
Vehicle Climate Change Standards. AB 1493 (Pavley) required the state to develop and adopt regulations that achieve the maximum feasible and cost effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks. Regulations were adopted by the CARB in September 2004.	Following a phase-in period, the majority of the vehicles that access the project site would be expected to be in compliance with any vehicle standards that CARB adopts.
Other Light Duty Vehicle Technology. New standards would be adopted to phase in beginning in the year 2017 model year.	Following a phase-in period, the majority of the vehicles that access the project site would be expected to be in compliance with any vehicle standards that CARB adopts.
Diesel Anti-Idling. In July 2004, the CARB adopted a measure to limit diesel-fueled commercial motor vehicle idling.	All vehicles, including diesel trucks accessing the project site, would be subject to the CARB measures and would be required to adhere to the five-minute limit for vehicle idling.
Hydrofluorocarbon Reduction. 1) Ban retail sale of HFC in small cans; 2) Require that only low GWP refrigerants be used in new vehicular systems; 3) Adopt specifications for new commercial refrigeration; 4) Add refrigerant leak-tightness to the pass criteria for vehicular inspection and maintenance programs; 5) Enforce federal ban on releasing HFCs.	This measure applies to consumer products. When CARB adopts regulations for these reduction measures, any products that the regulations cover would comply with the measures.

Heavy-Duty Vehicle Emission Reduction Measures. Increased efficiency in the design of heavy-duty vehicles and an education program for the heavy-duty vehicle sector.	These are CARB enforced standards; vehicles that access the project site that are required to meet these reduction measures would comply with the strategy.
Achieve 50% Statewide Recycling Goal and Zero Waste – High Recycling - 1) Design locations for separate waste and recycling receptacles; and 2) Utilize recycled components in the building design.	Pursuant to Assembly Bill 939, all development projects within the City (including the proposed project) would be required to divert 50 percent of their solid waste stream.
Appliance Energy Efficiency Use. Use of energy efficient appliances (i.e., washer/dryers, refrigerators, stoves, etc.).	In October 2006, the State of California adopted Appliance Efficiency Regulations, which include standards for both Federally regulated appliances and non-Federally-regulated appliances. These regulations would apply to the proposed project.
Measures to Improve Transportation Energy Efficiency. Builds on current efforts to provide a framework for expanded and new initiatives including incentives, tools and information that advance cleaner transportation and reduce climate change emissions.	The nearest transit service is at Smith Ranch Road and US101 over ¼-mile to the west. Bus service currently does not extend down Smith Ranch Road to serve this location. However, the project would provide a pedestrian pathway connection from Smith Ranch Road to the facility which would promote walking and bicycling to the site, and the facility would not conflict with any future plans to extend transit service to the area.
Water Use Efficiency Features. To increase water use efficiency include use of both potable and non-potable water to the maximum extent practicable and use of low flow appliances (i.e., toilets, shower heads, washing machines, etc).	The proposed project would be required to comply with California Health and Safety Code (HSC) Section 17921.3, which sets efficiency standards for bathroom fixtures. Additionally, California Code of Regulations, Title 20, Division 2, Chapter 4, Article 4, Section 1605.3 sets standards for washing machines and commercial pre-rinse spray valves
Achieve 50 percent Statewide Recycling Goal. In multi-family housing, separate recycling and waste receptacles should be planned.	The City is required to meet the 50 percent Statewide recycling goal, and would continue to implement solid waste reduction measures.

Notes:

1 - Only the applicable strategies for reducing greenhouse gas emissions were included.

Source: California Environmental Protection Agency, *Climate Action Team Report to Governor Schwarzenegger and the Legislature*, March 2006.

The Project would be in conformance with the 2006 CAT report suggested strategies to reduce emissions to levels proposed by Executive Order S -3 05 and AB 32, as noted in the **FEIR Table 1** evaluation above. Given that the majority of the Project GHG emissions are a result of vehicle miles traveled (VMT), it would be extremely difficult to reduce the Project emissions. The trip generation data that is relied upon to quantify the Project-related vehicle emissions (that would contribute to cumulative global climate change) does not consider whether there could be any offset or reduction in VMT in the region as a result of construction of the Project. For instance, it may be reasonable to assume that Marin County residents could reduce VMT to participate in soccer events by using the proposed facilities

instead. Further, there is no bus service currently provided within ¼-mile of the site at this time, which limits ability to reduce VMT based on alternative modes of transit. However, the Project would not impede any plans to provide future bus service and/or to improve bicycle and pedestrian pathways in the area.

Additionally, it is worth noting that in April, 2009, the City adopted a Climate Change Action Plan (CCAP). The Climate Change Action Plan includes a list of implementing programs intended to reduce GHG emissions and increase sustainability in San Rafael. In addition, the City of San Rafael adopted a mandatory green building ordinance (GBO) in 2007 (amended in 2009) which is applicable to residential and commercial building and new construction and additions. The Project as proposed would also be consistent with strategies listed in the San Rafael CAP by, a) proposing a LEED certified green building, b) increasing carbon sequestration through planting of at least 139 additional trees and large shrubs, and c) providing a pedestrian pathway connection to enable walking and bicycling to the site. The Project's compliance with these strategies would further help to reduce GHG emissions from construction and operations, thus would not impede compliance with AB 32. The DEIR's conclusion that the Project's contribution to cumulative climate change impacts is less than significant is confirmed. The Final EIR concludes that the Project's contribution to cumulative climate change impacts is less than cumulatively considerable.

The new BAAQMD thresholds provide a methodology to quantify GHG emissions and a quantitative threshold. BAAQMD proposes two quantitative thresholds, a "mass emissions" threshold and a "service population" threshold. The mass emissions threshold is 1,100 metric tons of CO2e/year. The service population threshold is 4.6 metric tons of CO2e/year (residents/employees). Quantification of the Project impacts and a comparison to the June 2, 2010 BAAQMD thresholds have been prepared using the modeling software that has been developed for BAAQMD for this purpose, and the results of the GHG analysis are provided in the tables in **FEIR Appendix C** (San Rafael Airport Recreation Facility GHG Emission Calculations), for informational purposes in this FEIR. As discussed above, because this Project is not subject to the new BAAQMD thresholds, the City is applying a qualitative threshold to this Project.

The City analysis of the Project based on the BAAQMD thresholds adopted in June 2010, shown in the tables in **FEIR Appendix C**, were prepared using the BAAQMD recommended URBEMIS (Version 9.2.4) *plus* BAAQMD's BGM Greenhouse Calculator software to quantify GHG emissions from the Project. The URBEMIS 9.2.4 Model estimates criteria pollutant emissions for construction, area sources and operations (traffic) in lb/day and tons/year for ROG, NOx, CO, Sox, PM10 and PM2.5 (exhaust and dust), and CO_2. URBEMIS *does not* provide a thorough GHG analysis estimate of CO_2 for all the categories needed for GHG analysis. For example, electricity-related GHG emissions are not included in URBEMIS. The BGM calculator calculates the additional emissions from energy use including electricity and natural gas. The URBEMIS project data is input into the BGM calculator and the combined results from URBEMIS model and BGM calculator produces a

complete GHG inventory. The basic information that input into URBEMIS project data includes the following:

- Land uses that make up a project (e.g., dwelling units, office, retail, restaurant, etc.)
- Quantity/Size of the land uses in # of residential units, commercial sq. ft., acres, etc.
- Planned construction phasing and timing
- Basic traffic data (trip generation rates [ADT], trip lengths and vehicle miles traveled)
- Target year/date for project build-out

Project-level assessment focuses on construction-related and project operations thresholds, shown in the second and third bullet-points above. The DEIR Chapter 15 climate change discussion has been further revised in response to comments in FEIR Chapter 2.

N_2O and CH^4 emissions were also identified for the Project using the California Climate Action Registry (CCAR) General Reporting Protocol Version 3.1 (January, 2009). This additional methodology was used to further quantify GHG emissions from other sources (e.g., motor vehicles and energy use associated with long-term operations of the Project), where possible. (The Climate Registry is a non-profit collaboration among North American states, provinces, territories and Native Sovereign Nations to set consistent and transparent standards for the calculation, verification and public reporting of greenhouse gas emissions into a single registry. The California Climate Action Registry was formed in 2001, pursuant to SB 527 signed by Governor Gray Davis on October 13, 2001.)

While URBEMIS 2007 was utilized to estimate the Project's CO_2 emissions from construction and area (energy use), and mobile sources, N_2O and CH_4 emissions were analyzed using the CCAR General Reporting Protocol, as the URBEMIS 2007 program does not estimate these emissions. This modified methodology allows for quantification of construction emissions not captured by the BGM model. For instance, the BGM assumes CH_4 and N_2O as constituting 5 percent of all CO_2e mobile emissions. Reliance on the General Reporting Protocol formulas is more accurate than the estimates produced by the BGM model, in that it depicts pre-Pavley and pre-LCFR mobile emissions in addition to the post-Pavley and post-LCFR emissions prepared by the BGM. Thus, post-regulatory emissions can be shown and compared with a "business as usual' scenario. Post-Pavley and post-LCFR adjustments used by this approach are consistent with the BGM output. Further, the General Reporting Protocol also utilizes land use types (CEC and EIA-derived) that reconcile better than BGM land use types (CEC-derived) with the land use types used in URBEMIS, and addresses this flaw as noted in the BGM manual. The results are input into BGM which translates the determined CO_2 emissions to CH_4 and NO_2 using the General Reporting Protocol.

The results of the Project-related emissions using the new modeling methods are provided in the tables below, as follows:

FEIR Table 2 illustrates the construction-related GHG emissions that would result from each construction phase of the proposed Project (e.g., *business as usual – construction scenario*).

FEIR TABLE 2: CONSTRUCTION-RELATED CRITERIA POLLUTANT AND PRECURSOR EMISSIONS (POUNDS PER DAY)

Phase	Carbon Dioxide (CO_2)	Methane (CH_4)	Nitrous Oxide (N_2O)	Hydrofluoro-carbons (HFCs)	Perfluoro-carbons (PFCs)	Sulfur Hexafluoride (SF_6)	CO_2e
Pre-Construction Fill Phase[1]	5,294	0.302	0.135	Negl.	Negl.	Negl.	5,342
Phase 1 Site Grading and Prep	2,349	0.134	0.060	Negl.	Negl.	Negl.	2,370
Phase 2 Building Construction	2,440	0.139	0.062	Negl.	Negl.	Negl.	2,462
Phase 3 Field Seeding	Negl.	Negl.	Negl.	Negl.	Negl.	Negl.	Negl

[1] Pre-Construction Fill Phase assumes one foot of fill per every square foot of construction (191,664 cubic yards)
Negl. - Emissions of this GHG would be negligible from this source category (less than 0.01 metric tons per year)

Source: Appendix E; California Climate Action Registry General Reporting Protocol Version 3.1 (January, 2009)

Due to the Project components that significantly improve upon the construction and operations of the Project, a number of Project-specific adjustments were made to the baseline analysis to show the value of these Project attributes. For construction, implementation of the following Project components has the potential to reduce construction-related greenhouse gas emissions by approximately 367 metric tons of CO_2e (see **FEIR Table 3**, below) (e.g., *Project construction with mitigation scenario*).

FEIR TABLE 3: CONSTRUCTION MITIGATION MEASURE GHG EMISSION REDUCTIONS

Mitigation Measure	Emission Reductions (Metric Tons CO2e)
Construction & Demolition Waste Diversion	23
Anti-Idling	53
Equipment Maintenance	51
Construction Worker Carpool Program	241
Total	**367**

As shown in **FEIR Table 4**, below, the long-term operations of the proposed Project would have the potential to produce 2,588 metric tons of CO_2e annually, primarily from motor vehicles that travel to and from the site (e.g., *business as usual – operations scenario*).

FEIR TABLE 4: ESTIMATED PROJECT GREENHOUSE GAS EMISSIONS – PROJECT OPERATION (METRIC TONS PER YEAR)

Emission Source		Carbon Dioxide (CO_2)	Methane (CH_4)	Nitrous Oxide (N_2O)	Hydro-fluorocarbons (HFCs)	Per-fluorocarbons (PFCs)	Sulfur Hexafluoride (SF_6)	CO_2e
Mobile Source[1] (vehicle)		1,240	Negl.	Negl.	Negl.	Negl.	Negl.	1,240
Area Source (landscaping, hearth)		116	Negl.	Negl.	Negl.	Negl.	Negl.	116
Stationary Source	Electricity	649	0.03	Negl.	Negl.	Negl.	Negl.	649
	Natural Gas	583	0.02	Negl.	Negl.	Negl.	Negl.	583
Conversion of Emissions into carbon dioxide equivalents (CO2e), which weight each gas by its global warming potential								
Total CO_2e Emissions		**2,588 CO_2e Emissions**						

Source: PMC 2010, URBEMIS ver. 9.2.4; California Climate Action Registry General Reporting Protocol Version 3.1 (January, 2009)

NEG - Emissions of this GHG would be negligible from this source category (less than 0.01 metric tons per year).

[1] Emissions presented are NOT adjusted for future improved CAFÉ standards (Pavley I) and Low Carbon Fuel Standards.

The proposed Project has several components aimed at reducing greenhouse gas emissions. These components are not modeled in **FEIR Table 4**. The above table estimates the Project's contribution to climate change without taking into consideration the green building design, water conservation landscaping, and photovoltaic cell components of the Project. The emission reductions associated with these components of the proposed Project were quantified outside of the URBEMIS emissions modeling program. The quantification uses the URBEMIS outputs as a baseline to quantify the emission reductions associated with various aspects of the Project. Together the Project components quantified for their emission reduction potential equals a 386 metric ton of CO_2e reduction. **FEIR Table 5**, below, demonstrates the emission reductions associated with specific project components (e.g., *Project operations with mitigation scenario*).

FEIR TABLE 5: ESTIMATED PROJECT GREENHOUSE GAS EMISSION REDUCTIONS – PROJECT OPERATION

Mitigation Measure	Emission Reductions (Metric Tons CO2e)
Photovoltaic Cells	155
Green Building	184
Lighting Efficiency	12
Synthetic Turf	3
Water Conservation Landscaping	31
Total	**386**

Additional analysis could produce additional emission reductions. For example, the energy efficient field lighting was not quantified as the operational statistics (i.e. annual hours the soccer field lights would be turned on), since these estimates were not available for the analysis. Additionally, it was assumed the photovoltaic cells were each 200 watts. Knowing the specifications of the photovoltaic panels could produce further reductions. After accounting for the emission reductions, the proposed Project will have the potential to produce approximately 2,203 metric tons of CO_2e annually.

Conclusions

As shown in **FEIR Table 4,** above, the proposed recreation facility would surpass 1,100 MT/yr and when calculated using the estimated twelve (12) service population, the facility would result in 184 MT/CO2e per service population, exceeding the threshold of 4.6 MT/CO2e per service population.

The Project incorporates Project components that reduce GHG emissions, however due to the geographic location of the facility and its relative isolation from transit and an efficient multimodal transportation network, there aren't significant additional changes that could be made (i.e., reducing Project-related traffic and VMT) to allow for a Project that meets the new thresholds established by the BAAQMD, for projects proposed after June 2, 2010.

While this assessment shows that the Project would not meet the new threshold adopted by the BAAQMD, this does not result in grounds for adoption of a statement of overriding considerations because the applicable threshold for GHG/potential climate change analysis for the DEIR has been established prior to May 2010, and this additional analysis has been provided for informational purposes to provide the most current information available, but not for providing required assessment of impacts under CEQA. For this same reason, the DEIR is not required to be recirculated for public review.

23. Evaluation of Alternative Locations

MASTER RESPONSE ALT-1 responds to the question: *Are there alternative locations that have not been evaluated in the DEIR?*

On pages 16-25 through 16-26, the DEIR addresses the consideration of possible alternative locations for the proposed Project. A total of 14 alternative sites in Marin County were considered by the proposed soccer operators prior to submitting the development application for the proposed Project at the subject site. None of the sites considered by the soccer operator met their criteria, either due to inadequate conditions of buildings, or rent costs that exceeded their operational business plans. The operator has indicated ideal rents would be $0.60 to $0.65 per square foot. They also require tall ceilings and open floor space, which makes industrial/warehouse areas more suitable. However, peak parking demand is typically greater than the 1:500 (1 parking space per 500 gross square feet) and 1:1,000 parking space to building square footage ratios typically provided for most light industrial/office and warehouse uses. The 85,700 square foot facility has a peak parking demand for 222 spaces, with 270 spaces provided at a ratio of approximately 1:317 (see parking demand analysis on DEIR **Appendix K**, Fehr & Peers, *San Rafael Recreational Facility TIR*, page 19). None of the alternative sites met all of the proponent's criteria and were not deemed suitable to meet the Applicant's objectives for the Project, so none were considered for evaluation in the DEIR. The alternative site locations, description and reasons why the space was not considered by the operator (discussed in DEIR pages 16-25 and 16-26 and contained in DEIR **Appendix B**) include:

1. 700 Du Bois, San Rafael. Former old warehouse building. Expensive rent.
2. 863 East Francisco, San Rafael. Whole Earth Access building. Too small, and insufficient parking capacity.
3. Hamilton AFB hangers, Novato. Hangers required too much repair work, including seismic retrofitting. Lease rate too high, plus there were additional bond costs on buildings.
4. Shoreline Parkway Property, San Rafael. Short term ground lease only. Expensive price. Insufficient traffic capacity available for this type of use (high tax generating use preferred by City to utilize limited traffic capacity).
5. McInnis Park, Marin County. No available sites for joint use opportunity.
6. 191-195 Mills St, San Rafael. Building smaller than ideal. Safety concerns with location.
7. St Vincent's/Silveira, Marin County. Proposal to build facility in this location with additional development, which is no longer a feasible possibility due to changes in City/County policy pertaining to the site.
8. 4280-4290 Redwood Highway, San Rafael. Small warehouse. Inadequate parking and ceiling height.
9. Kmart building, Novato. Too many structural columns. Cost of retrofit too great.

10. 301 Olive Ave., Novato. Site sold to other developer.
11. 10 Fifer, Corte Madera. Size is smaller than the currently desired ideal for indoor soccer facilities.
12. 4300-30 Redwood Highway, San Rafael. Vineyard mixed use development. Cost of combining buildings too expensive and insufficient parking capacity for use.
13. 55 Frosty Lane, Bel Marin Keys. Size, location and retrofit issues.
14. 1107 Grant Street, Novato. Small building with limited parking and low roof with beams throughout.

Although comments on the DEIR suggest that several alternate locations might be suitable for use as recreational facilities similar to what the Project Applicant has proposed, as indicated on DEIR page 16-26 there are no potentially significant environmental impacts addressed in the DEIR that cannot be reduced to a level of less than significant through implementation of the Mitigation Measures identified in the DEIR.

Evaluation of a "No Change" Alternative

MASTER RESPONSE ALT-2 responds to the question: *Why didn't the DRAFT EIR evaluate a No Change alternative instead of assuming some development under current land use designations?*

As indicated on DRAFT EIR page 16-5, in evaluating the No Project alternative in an EIR, the starting point is to consider what would be the practical result of non-approval of the Project (which does not necessarily equate to no development at the Project site). For the purposes of the EIR, it was assumed that the local demand for new recreational facilities would ultimately result in the development of outdoor recreational fields at the Project site within the constraints of the existing PD District, Master Use Permit and Declaration of Restrictions. Although such development would be likely to result in environmental impacts greater than would be anticipated under a "No Change" or "No Action" alternative which would be based on an assumption that the Project site would remain in its current condition indefinitely, the environmental impacts associated with the No Project alternative would be less than those associated with the proposed Project, and the DRAFT EIR identifies this alternative as the "environmentally superior" alternative (since it would eliminate the need for mitigation in six of the environmental discussion topics addressed in the DRAFT EIR). A "No Change" or "No Action" alternative could be expected to have even fewer potential environmental impacts than would the No Project alternative evaluated in the DRAFT EIR, but such an alternative would meet none of the Project objectives. See **FEIR Chapter 2: Revisions to the DEIR**, which adds discussion of a No Project/No Build variant of the No Project alternative.

F. COMMENTS LETTERS AND RESPONSES