APPENDIX Q
FAA RESPONSE TO COMMENTS

HOW TO USE APPENDIX P, *COMMENTS RECEIVED ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) AND DRAFT ENVIRONMENTAL IMPACT REPORT (EIR)* AND APPENDIX Q, *RESPONSE TO COMMENTS*

As the Draft EIR and Draft EIS were circulated together during the official comment period, all comments on both documents are provided in Appendix P, *Comments Received on Draft EIS/EIR*. All responses to comments are provided here in Appendix Q, *Response to Comments*. Directions for how to use Appendix Q are below. See the beginning of Appendix P, *Comments Received on Draft EIS/EIR* for instructions on how to use Appendix P, *Comments Received on Draft EIS/EIR*.

Many commenters did not distinguish whether they were commenting on the Draft EIR or the Draft EIS, but instead provided comments by topic. This response to comments addresses comments by topic, regardless of whether the comment was made on the Draft EIR or the Draft EIS, or was not specific as to which document was being commented upon.

This appendix includes responses to agency, organization and individual comments that were received during the public comment period on the Draft Environmental Impact Statement and the Draft Environmental Impact Report. The public comment period extended from December 9, 2011 to February 6, 2012 and including a public hearing to receive comments on January 10, 2012. During the public comment period a total of 169 separate comment letters and oral comments were received, but the total number of commenters was less than 169 as some commenters who submitted written comments also provided oral comments at the public hearing and/or submitted or cosigned more than one written comment letter. Comments were received from Federal, State, and local agencies, organizations, and individuals. Comment letters and oral comments on the Draft Environmental Impact Statement and Draft Environmental Impact Report are in Appendix P, *Comments Received on Draft EIS/EIR*.

This Response to Comments section first provides a Detailed Master Response to four topics which were commented on by many commenters including the aviation forecast, runway length analysis, aircraft operations and aircraft noise levels, and induced airport growth.

After the Detailed Master Responses, the responses to more specific comments are provided. These specific responses to comments are organized by the 26 specific topics used to categorize the public comments and oral statements at the public hearing. These categories are:

Comment Topic	Description
1	Purpose and Need
2	Aviation Forecast
3	Alternatives
4	Noise
5	Land Use
6	Socioeconomic
7	Secondary
8	Air Quality
9	Water Quality
10	Section 4(f)
11	Historic
12	Fish, Wildlife, and Plants
13	Wetlands
14	Floodplains
15	Energy/Public Services
16	Light
17	Redwood Landfill
18	Construction
19	Safety
20	Runway Performance/Wind
21	Transportation
22	Cumulative
23	General
24	Support of Project
25	No Comment
26	Soils

For example Comment 2.1 was "The runway extension = larger/more aircraft at DVO." This issue was commented on by several individuals including in written comments by Bonner, Dunadio, Gilkerson, Gilkerson and Nebb families, Levy, Pack, Silveira family, Weber and Ross, Weber, in the public hearing by Knecht for Gnoss Field Community Association, Wells, Gilkerskon, Pack, Bracey, Nebb, Spofford, and Capretta. In every letter this comment is identified as Comment 2.1, and the response to this comment is shown in Table Q-1, in numerical order at Comment 2.1. The responses to all specific comments follow this format.

Readers interested in all responses to public comments can review Appendix Q, *Response to Comments* in its entirety. Readers only interested in responses to specific comment letters or statements can use the listing below to review the Appendix Q, *Response to Comments* for responses to all comments received from a specific commenter in the order they were made in the commenter's letter.

NAME	ORGANIZATION (IF ANY)	DATE	COMMENT NUMBERS
Kathleen Martyn Goforth	U.S. Environmental Protection Agency	2/6/2012	3.1, 3.2, 3.7, 1.1, 3.2, 3.2, 1.3, 13.1, 13.2, 3.2, 13.3, 13.2, 14.3, 3.2, 14.3, 19.1, 5.1, 19.1, 5.1, 7.1, 7.1, 2.1, 7.1, 4.2, 3.4, 3.5
Gregor Blackburn	Federal Emergency Management Agency (FEMA)	12/21/2011	14.1, 14.2, 14.9, 14.10, 14.11,
Gary Arnold	California Department of Transportation (CDOT)	12/19/2011	21.1, 21.2, 21.3, 21.3
Carl Wilcox	California Department of Fish and Game	1/9/2012	23.1, 12.1, 12.2, 12.3, 3.6, 12.4, 12.5, 5.1, 12.7, 12.8, 12.8, 12.9, 13.5, 13.6, 13.7, 13.8, 13.9, 13.10, 14.4, 14.5, 14.6, 14.7
LTC Kenneth M. Koop	California Air National Guard (CANG)	1/12/2012	No Comments
Mark Janofsky	County of Marin (MARIN)	2/6/2012	5.1, 5.2, 5.3, 17.1, 17.2, 17.1, 17.3, 17.4, 17.5, 5.4, 17.1, 17.4, 17.5, 17.3, 17.6, 17.7, 17.8, 17.7, 9.2, 17.2, 17.1, 17.7, 17.1, 17.1, 17.9, 17.6, 17.7, 17.8
Osha R. Merserve	RLI	2/6/2012	23.4, 23.8, 5.2, 5.2, 5.2, 5.9, 17.5, 17.7, 17.7, 17.10
Chris DeGabriele	North Marin Water District (NMWD)	12/6/2011	9.1
Elizabeth Dunn	City of Novato	2/6/2012	4.3, 4.4, 6.1, 6.2, 6.3, 22.1, 19.2, 23.2
Robert Patterson	City of Petaluma	2/3/2012	4.1
Susan Stompe	Marin Conservation League (MCL)	2/6/2012	2.1, 13.2, 13.11, 14.3, 14.3, 14.8, 4.3, 4.5, 9.3, 9.4, 13.11, 2.1, 4.2, 4.5, 10.1, 19.3
Barbara Salzman and Phil Peterson	Marin Audubon Society (MAS)	2/6/2012	23.3, 3.7, 3.6, 5.5, 2.2, 2.3, 19.2, 20.2, 2.4, 20.6, 26.1, 4.6, 5.1, 5.6, 12.10, 10.2, 13.3, 13.12, 12.6, 13.13, 13.11, 13.11, 13.14, 13.15, 3.8, 2.1, 2.3, 2.5, 13.7, 5.7, 13.2, 26.2, 26.2, 26.2, 26.2, 13.16, 12.11, 13.12, 13.15, 13.11, 13.11, 13.17, 13.11, 13.12, 12.12, 1311, 12.13, 13.3, 18.1, 4.7, 13.11
Board of Directors	Gnoss Field Community Association (GFCA)	2/4/2012	24, 4.18, 4.18, 2.6, 2.6, 20.13, 2.1, 2.1, 22.2, 2.1, 2.1, 2.6, 4.18, 19.4, 4.20, 4.18,

NAME	ORGANIZATION (IF ANY)	DATE	COMMENT NUMBERS
C. Henry Barner	Black Point Improvement Club (BPIC)	1/4/2012	2.3, 23.5, 2.1, 23.6, 4.5
Wright Bass	Bass	1/10/2012	4.10, 20.5, 4.11, 4.12, 19.4, 16.1, 19.4
Jacqueline A. Bonner	Bonner	2/6/2012	4.5, 3.9, 3.10, 2.1, 3.2
David Donadio	Donadio	1/10/2012	2.1, 4.8, 4.5
Jim Duckworth	Duckworth	2/3/2012	24, 19.4, 19.4, 20.4, 19.4, 4.9, 4.9, 24
Christopher Gilkerson	Gilkerson	2/6/2012	1.6, 1.4, 20.1, 3.3, 2.1, 4.14, 4.8/4.13, 4.5/4.15, 1.6, 20.1, 1.3, 1.8, 20.8, 20.11, 20.10, 20.9, 20.8, 20.10, 20.12, 3.9, 3.2, 3.3, 2.1/2.2, 4.2a, 4.2, 4.14, 4.5/4.15, 4.21, 5.1/5.6, 13.19, 3.2, 3.2, 3.12, 3.13, 14.3, 14.3, 23.4
Dr. Richard Levy	Levy	2/6/2012	4.5, 16.2, 2.1, 1.5, 3.2, 4.13, 4.5, 3.3, 2.1, 20.1, 22.2
Edward A. Mainland	Mainland	2/5/2012	14.3
Rod Mehrten	Mehrten	1/22/2012	24
Steven Nebb	Nebb		3.2, 20.9, 2.1, 2.1, 20.8, 1.3, 1.7, 20.9, 3.3, 20.9, 20.10, 20.8, 20.12, 3.2, 3.5, 4.17
Robert Pack	Pack		1.3, 2.1, 19.5, 19.5, 1.3, 20.7, 19.6, 1.3, 1.4, 3.11
Charles Roell	Roell	1/10/2012	20.4, 4.9, 19.4
Barbara Rozen	Rozen	1/7/2012	13.18, 12.4, 10.3
Anthony and Lorraine Silveira	Silveira Ranches	2/3/2012	4.16, 2.1, 5.8, 23.7
Jeannette Weber, Duncan and Betsy Ross, Leslie Weber	Ross/Weber	2/6/2012	2.1, 1.5, 3.2, 4.13, 4.5, 3.3, 2.1, 20.1, 22.2
Leslie and Chris Weber	Weber	2/6/2012	20.8, 3.3, 3.2, 3.3, 2.1, 2.1, 4.8, 3.10, 4.2, 23.4, 4.2
Joyce B. Wells	Wells	1/12/2012	19.4
Steven Knecht	Gnoss Field Community Association (GFCA)	1/10/2012	24, 4.18, 4.19, 22.2, 2.6, 2.7, 2.1, 19.4
Susan Stompe	Stompe	1/10/2012	20.3, 2.1, 13.20, 14.3
Joyce Wells	Wells	1/10/2012	19.4
Jackie Bonner	Bonner	1/10/2012	1.5, 4.5, 4.13, 4.8, 3.3, 2.1, 20.1, 22.3

NAME	ORGANIZATION (IF ANY)	DATE	COMMENT NUMBERS
Christopher Gilkerson	Gilkerson	1/10/2012	1.6, 1.4, 20.1, 3.2, 3.3, 2.1, 4.14, 2.1/2.2,
Rob Pack	Pack	1/10/2012	1.3, 1.4, 19.5, 2.1, 1.2
Clarence Bracey	Bracey	1/10/2012	4.8, 4.13, 5.10, 5.1, 2.1, 4.8
Steven Nebb	Nebb	1/10/2012	1.5, 20.9, 20.9, 3.3, 20.11, 20.10, 20.1, 1.3, 1.7,2.1, 4.8
Bob Spofford	Spofford	1/10/2012	2.1, 23.9
Patricia Capretta	Capretta	1/10/2012	2.1, 19.7, 4.5
Dr. Richard Levy	Levy	1/10/2012	4.5, 16.2
Rich Elb	Elb	1/10/2012	4.5, 19.4, 4.19
Kirk Heiser	Heiser	1/10/2012	4.22, 19.4, 4.9

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MASTER RESPONSE

Many commenters on the Draft Environmental Impact Statement/Environmental Report (EIS/EIR) contend that the extension of Runway 13/31 at Gnoss Field Airport (DVO or Airport) from 3,300 feet to 4,400 feet would stimulate an increase in aircraft takeoffs and landings (operations or aviation activity) at the Airport. Many commenters assert that an 1,100 foot runway extension is longer than needed for the aviation fleet mix at DVO, and will result in the Airport being able to accommodate more and larger aircraft not currently able to use DVO. The commenters contend this change in the overall DVO aircraft fleet mix from smaller to larger aircraft would result in a significant increase in aircraft noise, particularly in the residential communities south of the Airport. In some cases the commenters stated that these residential neighborhoods are already significantly impacted by noise. The responses to these comments are provided below, and are referenced as part of the response to individual commenters.

TOPIC 1 – AVIATION FORECAST

The Draft EIS/EIR Aviation Forecast underestimates future aviation activity at DVO because the extension of Runway 13/31 would stimulate an increase in aircraft takeoffs and landings (operations or aviation activity) not accounted for in the forecast.

TOPIC 1 – AVIATION FORECAST RESPONSE

In general, forecasting general aviation demand entails combining historical activity with national and regional (local) trends, aircraft orders, and tenant/user input. General aviation demand combines several types of activity including personal, business, recreational, flight training, police/emergency services, and air taxi. Each of these types of activity is influenced differently by general economic conditions and specific items such as fuel prices. Population and business growth (or decline) in the region also influences the level of activity. Once regional demand is projected, where that demand will be served must be estimated. General aviation activity is served by a combination of commercial service airports, reliever airports, general aviation airports, heliports, and private facilities. Airport activity forecasts and airport fleet mix are not solely determined by or directly dependent upon the length of an airport's runway. While a 4,400-foot long runway could accommodate a different fleet mix than a 3,300-foot long runway; the length of the runway is only one factor that determines the types of aircraft that would use any given airport. At DVO, aviation activity is forecast to increase whether or not the runway is extended. Therefore, the length of a runway is not directly correlated to the level of aviation activity at DVO.

The Aviation Activity Forecast developed for the EIS (included as Appendix C, *Aviation Activity Forecast* to the documents) presents the forecast of aviation demand for DVO, which was developed to provide an analysis of historical activity at the Airport and as a basis for forecasting future activity levels. The forecast is "unconstrained" and as such does not take facility constraints or other outside limiting factors into consideration. In other words, for purposes of estimating

future demand, the forecast assumes facilities can be provided to meet the demand. Therefore the aviation activity forecast is not dependent on the existing or future characteristics (size, runway length, aircraft fleet mix, number of hangars, etc.) of the Airport, but on other factors within the region the DVO serves.

The forecast analysis is based on historic data and the underlying socio-economic conditions of the area, as well as consideration of the role that the Airport plays in the region. The forecast follows standard FAA forecast guidance included in the FAA's Office of Aviation Policy and Plans (APO), Forecasting Aviation Activity by Airport, dated July 2001. DVO is classified as a "Reliever Airport" by the FAA, which means that DVO is a high-capacity General Aviation (GA) airport in a metropolitan area. Reliever airports provide general aviation pilots with attractive alternatives to using congested commercial service airports and provide general aviation access to the surrounding area. DVO and other general aviation airports in the San Francisco Bay area designated as reliever airports serve to reduce congestion at San Francisco International Airport, Oakland International Airport, and San Jose International Airport. DVO exclusively serves GA and air taxi activity and does not have any scheduled commercial passenger air service. Typical GA activity includes recreational and flight training activities, business travel, news reporting, traffic observation, environmental surveys, police patrol, and emergency medical evacuations. Air taxi activity typically includes "for hire" aircraft chartered for specific trips on an on-demand basis. Air taxi operations are usually made up of larger GA aircraft, such as turboprop aircraft and an array of corporate jets.

The forecast includes an analysis of the GA demand in the geographic area that DVO serves. The number of aircraft based at DVO is forecast to increase by 1.4 percent annually from 2008 through 2027, regardless of runway length. The type of based aircraft at DVO is expected to follow national projections, which points towards a greater number of jet aircraft. In general, jet aircraft can be flown a greater distance before refueling and tend to provide more flexibility in terms of passenger/cargo loads. In addition, the market for privately owned propeller driven aircraft has been stagnant as the ability of people to purchase aircraft has decreased. The result is that most of the growth in the GA manufacturing market has been seen in corporate ownership, which tends to choose aircraft with jet engines.

Similarly, aircraft operations at DVO are forecast to increase from 85,500 operations in 2008 to 124,300 operations in 2027 representing an average annual growth rate of 2.0 percent. This growth is consistent with the FAA Aerospace Forecast Fiscal Years 2008-2025 which was the latest data available when the aviation activity forecasts for DVO were prepared. The FAA uses estimates of fleet size, hours flown, and utilization from the General Aviation and Air Taxi Activity and Avionics Survey (GA Survey) as baseline figures upon which assumed growth rates determined from local demand were applied. As discussed above, based aircraft are expected to trend more towards jet aircraft; however based aircraft are not directly correlated to the number of operations that are flown by each aircraft type. For example, an airport that has a flight school may have two or three small single-engine piston aircraft based at the airport. But, the number of daily operations by each of those training aircraft may be four or five

times the number of daily operations by a jet aircraft based at the airport. As a result, while aircraft operations are expected to increase, the operations are expected to be performed by the same or similar to the aircraft fleet that operates today and the percentage of operations by each aircraft category (single-engine piston, multi-engine piston, turbine, and helicopter) is assumed to remain unchanged throughout the forecast period.

The FAA has found that aviation activity increases and decreases as the United States and world economic activity increases and decreases. The FAA annually produces a national aerospace forecast report that forecasts aviation activity for a 20-year period[1]. These forecasts have found that fundamentally the demand for aviation is driven by economic activity. That is, aviation activity typically responds to economic demand rather than creates economic demand. The forecast for a specific airport, such as the DVO Aviation Activity Forecast included in Appendix C, *Aviation Activity Forecast* of this EIS, is influenced by the same economic factors as the national aerospace forecast.

Separate from this EIS, the Regional Airport Planning Committee, comprised of representatives of the Metropolitan Transportation Commission, the Bay Conservation and Development Commission, and the Association of Bay Area Governments, assessed the viability of San Francisco Bay area general aviation airports to provide scheduled passenger air service facilities to relieve congestion at San Francisco International Airport, Oakland International Airport, and San Jose International Airports. Their 2011 update of the *Regional Airport System Planning Analysis* found that DVO and other similar general aviation airports in the region would not have the air passenger demand to support scheduled passenger service. The region's general aviation airports do divert small aircraft traffic from the large airports with scheduled passenger air service. In doing so, they constitute an important part of the region's approach to mitigating runway congestion problems.[2]

As a public use airport, DVO is available to all aircraft that can be accommodated by its facilities. Although the Airport is classified as a B-I airport, and is designed for use by aircraft with a wingspan of less than 49 feet, and an aircraft approach speed of 91 to 120 knots, aircraft larger than the critical aircraft currently operate at the Airport and are expected to continue to do so in the future. Furthermore, these larger aircraft will likely continue to operate at DVO with or without implementation of Alternative B or Alternative D. Larger aircraft using DVO typically have limitations on their operating capabilities at DVO such as being limited below their full payload of passengers, cargo, or fuel, especially during takeoff, similar to the limitations on the critical aircraft for DVO, the Cessna 525.

It is possible owners or pilots who use one size of aircraft now, could choose to use larger size aircraft in the future if Alternative B or Alternative D is implemented. However, as FAA aerospace activity forecasting has found over many years of

[1] FAA Aerospace Forecasts at www.faa.gov/about/office_org/headquarters_offices/apl/aviation_forecasts/

[2] Regional Airport System Planning Analysis 2011 Update, Volume 1: Final Report, prepared by Regional Airport Planning Committee (Metropolitan Transportation Commission, Bay Conservation and Development Commission, and Association of Bay Area Governments), September 2011.

evaluation that aviation activity increases in response to other types of economic activity, rather than creates other economic activity, it is more likely that the aircraft fleet mix at DVO already accurately reflects the local economic demand for aviation activity, including aviation user choices regarding their preferred size of aircraft. This is because those aviation users who prefer using DVO but require larger aircraft for a specific activity can still access DVO under current conditions by reducing their payload or fuel.

TOPIC 2 – RUNWAY LENGTH ANALYSIS

Some commenters asserted that an 1,100-foot runway extension is longer than justified for the aviation fleet mix at DVO. Commenters stated that the required runway length for DVO was incorrectly calculated and that the purpose and need for the project on which the runway length analysis was based was unnecessarily narrow. Commenters also stated that the appropriate FAA guidance regarding determining runway length was not followed.

TOPIC 2 – RUNWAY LENGTH ANALYSIS RESPONSE

In response to these comments Appendix D, *Runway Length Analysis* was reviewed. While the results of this review were to reconfirm that an 1,100-foot runway extension is justified, Appendix D, *Runway Length Analysis* has been clarified regarding why an 1,100-foot runway extension is justified, why the determination of runway length is consistent with FAA guidance, and provide additional clarification as to how the length of the proposed runway extension was established.

FAA Order 5090.3C, *Field Formulation of the National Plan of Integrated Airport Systems (NPIAS)* identifies that airport dimensional standards such as runway length and width, separation standards (distances) between runways and taxiways, surface gradients, and similar dimensions should be selected to be appropriate for the "critical aircraft" that will make "substantial use" of the airport in the planning period for improvements.

An aircraft is called the "critical aircraft" because it is the most "demanding" aircraft in terms of the physical dimensions of the airport such as the length and width of the runways and taxiways, and separation distance between runways and taxiways required for that aircraft to operate at the airport. "Substantial use" of a general aviation airport is defined as 500 or more annual itinerant operations. For DVO, the critical aircraft was determined to be the Cessna 525 business jet, and so the justified runway length for DVO was established based on the requirements of this aircraft. See Appendix D, *Runway Length Analysis,* Attachment 1, *Basis for Determination of the Critical Aircraft for DVO*, for more information regarding the designation of the Cessna 525 as the critical aircraft for DVO.

During the preparation of this EIS, FAA Advisory Circular (AC) 150/5325-4B, *Runway Length Requirements for Airport Design* was used to verify an appropriate runway length to meet the requirements of the critical aircraft at DVO. For airport

projects receiving Federal funding, the use of the methods described in FAA AC 150/5325-4B, *Runway Length Requirements for Airport Design* to determine runway length is mandatory. FAA AC 150/5325-4B Paragraphs 502 to 509 and FAA AC 150/5325-4B Table 5-1, identify eight specific variable factors that affect runway length that must be considered in determining the recommended runway length for an airport. These are:

- Airplane Type
- Flap Setting
- Operating Weights (for Takeoff and Landing)
- Airport Elevation
- Temperature
- Wind
- Runway Surface Conditions
- Difference in Centerline Elevation (i.e., is the runway level or does it slope from one end to the other producing uphill and downhill conditions).

For aircraft with a Maximum Certificated Takeoff Weight (MTOW) of 60,000 pounds or less, such as the critical aircraft for this project, the Cessna 525 business jet, FAA AC 150/5325-4B, Paragraph 202, *Design Approach*, provides two methods for considering the eight factors described above and additional factors to determine a recommended runway length. Airport planners can either use the appropriate "runway length curves" in FAA AC 150/5325-4B for the weight and characteristics of an individual critical aircraft or a "family grouping" of critical aircraft under consideration, or the airport planner can determine the necessary runway length from an airport planning manual (APM) for a specific critical aircraft.

Some Commenters reviewed the Draft EIS/EIR and concluded a 4,400-foot runway was excessively long. Some Commenters provided no basis for their conclusion while others stated that the Table 2-1 *Runway Length Curves* in FAA AC 150/5325-4B showed that only a shorter runway was necessary. Using the generalized runway length curves from Table 2-1 of the FAA AC 150/5325-4B is one of the two methods allowed by FAA AC 150/5325-4B to establish the necessary runway length for an airport.

However, because the Cessna 525 has a more demanding runway length requirement than what is shown for the B-I family grouping in Figure 2-1 *Runway Length Curves* of FAA AC 150/5325-4B, a specific APM for the Cessna 525 was used to establish the appropriate runway length for DVO. This alternative runway length calculation method allowed by FAA AC 150/5325-4B is more specific to the capabilities of a particular aircraft, in this case the critical aircraft for DVO, the Cessna 525. Therefore, the use of the APM for the Cessna 525 for the determination of runway length at DVO is preferable to use of the Table 2-1 of FAA AC 150/5325-4B because it establishes the necessary runway length based on the capabilities of the specific critical aircraft for DVO, the Cessna 525.

A summary of how the Cessna 525 APM was used to determine the necessary runway length for the runway at DVO to accommodate the Cessna 525 under hot weather and other adverse weather conditions is shown in Table 2-2 of Chapter Two, *Purpose and Need*, of the Final EIS. A detailed description of how the Cessna 525 APM was used to determine the necessary runway length for the DVO runway is included in Appendix D, *Runway Length Analysis*, of the Final EIS.

The existing runway at DVO is 3,300 feet long and as a result cannot fully accommodate the operations of the critical aircraft, the Cessna 525. Therefore, the purpose of the Sponsor's Proposed Project is to allow existing aircraft, as represented by the critical aircraft at DVO, to operate at Maximum Gross Take Off Weight under hot weather and other adverse weather conditions. As described in Appendix D, *Runway Length Analysis*, of the Final EIS, an 1,100-foot runway extension of the existing 3,300-foot existing runway to provide a total runway length of 4,400 feet is necessary to meet the purpose and need of this project.

Some Commenters objected to the runway length determination for DVO because they considered it to be based on a purpose and need that had been defined too narrowly. However, the purpose and need for the Sponsor's Proposed Project is consistent with the FAA's guidance in FAA Order 5090.3C, *Field Formulation of the National Plan of Integrated Airport Systems (NPIAS)* to provide the runway length that is appropriate for the critical aircraft that makes substantial use of an airport. Also FAA AC 150/5325-4B, Paragraph 103, identifies the design goal for the length of an airport's primary runway as "The design objective for the main primary runway is to provide a runway length for all airplanes that will regularly use it without causing operational weight restrictions." That is, the critical aircraft for an airport should be able to use the primary runway at that airport under all conditions without operational weight restrictions.

This EIS addresses accommodating the most demanding aircraft (i.e., the critical aircraft), which makes substantial use of DVO in hot weather and other adverse weather conditions. The proposed runway extension has not been designed to accommodate other larger aircraft with similar limitations because the FAA's guidance in FAA Order 5090.3C, *Field Formulation of the National Plan of Integrated Airport Systems,* is only to support development of additional aviation facilities to accommodate aircraft that make substantial use of an airport. In conclusion, the Sponsor's determination of runway length for this project is consistent with FAA guidance regarding how an airport's primary runway should be able to accommodate the critical aircraft at that airport.

TOPIC 3 – AIRCRAFT OPERATIONS AND NOISE LEVELS

Many commenters contend the runway extension would result in changes in the overall DVO aircraft fleet mix from smaller to larger aircraft, which in turn would result in an increase in aircraft noise that should be considered a significant impact on the environment, particularly in the residential communities south of the Airport. In some cases the commenters stated that these residential neighborhoods are already significantly impacted by noise.

TOPIC 3 – AIRCRAFT OPERATIONS AND NOISE LEVELS RESPONSE

As discussed under Topic Response 1 above, aviation activity at DVO is expected to increase whether or not a runway extension is constructed. The Draft EIS evaluated whether increases in noise under the No Action Alternative, Alternative B or Alternative D would represent a significant impact on the environment.

The determination of what noise level represents a significant noise impact on the environment has been the subject of extensive study. As described in Appendix E, *Noise*, nationally the FAA uses the noise metric identified by the Federal Interagency Committee on Noise (FICON) and the FAA *Report to Congress on the Effects of Aircraft Noise* to quantify potential noise impacts. Nationally, the noise metric used is Day/Night Average Sound Level (DNL). However in California, the FAA uses the noise metric Community Noise Equivalent Level (CNEL), which is similar to DNL, but assumes that aircraft noise during the hours of 7:00 P.M. to 10:00 P.M. is more annoying than aircraft noise between 7:00 AM and 7:00 PM. Both the DNL and CNEL noise metrics assume that noise between 10:00 PM and 7:00 AM is more annoying than noise between 7:00 AM and 7:00 PM.

Based on the extensive research and evaluation, the FAA uses the 65 decibel (dB) CNEL as the threshold of significant noise impacts in urban and residential settings such as those near DVO. A significant noise impact is considered to occur for an EIS alternative if the noise impact analysis for that alternative shows that noise sensitive areas would experience an increase in noise of CNEL 1.5 dB or more at or above CNEL 65 dB as compared to the No Action Alternative. As described above and in Appendix E, *Noise,* noise levels below CNEL 65 dB are defined as not significant. Noise levels must increase by 1.5 dB CNEL to be at or above 65 dB CNEL to be considered significant because the human ear cannot generally perceive changes in noise levels less than 1.5 dB CNEL. The FAA recognizes that particular individuals may be sensitive or, or annoyed by, noise below the CNEL noise significance thresholds. However, in accordance with FAA guidance and based on the findings of the FICON and subsequent FAA evaluation the FAA uses 65 dB CNEL noise metric as its threshold for determining significant noise impacts.

The FAA uses a computer model, the Integrated Noise Model (INM) to determine what areas on or adjacent to an airport experience noise levels of 65 dB CNEL or above. The results of that analysis for this EIS are provided in Chapter Five, *Environmental Consequences*, Section 5.1 and Appendix E, *Noise*. As discussed in Section 5.1, no noise sensitive areas, including the residential areas south of DVO, would be subjected to noise levels at or above 65 dB CNEL under the No Action Alternative, Alternative B, or Alternative D.

It seems a logical assumption that larger aircraft would be louder than smaller aircraft, but the reality is that this assumption is not always true. There are a number of factors that affect the noise level produced by an aircraft, including engine type (jet vs. propeller), age of the engine, shape of the airframe/wings, altitude, and distance from the receptor (person hearing the noise). These factors

have a much greater effect on aircraft noise levels than simply the size of the aircraft.

In the previous section, it was stated that the *critical aircraft* at DVO is the Cessna 525, which falls in the FAA's B-I design category. Although this is the design aircraft for planning purposes, it is certainly not the only aircraft that operates at DVO; nor is it the largest. Aircraft in larger design categories do operate at the Airport today; however, they are restricted in their ability to operate efficiently or to certain destinations due to the current length of the existing runway, as well as the runway width, pavement strength, and runway to taxiway separation. All of these play a part in a pilot's decision of where to operate an aircraft. Additional factors that pilots consider are the Airport's availability of services and parking options and the pilot's/passengers' need to access a particular area.

While there were concerns expressed about additional noise generated by the Sponsor's Proposed Project, the environmental analysis found that the project would not result in a significant increase in noise and there would be noise benefits associated with the runway extension to the north. Specifically, the extension to the north would allow aircraft to gain altitude quicker when departing to the south, which would allow them to either be higher when approaching noise sensitive areas to the south of the Airport, or to turn sooner to avoid the radio towers to the east. In either case, the northern extension of the runway provides an opportunity for a reduction in aircraft noise in those areas to the south of the Airport because departing aircraft would be farther away from people living in the area. As discussed above, distance from the aircraft is directly correlated to noise levels on the ground.

TOPIC 4 – INDUCED OFF-AIRPORT GROWTH

Many commenters suggested that extending the runway would induce off-airport growth and that this was not captured in the Draft EIS/EIR

TOPIC 4 – INDUCED OFF-AIRPORT GROWTH RESPONSE

DVO exclusively serves GA and air taxi activity and does not have any scheduled commercial passenger air service. The purpose of the Sponsor's Proposed Project is allow the existing aircraft, as represented by the critical aircraft, the Cessna 525, to operate at Maximum Gross Takeoff Weight under hot weather and other adverse weather conditions. Gnoss Field cannot become a commercial service airport with scheduled airline service, as a result of the proposed runway extension alone. The Airport would need to obtain a 14 CFR Part 139 certificate in order for DVO to become a commercial service airport with scheduled airline service. To obtain a certificate, an airport must agree to certain operational and safety standards and provide for such things as firefighting and rescue equipment. These requirements vary depending on the size of the airport and the type of flights available. If Marin County decides to apply for a Part 139 certificate a separate CEQA/NEPA document would be required.

Separate from this EIS, the Regional Airport Planning Committee, comprised of representatives of the Metropolitan Transportation Commission, the Bay Conservation and Development Commission, and the Association of Bay Area Governments, assessed the viability of San Francisco Bay area general aviation airports to provide scheduled passenger air service facilities to relieve congestion at San Francisco International Airport, Oakland International Airport, and San Jose International Airports. Their 2011 update of the *Regional Airport System Planning Analysis* found that DVO and other similar general aviation airports in the region would not have the air passenger demand to support scheduled passenger service. The region's general aviation airports do divert small aircraft traffic from the large airports with scheduled passenger air service. In doing so, they constitute an important part of the region's approach to mitigating runway congestion problems[3]

The Sponsor's Proposed Project is not intended or expected to cause an unforecasted growth in aircraft operations at DVO. Further, the Sponsor's Proposed Project would not involve additional expansion or extension of infrastructure facilities or roadways that could induce unplanned growth adjacent to DVO, nor is the Sponsor's Proposed Project anticipated to induce additional growth on vacant industrially zoned land near the Airport or other developable land in the region. Therefore, the environmental analysis found that the proposed runway extension would not result in an increase in forecasted airport operations or change in aircraft fleet mix beyond that anticipated for the No Action Alternative.

Implementation of Alternative A (No Action) will have no effect on the number of operations at DVO. Likewise, an 1,100-foot extension of the runway (Alternatives B and D) is unlikely to induce any increase in airport operations. The contribution of aviation infrastructure, such as runways, taxiways, apron area, and hangers, contribute at most only incidental growth in operations at an airport, unless the airport is already capacity constrained. This is not the case at DVO. National and regional economic cycles have much more of an effect on aircraft operations than aviation infrastructure.

Annually, the FAA produces a national aerospace forecast report that forecasts aviation activity for a 20-year period[4]. These forecasts have found the demand for aviation is driven by economic activity. That is, aviation activity typically responds to economic demand rather than creates economic demand. The forecast for a specific airport, such as the DVO Aviation Activity Forecast included in Appendix C, *Aviation Activity Forecast* of this EIS, is influenced by the same economic factors as the national aerospace forecast.

With regard to fleet mix, as a public use airport DVO is available to all aircraft that can be accommodated by its facilities. Although the Airport is classified as a B-I airport, (i.e., designed for use by aircraft with a wingspan of less than 49 feet and approach speeds of 91 to 120 knots), aircraft larger than the critical aircraft

[3] Regional Airport System Planning Analysis 2011 Update, Volume 1: Final Report, prepared by Regional Airport Planning Committee (Metropolitan Transportation Commission, Bay Conservation and Development Commission, and Association of Bay Area Governments), September 2011.

[4] FAA Aerospace Forecasts at www.faa.gov/about/office_org/headquarters_offices/apl/aviation_forecasts/

currently operate at the airport and are expected to continue to do so in the future. Furthermore, these larger aircraft will likely continue to operate at DVO with or without implementation of Alternative B or Alternative D. Larger aircraft using DVO typically have limitations on their operating capabilities at DVO such as being limited below their full payload of passengers, cargo, or fuel, especially during takeoff, similar to the limitations on the critical aircraft for DVO, the Cessna 525.

It is possible owners or pilots who use one size of aircraft now, could choose to use larger size aircraft in the future if Alternative B or Alternative D is implemented. However, as FAA aerospace activity forecasting has found over many years of evaluation that aviation activity increases in response to other types of economic activity, rather than creates other economic activity, it is more likely that the aircraft fleet mix at DVO already accurately reflects the local economic demand for aviation activity, including aviation user choices regarding their preferred size of aircraft. This is because those aviation users who prefer using DVO but require larger aircraft for a specific activity can still access DVO under current conditions by reducing their payload or fuel.

In order to evaluate the potential environmental impacts of owners or pilots choosing to use larger aircraft at DVO as a result of implementing Alternative B or Alternative D, an analysis of air quality and noise impacts utilizing the 2023 forecast was prepared. The 2023 forecast included a higher level of demand and changes in fleet mix as compared to 2018. The EIS found that future growth in aviation activity would not result in significant impacts under 2023 operating levels in Section 5.1, *Noise* and Section 5.5, *Air Quality*. Therefore, even if construction of the runway extension resulted in increased aviation activity and changes in fleet that exceeded the level forecasted for DVO in 2018, it would not result in a significant impact associated with induced airport activity. As described in more detail in Section 5.4, implementation of Alternative A (No Action), Alternative B (Sponsor's Proposed Project), or Alternative D, would not result in significant secondary (induced) impacts.

Table Q-1
RESPONSE TO COMMENTS
Gnoss Field Airport

To ensure there is no misunderstanding by the reader, the general comment numbers by environmental topic are shown consecutively on the left column of this table. There are several environmental topics for which no public comments were received. These are marked "No Comment Received". These topics were included for completeness.

Table begins on next page

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
1	**Purpose and Need**		
1.1	Purpose and need is narrowly defined and all practicable alternatives were not considered. Elsewhere in the Draft EIS, the identified purpose is to provide the necessary runway length for existing users to more efficiently use the airport.	USEPA	Please see the Master Response, Topic 2 regarding the FAA requirements for airport improvements. Chapter Two, *Purpose and Need* of the Final EIS has been clarified to more clearly state Marin County's (Sponsor's) purpose and need for the project. The Sponsor's purpose and need for the project is to allow existing aircraft, as represented by the critical aircraft at DVO, the Cessna 525, to operate at Maximum Gross Take Off Weight under hot weather and other adverse weather conditions. The FAA's statutory mission and purpose and need is to ensure the safe and efficient use of navigable airspace in the U.S. The FAA must ensure that the Sponsor's Proposed Project does not derogate the safety of aircraft and airport operations at DVO. The FAA's purpose and need is consistent with FAA Order 5090.3C, *Field Formulation of the National Plan of Integrated Airport Systems (NPIAS)*, which identifies that airport dimensional standards such as runway length and width, separation standards (distances) between runways and taxiways, surface gradients, and similar dimensions should be selected to be appropriate for the "critical aircraft" that will make "substantial use" of the airport in the planning period for improvements. The Appendix D, *Runway Length Analysis* in the Final EIS has been clarified regarding the required runway length for the critical aircraft. The runway length analysis concluded a total runway length of 4,400 feet is required for the critical aircraft, the Cessna 525. Project alternatives that do not provide for a total runway length of 4,400 feet do not meet the purpose and need for this project and are not prudent and reasonable. Alternatives that are not prudent and reasonable do not need to be evaluated in detail in the Final EIS.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
1.2	Purpose of the project is to make $$$	Robert Pack	Comment Noted. Please see the Master Response, Topic 2 regarding the FAA requirements regarding the purpose and need for airport improvements. Chapter Two, *Purpose and Need* of the Final EIS has been clarified to more clearly state Marin County's (Sponsor's) and the FAA's purpose and need for the project. The Sponsor's purpose and need for the project is to allow existing aircraft, as represented by the critical aircraft at DVO, the Cessna 525, to operate at Maximum Gross Take Off Weight under hot weather and other adverse weather conditions. The FAA's statutory mission and purpose and need is to ensure the safe and efficient use of navigable airspace in the U.S. The FAA must ensure that the Sponsor's Proposed Project does not derogate the safety of aircraft and airport operations at DVO.
1.3	Error saying majority of fleet cannot operate during standard and hot weather on 3,300 feet, only benefits small percentage (1%). Final EIS should identify the number and percentage of aircraft flights that would benefit from the extension.	USEPA, Sharon Nebb, Steven Nebb, Christopher Gilkerson, Susan Mathews, Robert Pack, Steven Nebb	Chapter Two, *Purpose and Need* of the Final EIS has been clarified to explain that the Sponsor's and FAA's purpose and need is consistent with FAA Order 5090.3C, *Field Formulation of the National Plan of Integrated Airport Systems (NPIAS),* which identifies that airport dimensional standards such as runway length and width, separation standards (distances) between runways and taxiways, surface gradients, and similar dimensions should be selected to be appropriate for the "critical aircraft" that will make "substantial use" of the airport in the planning period for improvements. References to possible benefits to other aircraft that are not the critical aircraft have been removed from the Final EIS.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
1.4	Pilots should just adjust their operations (less fuel and passengers) to account for less runway	Robert Pack, Christopher Gilkerson	The approach proposed in this comment is inconsistent with FAA Order 5090.3C, *Field Formulation of the National Plan of Integrated Airport Systems (NPIAS)*, regarding the development of facilities at airports in the NPIAS. The FAA guidance is that airport dimensional standards such as runway length and width, separation standards (distances) between runways and taxiways, surface gradients, and similar dimensions should be selected to be appropriate for the "critical aircraft" that will make "substantial use" of the airport in the planning period for improvements. However, aircraft that occasionally use DVO that are more demanding than the Cessna 525, the critical aircraft for DVO in terms of runway length, have and will continue to adjust their operations to reduce their payload of fuel and passengers when needed in order to operate at DVO.
1.5	Support of all elements of project with exception of 1,100 foot Extension	Dr. Richard Levy, Rosario Carr-Casanova, Jeanette Weber, Duncan & Betsy Ross, Jacqueline Bonner, Steven Nebb	Comment noted.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
1.6	What is the real purpose of the extension	Sharon Nebb, Steven Nebb, Christopher Gilkerson, Susan Mathews	The commenter seems to be suggesting that FAA and Marin County are not disclosing the true reason for the Sponsor's Proposed Project. As stated in Chapter Two, *Purpose and Need* of the Final EIS the Sponsor's purpose and need for the project is to allow existing aircraft, as represented by the critical aircraft at DVO, the Cessna 525, to operate at Maximum Gross Take Off Weight under hot weather and other adverse weather conditions. The FAA's statutory mission and purpose and need is to ensure the safe and efficient use of navigable airspace in the U.S. The FAA must ensure that the Sponsor's Proposed Project does not derogate the safety of aircraft and airport operations at DVO. The Sponsor's and FAA's purpose and need is consistent with FAA Order 5090.3C, *Field Formulation of the National Plan of Integrated Airport Systems (NPIAS)*. The FAA guidance is that airport dimensional standards such as runway length and width, separation standards (distances) between runways and taxiways, surface gradients, and similar dimensions should be selected to be appropriate for the "critical aircraft" that will make "substantial use" of the airport in the planning period for improvements.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
1.7	There would not be a weight restriction on the critical aircraft during standard days/On hot days the critical aircraft could service the west coast	Steven Nebb	FAA Order 5090.3C, *Field Formulation of the National Plan of Integrated Airport Systems (NPIAS)*, identifies that airport dimensional standards such as runway length and width, separation standards (distances) between runways and taxiways, surface gradients, and similar dimensions should be selected to be appropriate for the "critical aircraft" that will make "substantial use" of the airport in the planning period for improvements. Appendix D, *Runway Length Analysis* explains in more detail why the appropriate runway length for DVO is 4,400 feet, which accommodates the critical aircraft, the Cessna 525 under hot weather and other adverse weather conditions. The commenter's suggestion is inconsistent with this guidance on airport dimensional standards and would not meet the purpose and need of the project.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
1.8	The Purpose & Need is based on outdated objective from the Master Plan	Sharon Nebb, Steven Nebb, Christopher Gilkerson, Susan Mathews	The purpose of the Sponsor's Proposed Project is to allow existing aircraft, as reflected by the critical aircraft at DVO, the Cessna 525, to operate at Maximum Gross Take Off Weight under hot weather and other adverse weather conditions. A runway length analysis was completed in 2008, prior to Public Scoping for the EIS and EIR, to determine the runway length necessary to meet this purpose and need. While the Marin County Aviation Commission Resolution No. 97-1: *A Resolution Adopting Chapter 6.0 Airport Development Program Update* 1997[1] identified a runway extension as part of DVO's future development program and a proposed runway length was developed as part of the 2002 Gnoss Field Preliminary Design Report[2], the preparation of the runway length analysis for this EIS was based on the purpose and needed identified in this document. The purpose and need was not based on an objective from the 1989 Airport Master Plan. This runway length analysis is provided in Appendix D, *Runway Length Analysis* in Volume 3.

[1] Marin County Aviation Commission Resolution No. 97-1: *A Resolution Adopting Chapter 6.0 – Airport Development Program Update 1997 – Marin County Airport Master Plan (Gnoss Field) and Recommendation of Approval of Chapter 6.0 1997 Update to the Marin County Board of Supervisors, February 5, 1997.*

[2] Cortright & Seibold, *Preliminary Design Report, Runway Extension, Gnoss Field*, 2002.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
2	**Forecasts**		
2.1	The runway extension = larger/more aircraft at DVO	USEPA, Marin Audubon Society, Marin Conservation League, Gnoss Field Community Association, Black Point Improvement Club, Dr. Richard Levy, Rosario Carr-Casanova, Leslie & Chris Weber, Jeanette Weber, Duncan & Betsy Ross, Sharon Nebb, Steven Nebb, Christopher Gilkerson, Susan Mathews, Anthony & Lorraine Silveira, Robert Pack, Jacqueline Bonner, David Donadio, Steven Nebb, Steve Knecht on behalf of Gnoss Field Community Association, Clarence Bracey, Bob Spofford, Patricia Capretta	See the Master Response, Topic 1.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
2.2	Basis for projected aircraft types in the forecast needs to be explained	Marin Audubon Society, Sharon Nebb, Steven Nebb, Christopher Gilkerson, Susan Mathews	Appendix D, *Runway Length Analysis* includes information in Attachment 1, which explains the basis for the projected aircraft types included in the aviation forecast.
2.3	What is the accuracy of the forecasts and accuracy of past forecasts	Marin Audubon Society, Black Point Improvement Club	Forecasts of aviation activity are based on historic activity, combined with projections of underlying socio-economic conditions for the airport service area (Marin County). The results of the forecast are projections of aircraft operations in the future. As with all projections, this forecast is an estimate. However, because it was prepared using industry standard methodologies and was based on the best available data regarding local and national trends in aviation, it is a reasonable projection of activity at the Airport. Appendix C, *Aviation Activity Forecast*, provides a detailed discussion of the background data used in the forecast. Master Response, Topics 1 and 3 provide additional information about how the forecast relates to noise levels. For the Sponsor's Proposed Project in the Final EIS the need is based on existing aircraft demand (see Chapter Two, *Purpose and Need*). To establish the exact number of annual aircraft operations at DVO would require that the airport have an airport traffic control tower that is manned 24 hours per day, seven days a week. As DVO does not have such a control tower the exact accuracy of the aviation forecast in relation to actual operations is not known.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
2.4	Are there FAA regulations that can limit operations at DVO	Marin Audubon Society	Airports that accept Federal Airport Improvement Program funding such as DVO must adhere to certain Federal grant assurances, including Grant Assurance 22, Economic Nondiscrimination, which requires sponsors to make the airport available on reasonable terms and without unjust discrimination. Moreover, the Airport Noise and Capacity Act of 1990 requires airport sponsors seeking to establish aircraft noise and aircraft access restrictions to a specific airport to follow the FAA regulations at 14 CFR Part 161 (Part 161) *Notice and Approval of Noise and Access Restrictions*. Part 161 provides airports with a methodology to place limits on aircraft types and/or other restrictions, primarily for the purpose of reducing noise impacts. The methodology for an airport conducting a Part 161 is arranged as a cost-benefit analysis, where the benefit is the amount of money not spent to mitigate significantly noise-impacted land uses is weighed against the cost, which is the potential reduction in revenue and interstate commerce that would occur as the result of a restriction being placed at an airport. As no significant noise impacts have been identified in the Final EIS under the Sponsor's Proposed Project or the No Action Alternative, there is not currently a basis for restricting aircraft access to DVO to reduce noise (see Chapter Five, *Environmental Consequences*, Section 5.1, *Noise*).
2.5	Provide further discussion of based aircraft (growth in number of operations, adequate facilities, increase in desirability of DVO, etc.)	Marin Audubon Society	See Master Response, Topic 1.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
2.6	A runway extension does not mean commercial/airlines at DVO	Gnoss Field Community Association, Steve Knecht on behalf of Gnoss Field Community Association	Comment noted. DVO is a reliever airport that accommodates General Aviation operations. There are no scheduled commercial service operations at DVO, nor are any proposed at this time. In order to accommodate air carrier operations, Marin County as the airport sponsor would have to apply for and receive a Part 139 certificate under 14 CFR Part 139, *Certification of Airports.* Marin County could apply for a Part 139 certificate whether or not the runway is extended at DVO. A specific runway length does not establish or eliminate the ability of an airport sponsor to obtain a Part 139 certificate to allow scheduled commercial service operations at a particular airport. However, the County has not indicated any intention of applying for a Part 139 certificate, nor has an air carrier expressed an interest in provided scheduled commercial service to DVO.
2.7	There will be an increase in operations at the airport with or without extension if demand is there	Steve Knecht on behalf of Gnoss Field Community Association	Comment noted. The analysis in the EIS concurs with this statement.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
3	**Alternatives**		
3.1	Alternatives are too narrowly defined due to purpose and need	USEPA	Please see Master Response, Topic 2 regarding the requirements the FAA must follow regarding the purpose and need for airport improvements. Chapter Two, *Purpose and Need* of the Final EIS has been clarified to more clearly state Marin County's (Sponsor's) and the FAA's purpose and need for the project. The Sponsor's purpose and need for the project is to allow existing aircraft, as represented by the critical aircraft at DVO, the Cessna 525, to operate at Maximum Gross Take Off Weight under hot weather and other adverse weather conditions. The Sponsor's and FAA's purpose and need is consistent with FAA Order 5090.3C, *Field Formulation of the National Plan of Integrated Airport Systems (NPIAS)* which identifies that airport dimensional standards such as runway length and width, separation standards (distances) between runways and taxiways, surface gradients, and similar dimensions should be selected to be appropriate for the "critical aircraft" that will make "substantial use" of the airport in the planning period for improvements. The Appendix D, *Runway Length Analysis* in the Final EIS has been clarified regarding the required runway length for the critical aircraft. The runway length analysis concluded a total runway length of 4,400 feet is required for the critical aircraft, the Cessna 525. Project alternatives that do not provide for a total runway length of 4,400 feet do not meet the purpose and need for this project and are not practicable. Alternatives that are not practicable do not need to be evaluated in detail in the Final EIS.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
3.2	Recommend evaluating shorter runway extension alternative	USEPA, Dr. Richard Levy, Rosario Carr-Casanova, Leslie & Chris Weber, Jeanette Weber, Duncan & Betsy Ross, Sharon Nebb, Steven Nebb, Christopher Gilkerson, Susan Mathews, Jacqueline Bonner, Steven Nebb	This comment is addressed in Master Response, Topic 2 – Runway Length Analysis Response.
3.3	Include a 3,500/3,600/3,700/ 3,800 ft. runway extension alternative	Dr. Richard Levy, Rosario Carr-Casanova, Leslie & Chris Weber, Jeanette Weber, Duncan & Betsy Ross, Sharon Nebb, Steven Nebb, Christopher Gilkerson, Susan Mathews, Jacqueline Bonner	This comment is addressed in Master Response, Topic 2 – Runway Length Analysis Response.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
3.4	Off-site airport alternatives should look at 4,000 ft. runway rather than 4,400 ft.	USEPA	This comment was based on the Appendix D, *Runway Length Analysis* of the Draft EIS, which discussed considering local conditions to establish that a 4,400-foot runway at DVO was needed instead of a 4,000-foot runway. The Appendix D, *Runway Length Analysis* in the Final EIS has been clarified regarding the required runway length for the critical aircraft. The runway length analysis concluded a total runway length of 4,400 feet is required for the critical aircraft, the Cessna 525. Project alternatives that do not provide for a total runway length of 4,400 feet do not meet the purpose and need for this project and are not prudent or reasonable. Alternatives that are not prudent or reasonable do not need to be evaluated in detail in the Final EIS.
3.5	More information on who uses DVO, where they are located, and who can use airport should be included in the EIS/EIR with and without the extension	USEPA, Steven Nebb	The best available information related to these topics can be found in Appendix C, *Aviation Activity Forecast* and Master Response, Topic 1.
3.6	Include the location of the new channel/canals on maps	California Department of Fish & Game, Marin Audubon Society	Exhibits 2-2 and 3-3 in the Final EIS show the location of the proposed levee and channel/canal features for the Sponsor's Proposed Project, Alternative B. Exhibit 3-5 shows the location of the proposed levee and channel/canal features for Alternative D.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
3.7	Agree Alt. C most environmentally damaging alternative	Marin Audubon Society, USEPA	This commenter is restating the conclusion in the Chapter Three, *Alternatives* of the Final EIS, that extending Runway 13/31 by 1,100 feet to the south as considered in Alternative C is more environmentally damaging than implementing either Alternative B or Alternative D. Alternative C is more environmentally damaging because it has greater impacts on endangered species habitat and wetlands than either Alternative B or Alternative D. Alternative C was not evaluated in detail in the Final EIS.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
3.8	The status of the lands on which the cross wind-runway would have been constructed should be discussed. A second runway design extending to the northeast and southwest was planned for more than 20 years. These lands were specifically excluded by Fish and Game when they acquired the adjacent lands. The current status of this proposal should be discussed. Does the county still own this parcel? What is the potential for this design to be resurrected? Because it is not in the current expansion design, the County should consider transferring the strip to the owner of the adjacent land, the Department of Fish and Game.	Marin Audubon Society	The Gnoss Field Airport Master Plan does include a crosswind runway as a long term recommendation. The County has not purchased, and does not own land for a crosswind runway (Exhibit 1-2 in Chapter One, *Background* of the Final EIS display the Airport's current property boundary). Instead of constructing a crosswind runway, the County widened the existing runway between 1997 and 2001 from 60 feet to 75 feet to address concerns about crosswinds at the Airport.
3.9	3,500 ft. runway meets requirements for B-I	Sharon Nebb, Steven Nebb, Christopher Gilkerson, Susan Mathews, Jacqueline Bonner	This comment is addressed in Master Response, Topic 2 – Runway Length Analysis Response.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
3.10	4,400 ft. runway is for 10+ passenger aircraft	Leslie & Chris Weber, Jacqueline Bonner	See Master Response, Topic 2, and Appendix D, *Runway Length Analysis*. The runway length of 4,400 was based on the critical aircraft, the Cessna 525. The Cessna 525 is typically designed to seat up to 9 passengers and 1 pilot.
3.11	Support of RSA improvements	Robert Pack	Comment noted.
3.12	Oakland North Field should be included as an off-site alternative	Sharon Nebb, Steven Nebb, Christopher Gilkerson, Susan Mathews	As noted in Section 3.3.1 of Chapter Three, *Alternatives*, of the Final EIS the use of OAK is not considered a prudent or reasonable alternative to the Sponsor's Proposed Project at DVO. OAK prohibits the full range of general aviation flight activities that designated general aviation airports allow, such as flight training activities. Also, OAK is located approximately 50 miles by road from DVO, and the alternative driving routes between DVO and OAK include either the Golden Gate Bridge and San Francisco-Oakland Bay Bridge, or the Richmond- San Rafael Bridge, and the often heavily congested Interstate 80 and Interstate 880 freeways. This combination of factors is sufficient to exclude the OAK North Field from detailed consideration as an alternative to the Sponsor's Proposed Project.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
3.13	Extending the Petaluma Municipal Airport runway should have been considered as an alternative	Sharon Nebb, Steven Nebb, Christopher Gilkerson, Susan Mathews	As discussed in Section 3.3.1 of Chapter Three, *Alternatives*, of the Final EIS, Petaluma Municipal Airport (O69) has one 3,600 foot runway. The current Airport Layout Plan (ALP) on file with FAA does not indicate a proposed long term runway extension at O69. Other factors that reduce the feasibility of this option include environmental considerations. Relocating operations from DVO to Petaluma Municipal Airport would result in longer automobile commutes for people located south of DVO, which is the primary population area served by DVO. As a result of longer commutes, an increase in air emissions would occur along the Highway 101 corridor. Therefore, a runway extension at O69 would not address the needs of DVO, is not a reasonable, feasible, prudent, or practicable alternative to the Sponsor's Proposed Project, and was not carried forward for more detailed environmental analysis.
4	**Noise**		
4.1	Has the increase in noise over homes in Petaluma been considered	City of Petaluma	The noise analysis included in the Final EIS evaluated noise over all communities near the Airport, including Petaluma. Section 5.1 in Chapter Five, *Environmental Consequences*, concluded that noise-sensitive land uses, including residential land uses in Petaluma, would not be exposed to noise levels exceeding 65 CNEL from aircraft operating at DVO. As such, no significant noise impacts would occur in Petaluma as a result of the Sponsor's Proposed Project or any of its alternatives.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
4.2	Re-evaluate the noise impacts with new forecast for runway extension (i.e. use by larger aircraft)	USEPA, Marin Conservation League, Leslie & Chris Weber, Sharon Nebb, Steven Nebb, Christopher Gilkerson, Susan Mathews	The noise analysis for Final EIS was prepared in accordance with FAA Orders 1050.1E and 5050.4B. The activity levels and fleet mix used in the noise analysis were prepared as part of the aviation forecast and are reasonable projections of future activity at the Airport. There is no requirement for assessing a speculative 'worst case scenario'. The Council on Environmental Quality (CEQ) guidelines state that when considering situations where specific information is unknown (like predicting future aviation activity), the Final EIS therefore makes a reasonable assessment of project impacts instead of analyzing a worst case scenario. See Master Response, Topic 3 for more discussion of forecasts and the relationship to noise levels around the Airport.
4.2a	The current analysis of noise level and environmental impact is inadequate. It fails to consider the impact of the larger jet usage once the runway is extended. The purpose of the analysis should be to try and determine the worst case scenario so that any noise level disturbances can be appropriately mitigated. Since two current airport users state that they will purchase and use larger airplanes at Gnoss Field with a longer runway, a proper noise analysis must be done.	Steven Nebb, Christopher Gilkerson	The noise analysis for the Final EIS was prepared in accordance with Federal. The activity levels and fleet mix used in the noise analysis were prepared as part of the aviation forecast and are reasonable projections of future activity at the Airport. There is no requirement for assessing a speculative 'worst case scenario'. The Council on Environmental Quality (CEQ) guidelines state that when considering situations where specific information is unknown (like predicting future aviation activity), the Final EIS therefore makes a reasonable assessment of project impacts instead of analyzing a worst case scenario. See Master Response, Topic 3 for more discussion of forecasts and the relationship to noise levels around the Airport.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
4.3	Noise measurements were only conducted for a short duration	City of Novato, Marin Conservation League	The noise analysis included in the Final EIS was conducted in accordance with FAA Orders 1050.1E and 5050.4B, which the development of noise exposure contours using the FAA-approved Integrated Noise Model (INM). While not required by FAA for developing noise contours, a noise measurement program was conducted to collect and calculate a sample of aircraft events and background noise levels for verifying inputs in the INM modeling. The noise measurement program included six long-term sites where measurements were taken for several days and twenty short-term sites where measurements were taken for one hour each. The duration and times of day in which the noise monitoring was conducted was sufficient to achieve its intended purpose and followed FAA guidance on conducting noise measurement programs. See Appendix E, *Noise* for more information on the noise measurement program.
4.4	Noise measurement maps incorrect	City of Novato	In Table 4-2 of the Draft EIS, the addresses for measurements sites S12 and S13 were transposed. These addresses have been placed in their correct locations in Table 4-2 of the Final EIS and Final EIR. Exhibit 4-6 was not updated as it correctly showed the locations of the measurement sites.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
4.5	Enforce noise abatement procedures/Noise abatement procedures not being followed/airport staff not responsive	Marin Conservation League, Black Point Improvement Club, Dr. Richard Levy, Rosario Carr-Casanova, Jeanette Weber, Duncan & Betsy Ross, Sharon Nebb, Steven Nebb, Christopher Gilkerson, Susan Mathews, Jacqueline Bonner, David Donadio, Patricia Capretta, Rich Elb	Gnoss Field has voluntary noise abatement procedures in place that are designed to reduce noise, in particular for the communities located directly south of the Airport. The Voluntary Noise Abatement Procedures are posted at the DVO run up area. The noise abatement procedures are routinely shared with the pilot community at DVO through normal information distribution, the Airport Facilities Directory as well as on the Automated Weather Observation System notifications. The majority of pilots follow these procedures. When a noise complaint is logged at the Airport, staff will update their folder with complaints received by phone and internet. The folder will contain date and time of the complaint and when possible, aircraft type, pilots name and any follow up comments. On those occasions where the pilot is still at the airport when the complaint is filed, the pilot is contacted immediately. The Airport manager contacts pilots who operate inconsistently with the noise procedures. However, it should be noted that noise abatement procedures are voluntary and there are times when the procedures cannot be flown due to abnormal operating conditions such as unusual wind direction, limited visibility, other weather conditions, or conflicting air traffic.
4.6	Will there be a change in flight patterns	Marin Audubon Society	Each of the development alternatives evaluated in the Final EIS (Alternatives B, C, and D) would result in changes to existing flight patterns. For the Sponsor's Proposed Project, the changes to flight patterns would occur north of the Airport for aircraft approaching to land on Runway 13. Some pilots commented at the Public Hearing that with the Sponsor's Proposed Project they may be able to turn left earlier when departing Runway 13 to the south and thereby reduce noise impacts on the Bahia area. While this may be true, for the purposes of the Final EIS noise analysis it was assumed that the flight pattern would stay in the same general location as they are today.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
4.7	Discuss the impact from endangered species due to noise from construction and discuss under mitigation	Marin Audubon Society	The potential environmental impacts of Alternative A, Alternative B, and Alternative D on endangered species, including noise impacts, are discussed in Section 5.9 of the EIS.
4.8	Bigger planes=more noise	Leslie & Chris Weber, Christopher Gilkerson, David Donadio, Jacqueline Bonner, Clarence Bracey, Steven Nebb	See Master Response, Topic 3.
4.9	Runway extension = reduction in noise to the south of DVO	Charles Roell, Jim Duckworth, Kirk Heiser	FAA agrees with this comment. As discussed in Appendix E, *Noise*, the proposed extension of Runway 13/31 to the Northwest by 1,100 Feet (Alternative B) or by 860 feet (Alternative D), would shift the 65 CNEL noise contour to the northwest slightly as a result of the reduced influence in departure noise from Runway 13 departures. This reduction is due to the slightly higher altitudes for departures and the slight northwestward shift in the Runway 13 departure turn to the east.
4.10	Include the noise levels of aircraft that can use 4,400 foot runway	Wright Bass	See Master Response, Topic 3.
4.11	Publish the noise abatement procedures near run-up areas and in airport directory	Wright Bass	The voluntary noise abatement procedures are posted in the run-up areas and the Airport Facility Directory.
4.12	Monitor noise and pilots in communities	Wright Bass	Comment noted.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
4.13	Runway extension = noise impacts	Dr. Richard Levy, Rosario Carr-Casanova, Jeanette Weber, Duncan & Betsy Ross, Christopher Gilkerson, Jacqueline Bonner, Clarence Bracey	A noise analysis was conducted for the Final EIS using FAA methodologies and thresholds for determining impacts. No significant noise impacts would result from the Sponsor's Proposed Project based on Federal noise impact thresholds. See Master Response, Topic 3 for more discussion of forecasts and the relationship to noise levels around the Airport.
4.14	Noise analysis flawed because sketchy radar data & interviews were used	Sharon Nebb, Steven Nebb, Christopher Gilkerson, Susan Mathews	The noise analysis for the Final EIS was conducted according to Federal guidelines, which requires the evaluation of average-annual conditions presented using the Community Noise Equivalency Level (CNEL) metric. FAA methodologies for collecting and incorporating radar data and other input data were followed. Therefore, the noise analysis satisfies all Federal requirements.
4.15	Calculation of noise impacts doesn't include overflights as described in text	Sharon Nebb, Steven Nebb, Christopher Gilkerson, Susan Mathews	The noise analysis for the Final EIS was conducted according to Federal requirements, which require the evaluation of average-annual conditions presented using the Community Noise Equivalency Level (CNEL) metric. Noise abatement procedures have been published at DVO to minimize the disturbance caused by individual aircraft operations. It is recognized that individual pilots may not follow those procedures for a variety of reasons. However, the Sponsor's Proposed Project would not require, encourage, or imply that pilots should not utilize the noise abatement procedures.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
4.16	What are the impacts to livestock (breaking fence, unproductive dairy)	Anthony & Lorraine Silveira	The property in question is currently subject to aircraft overflights from operations at DVO, which will continue with or without the proposed runway extension. The mode of operation where aircraft would be closer to the Silveira's farm would be aircraft arrivals from the north on Runway 13. In this case, however, aircraft are much quieter than when departing. There is no conclusive scientific evidence indicating that the type of aircraft and noise levels anticipated at DVO, with or without the project, would result in stampeding or a reduction in milk production.
4.17	Decibels (approach) FAR 36 noise levels: C525 (CJ+) 82 dBA. Beechjet dBA 91 dBA. LearJets 90-100 dBA. Sabreliner 95 dBA.	Steven Nebb	The Commenter has correctly identified single event noise levels from 14 CFR Part 36 - *Noise Standards: Aircraft Type And Airworthiness Certification* for several specific aircraft. However, as explained in detail in Section 5.1 of Chapter 5, *Environmental Consequences* of the Final EIS, and Master Response, Topic 3, the Community Noise Equivalent Level is the noise metric used to determine whether a significant noise impact to a sensitive noise receptor is occurring, not single aircraft event noise levels. Furthermore, as discussed in Section 5.1 of Chapter Five, *Environmental Consequences* of the Final EIS, implementation of either Alternative B or Alternative D would not result in a significant noise impact.
4.18	The runway extension ≠ noise impact, but reduction in noise	Gnoss Field Community Association, Gnoss Field Community Association, Steve Knecht on behalf of Gnoss Field Community Association	FAA agrees with this comment. As discussed in Appendix E, *Noise*, the proposed extension of Runway 13/31 to the Northwest by 1,100 Feet (Alternative B) or by 860 feet (Alternative D), would shift the 65 CNEL noise contour to the northwest slightly as a result of the reduced influence in departure noise from Runway 13 departures. This reduction is due to the slightly higher altitudes for departures and the slight northwestward shift in the Runway 13 departure turn to the east.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
4.19	Include the higher altitude of aircraft, the change in location of turns, & reduced power the aircraft with the extension when departing to the south	Gnoss Field Community Association, Steve Knecht on behalf of Gnoss Field Community Association, Rich Elb	The commenters, who represent pilots at DVO, have stated that with the Sponsor's Proposed Project they may be able to turn left earlier when departing Runway 13 to the south and thereby reduce noise impacts on the Bahia area. While this may be true, for the purposes of the Final EIS noise analysis it was assumed departures would stay in the same general location as they are today. However, the noise modeling did take into account higher altitudes for aircraft departing to the south. Aircraft taking off to the south on Runway 13 would start their takeoff roll approximately 1,100 feet (Alternative B) or 860 feet (Alternative D) farther to the northwest than they currently do and thus be somewhat higher south of the Airport as they initiate their turns. These factors were included in the INM noise modeling that was prepared for this EIS.
4.20	There will be less noise for birds in the marsh restoration project	Gnoss Field Community Association	Comment noted.
4.21	Noise mitigation measures should be included (prohibit landing from the south)	Sharon Nebb, Steven Nebb, Christopher Gilkerson, Susan Mathews	The noise analysis included in the Final EIS evaluated noise levels around the Airport. Section 5.1 in Chapter Five, *Environmental Consequences*, concluded that noise-sensitive land uses, including residential land uses, would not be exposed to noise levels exceeding 65 CNEL from aircraft operating at DVO. No significant noise impacts and no mitigation would be required as a result of the Sponsor's Proposed Project or any of its alternatives.
4.22	No noise issues with DVO	Kirk Heiser	Comment noted.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
5	**Land Use**		
5.1	Include Bird-aircraft strike discussion & if they will increase or decrease	USEPA, California Department of Fish & Game, Marin County, Marin Audubon Society, Sharon Nebb, Steven Nebb, Christopher Gilkerson, Susan Mathews, Clarence Bracey	Discussion of the Redwood Landfill is included in Section 5.9 of the Final EIS. The Redwood Landfill (RLI) currently operates under a permit from Marin County Environmental Health Services, which was designated by the California Integrated Waste Management Board as the solid waste Local Enforcement Agency. This permit includes responsibilities of the landfill that include measures to reduce bird attractants. There have been no reported incidents of bird strikes associated with the RLI. With the current measures in place, it is not anticipated that there would be an increase in bird strikes due to implementation of the Sponsor's Proposed Project.
5.2	Mitigation for increased bird strikes should not be the responsibility of RLI but DVO	Redwood Landfill, Marin County	Discussion of the Redwood Landfill is included in Section 5.9 of the Final EIS. Redwood Landfill (RLI) currently operates under a permit from Marin County Environmental Health Services, which was designated by the California Integrated Waste Management Board as the solid waste Local Enforcement Agency. This permit includes responsibilities of the landfill that include measures to reduce bird attractants. No significant impacts associated with increased bird strikes on aircraft from the Sponsor's Proposed Project, were identified in the Final EIS, particularly in light of these on-going bird strike mitigation measures in place at RLI. Therefore, no mitigation was suggested above the continuance of the measures already identified and required in RLI's operating permit. Implementation of the measures, required by RLI's permit to operate the landfill, are the responsibility of RLI, not DVO.
5.3	Change word 'avigation' to 'navigation' on page 4-25, first paragraph, third sentence	County of Marin – Community Development Agency (MARIN)	"Avigation" easement is the correct term for easements associated with the overflight of properties or restrictions on the height of structures as related to the operation of aircraft. The term "avigation" is correctly used.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
5.4	Change the word 'Law" to 'Local' on page 2-23, Table 2-2, Environmental Impact 4.2-4, third Mitigation Measure	County of Marin – Community Development Agency (MARIN)	This comment is specific to a paragraph of the Marin County EIR that was not included in the Draft EIS, so this comment is not applicable to the EIS.
5.5	Add further discussion of lot line adjustment (who will it affect and how)	Marin Audubon Society	The Final EIS (Section 5.2) describe in detail the lot-line adjustment (property acquisition). The property owner is JHW Limited Partners.
5.6	What is FAA guidance on mitigating bird strike hazards? The Reports should address the issue of potential and hazardous air strikes with wildlife.	Marin Audubon Society, Sharon Nebb, Steven Nebb, Christopher Gilkerson, Susan Mathews	The FAA AC 150/5200-33, *Hazardous Wildlife Attractants on or Near Public Use Airports*, provides guidance on certain land uses that have the potential to attract hazardous wildlife on or near public-use airports. Section 5.9 of the Final EIS was expanded to discuss the Redwood Landfill (RLI), FAA guidance on bird strikes, and the measures in place to reduce the potential for bird strikes.
5.7	In Compatible Land Use discussion include description of surrounding wetlands and habitat areas	Marin Audubon Society	Wetlands and wildlife areas are defined and impacts discussed in the Final EIS. Section 4.9 and Section 5.9 of the Final EIS discuss the location of wildlife habitats in the project area. These sections describe and quantify the wetland and wildlife habitats, identify the potential impacts of the Sponsor's Proposed Project, and list viable mitigation measures to reduce the significant impacts of the project on these natural resources.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
5.8	Specific zoning not included in analyzing impacts in the future	Anthony & Lorraine Silveira	The property referenced by the commenter lies between the SMART railroad track and Highway 101, northwest of DVO property. These parcels are largely contained within the Baylands Corridor as defined in the Marin Countywide Plan. Within this corridor, Marin County severely limits development, giving preference to wetland and wildlife habitats (see Policy BIO-5 in Marin Countywide Plan). There are small portions of these parcels that are located outside the Bayland Corridor, but within the Inland-Rural Corridor. While this area is less restrictive, future development on these portions of the commenter's parcels would be required to be consistent with airport operations because of County land use assurances provided to the FAA. Appendix O, *Land Use Assurance Letter* of the Final EIS includes a letter from the Marin County Community Development Agency stating that "the County of Marin provides assurance that appropriate action and enforcement of zoning laws has been or will be taken, to the extent reasonable, to restrict the use of land adjacent to or in the vicinity of Gnoss Field Airport to activities and purposes compatible with normal airport operations."
5.9	Suggested language to account for additional bird control measures	Redwood Landfill	Section 5.9 of the Final EIS discusses the Redwood Landfill (RLI) and states that RLI currently operates under a permit from Marin County Environmental Health Services, which was designated by the California Integrated Waste Management Board as the solid waste Local Enforcement Agency. This permit includes responsibilities of the landfill that include measures to reduce bird attractants. The Final EIS did not identify significant impacts associated with the Sponsor's Proposed Project, particularly in light of these on-going measures in place at RLI. Therefore, no mitigation was suggested above the continuance of the measures already identified and required in RLI's operating permit.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
5.10	The runway extension will cause a decline in property values	Clarence Bracey	Property values are affected by a variety of factors, such as national and local market conditions, availability of financing, availability of similar housing, and are not controlled by one factor such as noise levels. For noise levels below 60 CNEL, like those experienced at the nearest residential uses to the Airport, there is no known correlation between aircraft noise and property values.
6	**Socioeconomic**		
6.1	Are the population projections used to support the Purpose & Need	City of Novato	Population projection data is not directly used to support the purpose and need. The population projections were presented to identify growth trends and disclose the potential for secondary (induced) impacts based on estimates of population growth in region. Population projections are one of a number of elements used to develop a socio-economic portrayal of the area for the forecast of aviation activity.
6.2	State source for table 5.4-1 & 5.4-2 of EIS	City of Novato	The population projections for the City of Novato included in Table 4-5 were obtained from the City of Novato General Plan, adopted March 1996; and was the most recent population projection available at the time. The population projections for 2010, 2020, and 2030 for the counties of Marin, Sonoma, San Francisco, San Mateo, Napa, Alameda, Contra Costa, Solano, and Santa Clara in Table 4-5 and Table 5.4-1 were obtained from the State of California Department of Finance. The employment projections for Marin and Sonoma Counties in Table 5.4-2 were obtained from the California County Economic Forecasts: 2008 – 2030, prepared by the California Department of Transportation, dated August 2008.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
6.3	Reduce housing and employment data due to economic conditions	City of Novato	The commenter suggests that the annual growth rate of the projections "seems optimistic" and should be "reduced to reflect the existing data projections." However, these data projections were the most up-to-date data available at the time the EIS was started and no revisions to these projections are available. The projections remain reasonable estimates of housing and employment for the area. As such, the forecasts of aviation activity and the analysis of socio-economic impacts remain reasonable.
7	**Secondary**		
7.1	Evaluate induced impacts from increase in demand that would result from runway extension	USEPA	See Master Response, Topic 4.
8	**Air Quality**		*No Air Quality Comments Received*
9	**Water Quality**		
9.1	The project will impact a water line on airport	North Marin Water District	The Final EIS was updated to reflect the impact on the water line.
9.2	Regarding page 4-4-19 of the Draft EIR, there is no knowledge of RLI mitigating water quality impacts using gas monitoring and control programs	County of Marin – Community Development Agency (MARIN)	This comment is specific to a paragraph of the Marin County EIR that was not included in the Draft EIS, so this comment is not applicable to the EIS.
9.3	Additional flows of Olompali runoff not illustrated and there is no discussion in how they will change with the extension	Marin Conservation League	Water flows from Olompali State Historic Park will not be altered by the Sponsor's Proposed Project. Water will continue to enter on the west side of the Airport as it does today. The modifications to water flows will occur on Airport property with a northern extension of channels on either side of the levees and then reconnect with the existing system on the east side of the Airport as shown in Alternative B in Exhibit 3-3, and Alternative D in Exhibit 3-5 in Section 3.4.1 of the Final EIS.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
9.4	Is there any testing of the runoff	Marin Conservation League	DVO tests the out flow of runoff monthly and turns in the results annually to the California Regional Water Quality Control Board. Herbicide application is controlled and managed by an external vendor in compliance with all local and state requirements. The Final EIS has been updated to state this.
10	**Section 4(f)**		
10.1	Noise and safety at Olompali should be evaluated	Marin Conservation League	Potential impacts to U.S. Department of Transportation Section 4(f) resources, including Olompali State Historic Park, are addressed in Section 5.7 of Chapter Five, *Environmental Consequences* of the Final EIS. As noted in Section 5.7.3, the Olompali State Historic Park would not be impacted by noise at or above the 65 CNEL Federal significance level for noise under Alternative A, Alternative B, or Alternative D. Flight routes and procedures at DVO will not change with regard to Olompali State Park. These flight tracks are located east of Olompali State Historic Park and do not directly overfly the park.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
10.2	Include Marin Audubon Society property in 4(f) analysis	Marin Audubon Society	Federal Department of Transportation Section 4(f) evaluations only apply to Federal projects relative to publicly owned parks and recreation areas, regardless of the ability of the public to use the facilities. Because the Marin Audubon Society is not a public entity, property owned by the society is not evaluated under DOT Section 4(f). Potential environmental affects to all areas, including the Marin Audubon Society property are included in other sections of the Final EIS. However, the Marin Audubon Society property is located in an area adjacent to and surrounded by other properties considered in the DOT 4(f) analysis. The use of the Audubon property is virtually the same as many of these other properties (open space). None of the identified DOT Section 4(f) properties, even the ones located closer to the Airport than the Audubon property, are significantly impacted by Alternative A, Alternative B, or Alternative D.
10.3	Rush Creek is a popular multi-use path and noise from low flying planes is disturbing to both humans and animals.	Barbara Rozen	Potential impacts to U.S. Department of Transportation Section 4(f) resources, including Rush Creek, are addressed in Section 5.7 of Chapter Five, *Environmental Consequences* of the Final EIS. As noted in Section 5.7.3, Rush Creek would not be impacted by noise at or above the 65 CNEL Federal significance level for noise.
11	**Historic**	**No Comments**	*No Historic Resources Comments Received*
12	**Fish, Wildlife, and Plants**		
12.1	The current status of state listed species was not presented properly	California Department of Fish & Game	This comment by the California Department of Fish and Game was on the Draft EIR, not the Draft EIS. However, the Final EIS provides the current state of California state-listed species in Chapter Four, *Affected Environment*, Table 4.14.
12.2	Need to include discussion of white-tailed kite	California Department of Fish & Game	This comment by the California Department of Fish and Game was on the Draft EIR, not the Draft EIS. However, the Final EIS Chapter Four, *Affected Environment*, Table 4.14, and *Section* 5.9 discuss the white-tailed kite.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
12.3	Appropriate mitigation needs to be in place to avoid "take" of protected species	California Department of Fish & Game	This comment by the California Department of Fish and Game was on the Draft EIR, not the Draft EIS. However, the Final EIS addresses protective and habitat compensation measures for protected species in Section 5.9.4 and 5.9.5.
12.4	Address migratory wildlife corridors & impacts	California Department of Fish & Game, Barbara Rozen	The comment by the California Department of Fish and Game was on the Draft EIR, not the Draft EIS. However, impacts to movement corridors of protected species are addressed in Section 5.9.4.
12.5	Address Department of Fish and Game Wildlife Area	California Department of Fish & Game	This comment by the California Department of Fish and Game was on the Draft EIR, not the Draft EIS. However, the Burdell Unit of the California Department of Fish and Game Petaluma Marsh Wildlife Area are discussed in Sections 4.6 and Section 5.7 of the Final EIS.
12.6	Protocol surveys for burrowing owls should be conducted using California Burrowing Owl Consortium Protocol and documented in biological report to be submitted to DFG for review	California Department of Fish & Game, Marin Audubon Society	The comment by the California Department of Fish and Game was on the Draft EIR, not the Draft EIS. Section 5.9.4 of the Final EIS has been updated to identify mitigation measures specific to the Burrowing Owl.
12.7	CDFG recommended modifying the burrowing owl mitigation measures identified in the Draft EIR.	California Department of Fish & Game	This comment by the California Department of Fish and Game was on the Draft EIR, not the Draft EIS. However, protective and habitat compensation measures for fish, wildlife, and plants, including the burrowing owl, are provided in Section 5.9.4 of the Final EIS. Marin County has met with CDFG and has revised and updated the mitigation measures for the Burrowing owl from that meeting. See Section 4.5 in the Final EIR.
12.8	CDFG recommended modifying the migratory bird mitigation measures identified in the Draft EIR.	California Department of Fish & Game	This comment by the California Department of Fish and Game was on the Draft EIR, not the Draft EIS. However, protective measures for migratory birds are identified in Section 5.9.3 of the Final EIS.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
12.9	Appendix I stated 2.38 acres of aquatic habitat would be permanently impacted. This appears to be a discrepancy when compared to Section 4.5 of the Draft EIR. Address the discrepancy in impacts to aquatic resources	California Department of Fish & Game	This comment by the California Department of Fish and Game was on the Draft EIR, not the Draft EIS. However, the Biological Assessment in Appendix I, *Biological Resources*, of the Final EIS has been updated to remove the discrepancy between the Final EIS text and the Appendix I, *Biological Resources*.
12.10	The discussion on page 4-68 reports that man-made drainages and the brackish marsh area north of the runway are habitat for the endangered salt marsh harvest mouse (SMHM) and that endangered clapper rails could seasonally forage in areas to the south. We agree, and also note that portions of the site likely provide high-tide refuge habitat for both of these species.	Marin Audubon Society	This comment is consistent with the analysis in the Final EIS. The FAA concurs the site provides high tide refugia habitat for the SMHM and California clapper rail.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
12.11	The species list should also include California Black Rail, a threatened species, which inhabits nearby Black John slough.	Marin Audubon Society	The Detailed Study Area was developed based on where direct impacts were likely to occur to resources. The USFWS and CDF&G agreed with the delineation of the Detailed Study Area. Black John Slough is not located within the Detailed Study Area, which was the geographic boundary used for identifying Federal and state species that could potentially be impacted by the Sponsor's Proposed Project (see Exhibit 4-3 in Chapter Four, *Affected Environment*, of the Final EIS). As such, species that inhabit Black John Slough but not the detailed study area, like the California black rail, were not considered in the evaluation of potential species impacts.
12.12	Mitigation should be provided for temporary and permanent removal of SMHM and a figure showing SMHM habitat should be included in the Final EIS.	Marin Audubon Society	Section 5.9.4 and 5.9.5 of the Final EIS describe protective and habitat compensation measures for the SMHM. The entire Detailed Study Area, minus the man-made hard surfaces, is potential habitat for the salt marsh harvest mouse and this area is discussed in Section 5.9.3 of the Final EIS and shown in Exhibit 5.9-1 and 5.9-2.
12.13	Mitigation 4.5-2d states that Construction Impacts would be mitigated by doing the work during summer and fall dry periods. The CCR non-breeding season, and therefore the allowable work window, usually does not begin until September 1 and extends through January.	Marin Audubon Society	As discussed in Section 5.9.4 of the Final EIS, the CCR habitat identified by the USFWS within the detailed study area is foraging habitat and not breeding habitat. Therefore, no CCR breeding seasonal restrictions are necessary to avoid disturbing nesting CCR as they do not nest in the construction area.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
13	**Wetlands**		
13.1	None of the mitigation sites are currently approved CWA 404 mitigation banks. A mitigation proposal containing all the elements listed at §230.94 of the 2008 Mitigation Rule will need to be submitted to the Corps and EPA for review and approval.	USEPA	Section 5.10 of the Final EIS has been updated to include a thorough discussion of the compensatory mitigation requirements for Clean Water Act, Section 404 permits and additional discussion of possible compensatory mitigation sites.
13.2	Mitigation Ratio should be higher, 3:1 suggested	USEPA, California Department of Fish & Game, Marin Audubon Society, Marin Conservation League	Compensatory mitigation ratio for environmental impact evaluation identified in the Final EIS is 3:1. The final mitigation requirements for wetlands and waters in CWA jurisdiction will be established during the CWA Section 404 permit process.
13.3	Conceptual Mitigation plan should be included in the Final EIS	USEPA, Marin Audubon Society	Conceptual mitigation options have been added to Section 5.10 of the Final EIS.
13.4	Mitigation for Semi-permanent impact from construction should be proposed	California Department of Fish & Game	The USFWS Biological Opinion established compensatory habitat mitigation for short and long term temporary impacts to habitat for the salt marsh harvest mouse and California clapper rail. These compensatory habitat mitigation measures have been added as mitigation measures to Section 5.9 of the Final EIS.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
13.5	Appendix I stated 2.38 acres of aquatic habitat would be permanently impacted. This appears to be a discrepancy when compared to Section 4.5 of the Draft EIR. Address the discrepancy in impacts to aquatic resources	California Department of Fish & Game	Impacts to wetlands have been clarified and the discrepancy resolved in Section 5.10 of the Final EIS.
13.6	Compensatory mitigation should be included for losses to waterways (drainage/channels)	California Department of Fish & Game	Section 5.10 in the Final EIS includes compensatory mitigation ratios for both linear and acreage impacts related to implementation of Alternative B or Alternative D. The final mitigation requirements for wetlands and waters in CWA jurisdiction will be established during the CWA Section 404 permit process.
13.7	Include figures/charts to disclose existing and proposed drainage features	California Department of Fish & Game, Marin Audubon Society	Section 5.10 in the Final EIS was updated to address the location of water resources that will be impacted and created as part of the project.
13.8	Which agencies jurisdictional area is to be replaced at 2:1	California Department of Fish & Game	The term jurisdictional at this location refers to the US Army Corps of Engineers, who has jurisdiction over waters of the United States.
13.9	Construction of .77 acres of ditch/canal not be considered "in kind"	California Department of Fish & Game	Comment noted. The final mitigation requirements for wetlands and waters in CWA jurisdiction will be established during the CWA Section 404 permit process. However, as the ditch/canal habitat is the same type of habitat that is being disturbed, it can be considered an in-kind replacement of habitat.
13.10	Relocation of the ditch may require a LSAA	California Department of Fish & Game	Comment noted. If a LSAA agreement is required, Marin County will work with CDFG to coordinate this process.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
13.11	Mitigation should be in Marin County/close to site of loss	Marin Audubon Society, Marin Conservation League	Comment noted. As habitat compensation for both the California clapper rail and salt marsh harvest mouse requires off-site habitat compensation, and these species prefer tidal salt marsh, it is likely that Marin County will choose to coordinate the wetland mitigation requirements identified in the CWA Section 404 permit with the habitat compensation requirements of the USFWS Biological Opinion. The USFWS Biological Opinion identifies that the USFWS would likely increase the habitat compensation ratios for Alternative B or Alternative D if the proposed off-site restoration area was outside of the San Pablo Bay Recovery Unit identified in the *Draft Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California*. As the San Pablo Bay recovery Unit extends from Gallinas Creek in Marin County (at the southwestern end of the recovery unit) around San Pablo Bay north and east to Mare Island in Solano County, Marin County would likely attempt to locate the compensatory habitat mitigation site within or near Marin County to minimize mitigation requirements.
13.12	Mitigation should be provided for wetlands that are temporarily lost.	Marin Audubon Society	Wetland mitigation for temporary and permanent wetland impacts is discussed in Section 5.10.6 of the Final EIS.
13.13	Disagree with priority for mitigation	Marin Audubon Society	The order of mitigation preference is established by the USACOE regulations at 33 CFR 332.3 and provided as information in the document. The final mitigation requirements for wetlands and waters in CWA jurisdiction will be established during the CWA Section 404 permit process.
13.14	Agree with mitigation at private site	Marin Audubon Society	Comment noted. The final mitigation requirements for wetlands and waters in CWA jurisdiction will be established during the CWA Section 404 permit process.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
13.15	What is the amount of wetlands on south to be filled & why is it to be filled	Marin Audubon Society	0.33 acres of wetlands would be filled on the south end of the runway under the Sponsor's Proposed Project. The purpose of this is to allow for the creation of an FAA standard Runway Safety Area. The dimensions for the Runway Safety Areas were discussed in Section 2.2 of the Final EIS.
13.16	The habitat north of the runway does not typically support song sparrows or marsh wren.	Marin Audubon Society	The FAA agrees with the comment, however the biologists did observe these species (song sparrow and marsh wren) onsite and that is why they were discussed. Their presence was likely due to the remnant tidal marsh conditions and may not be representative of the typical resident species in the site's current conditions. This section has been updated to more accurately reflect typical habitat but keeps the species listed in the species list as species observed on-site.
13.17	Object to mitigation using banks and in-lieu fee	Marin Audubon Society	The commenter disagrees with the priority of mitigation identified in the Final EIS. This order of mitigation preference is established by the USACOE regulations at 33 CFR 332.3 and provided as information in the document. The final mitigation requirements for wetlands and waters in CWA jurisdiction will be established during the CWA Section 404 permit process.
13.18	General concern regarding loss of wetlands	Barbara Rozen	Comment noted. The Final EIS section 5.10 evaluates the effect of the Sponsor's Proposed Project and alternatives on wetlands and describes wetland mitigation measures.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
13.19	FAA Advisory Circular 150/5200-33B – requires that expansion of an existing airport into or near wetlands requires preparation of a Wildlife Hazard Management Plan	Sharon Nebb, Steven Nebb, Christopher Gilkerson, Susan Mathews	FAA Advisory Circular (AC) 150/5200-33B, *Hazardous Wildlife Attractants on or Near Airports*, does not require an airport to have a Wildlife Hazard Management Plan. FAA recommends that airports use the standards and practices contained in the FAA AC to address wildlife hazard conflicts. However, if an airport has experienced certain triggering events, the FAA may require a Wildlife Hazard Assessment. The Wildlife Hazard Assessment may or may not recommend the development of a Wildlife Hazard Management Plan. The FAA AC states that airports receiving Federal grant-in-aid assistance are required by their grant assurances to take appropriate actions to restrict the use of land next to or near the airport to uses that are compatible with normal operations. Appendix O, *Land Use Assurance Letter* of the Final EIS includes a letter from the Marin County Community Development Agency stating that "the County of Marin provides assurance that appropriate action and enforcement of zoning laws has been or will be taken, to the extent reasonable, to restrict the use of land adjacent to or in the vicinity of Gnoss Field Airport to activities and purposes compatible with normal airport operations."
13.20	More thorough discussion needed of the wetlands to be filled, how they interrelate with each other and other wetlands	Susan Stompe	Appendix I, *Biological Resources* and Appendix J, *Wetlands*, include detailed information regarding the wetlands on the site.
14	**Floodplains**		
14.1	Building elevation requirements	Federal Emergency Management Agency	There are no buildings being proposed, therefore the finished-floor elevation requirements do not apply to the Sponsor's Proposed Project.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
14.2	If the area of construction is located within a Regulatory Floodway as delineated on the FIRM, any development must not increase base flood elevation levels.	Federal Emergency Management Agency	The area of construction being proposed is not located within a Regulatory Floodway; therefore base flood elevation level requirements do not apply to the Sponsor's Proposed Project.
14.3	Address Sea level rise and climate change	USEPA, Marin Conservation League, Sharon Nebb, Steven Nebb, Christopher Gilkerson, Susan Mathews, Edward Mainland, Steve Knecht on behalf of Gnoss Field Community Association	Although there are no Federal standards for aviation related greenhouse gas (GHG) emissions, it is well established GHG emissions can affect climate. The Council on Environmental Quality (CEQ) has indicated that climate should be considered on NEPA analysis. As noted by CEQ however, "it is not currently useful for the NEPA analysis to link specific climatological changes, or the environmental impacts thereof, to the particular project or emissions, as such direct linkage is difficult to isolate and understand." Estimates of GHG emissions associated with the project alternatives were included in Appendix F, *Air Quality* of the Final EIS and have been added to Section 5.5 of the Final EIS. The Final EIS discusses sea level rise in Section 5.11, *Floodplains* and climate change in Section 5.5.5.4 *Assessment of Climate* Change.
14.4	Disclose impacts to increase pump operation and propose mitigation	California Department of Fish & Game	The environmental analysis did not identify any significant impacts associated with increase in stormwater runoff from the Sponsor's Proposed Project. The project design includes an extension of existing drainage ditches to accommodate the increase in stormwater runoff. These ditches will discharge stormwater through the existing outflow culvert. As a result the peak volume of stormwater discharge will remain unchanged but there would be a marginal increase in duration of stormwater discharge. This is not a significant impact.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
14.5	Pumping costs incurred from relocation of ditch should be agreed to with DFG	California Department of Fish & Game	Comment noted.
14.6	More discussion of levee roads, routes & mitigation	California Department of Fish & Game	CDFG has a floating access easement over the airport property and currently uses the existing levee around the airport to access their property. Marin County anticipates that the CDFG will continue to access its property via the new levee extension.
14.7	Meeting to discuss levee and pump costs with DFG	California Department of Fish & Game	Comment noted.
14.8	Consider water table rise, soil survey, construction considerations	Marin Conservation League	A Preliminary Soils Report was prepared for the proposed runway extension project and the height of the water table is discussed in Appendix M, *Geology, Soils, and Seismicity Resources* in Volume 3.
14.9	Building foundation requirements	Federal Emergency Management Agency	There are no buildings being proposed, therefore the requirements associated with coastal high hazard areas do not apply to the Sponsor's Proposed Project.
14.10	Marin County must submit appropriate hydrologic and hydraulic data to FEMA for a MIRM revision no later than 6 months after such data becomes available.	Federal Emergency Management Agency	Marin County will comply with this requirement after construction of the Sponsor's Proposed Project.
14.11	Local building restrictions may apply	Federal Emergency Management Agency	The Sponsor's Proposed Project is consistent with Marin County flood zone development regulations as described in Section 5.11 Floodplains in the Final EIS.
15	**Energy / Public Services**	**No Comments**	*No Energy/Public Services Comments Received*

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
16	**Light**		
16.1	Discuss small change in lighting to communities	Wright Bass	Section 5.16 in Chapter Five, *Environmental Consequences*, of the Final EIS discusses the potential light impacts associated with the alternatives, including the Sponsor's Proposed Project. The Final EIS discusses the potential changes in lighting that would occur and concluded that there would be no significant change in light impacts to the communities.
16.2	Beacon lights are impacts, offer mitigation	Dr. Richard Levy, Rosario Carr-Casanova	There is currently a beacon light at DVO. NEPA requires the evaluation of new impacts associated with the Sponsor's Proposed Project and alternatives. The existing beacon light will remain at its current location in all alternatives including the No Action alternative, and therefore there will be no change in lighting from the beacon light associated with the Sponsor's Proposed Project. Therefore, there is no new impact associated with beacon lights and no mitigation is required under NEPA.
17	**Redwood Landfill**		
17.1	Redwood Landfill Incorporated is a 420 acre site	Marin County	The document has been updated accordingly.
17.2	Solid waste collected by Novato Disposal	Marin County	The document has been updated accordingly.
17.3	Permitted maximum height and max capacity of RLI	Marin County	The document has been updated accordingly.
17.4	RLI is located 3000 feet northwest	Marin County	The document has been updated accordingly.
17.5	Project was approved when RLI's permit was revised in 12/08	Redwood Landfill, Marin County	The document has been updated accordingly.
17.6	Marin County has no authority over solid waste facility permit conditions.	County of Marin – Community Development Agency (MARIN)	The document has been updated accordingly.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
17.7	RLI's working face assumption is incorrect	Redwood Landfill, Marin County	The document has been updated accordingly.
17.8	RLI was issued a revised permit not a new solid waste permit	County of Marin – Community Development Agency (MARIN)	The document has been updated accordingly.
17.9	Cannons no longer used at RLI	County of Marin – Community Development Agency (MARIN)	It is understood that RLI no longer chooses to use the propane gas cannon to scare birds away from the RLI. However, the propane gas cannon is discussed as mitigation measure 3.6.2a included with the 2008 permit as one of the methods that may be used to discourage birds at RLI. The mitigation measure 3.6.2a in the permit states, "RLI also may use a gas-fired cannon, which emits a loud blast, in conjunction with the pyrotechnic devices. Redwood Landfill periodically re-evaluates and revises bird control techniques as necessary." The Final EIS has been updated to reflect that the propane gas cannon is available to be used versus actively being used.
17.10	Update the discussion regarding 2008 SWF permit to indicate that a lateral increase in the landfill working face, increase in composting activity, and increase in nighttime activity, although considered in the RLI Landfill EIR, were not approved in the 2008 SWF permit.	Redwood Landfill	The document has been updated accordingly.
18	**Construction**		
18.1	Include increased trucks hauling soil during construction	Marin Audubon Society	The temporary increase in trucks for construction is addressed in Final EIS Section 5.18 *Construction Impacts.*

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
19	**Safety**		
19.1	No discussion of pilot safety or health in EIS	USEPA	Comment 19.1 requests a discussion of Bird/Aircraft Strike Hazards and Pilot Safety as related to Bird Aircraft Strike Hazards. This issue is addressed in the response to Comment 5.1.
19.2	Discuss past airplane mishaps and project increase of them due to project	City of Novato, Marin Audubon Society	As described in the FAA May 14, 2013 Fact Sheet – *General Aviation Safety*[3] and repeated here, the United States has the largest and most diverse General Aviation (GA) community in the world with more than 300,000 aircraft including amateur-built aircraft, rotorcraft, balloons, and highly sophisticated turbojets. While the number of fatal general aviation accidents (nationally) over the last decade has gone down, so have the estimated total GA flight hours, likely due to economic factors. Over the past three years, fatal accidents (nationally) from Controlled Flight into Terrain (CFIT) have been reduced by more than 50 percent compared to the previous three years. However, the general aviation fatal accident rate appears to have remained relatively static based on the FAA's flight hour estimates. The preliminary estimate for Federal Fiscal Year 2012 (October 2011 to September 2012) is a fatal accident rate of 1.09 fatalities per 100,000 hours flown. The accident rate for Federal Fiscal Year 2011 (October 2010 to September 2011) was 1.13 fatal accidents per 100,000 hours flown and was 1.10 fatal accidents per 100,000 hours flown in Federal Fiscal Year 2010 (October 2009 to September 2010). The Top 10 Leading Causes of Fatal General Aviation Accidents from Year 2001 – 2011 are 1.) Loss of Control Inflight; 2.) Controlled Flight Into Terrain; 3) System Component Failure – Powerplant; 4) Low Altitude Operations; 5) Unknown or Undetermined; 6) Other; 7) Fuel Related; 8) System Component Failure – Non-Powerplant; 9) Midair

[3] FAA Fact Sheet – General Aviation Safety dated May 14, 2013. www.faa.gov/news/fact_sheets/news_story.cfm?newId=13672

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
			Collisions; and 10) Windshear or Thunderstorm. Reducing GA fatalities is a top priority of the FAA and the FAA's goal is to reduce the GA fatal accident rate by 10 percent over the 10-year period (2008-2019). Loss of Control (of an aircraft in flight) – mainly stalls – accounts for approximately 40 percent of fatal GA accidents. Review of recent incidents at DVO finds that most are aircraft that have had mechanical failure. Other incidents have included blown tires and runway lights being hit from airplanes being pushed to the sides of the runway caused by unpredictable crosswinds. It is impossible to predict aircraft mishaps, particularly when many are caused by mechanical failure. However, as pilots would have more runway to utilize in case of poor weather or unfavorable wind conditions (potentially reducing the number of blown tires), as well as to correct for crosswinds that sometimes occur at DVO (potentially reducing the number of lights being hit) safety would be enhanced by extending the existing runway, and increasing the size of existing Runway Safety Areas to meet ARC B-I standards.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
19.3	No discussion of safety regarding proximity to Highway 101 and SMART tracks	Marin Conservation League	The FAA has recommendations for separation distances between runway, taxiways, and off-airport features. These are found in FAA Advisory Circular 150/5300-13A *Airport Design*. The Sponsor's Proposed Project meets all separation distance requirements with respect to the proximity to roads and railroad tracks to the runway. The FAA also has specific guidance regarding the height of objects/obstructions near an airport. These are found in 14 CFR Part 77. The Sponsor's Proposed Project meets all FAA standards related to the height of the roads and railroad tracks near the Airport. The commenter asked if aircraft could be required to take off as far south as possible when taking off to the north (i.e. starting at the Runway 31 end to take off to the north). It is standard procedure for airplanes to only initiate takeoffs from an end of a runway, with only one airplane using the runway at a time. An airplane using Runway 31 taking off to the north would wait for its turn on a taxiway, then would start its takeoff roll at the same location on Runway 31 under Alternative A – No Action, or Alternative B – the Sponsor's Proposed Project. Under Alternative D, an aircraft taking off on Runway 31 to the north would start its takeoff roll 240 feet south of the current end of Runway 31.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
19.4	The runway extension will add safety (turns before radio towers, additional runway length during power failure, crosswinds, bird strikes)	Gnoss Field Community Association, Wright Bass, Charles Roell, Sanford Gossman, Jim Duckworth, Joyce Wells, Steve Knecht on behalf of Gnoss Field Community Association, Rich Elb, Kirk Heiser	Comment noted.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
19.5	Increase in jets should be unacceptable to FAA because it is an uncontrolled airport (no control tower) with mix of jets and props	Robert Pack	Non-towered airports are common in our nation's aviation system and turbojet (jet) airplanes and propeller driven (turbo-prop and piston) aircraft have operated concurrently at DVO for many years. Existing flight procedures and pilot communication protocols are designed to ensure safety at non-towered airports with a mix of turbojet and propeller aircraft and will continue to be used regardless of whether or not the runway is extended at DVO. As discussed in Master Response Topic 1, Aviation Forecast, increasing the runway length at DVO is not expected to change the fleet mix of aircraft that operate at DVO. The commenter provides no basis for his statement that the FAA should consider a mix of turbojet and propeller-driven aircraft to be unacceptable. In addition, the FAA regulations at 14 CFR § 170 *Establishment and Discontinuance Criteria for Air Traffic Control Services and Navigational Facilities* and FAA Office of Aviation Policy and Plans report FAA-APO-90-7 *Establishment and Discontinuance Criteria for Airport Traffic Control Towers* identify the process by which the FAA determines whether an airport qualifies for an Airport Traffic Control Tower. The FAA regulations do not use the presence or absence of concurrent use of an airport by turbojet and propeller-driven aircraft as the basis for determining whether an airport qualifies for establishment of an Airport Traffic Control Tower.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
19.6	Slow GA and training aircraft are not compatible with jets in an airport environment. The safety of 99% of the aircraft is compromised for a marginal benefit to the 1%.	Robert Pack	Airports across the country routinely accommodate both pilot training activity and jet activity. DVO accommodates both pilot training and jet activity today and would continue to in the future. There would be no reduction in safety related to training pilots with the extension because the same procedures used today for maintaining safe separations would continue to be used in the future. In fact, with the Sponsor's Proposed Project, pilots would have more runway to utilize in case of poor weather or unfavorable wind conditions that sometimes occur at DVO.
19.7	There will be a decrease in level of safety	Patricia Capretta	There would not be a reduction in safety related to the proposed extension. In fact, there would be an enhancement in safety as pilots would have more runway to utilize in case of poor weather or unfavorable wind conditions that sometimes occur at DVO.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
20	**Runway Performance / Wind**		
20.1	Add detail on aircraft that will benefit from the extension and who is limited currently	Dr. Richard Levy, Rosario Carr-Casanova, Jeanette Weber, Duncan & Betsy Ross, Sharon Nebb, Steven Nebb, Christopher Gilkerson, Susan Mathews, Jacqueline Bonner	Please see Master Response, Topic 2 regarding the requirements the FAA must follow regarding the purpose and need for airport improvements. Chapter Two, *Purpose and Need* of the Final EIS has been clarified to more clearly state Marin County's (Sponsor's) and the FAA's purpose and need for the project. The Sponsor's purpose and need for the project is to allow existing aircraft, as represented by the critical aircraft at DVO, the Cessna 525, to operate at Maximum Gross Take Off Weight under hot weather and other adverse weather conditions. The FAA's statutory mission and purpose and need is to ensure the safe and efficient use of navigable airspace in the U.S. The FAA must ensure that the proposed project does not derogate the safety of aircraft and airport operations at DVO. The Sponsor's and FAA's purpose and need is consistent with FAA Order 5090.3C, *Field Formulation of the National Plan of Integrated Airport Systems (NPIAS)*, which identifies that airport dimensional standards such as runway length and width, separation standards (distances) between runways and taxiways, surface gradients, and similar dimensions should be selected to be appropriate for the "critical aircraft" that will make "substantial use" of the airport in the planning period for improvements. The Appendix D, *Runway Length Analysis* in the Final EIS and Final EIR, has been clarified regarding the required runway length for the critical aircraft. The runway length analysis concluded a total runway length of 4,400 feet is required for the critical aircraft, the Cessna 525. Project alternatives that do not provide for a total runway length

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
			of 4,400 feet do not meet the purpose and need for this project and are not reasonable and prudent. Alternatives that are not reasonable and prudent do not need to be evaluated in detail in the Final EIR. A determination of whether or not other aircraft may benefit from the proposed runway extension is not required as part of the determination of the purpose and need for this project, nor the environmental analysis of this project. Appendix D, *Runway Length Analysis* has been clarified to be specific to the critical aircraft, the Cessna 525, and references to other aircraft that may benefit from the runway extension have been removed from Appendix D, *Runway Length Analysis* as not relevant to the determination of the appropriate runway length for DVO.
20.2	The Draft EIS states that the proposed extension "would not attract aircraft that are notably larger (i.e. commuter aircraft) due to the limitations of the strength of the runway pavement width of the runway, and the distance between the runway and the taxiway." What is the current strength of the runway pavement? Why couldn't the runway simply be resurfaced?	Marin Audubon Society	The existing pavement strength for the runway at DVO is 26,000 pounds. This will not be changed as part of the Sponsor's Proposed Project. Simple resurfacing would not substantially alter the pavement strength of the runway. In order to increase the pavement strength, additional work would have to occur to strengthen the sub layers beneath the top surface, and such changes are not proposed as part of this project.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
20.3	Include a list of aircraft that can use 4,400 foot runway	Susan Stompe	The purpose of the Sponsor's Proposed Project is to allow existing aircraft at DVO, as represented by the critical aircraft, the Cessna 525, to operate at Maximum Gross Take Off Weight under hot weather and other adverse weather conditions. The runway length determination is based on an evaluation of the needs of the critical aircraft, not a listing of other aircraft that may potentially benefit from the project. Such a listing is not necessary to evaluate the environmental impacts of the project.
20.4	Extension allows full load of fuel and passengers	Charles Roell, Jim Duckworth	Comment noted.
20.5	Wet runway safety needs to be presented with supporting accelerate-stop data for jets, turbo-props, piston twins and even high-performance single engine airplanes likely to use Gnoss.	Wright Bass	The Sponsor's Proposed Project would meet all runway safety area dimensions set forth in FAA Advisory Circular 150/5300-13A. Runway safety areas are designed to provide safe stopping distance for an aircraft that overshoots the standard runway landing threshold or for an aircraft that requires additional accelerate-stop distance beyond the end of the runway. The size (width/length) of the RSA is based on the Airport Reference Code of the airport, which is based in large part on the requirements for the 'critical aircraft' (most demanding aircraft with at least 500 annual operations). Ultimately, it is the pilot that determines if the runway conditions (wet versus dry) and weather (visibility, temperature, winds, etc.) are suitable for their particular aircraft to operate at any given time.
20.6	Post-project, would current users be able to operate no matter how high the temperature? What other weather conditions besides hot weather would impact operations?	Marin Audubon Society	See Master Response, Topic 2 and Appendix D, *Runway Length Analysis* for an explanation of what factors were used in the determination of the runway length for the critical aircraft including a discussion of temperature and wet versus dry runways as it relates to the runway length analysis for DVO.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
20.7	DVO used primarily by students to train in crosswinds therefore the runway should not be extended	Robert Pack	The purpose of the Sponsor's Proposed Project is to allow existing aircraft at DVO, as represented by the critical aircraft, the Cessna 525, to operate at Maximum Gross Take Off Weight under hot weather and other adverse weather conditions. The runway length determination is based on an evaluation of the needs of the critical aircraft, not an evaluation of a group of users that visit the airport for a particular activity.
20.8	Cessna Jet+ is critical aircraft and needs only 3,800 foot runway (using 82 degrees rather than 86)	Leslie & Chris Weber, Sharon Nebb, Steven Nebb, Christopher Gilkerson, Susan Mathews	This comment is addressed in Master Response, Topic 2 – Runway Length Analysis Response and Appendix D – Runway Length Analysis. Appendix D, Table D-1, Table Note iv explains the use of the Airport Planning Manual (APM) for the critical aircraft, and that a Cessna Aircraft Company Senior Customer Support Engineer advised the EIS consultant that since the Cessna 525 APM only listed a runway length for an average daily temperature of 86 degrees Fahrenheit, that the appropriate way to calculate the required length was to use the 86 degree Fahrenheit temperature figure in the APM.
20.9	FAA runway length guidelines not used/mentioned properly(FAA AC 150/5325-4B)	Sharon Nebb, Steven Nebb, Christopher Gilkerson, Susan Mathews	References to Advisory Circular 150/5325-4B have been added to Appendix D, *Runway Length Analysis*. See Master Response, Topic 2 and Appendix D, *Runway Length Analysis* for a detailed discussion of the runway length analysis methodology and guidelines.
20.10	Error using B-II aircraft in runway length analysis/Cessna 525A &B	Sharon Nebb, Steven Nebb, Christopher Gilkerson, Susan Mathews	The tables and charts included in Appendix D, *Runway Length Analysis*, presented the current fleet operating at DVO for information purposes. There are B-II aircraft that operate at DVO, but they are not the critical aircraft as defined by the FAA. The critical aircraft, the Cessna 525, is a B-I aircraft and was used for the runway length analysis. The Cessna 525A and Cessna 525B were not the critical aircraft. Appendix D, *Runway Length Analysis* has been updated to reflect the Cessna 525A and Cessna 525B as B-II aircraft.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
20.11	Need more data to support that the CJ+ is the critical aircraft	Sharon Nebb, Steven Nebb, Christopher Gilkerson, Susan Mathews	Attachment 1 has been added to Appendix D, *Runway Length Analysis* to provide a detailed explanation of how the Cessna 525 was determined to be the critical aircraft for DVO.
20.12	No background/support given for the additional 400 ft. of runway	Sharon Nebb, Steven Nebb, Christopher Gilkerson, Susan Mathews	See Master Response, Topic 2 and Appendix D, *Runway Length Analysis.*
20.12a	Abnormal day which is used to argue for adding 400 more feet, is not defined (and likely negatively correlated with hot days)	Steven Nebb	See Master Response, Topic 2 and Appendix D, *Runway Length Analysis*.
20.13	For those aircraft based on Gnoss, (we believe there are only 4 or 5), having the longer runway would not mean more flights. It would mean more efficient and safer flights.	Gnoss Field Community Association	Comment noted.
21	**Transportation**		
21.1	A Transportation Management Plan may be required to address construction traffic during construction of the project	California Department of Transportation	Comment noted. If it is determined that a Transportation Management Plan is required, Marin County will coordinate with California Department of Transportation.
21.2	Coordinate with the DOT	California Department of Transportation	Comment noted.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
21.3	Transportation Permit required	California Department of Transportation	Comment noted. Once the final construction plan has been developed, Marin County will apply for the necessary permits.
22	**Cumulative**		
22.1	Fireman's Fund withdrawing applications therefore update population numbers and description	City of Novato	Population projections are estimates of changes in population over time. These projections assume growth based on new development will occur to support the growth. Projections are not based on one specific development proposal. While it is noted that the Fireman's fund application was withdrawn, it is assumed that other developments will occur. The project for the Fireman's Fund project has been removed from the Cumulative Impacts analysis in the Final EIS.
22.2	How does the extension relate to the planned Marin Jet Center	Gnoss Field Community Association, Dr. Richard Levy, Rosario Carr-Casanova, Jeanette Weber, Duncan & Betsy Ross, Steve Knecht on behalf of Gnoss Field Community Association	Marin County is not proposing nor does the County have any plans for a Jet Center at Gnoss Field. The Sponsor's Proposed Project relates directly to the Purpose and Need for providing current users, as reflected by the critical aircraft sufficient runway length. In the past, private development interests have discussed the idea of a Jet Center near the Airport property. However, no application has been filed with Marin County to date, and land use policies in the Marin Countywide Plan do not promote new development around Gnoss Field.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
22.3	Explain what the effects the extension will have in expansion of the airport in the future	Jacqueline Bonner	Sections 5.3 and 5.4 of the Final EIS address anticipated socioeconomic and induced changes at DVO as a result of the Sponsor's Proposed Project. Chapter Six, *Cumulative Impacts* addresses cumulative impacts of the Sponsor's Proposed Project. The Marin Countywide Plan includes policies related to limiting aviation uses at DVO (Policy TR-1p) to those consistent with general aviation, emergency, and similar public uses.
23	**General**		
23.1	Update lead agency contact info	California Department of Fish & Game	The document has been updated accordingly.
23.2	Maps need to be updated that show Bahia drive running through Valley Memorial Park	City of Novato	The document has been updated accordingly.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
23.3	Discuss how final project will be chosen	Marin Audubon Society	There is both a Federal (NEPA) and state (CEQA) environmental review/approval process occurring for the Sponsor's Proposed Project. **Federal (NEPA)**: FAA will review the information included in the Final EIS and will issue a Record of Decision stating the FAA preferred alternative, NEPA findings and their Decision on the proposed Federal Action. FAA follows guidance in FAA Orders 5050.4B and 1050.1E in selecting the preferred alternative. **State (CEQA)**: CEQA requires that Marin County certify the Final EIR before making a decision on the Sponsor's Proposed Project. The Marin Board of Supervisors will hold a noticed public hearing before making a decision on the Sponsor's Proposed Project. The EIR certification meeting and the public hearing on the Sponsor's Proposed Project can be placed on the same agenda, but a decision on EIR certification must be made before the hearing on the proposed runway extension project. Marin County will then issue a Notice of Determination, which will include the decision of approval/disapproval in accordance with CEQA. If both of these approvals are obtained, then Marin County, as the airport sponsor, would determine if they wanted to move forward with design and construction.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
23.4	Review comments from scoping and address them	Redwood Landfill, Leslie & Chris Weber, Sharon Nebb, Steven Nebb, Christopher Gilkerson, Susan Mathews	Comments from the agency and public scoping were reviewed and taken into consideration during the development of the EIS. Specific agency and public comments are included in Appendix A, *Agency Scoping and Coordination* and Appendix B, *Public Involvement*. A summary of the comments received during the agency scoping period, responses to those comments, and, where applicable, the section of the Final EIS in which the comment is addressed, are included in Table A-1 in Appendix A, *Agency Scoping and Coordination*. A summary of the comments received during the public scoping period, responses to those comments, and where applicable the section of the Final EIS in which the comment is addressed, are included in Table B-1 in Appendix B, *Public Scoping*.
23.5	Is there a limit on the number of operations an airport can support without a control tower	Black Point Improvement Club	There is no FAA limit on the number of operations that an airport can support without a control tower. Also see Response to Comment 19.5.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
23.6	Can the airport be limited in who uses it	Black Point Improvement Club	Airports that accept Federal Airport Improvement Program grant funding agree to abide by certain conditions associated with that funding called Grant Assurances. Grant Assurance 22, Economic Nondiscrimination requires sponsors to make the airport available on reasonable terms and without unjust discrimination. Moreover, the Airport Noise and Capacity Act of 1990 requires airport sponsors seeking to establish aircraft noise and aircraft access restrictions to a specific airport to follow the FAA regulations at 14 CFR Part 161 (Part 161) *Notice and Approval of Noise and Access Restrictions*. Part 161 provides airports with a methodology to place limits on aircraft types and/or other restrictions, primarily for the purpose of reducing noise impacts. The methodology for an airport conducting a Part 161 evaluation of potential noise or access restrictions is to complete a cost-benefit analysis, where the benefit is the amount of money not spent to mitigate significantly noise-impacted land uses is weighed against the cost, which is the potential reduction in revenue and interstate commerce that would occur as the result of a restriction being placed at an airport. As no significant noise impacts have been identified under the Sponsor's Proposed Project, Alternative D, or the No Action Alternative, there is not currently a basis for restricting aircraft access to DVO to reduce noise. (See Chapter Five, *Environmental Consequences*, Section 5.1, *Noise*).
23.7	Misspelling of name Silveira (not Sivera)	Anthony & Lorraine Silveira	The document has been updated accordingly.
23.8	RLI's operations under the 2008 permit are part of the baseline that must be used to compare impacts	Redwood Landfill	It is acknowledged that the RLI operations under the 2008 permit are part of the baseline. There is no additional mitigation (wildlife attractant measures) required beyond what is required in RLI's operating permit.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
23.9	Need to add a conclusion regarding noise, larger aircraft	Bob Spofford	A discussion of the noise analysis that was conducted for the Final EIS is included in Section 5.1 of Chapter Five, *Environmental Consequences.* The methodology used to conduct the analysis, including aircraft types that were used in the computer noise modeling, is included in Appendix E, *Noise*. As discussed in the Final EIS no residential or other noise-sensitive land uses would be exposed to noise levels of 65 CNEL (Federal significance standard) by implementing Alternative A, Alternative B, or Alternative D. Therefore, no significant noise impacts would result from implementation of Alternative A, Alternative B, or Alternative D. See Master Response, Topic 3.
24	**Support of Project**		
24	Expressed general support for the project	Gnoss Field Community Association, Jim Duckworth, Rod Mehrten, Steve Knecht on behalf of Gnoss Field Community Association	Comment noted.
25	**No Comment**		
25	No comment	California Air National Guard	N/A
26	**Soils**		
26.1	Settlement and fill discussion and concern on how it will occur	Marin Audubon Society	Prior to construction, a detailed construction design will be completed to address the potential settlement issues that may arise as a result of the project.

COMMENT #	COMMENT / SUBJECT	COMMENTER	RESPONSE
26.2	Concern of mitigation measures identified to address soil settlement including the effect of these measures on water quality, and endangered species.	Marin Audubon Society	Water quality impacts are addressed in Section 5.6 of the Final EIS, and endangered species impacts are addressed in Section 5.9 of the Final EIS. Marin County will follow all local, state, and Federal requirements regarding the introduction of chemicals into the soil as part of the construction process. Section 401 of the CWA (33 U.S.C. 1341) requires any Federal license or permit applicant to obtain a water quality certification if any proposed project activity may result in a discharge of a pollutants into waters of the U.S. This certification assures that the discharge would comply with the applicable effluent limitations and water quality standards.