APPENDIX D

Supplemental Existing Setting Data

NOISE

General technical background related to noise is presented below. Commonly used terms are summarized in Table NOISE-1.

Table NOISE-1. Definitions of Commonly Used Terms used in Noise Assessment

Term	*Definition*
Decibel, dB	A unit for measuring sound pressure level and is equal to 10 times the logarithm to the base 10 of the ratio of the measured sound pressure squared to a reference pressure, which is 20 micropascals.
dBA	dBA is a decibel logarithmic scale that more heavily weights the frequencies to which the human ear is sensitive.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, Leq	The equivalent sound level is used to describe sound over a specified period of time, typically one hour, in terms of a single numerical value. LEQ is the constant sound level that contains the same acoustic energy as the varying sound level, during the same time period (i.e., the average noise exposure level for the given time period). The LEQ equivalent sound level is the basis for both the day-night average sound levels (LDN) and CNEL scales.
Lmax	The instantaneous maximum noise level for a specified period of time.
LDN	The Day-Night Level (LDN) is a 24-hour day and night A-weighted noise exposure level that accounts for the greater sensitivity of most people to nighttime noise by weighting noise levels at night. The hourly LEQ sound level between 10 p.m. and 7 a.m. is weighted (penalized) by adding 10 dBA to take into account the greater annoyance of nighttime noise.
CNEL	Similar to the LDN, the Community Noise Equivalent Level (CNEL) adds a 5 dBA penalty for the evening hours between 7 p.m. and 10 p.m. in addition to the 10 dBA penalty between the hours of 10 p.m. and 7 a.m. Because of the weighting factors applied, the CNEL value at a given location will always be greater than the LDN value. However, the results of numerous noise source measurements have shown that CNEL and LDN values consistently are within 1 dBA of each other. Consequently, CNEL and LDN values are sometimes used interchangeably in planning analyses. By contrast, LEQ values have been found to be consistently less than CNEL and LDN measurements taken over the same 24-hour period.
Percentile Noise Level, Ln	The percentile noise represents the percentage of time the noise level is exceeded during an hour. L50 means the level exceeded 50% of the hour; L25 is the level exceeded 25% of the hour.

Typical sound levels in the environment are identified in Table NOISE-2. Community noise levels are usually closely related to the intensity of nearby human activity. Noise levels are generally considered low when ambient levels are below 45 dBA, moderate in the 45 to 60 dBA range, and high above 60 dBA. In wilderness areas, the noise levels can be below 35 dBA. In small towns or wooded and lightly used residential areas, the noise level is

Table NOISE-2. Typical Sound Levels Measured in the Environment and Industry

Noise Source	*A-Weighted Sound Level in Decibels*	*Noise Environment*	*Subjective Impression*
Civil Defense Siren (100 ft.)	130		
	120		Threshold of pain
	110	Rock Music Concert	
Pile Driver (50 ft.)	100	Construction Site	Very loud
Power Lawn Mower (3 ft.)	95	Yard	
Motorcycle (25 ft.)	90	Boiler Room	
Diesel Truck (50 ft.)	85	Printing Press Plant	
Garbage Disposal (3 ft.)	80	Residence	Moderately loud
Vacuum Cleaner (3 ft.)	70	Residence	
Normal Conversation (3 ft.)	60	Department Store	
Light Traffic (100 ft.)	50	Private Business Office	
Bird Calls (distant)	40	Nature	Quiet
Soft Whisper	30	Quiet Bedroom	
	20	Recording Studio	
	10		Just Audible
	0		Threshold of hearing

Source: US EPA 1973.

more likely to be around 50 or 60 dBA. Levels around 75 dBA are more common in busy urban areas and levels up to 85 dBA occur near major freeways and airports. Although people often accept the higher levels associated with very noisy urban residential and residential-commercial zones, they nevertheless are considered adverse to public health.

Under controlled conditions, in an acoustics laboratory, the trained healthy human ear is able to discern changes in sound levels of 1 dBA, when exposed to steady, mid-frequency "pure tone" signals. In a normal noise environment, outside of such controlled conditions, the trained human ear can barely detect changes in sound levels up to 2 dBA. Changes from 2 dBA to 3 dBA may be noticed by some individuals who are extremely sensitive to changes in noise. However, it is widely accepted in the acoustical industry that the average human ear can perceive noise level changes of more than 3 dBA, while the human ear perceives a 10 dBA increase as a doubling of sound.

Equivalent Sound Level (Leq)

Human activities cause community noise levels to be widely variable over time. For simplicity, sound levels are usually best represented by an equivalent level over a given time period (Leq). The Leq, or equivalent sound level, is a single value (in dBA) for any desired duration, which includes all of the time-varying sound energy in the measurement period, usually one hour.

Distance Attenuation

Noise sources can be classified in two forms: (1) point sources, such as stationary equipment (HVAC units, and pumps); and (2) line sources, such as a roadway with a large number of pass-by sources (motor vehicles). Sound generated by a point source typically diminishes (attenuates) at a rate of six dBA for each doubling of distance from the source to the receptor for a "hard or reflective" site surface, and 7.5 dB at acoustically "soft" sites. A hard or reflective site does not provide excess ground-effect attenuation and is characteristic of asphalt or concrete surfaces, and hard-packed soils. An acoustically soft or absorptive site is characteristic of unpaved, vegetated ground. For example, a 60 dBA noise level measured at 50 feet from a point source over a hard surface would be 54 dBA at 100 feet from the source and 48 dBA at 200 feet from the source; a noise level generated at an acoustically "soft" site would attenuate from 60 dBA noise level measured at 50 feet from a point source to 52.5 dBA at 100 feet from the source and 45 dBA at 200 feet from the source.

Sound generated by a line source typically attenuates at a rate of 3 dBA and 4.5 dBA per doubling of distance from the source to the receptor for acoustically hard and soft site conditions, respectively.

The terrain topography between the noise source and the noise receptor can provide additional sound attenuation. Natural barriers (earth mound or hill) or manufactured berms/walls that intercept the direct sound path from the source to the receiver can reduce construction or operational noise levels up to approximately 15 dBA. Building structures can also provide noise reduction by insulating habitable interior spaces from outdoor noise. The exterior-to-interior noise attenuation provided by typical California residential building structures ranges between 15 to a minimum of 20 dBA for windows open and closed, respectively. Acoustically designed equipment enclosures and buildings can provide up to approximately 50 dBA of noise reduction, depending on the noise abatement treatments.

Vibration can be described in terms of displacement, velocity, or acceleration. Although human sensitivity and reactions to vibration vary, vibration peak velocities of 0.01 inches per second root-mean-square (RMS) are barely noticeable to the average human being, while velocities of

0.1 inches per second RMS can be troublesome to persons. Damage to building structures can begin occurring when peak velocities reach 0.4 inches per second RMS.

Structural Attenuation

Sound levels can also be attenuated by man-made or natural barriers. Solid walls, berms, or elevation differences typically reduce noise levels by 5 to 10 dBA. Structures can also provide noise reduction by reducing outdoor noise. The exterior-to-interior noise attenuation provided by building structures ranges between 17 to 30 dBA with open and closed windows, respectively. The attenuation of exterior to interior noise provided by typical structures in California is shown in Table NOISE-3.

Table NOISE-3. Outside-to-Inside Noise Attenuation, dB

Building Type	*Open Windows*	*Closed Windows*
Residences	17	25
Schools	17	25
Churches	20	30
Hospitals/Offices	17 to 20	25 to 30
Theaters	17	25
Source: Transportation Research Board, National Research Council. Highway Noise: A Design Guide for Highway Engineers. *National Cooperative Highway Research Program Report* 117, 1972		

The Federal Interagency Committee on Noise (FICON) has provided guidelines to identify substantial increases for transportation noise exposure (Table NOISE-4). Based on these guidelines, a clearly noticeable change of 5 dBA in the noise environment is generally considered a substantial impact because people will notice such a change in noise level regardless of the absolute level of the noise.

Table NOISE-4. Substantial Increases in Ambient Noise Levels for Transportation Noise Exposure

Ambient Noise Level Without Project (L_{dn} or CNEL)	***Significant Change in the Noise Environment***
< 60 dB	+5 dB
60 – 65 dB	+3 dB
> 65 dB	+2 dB
Source: FICUN 1980	

On-Site Noise Measurements

The noise measurements were conducted with a calibrated Rion Model NL-32 integrating sound level meter (S.N. 01030561), using A-weighting, and slow response settings. This sound level meter meets the current American National Standards Institute standard for a Type 1 precision sound level meter. The sound level meter was calibrated before and after the readings, positioned on a tripod at approximately five feet above the ground, and protected with a windscreen during the measurements.

The 24-hour sound level measurement at Monitor Site 1 and short-term (15-minutes) sound level measurements conducted at Monitor Sites 2, 3, and 4 were attended by a Dudek acoustician, and illustrated in Figure NOISE-1. In addition to operating the sound level meter, the acoustician observed and noted the acoustical, weather, traffic, and community activity conditions.

Figure NOISE-1. Noise Monitor Locations

The 24-hour Leq noise levels monitored at Site 1 are shown in Table NOISE-3. A 24-hour period measurement indicated a CNEL noise level of 69 dBA.

The 15-minute Leq noise levels monitored at Sites 2, 3, and 4 are summarized in Table NOISE-4. The data shown in Table NOISE-4 indicate the monitored short-term noise levels at the are exposed to between 52 and 64 dB CNEL.

1

Table NOISE-3. Monitor Site 1 Noise Levels	
Start Time	**Hourly Leq (dBA)**
12:00 PM	66
1:00 PM	66
2:00 PM	67
3:00 PM	68
4:00 PM	67
5:00 PM	68
6:00 PM	67
7:00 PM	67
8:00 PM	66
9:00 PM	64
10:00 PM	64
11:00 PM	63
12:00 AM	61
1:00 AM	59
2:00 AM	58
3:00 AM	55
4:00 AM	57
5:00 AM	59
6:00 AM	62

7:00 AM	66
8:00 AM	68
9:00 AM	68
10:00 AM	68
11:00 AM	67

1

Table NOISE-4. Monitor Site 2-4 Noise Levels		
Site	**Date / Time**	**L_{eq}[1]**
2	January 29, 2008 12:30 p.m. and 12:45 p.m.	64 dB
3	January 29, 2008 1:00 p.m. and 1:15 p.m.	52 dB
4	January 29, 2008: 1:30 p.m. and 1:45 p.m.	59 dB

2 Notes: 1 Equivalent Continuous Sound Level (Time-Average Sound Level)

3 General Note: Temperature 50 – 56 degrees, partly cloudy skies, 3-5 mph variable / westerly

4 wind, Humidity 45 – 55 %.

5 The City of Santa Maria noise goals and policies for transportation are included in the City's
6 Noise Element of the General Plan (City of Santa Maria – December 16, 1997). The Noise
7 Element includes regulations establishing baseline reference noise levels specific to different
8 land use categories and identifies interior and exterior noise standards (Table NOISE-5.). As
9 shown in Table NOISE-5, noise levels in the outdoor living areas of the residential land uses
10 planned must be mitigated to 60 dB CNEL or less, and for commercial uses, to 65 db CNEL or
11 less.

Table NOISE-5 City of Santa Maria Land Use Noise Compatibility Criteria

Land Use		CNEL	
		Interior	Exterior
Noise-Sensitive - Residential	Single and Multi-Family Dwellings, Mobile Home Parks, Dormitories, and Similar Uses	45[1]	60[2]
Noise-Sensitive - Non-Residential	Transient Lodging (Including Hotels, Motels, and Similar Uses); Hospitals, Nursing Homes, Convalescent Hospitals, and other Facilities for Long-Term Medical Care; Public or Private Educational Facilities, Libraries, Churches, and Places of Public Assembly	45[1]	60[2]
Commercial	Retail, Restaurant, Professional Offices	—	65[3]
Industrial	Manufacturing, Utilities, Warehousing, Agriculture	—	70[4]
Open Space	Passive Outdoor Recreation	—	65

Source: City of Santa Maria Noise Element of the General Plan 1997

Notes: 1. Habitable rooms. 2. Outdoor living areas. 3. 65 dB CNEL or less, or which does not interfere with normal business activity. 4. 70 dB CNEL or less, or which does not interfere with normal business activity. Public access areas should be 65 dB CNEL or less.

The primary noise source currently affecting the project area is transportation noise. Secondary, distant noise sources include occasional aircraft over-flights, some of which are to and from Santa Maria Public Airport.

The level of vehicular traffic noise, measured as CNEL dBA, depends on five primary factors:

1. the volume of the traffic;
2. the speed of the traffic;
3. the proportion of trucks and motorcycles and emergency vehicles in the flow of traffic;
4. the pavement type, and;
5. the distribution of traffic flow through the 24-hour day, including traffic during hours that incur a nighttime penalty.

Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires rolling on pavement. Generally, the LEQ loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and a greater number of trucks and motorcycles rolling on rougher pavement.

Construction Equipment Noise Levels

Noise impacts from construction activities of the proposed project are a function of the noise generated by construction equipment, the equipment location, the sensitivity of nearby land uses, and the timing and duration of the noise-generating activities. Construction activity for the proposed project was examined in three distinct phases. Each phase can be characterized by the following operations: (1) clearing/excavation, (2) building foundation, and (3) building construction.

The Environmental Protection Agency (EPA) has compiled data regarding the noise-generating characteristics of specific types of construction equipment are shown in Table NOISE-6. Noise

levels from the sources decrease with distance from the construction site at a rate of approximately 6 dBA per doubling of distance, conservatively assuming a surrounding "hard" surface.

Table NOISE-6. Typical Construction Equipment Noise Levels

Equipment Type	*"Typical" Equipment dBA at 50 ft*	*"Quiet" [1] Equipment dBA at 50 ft*
Air Compressor	81	71
Backhoe	85	80
Concrete Pump	82	80
Concrete Vibrator	76	70
Truck, Crane	88	80
Dozer	87	83
Generator	78	71
Loader	84	80
Paver	88	80
Pneumatic Tools	85	75
Pile Driver	100	NA
Water Pump	76	71
Power Hand Saw	78	70
Shovel	82	80
Trucks	88	83

Source: EPA 1971

Note:

1. Quieted equipment: with enclosures, mufflers, or other noise-reducing features.

The data shown in Table NOISE-6 are maximum noise levels. The average sound level at construction sites is typically less than the maximum noise level because the equipment operates in alternating cycles of full power and low power. The average sound level of the construction activity also depends upon the amount of time that the equipment operates and the intensity of the construction during the time period. The equipment rotates in various directions (i.e., noisiest side of the equipment to quieter sides of the equipment), and moves around the construction site, especially during clearing, grubbing and grading activities.

Typically, the greatest one-hour average noise level occurs during clearing, grubbing and grading activities. Construction equipment used during this construction phase typically includes scrapers, dozers, compactors, and water trucks. Noise measurements conducted for another project utilizing similar graders, bulldozers, loaders, water trucks, indicates the one-hour average noise level during ground clearing and grading activities to range from approximately 75 to 80 dB at 50 feet from the closest construction work area.

The industry criteria for significance recognizes that once the threshold level has been passed, any noticeable change above that level (a 3 dB increase) results in further degradation of the noise environment. A clearly noticeable change (a 5 dB increase) in the noise environment, regardless of the acceptability threshold, is also a significant impact because people will respond to such a change in noise level regardless of the absolute level of the noise.

HAZARDOUS MATERIALS AND HAZARDS

The following section provides a brief description of some of the applicable federal, state and local regulations relating to the use, storage, and disposal of hazardous substances and petroleum.

Hazardous Materials

Regulatory Setting

Federal

1. Resource Control and Recovery Act of 1974 (RCRA)

   RCRA, and the formation of the U.S. Environmental Protection Agency (EPA) to implement the Act, provide the framework for national hazardous waste management, including tracking hazardous wastes from point of origin to ultimate disposal.

2. Hazardous and Solid Waste Amendments of 1984 (HSWA).

   These Amendments were enacted to regulate leaking underground storage tanks.

3. Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA)

   CERCLA, also known as Superfund, established a fund for the assessment and remediation of the worst hazardous waste sites in the nation. Exceptions are provided for crude oil wastes that are not subject to CERCLA.

4. Emergency Planning and Community Right-To-Know Act (EPCRA) (42 U.S.C. 11001 et seq.)

   This Act provides requirements for emergency release notification, chemical inventory reporting, and toxic release inventories for facilities that handle chemicals.

5. Asbestos Hazard Emergency Response Act of 1986 (AHERA).

   The Act is the federal legislation that governs the management and abatement of asbestos-containing materials in buildings.

6. National Emission Standards for Hazardous Air Pollutants; Asbestos, 40 CFR Part 61. This regulation requires the assessment and proper removal of asbestos-containing materials that could release asbestos when disturbed prior to the demolition of buildings.

7. Above Ground Storage of Petroleum (Code of Federal Regulations, Title 40, Part 112). This law requires secondary containment for ASTs that are greater than 1,320 gallons, and for ASTs and/or vessels greater than 55 gallons for facilities that store 1,320 gallons or more of petroleum.

8. Hazardous Materials Management Act (HMMA)

This Act requires businesses that handle more than a specified amount of hazardous materials to submit a Hazardous Materials Business Plan (HMBP) to their local administering agency. HMBPs should contain a description of the physical and chemical properties of the substance for each hazardous and extremely hazardous material that is handled, and the symptoms that result from contact with the substance. The plan should also have a site map that shows where each hazardous material is stored and handled, where emergency response equipment is located, and contain evacuation plans and procedures

State

1. Title 22, California Code or Regulations.

These Regulations regulate the use and disposal of hazardous substances in California. They contain regulatory thresholds for hazardous wastes which are more restrictive than the federal hazardous waste regulations.

2. California Health and Safety Code Sections 25500 et seq.

This law applies to any facility that handles any hazardous material (chemical, chemical-containing products, hazardous wastes, etc.) in a quantity that exceeds reporting thresholds. The most common thresholds that trigger regulation based on that state statute are 500 pounds of solid, 55 gallons of liquid, and 200 cubic feet of compressed gas, based on the presence of individual chemicals.

3. Hazardous Waste Control Law (California Health and Safety Code, Chapter 6.5**).**

This law establishes criteria for defining hazardous waste and its safe handling, storage, treatment, and disposal. The law is designed to provide cradle-to-grave management of hazardous wastes, as well as to reduce the occurrence and severity of hazardous material releases.

4. Aboveground Storage of Petroleum (California Health and Safety Code, Chapter 6.67).

This law regulates construction, installation, operation, and monitoring of aboveground petroleum storage tanks. The law is designed to prevent release of hazardous materials into the environment by either leakage from tanks and associated pipelines or from overfilling and spillage.

5. Department of Toxic Substances Control

This Department regulates hazardous waste in California primarily under the authority of the federal RCRA of 1976, the California Health and Safety Code, and other laws that affect hazardous waste specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

6. Regional Water Quality Control Board

The Central Coast Regional Water Quality Control Board (CCRWQCB), the State Department of Toxic Substances Control (DTSC), and the SBCFPD enforce state site remediation regulations resulting from soil and/or groundwater contamination.

Sites involving groundwater contamination are usually overseen by the CCRWQCB. In addition to the LUFT program, Santa Barbara County has a Site Mitigation Unit (SMU) to address non- LUFT releases that do not fall under the auspices of LUFT. Guidelines for assessment/remediation in SMUs are very similar, if not the same, as LUFTs.

Local

1. Regulations Enforced by the Santa Barbara County Fire Department/Hazardous Materials Unit

The Hazardous Materials Unit has been delegated the authority to review and approve remediation activity pursuant to California Health and Safety Code, Section 25100 et seq, 25401-25402, Division 20, Chapter 6.5 as identified in the Santa Barbara County Code Chapter 15, Article VII, section 15-126 et seq.

The Division also oversees enforcement of the following regulations:

- Santa Barbara County Code Chapter 18, Article IV, section 18-30, et seq, including Oil Remediation) to ensure proper remediation of all hazardous wastes associated with previous uses of the project site, including car dealer auto maintenance areas.

- Leaking Underground Fuel Tank (LUFT) Program

  The purpose of the LUFT program is to oversee the proper assessment and remediation of contaminants released from underground storage tanks.

- Hazardous Materials Business Plans (HMBP)

  The SBCFPD administers HMBPs for businesses that use, store, or handle, at a minimum, 55 gallons of a liquid, 500 pounds of a solid, or 200 cubic feet of a compressed gas at standard temperature and pressure that require HMBPs.

  Businesses using "acutely hazardous materials" (AHM) must submit a Risk Management Plan (RMP) in accordance with the California Accidental Release Prevention (CalARP) Program, pursuant to California Code of Regulations (CCR), Title 19 - Public Safety, Division 2 - Office of Emergency Services (CCR 2004). The SBCFD Hazardous Materials Unit (HMU) administers the requirements of CalARP and requires such business to prepare a RMP that details past AHM accidents, AHM equipment condition, maintenance and monitoring, and controls to minimize the risk of accident.

2. Santa Barbara County Air Pollution Control District Regulations

- Asbestos Emissions from Demolition/Renovation Activities.

SBCO APCD has implemented the California Air Resources Board's (CARB) Airborne Toxic Control Measure for Emissions of Asbestos from Construction, Grading, Quarry, and Surface Mining Operations in lieu of adopting a county-specific rule. This rule is designed to limit asbestos emissions from building demolition/renovation activities.

Potential Hazards from Aircraft

Regulatory Setting

Federal

1. FAR Part 77, Objects Affecting Navigable Airspace, (14 C.F.R. §§77.1, et seq.)

Federal Aviation Administration (FAA) Federal Aviation Regulations (FAR) Part 77 "Objects Affecting Navigable Airspace" sets forth criteria for preservation of navigable airspace in the area of airport traffic patterns. Obstruction standards and procedure for notification of the FAA prior to construction or alteration of an existing or potential obstruction to navigable airspace are included within FAR Part 77.

State of California

1. Caltrans Division of Aeronautics

The Caltrans Division of Aeronautics' jurisdiction relative to other governmental bodies is discussed in the *Airport Land Use Planning Handbook* (Shutt Moen Associates 2002). This document describes airport land use compatibility issues including noise compatibility, aircraft accident characteristics, and safety compatibility. The intent of the handbook is to guide ALUCs in preparing local Airport Land Use Plans (ALUPs) and to provide technical assistance for ALUC review of local agency's land use plans. Any community general plans and/or specific plans whose boundaries encompass any portion of the ALUP planning boundary are subject to review by the ALUC (Shutt Moen Associates 2002).

ALUP standards are defined in accordance with Federal Aviation Regulations (FAR) Part 77, which delineates standards for determining if an object is in the navigable airspace associated with an airport or the in-route environment, and constitutes an obstruction or a potential hazard to air navigation. ALUP standards are defined in accordance with Federal Aviation Regulations (FAR) Part 77. FAR Part 77 delineates standards for determining if an object is in the navigable airspace associated with an airport or the in-route environment, and constitutes an obstruction or a potential hazard to air navigation. Height limitations for structures within this zone are defined in *Appendix II of the ALUP, Height and Safety Criteria for Land Use Planning*, and can not be

greater in height than the imaginary surface extending outward and upward at a slope of 100:1 for a horizontal distance of 20,000 feet from the project area.

Local

1. Airport Land Use Commission

The Santa Barbara County Association of Governments has been designated as the Airport Land Use Commission, which governs operations surrounding the Santa Maria Public Airport. In conformance with its mandates, the ALUC prepared and adopted the *Santa Barbara County Airport Land Use Plan* that addresses land use compatibility with surrounding uses, aircraft noise, and accident potential. The ALUP designates Airport Safety Areas extending from runways as a basis for determining land use compatibility. The ALUP identifies criteria for acceptable development within each of the Airport Safety Areas to ensure the safe passage of aircraft over these properties (airspace protection), and to minimize safety hazards associated with airplane flight.

The project site is within the Santa Maria Public Airport Influence Area (AIA) Safety Area 3, Airport Traffic Pattern Zone, which is the least restrictive in terms of allowable land uses, allowing for residential, visitor commercial (e.g., hotels), and public service areas.

2. Zoning Ordinances

Santa Barbara County and the City of Santa Maria have zoning ordinances that include airport approach zone overlays which apply more rigorous standards than generally imposed by FAR Part 77. Planning boundaries and airport specific recommendations for height restrictions are included in the Santa Barbara County Airport Land Use Plan.

UTILITIES

Groundwater Supply and Quality

Until 1997, the City water supply had been pumped from the Santa Maria Valley groundwater aquifer, with the majority of the pumping occurring from the Orcutt sub-basin. The aquifer averages about 1,000 feet in depth and covers approximately 110,000 acres. Much of the basin extends beneath the Pacific Ocean. The aquifer is estimated to have the capacity to store at least 14,900,000 acre-feet of water. The basin watershed is comprised of approximately 1,860 square miles, including the Santa Maria River drainage area and its tributaries, and the drainage areas of the Cuyama and Sisquoc Rivers. The primary means of basin recharge is through streambed percolation along the Santa Maria River. Recharge also occurs through the Twitchell Reservoir flood control project. The City's wells have a current normal year active capacity of 24,878 acre feet per year (AFY). Between 2000 and 2004, average production was 661 AFY (City of Santa Maria 2007).

In 1997, the City began accepting delivery of imported water via the California Aqueduct (i.e., "State Water") from the Central Coast Water Authority (CCWA) and only uses groundwater when there is interruption in State water delivery. The City initiated State water delivery in late 1996. Groundwater was initially blended with State water to satisfy peak demands. Since August 1997, State water has served as the first priority for distribution by the City. Groundwater is used to augment supplies to meet peak demands and as a backup supply. In addition to the value of the imported water quantity, State water treated after use at the Wastewater Treatment Plant is percolated into an upper level groundwater aquifer, resulting in natural blending of low total dissolved solids (TDS) State water with high TDS aquifer water, to improve the quality of the basin (City of Santa Maria 2007).

The City is one of several public and private users of the aquifer. Currently, groundwater is still actively pumped from the basin by other urban suppliers for agricultural uses and private industrial uses. It was generally accepted from previous studies that the basin is in a state of overdraft and will not provide an indefinite supply for the region. Overdraft is defined as a long-term condition where more water is being taken out of the basin than is being recharged, or exceeding the safe yield of the basin. However, information currently being presented in litigation contradicts this conclusion that the basin is in overdraft. Recharge to the system, and thus the base period used, is the dominant factor when evaluating the water budget of the basin; by redefining the base period, one can demonstrate any result of an analysis desired, either overdraft, balance, or surplus (City of Santa Maria 2007; Santa Barbara County Water Agency 2005).

Since July 1997, the Santa Maria Valley Groundwater Basin has been the subject of ongoing litigation between nearly 800 parties with competing claims to pump groundwater, collectively called the Santa Maria Groundwater Litigation (*Santa Maria Valley Water Conservation District vs. City of Santa Maria, et al.* Case No. 770214). The Santa Maria Valley Water Conservation District was originally concerned that the City of Santa Maria's banking of State Water Project water in the groundwater basin would give the City priority rights to the groundwater that was historically held by agricultural water users. The lawsuit broadened to address groundwater management of the entire Santa Maria Basin. On August 3, 2005, the Court approved a

Settlement Stipulation for the case, which divides the Santa Maria Basin into three separate management sub-areas (the Northern Cities Management Area, the Nipomo Mesa Management Area, and the Santa Maria Valley Management Area). The Settlement Stipulation contains specific provisions with regard to rights to use groundwater, development of groundwater monitoring programs, and development of plans and programs to respond to potential severe water shortage conditions (City of Santa Maria 2007).

The Settlement Stipulation for the Santa Maria Valley Management Area, which includes the subject Lakeview Promenade property, indicates that "new urban uses shall obtain water service from the local public water supplier" and that "new urban uses shall provide a source of supplemental water to offset the water demand associated with that development." "…supplemental water shall include all sources of Developed Water, except: i) Twitchell Water; ii) storm water percolation ponds existing as of the date of entry of the judgment; or iii) Overlying Owners' right to use of surplus Developed Water." Therefore, State water could be used as a supplemental source. The intent of the Stipulation is to impose a physical solution establishing the legal and practical means for ensuring the long-term sustainability of the Santa Maria Valley Groundwater Basin.

The Urban Water Management Planning Act, Senate Bill (SB) 318, as submitted to the California Department of Water Resources, requires that water providers with over 3,000 connections provide and update measures for drought contingency planning, water demand management, reclamation, and ground water resources. In addition to adopting the adopted an Urban Water Management Plan (City of Santa Maria 2007) to implement SB 318, the City is also a participant along with 100 other water agencies and environmental groups in the California Urban Water Conservation Council. Members have signed a Memorandum of Understanding (MOU) binding participants to implement 14 Best Management Practices (BMPs) that are designed to maximize urban water conservation and practices that can be implemented during short-term supply shortages, such as ongoing audits of water users, toilet retrofit programs, etc.

Surface Water Quality

In 1972, Congress amended the Clean Water Act (CWA) to prohibit the discharge of any pollutant to waters of the U.S. from a point source unless the discharge is authorized under a National Pollution Discharge Elimination System (NPDES) permit. As efforts to improve water quality were initially focused on discharges from industrial and municipal sources, it became evident that storm water runoff was also a major cause of water quality impairment. As a result, Congress amended the CWA in 1987 to require the implementation of a two-phased program to address storm water discharges.

Phase I regulations, promulgated by the U.S. Environmental Protection Agency (EPA) in November 1990, requires NPDES permits for storm water discharges from municipal separate storm sewer systems (MS4s) serving populations of 100,000 or greater, construction sites disturbing greater than 5 acres of land, ten categories of industrial activities, and any storm water discharges that would potentially degrade water quality standards or significantly contribute pollutants to waters of the U.S. The Phase II regulations were published on February 7, 2000 and became effective in March 2003. They require NPDES permits for storm water discharges from regulated small MS4s (i.e., population less than 100,000) and for construction sites disturbing more than 1 acre of land. Specifically, NPDES Phase II regulations require

regulated small MS4s to develop, implement, and enforce a program to reduce pollutants in construction and post-construction runoff from new development and redevelopment projects. These programs are commonly called Stormwater Management Plans (SWMP).

The proposed project would be subject to the jurisdiction of the Central Coast Region of the California Regional Water Quality Control Board. Section 13260 of the California Water Code states that persons discharging waste that could affect the quality of the waters of the State, other than into a community sewer system, shall file a Report of Waste Discharge (ROWD) containing information which may be required by the appropriate Regional Water Quality Control Board. Further, the SWRCB adopted Resolution 68-16 regarding a *Statement of Policy with Respect to Maintaining High Quality of Water in California.* The SWRCB declared in this resolution that any activity that produces or could produce a waste or increased volume or concentration of waste is required to meet waste discharge requirements that will result in the best practicable treatment or control of the discharge necessary to ensure a nuisance will not occur and that high water quality will be maintained. These waste discharge requirements apply to any project-related stormwater treatment.

As a regulated small MS4, the City of Santa Maria is subject to these NPDES Phase II requirements for storm water pollution control. It has the legal authority to ensure implementation of all SWMP provisions through the comprehensive land use policy and development review process. Accordingly, all new development in urban areas that would disturb one or more acres of land is subject to City-approved construction and post-construction storm water runoff control measures to minimize potential impacts on water quality from any runoff that leaves the site.

The City requires that Best Management Practices (BMPs) be applied as discretionary project conditions of approval to minimize potential project impacts on water quality, consistent with NPDES Phase II requirements. These include measures that apply to construction activities as part of a project Stormwater Pollution Prevention Plans (SWPPP) and those that apply to project operational activity as part of a Storm Water Quality Mitigation Plan (SWQMP). SWPPP measures are intended to address a variety of water pollution sources including construction erosion sediments, solid and sanitary wastes, chemicals, debris, concrete truck washout, etc., and chemicals associated with establishing landscaping (fertilizers and pesticides). SWQMP BMPs are directed at minimizing sources of operational, long-term stormwater pollution (see section 1. e., below).

National Pollutant Discharge Elimination System (NPDES)

Under the NPDES Permit Program, the project applicant would be responsible for:

(1) Filing a Notice of Intent (NOI) with the State Regional Water Quality Control Board (RWQCB).

(2) Developing a Storm Water Pollution Prevention Plan (SWPPP) prior to commencement of any soil disturbing activities.

The NOI is required in order to obtain coverage under the Construction General Permit (Cal EPA SWRCB) of the NPDES.

Existing Storm Water BMPs

According to the City of Santa Maria's Storm Water Management Plan (2005), the City currently adheres to three main programs that apply to construction projects and help to prevent/minimize water quality impacts from construction site storm water runoff:

(1) Grading and Drainage Plan Standards (Revised 2/16/05);

(2) City Ordinances regarding health, sanitation, facilities, and waste (Titles 5, 7, 8, and 9); and

(3) Construction Guidelines of the City's Standard Details and Specifications

The City's construction standards require the grading permit holder and Owner/Developer to install and maintain erosion and pollution control measures required under the General Permit for Storm Water Discharges Associated with Construction Activity. If BMPs are not maintained, a "stop work" order will be initiated until upgrades have been made.

The grading and drainage plan standards require that the construction Owner/Developer designate a contact person in the event that a drainage infrastructure problem requires immediate resolution. Along with this requirement, the City requires that a bond be deposited with the grading permit to ensure that BMPs are appropriately installed. Funds that are not used are returned to the developer at issuance of Certificate of Occupancy (City of Santa Maria 2005).

The City's Public Works Department, Engineering Division City Engineer conducts inspections of construction sites, noting implementation of storm water BMPs at a minimum monthly frequency. During grading activities and before an anticipated rain event, focused inspections of construction site storm water controls occur daily. Inspection forms are filled out and BMP deficiencies are reported and corrected per the direction of the City's Public Works Department, Engineering Division City Engineer. Furthermore, the Engineering Department will respond to calls from the public concerned with construction activities and BMP implementation (City of Santa Maria, 2005).

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