IV. ENVIRONMENTAL IMPACT ANALYSIS
G. HAZARDS & HAZARDOUS MATERIALS

INTRODUCTION

This section of the Draft Environmental Impact Report (DEIR) considers potential risks associated with hazards and hazardous materials resulting from the proposed development of the Big Wave Wellness Center and Office Park Project ("proposed project"), potential existence of hazardous materials sites in the vicinity of the project site, and potential risks to residents and visitors to this area from onsite and offsite sources of hazards and hazardous materials.

METHODOLOGY

Information provided in this section is partially based on the Phase I Environmental Site Assessment for the Big Wave Site (Phase I ESA), prepared by Treadwell & Rollo, March 26, 2007 (refer to Appendix G of the DEIR). The Phase I ESA was performed in general conformance with guidelines of the American Society for Testing and Materials (ASTM) E 1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, November 2005. The purpose of the Phase I ESA is to evaluate the possible presence of recognized environmental conditions at the project site. A recognized environmental condition is the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the project site or into the ground, groundwater, or surface water of the project site. The scope of work for the Phase I ESA included the following tasks:

- Review of historical aerial photographs, historical Sanborn Fire Insurance maps and/or United States Geological Survey (USGS) historical topographic maps for the project site, as appropriate;

- Reconnaissance survey of the project site and interview the current site owner/tenant or representative, and observe the adjacent properties, as accessible, to make visual observations of existing site conditions, activities, types of land-use, and businesses within the search area;

- Review of relevant documents and maps regarding local geologic and hydrogeologic conditions;

- Review of local, state, and federal government database information provided by Environmental Data Resources, Inc. (EDR) pertinent to Phase I ESAs;

- Inquiries by telephone, visit, and /or written correspondence to the following regulatory agencies regarding building or environmental permits, environmental violations, incidents and/or status of enforcement actions at the project site:

  – City of Half Moon Bay Public Works Department

  - Half Moon Bay Fire Protection District
  - San Mateo County Environmental Health Services Agency
  - California Regional Water Quality Control Board (RWQCB)

- Preparation of Phase I ESA report documenting the research performed and identifying recognized environmental conditions; and
- Details of the recognized environmental conditions that could affect the project site.

In addition, an analysis of impacts associated with the project's proximity to the Half Moon Bay Airport (Airport) considers applicable policies of the County of San Mateo 1986 General Plan, and Chapter III of the San Mateo County Comprehensive Airport Land Use Plan (ALUP) for the Half Moon Bay Airport. Regulatory requirements that affect the construction and operation of an onsite wastewater treatment system of the type proposed as part of the project are evaluated as well. This DEIR uses data collected and provided at the project, county, state, and federal level wherever feasible in an effort to provide a comprehensive analysis.

ENVIRONMENTAL SETTING

Hazardous materials can threaten human health and/or the environment through routine emissions and/or accidental releases. Hazardous materials include materials that are toxic, corrosive, flammable, reactive, irritating, and strongly sensitizing. According to the State of California, a hazardous material is defined as a substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either: 1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating irreversible illness; or 2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, or disposed of or otherwise managed. Hazardous waste (a subset of hazardous material) refers to a hazardous material that is to be abandoned, discarded or recycled.

The following section summarizes identified hazards and potentially hazardous materials existing or considered likely to occur on the project site and which could therefore impact the proposed development. This includes a description of the history of hazardous materials at the site; and consideration of the threat to future occupants, workers, and the surrounding environment that would result as the development has been proposed. This includes consideration of risk from exposure to hazards or hazardous materials during earthwork and grading, construction, and during the course of normal operations at the proposed Big Wave Wellness Center and Office Park community.

Surrounding Land Uses

As discussed in Section III (Project Description) of this DEIR, the project site is situated in northwestern unincorporated San Mateo County along the coast of the Pacific Ocean just north of Princeton by the Sea, approximately 25 miles south of San Francisco, 10 miles west of San Mateo, and 45 miles north of Santa

Cruz. The 19.4-acre project site is located on Airport Street, northwest of the Princeton/Pillar Point Harbor area. Surrounding land uses include the Airport across Airport Street to the east, the El Granada Mobile Home Park adjacent and north of the project site, the Pillar Point Marsh to the west, and the Princeton/Pillar Point Harbor industrial/commercia1 area adjacent and south of the project site. The Fitzgerald Marine Reserve is located approximately one-quarter mile due west from the project site over Pillar Point Ridge along the Pacific Ocean coastline.

Existing Project Site

The project site currently consists of two adjacent agricultural parcels that are part of a larger ongoing and continuous farming operation. An agricultural water supply well is located in a fenced-off area in the northeast corner of the project site. Next to the well are three 500-gallon, above-ground storage tanks (ASTs) for water containment (used for crop irrigation). The undeveloped site is relatively flat with a slight slope to the south toward Half Moon Bay; elevations at the project site ranges from 9.0 to 27.7 feet. Results of a preliminary geotechnical investigation prepared for the northern parcel revealed that the site consists of loose and expansive surface soils with the potential for liquefaction, and the subsurface soils generally consists of heterogeneous lenses of clays and sands interbedded with gravel.[1] According to the County of San Mateo General Plan, the general soil type characteristics of the project site are rated as Class III—moderately and well-drained soils with loamy subsurfaces and very slowly to moderately permeable subsoils on gently sloping to moderately steep terraces.[2] During the preliminary geotechnical investigation, groundwater was encountered at a depth ranging from 5.5 to 7.5 feet below ground surface. The local groundwater flow in the vicinity of the project site is expected to flow in a northeast to southwest direction and groundwater levels will fluctuate as a result of seasonal changes.[3] A natural drainage swale separates the two parcels and leads to the Pillar Point Marsh, a salt marsh habitat influenced by both tidal action and freshwater runoff from its tributary drainage area. An area of wetlands under the protection of the California Coastal Commission, of which a small portion is Federal jurisdictional waters/wetlands, occurs on the project site under the permit authority of the US Army Corps of Engineers. A more detailed description of the topographic setting is provided in Section IV.F (Geology and Soils) of this DEIR.

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1 *Bay Area Geotechnical Group. Preliminary Geotechnical Engineering Investigation, Proposed 10-Acre Commercial Development South of Airport Street APN 047-311-060, Princeton by the Sea, California. May 7, 2002.*

2 *San Mateo County General Plan, Soil Resources, page 2.5. Available at: http://www.sforoundtable.org/P&B/gp/GP%20Ch%2002_Soil%20Resources.pdf. Accessed by CAJA staff on February 27, 2009.*

3 *Bay Area Geotechnical Group. Preliminary Geotechnical Engineering Investigation, Proposed 10-Acre Commercial Development South of Airport Street APN 047-311-060, Princeton by the Sea, California. May 7, 2002.*

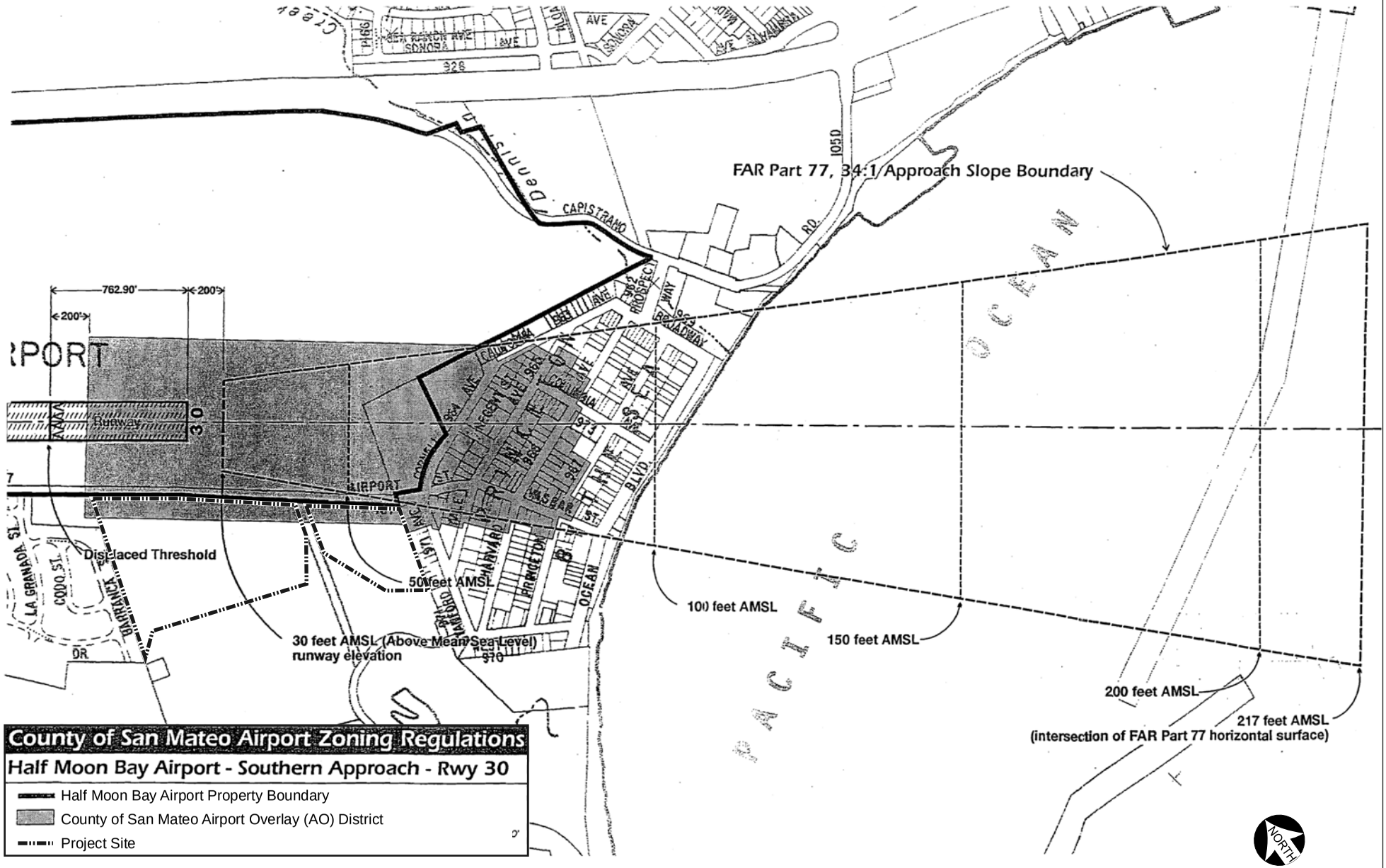
Sensitive Receptors

Sensitive receptors are individuals that may have a significantly increased sensitivity or exposure to contaminants by virtue of their age, health, or proximity to the contamination (e.g. childcare centers, schools, hospitals, nursing or retirement homes, residences, playgrounds, athletic fields, parks, etc.). The location of sensitive receptors must be identified in order to evaluate the potential impact of the contamination on public health and the environment. Appendix G to the State *CEQA Guidelines* considers a significant impact to occur if a project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. The closest school is the Picasso Preschool, approximately one mile southeast of the project site in the community of El Granada, and no new schools are proposed for development in the vicinity of the project site. For the purpose of this analysis, the nearest offsite sensitive receptors to the project site that could be affected by hazardous materials exposure would include the residential uses located at El Granada Mobile Home Park adjacent and north of the project site. The natural wetland/marsh communities located within one-quarter mile of the project site also have the potential to be exposed to released contaminants. Additionally, the proposed project would develop housing and employment opportunities for low-income developmentally disabled (DD) adults and live-in staff members; these future onsite residents would be considered sensitive receptors as well.

Airport-Related Hazards

The Half Moon Bay Airport is a public airport described in the San Mateo County Comprehensive Airport Land Use Plan and is managed by the San Mateo County Public Works Department. The Airport is located directly east of the project site across Airport Street, and is home to approximately 80 aircraft and several aviation businesses. Areas around airports are continually exposed to the possibility of aircraft accidents, even with well-maintained aircraft and highly trained pilots. The risk of people on the ground being impacted by a falling plane is small; however, an aircraft crash is a high consequence event (when a crash does occur, the result can be catastrophic). Both project parcels are partially located within an Airport Overlay (AO) District, approximately 100 feet into the Approach Protection Zone for the southern approach (Runway 30). Refer to Figure IV.G-1. The intent of the AO District is to provide a margin of safety at the ends of airport runways by limiting the concentration of people where hazards from aircraft are considered to be greatest (Section 6288.1 (Intent) of the Zoning Regulations).

Per the Federal Aviation Regulation (FAR) Part 77 standards, the topography of the coastal mountain range to the east and south of the Airport field is identified as a high terrain obstruction for aircraft operations, where occasional turbulence occurs at low levels. The unique geographic area subjects the Airport field to rapidly changing weather conditions (i.e., coastal stratus and high winds). The Airport



Source: San Mateo County Airport Land Use Commission, December 1995.

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Figure IV.G-1
Airport Overlay District for Runway 30

runways are oriented towards the north and west, the prevailing wind direction. Prevailing winds, generally favor Runway 30,[4] and this southern approach is used 85 percent of the time.[5] The project site's eastern boundary line is located approximately 500 feet from the centerline of Runway 30. The proposed Office Park's closest office building would be located approximately 600 feet southwest of the southern end of Runway 30. The proposed Wellness Center's closest residential unit would be located approximately 900 feet southwest of the southern end of Runway 30. To address safety compatibility issues related to aircraft operations at the Airport, the County of San Mateo has adopted both general plan and zoning provisions related to safety and land use compatibility. These provisions are further discussed below.

Impacts associated with aircraft noise are discussed in Section IV.J (Noise), and impacts associated with potential safety risks of project-related increases in traffic levels near an airport are discussed in Section IV.M (Transportation and Traffic) of this DEIR.

Wildland Fire Hazards

The project site is located in the coastal region of unincorporated San Mateo County, where frequent fog helps to moderate temperatures. The project site and immediate surrounding land uses are not located in a Fire Hazard Severity Zone, as defined by the California Department of Forestry and Fire Protection (CAL FIRE).[6] However, nearby agricultural lands adjacent to the Airport and east of Cabrillo Highway interface with an open space area that extends to Montara Mountain; the open space area is within the identified Very High Fire Hazard Severity Zone of the State Responsibility Area.

The proposed project site is not within a Hazardous Fire Area, as shown on the Natural Hazards Map of the County of San Mateo General Plan.[7] However, the project site is located within a Community at Risk zone according to the County's Wildland Urban Interface Fire Threatened Communities Map, which depicts the general risk within neighborhoods and the relative risk from community to community.[8] The normal fire season conditions of warm, dry summer and fall seasons subject vegetation to prolonged

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[4] *San Mateo County Department of Public Works, Pilot Fly-in Information, Available on website: http://www.co.sanmateo.ca.us/portal/site/publicworks/menuitem.a4bfacf14e50a00d82439054d17332a0/?vgnextoid=538c4b3a4b71f110VgnVCM1000001d37230aRCRD&vgnextfmt=DivisionsLanding. Accessed by CAJA staff on May 5, 2009.*

[5] *San Mateo County Comprehensive Airport Land Use Plan, Chapter III. Half Moon Bay Airport Land Use Plan, page III.-16.*

[6] *California Department of Forestry and Fire Protection, San Mateo County Fire Hazard Severity Zone (SRA) Map, November 7, 2007.*

[7] *County of San Mateo General Plan, County of San Mateo, Department of Environmental Management, Planning and Development Division, Natural Hazards, 15.1M. Available on website: http://www.sforoundtable.org/P&B/gp/maps/gp%20natural%20hazards%20(11x17).pdf. Accessed by CAJA Staff on May 5, 2009.*

[8] *County of San Mateo, Wildland Urban Interface - Fire Threatened Communities. Available on website: http://www.co.sanmateo.ca.us/vgn/images/portal/cit_609/29/16/601017851firethreat_wui.pdf. (Original Source: California Department of Forestry and Fire Protection, 2003.). Accessed by CAJA Staff on May 15, 2009.*

periods of moisture stress, causing the area to be very prone to wildland fires. Therefore, the project site could be susceptible to wildland fires.

Fire protection services for the area are further discussed in Section IV.L (Public Services-Fire Protection) of this DEIR.

Potential Existing Hazards

According to the Phase I ESA, one recognized environmental condition has been identified at the project site, most likely due to the possible application of pesticides to the soil during its use as farmland. The assessment recommends that further investigation be conducted to identify potential environmental liabilities which may be present at the project area. Specifically recommended are additional investigations that are designed to test the surface soils for pesticides and the agricultural well for the presence of groundwater pollution.

Other environmental concerns that may affect the project site, but currently do not qualify as recognized environmental conditions, include: possible non-source pollutants from the northeast (e.g., the Airport) that may have been transported onto the project site as surface runoff via the drainage swale; possible solvents in the groundwater from hydraulically up-gradient properties north of the project site; possible illegal dumping of hazardous substances on the project site; and possible release of hazardous substances or petroleum products into the soil or groundwater from storage tanks at the Airport. Findings regarding properties with the potential to impact environmental conditions at the project site are discussed in further detail in the Phase I ESA report, which is provided in Appendix G to the DEIR.

A detailed analysis of hazards associated with geology and flooding are located in Section IV.F (Geology and Soils) and Section IV.H (Hydrology and Water Quality) of this DEIR, respectively.

REGULATORY SETTING

A variety of laws and regulations at the federal, state, and local levels affect the management and control of hazardous substances. These regulations are intended to protect both the environment and public health from improper use, handling, storage, transport, and disposal of hazardous materials. Hazards associated with airports are also regulated by federal, state and local regulations. The following section describes the regulatory framework for hazardous materials, worker health and safety requirements, safety hazards associated with aircraft operations, potentially hazardous materials associated with the proposed construction and operation of an onsite wastewater treatment system, and potential hazards associated with wildfires.

Federal and State Requirements

Hazardous Materials

In California, the U.S. Environmental Protection Agency (EPA) has granted most enforcement authority over federal hazardous materials regulations to the California Environmental Protection Agency (Cal

EPA). In California, regional agencies are responsible for programs regulating emissions to the air, surface water, and groundwater. At the project site, the Bay Area Air Quality Management District (Air District) has oversight over air emissions, and the San Francisco Bay Regional Water Quality Control Board (San Francisco Bay RWQCB) has jurisdiction over the County, and regulates discharges and releases to surface and groundwater. Oversight for investigation and remediation of sites affected by hazardous materials releases can be performed by state agencies, such as the California EPA Department of Toxic Substances Control (DTSC) or the State Water Resource Control Board, and in the case of landfills, the Integrated Waste Management Board. The Resource Conservation and Recovery Act (RCRA) is the United States' primary law governing the handling and disposal of solid hazardous waste. The RCRA, which passed into law in 1976, set out to accomplish the following main goals: ensure that wastes are managed in an environmentally sound manner, protect human health and the environment from the potential hazards of waste disposal, reduce the amount of waste generated, and conserve energy and natural resources.

Hazardous Materials Transportation

Transportation of hazardous materials on highways is regulated through the Federal Department of Transportation (DOT) and the California Department of Transportation (Caltrans). This includes a system of placards, labels, and shipping papers required to identify the hazards of shipping each class of hazardous materials. Existing federal and state laws address risks associated with the transport of hazardous materials. These laws include regulations outlined in the Hazardous Materials Transportation Act administered by DOT. Caltrans is mandated to implement the regulations established by DOT, which is published as the Federal Code of Regulations, Title 49, commonly referred to as 49 CFR. The California Highway Patrol (CHP) enforces these regulations. Regulations of hazardous materials and wastes include the manufacture of packaging and transport containers; packing and repacking; labeling, marking or placarding; handling; spill reporting; routing of transports; training of transport personnel; and registration of highly hazardous material transport. General Information is found in Section 177.800 of 49 CFR, Transportation, Part 177—Carriage by Public Highway Subpart A. The purpose and scope of this part prescribes requirements that are applicable to the acceptance and transportation of hazardous materials by private, common, or contract carriers by motor vehicle. Each carrier is required to perform the duties specified and comply with all applicable requirements in this part to ensure its hazmat employees receive training in relation thereto. A carrier may not transport a hazardous material by motor vehicle unless each of its hazmat employees involved in that transportation is trained as required by this part.

Hazardous Materials Storage, Handling, and Disposal

The California Health and Safety Code (HSC 25500 et seq.) requires that all California facilities that store hazardous materials in quantities that, cumulatively for a site, exceed 55 gallons of a liquid or 500 pounds of a solid or 200 cubic feet of a gas at standard temperature and pressure or, for radioactive materials, the quantity for which an emergency response plan is required under federal or state regulations, are subject to hazardous material inventory and reporting regulations. The regulations require preparation of a Hazardous Material Management Plan (HMMP), also known as a California Business Plan under the

statute. The HMMP sets forth prescribed practices for storage, use, and containment of hazardous materials to be used at the facility. All facilities that exceed the HMMP thresholds shall submit the HMMP and chemical inventory at the next reporting period (January 1 of each year) per the requirements of HSC 25504 and 25505.

Generally, hazardous waste would be required to be handled in accordance with the California Health and Safety Code and California Code of Regulations. These regulations (22 CCR 66260 et seq.) include specific requirements for hazardous waste determination, obtaining an identification number, accumulation, labeling, emergency procedures/contingency plans, training, shipment, and reporting. The specific requirements under these regulations would vary depending on the amount of waste generated.

Worker Health and Safety Regulations

Worker health and safety in California is regulated by the California Department of Industrial Relations, Division of Occupational Safety and Health (California OSHA). California OSHA conducts onsite evaluations and issues notices of violation to enforce necessary improvements to health and safety practices.

Injury and Illness Prevention Plan

The California General Industry Safety Order requires that all employers in California shall prepare and implement an Injury and Illness Prevention Plan, which should contain a code of safe practice for each job category, methods for informing workers of hazards, and procedures for correcting identified hazards.

Emergency Action Plan

The California General Industry Safety Order requires that all employers in California prepare and implement an Emergency Action Plan. The Emergency Action Plan designates employee responsibilities, evacuation procedures and routes, alarm systems, and training procedures.

Fire Prevention Plan

The California General Industry Safety Order requires that all employers in California prepare and implement a Fire Prevention Plan. The Fire Prevention Plan specifies areas of potential hazard, persons responsible for maintenance of fire prevention equipment or systems, fire prevention housekeeping procedures, and fire hazard training procedures.

Aviation Regulations

Airport planning boundaries define areas where height, noise, safety standards, policies, and criteria are applied to certain proposed land use policy actions.

The U.S. Federal Aviation Administration (FAA), a component of the Department of Transportation (DOT), establishes guidelines for airport safety, which includes noise and risk of accident. Risk of

accident is generally related to the height of structure and land use in proximity to airports. Height standards for defining obstructions to air navigation are defined in Federal Aviation Regulation (FAR) Title 14 CFR Part 77, *Objects Affecting Navigable Airspace*. Compared to noise, safety is a much more difficult concern to address in airport/land use compatibility policies. A major reason for this difference is that safety policies address uncertain events which may occur with occasional aircraft operations. In administering FAR Part 77, the prime objective of the FAA is to ensure the safety of aircraft in flight and the efficient use of navigable airspace by aircraft. The FAA recognizes that there are varied demands for the use of airspace, by both aviation and non-aviation interests. When conflicts arise out of construction proposals, the FAA emphasizes the need for conserving and protecting the navigable airspace. Therefore, early notice of proposed construction or alteration provides the FAA with the opportunity to review development proposals to evaluate the potential aviation and airspace effects. The San Mateo County Airport Land Use Commission (C/CAG) supports the FAR Part 77 notification process related to proposed construction or alterations in the Half Moon Bay Airport airspace and advises project sponsors to comply with such notice requirements.

The *California Airport Land Use Handbook*, published by the California Department of Transportation Division of Aeronautics provides the regulatory framework for local governments to develop land use policies for properties in proximity to airports. In addition to establishing noise criteria and height limits, the handbook addresses appropriate land uses within the established airport areas of influence. Because aircraft accidents happen infrequently and the time, place and consequences of their occurrence cannot be accurately predicted, the concept of risk is central to the assessment of safety compatibility.

In terms of airport and land use compatibility planning, two variables determine the degree of risk posed by potential aircraft accidents: (1) accident frequency–where and when aircraft accidents occur in the vicinity of an airport, and (2) accident severity–what land use characteristics contribute to the consequences of an accident. Generally, land uses that attract the fewest people, like open space or agriculture, are most appropriate. In terms of noise, the most sensitive types of land uses, such as a school or residential development, are least appropriate within certain areas near an airport. The overall objective of safety compatibility guidelines can be stated as being to minimize the risks associated with potential aircraft accidents. There are two components to this objective: (1) safety of persons on the ground—to provide for the safety of people and property on the ground in the event of an aircraft accident near an airport, and (2) safety of aircraft occupants—to enhance the chances of survival of the occupants of an aircraft involved in an accident that occurs beyond the runway environment.

FAR Part 77, *Objects Affecting Navigable Airspace* defines a series of imaginary surfaces surrounding airports to provide airspace protection. Any object or structure which would penetrate any of the imaginary surfaces defined in FAR Part 77 for each airport is considered by the FAA to be an obstruction to air navigation. While an obstruction to air navigation may not necessarily be a hazard to air navigation, the FAA presumes it to be a hazard and treats it as such until an FAA aeronautical study has determined that it does not have an adverse effect upon the safe and efficient use of navigable airspace by aircraft. The FAA advises the local agency and the project sponsor of the outcome of the aeronautical study.

Relatively few aircraft accidents are caused by land use conditions which are hazards to aircraft in flight. However, such potential exists, and protecting against such conditions is essential to airport/land use safety compatibility. Because airspace protection is in effect a safety factor, its objective is to avoid the creation of land use conditions, that could potentially increase the risk of an accident occurring. The particular hazards of concern are: airspace obstructions, such as tall buildings, tall trees, antennas, etc.; and land use characteristics which pose other potential hazards to aircraft in flight, by attracting birds or creating visual or electronic interference with air navigation, such as site lighting, architectural features (e.g., reflective glass or other exterior surfaces), and communication facilities, such as antennas, microwave dishes, etc.).

Stormwater Management

The State Water Resources Control Board (State Water Board), Water Quality Order No. 97-03-DWQ, which is the National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000001 (General Permit), titled *Waste Discharge Requirements (WDRs) for Discharges of Storm Water Associated with Industrial Activities* requires that stormwater associated with industrial activity that discharges either directly to surface waters or indirectly through municipal separate storm sewers must be regulated by an NPDES permit. Municipalities covered under this permit must implement the stormwater requirements as per the General Permit.

These stormwater requirements only apply where stormwater has the potential to carry pollutants offsite and deliver them to state waters. Facilities that do not discharge stormwater to waters of the United States are exempt from the stormwater requirements cited above. This includes facilities where stormwater is captured and treated and/or disposed of with the facility's NPDES permitted process wastewater, and where stormwater is disposed of to evaporation ponds, percolation ponds, or combined sewer systems. These facilities are not required to obtain a stormwater permit.

Additional NPDES stormwater requirements are associated with construction activities that involve land disturbance of more than one acre. These requirements include the preparation of a construction-specific Storm Water Pollution Prevention Plan (SWPPP) for the period of project construction as well as filing a Notice of Intent with the RWQCB. The SWPPP must include a detailed description of best management practices to be installed within the proposed project to ensure that pollutants do not discharge to waters of the United States. The General Permit also requires implementation of a monitoring program, which includes visual observation of stormwater flows and collection of samples and analysis of stormwater for likely contaminants.

Most of the County's stormwater regulations are codified under Chapter 4, Section 100 of the San Mateo County Code,[9] which includes provisions from the County's Ordinance 3633, adopted in 1995. A major function of Ordinance 3633 and Section 4.100 of the County Code is to require project's to comply with the County's NPDES permit. Each incorporated city and town in San Mateo County joined with the

[9] *Accessible at http://municipalcodes.lexisnexis.com/codes/sanmateo/.*

County of San Mateo to form the SMCWPPP in applying for a regional NPDES permit.[10] The SMCWPPP, previously referred to as San Mateo Countywide Stormwater Pollution Prevention Program (STOPPP), was established as part of the regional NPDES permit to apply for and administer the permit for the County and its cities and towns. The SMCWPPP received its first 5-year Phase I NPDES Municipal Stormwater Permits in 1995. The San Francisco Bay RWQCB adopted the second NPDES permit on July 21, 1999; it was subsequently amended with Provision C.3 (New Development and Redevelopment Component) on February 19, 2003, at which time a Stormwater Management Plan was also required to be implemented. On July 21, 2004, the RWQCB adopted the third permit. On May 12, 2005, the SMCWPPP submitted to the RWQCB its Hydromodification Management Plan (HMP) as required under the 2004 permit. On March 14, 2007, the RWQCB amended the 2004 permit to include key provisions of the submitted HMP.

Proposed development projects must comply with the County's Stormwater Management Plan and with the Watershed Protection Maintenance Standards. Along with the Planning Department, the Public Works Department reviews projects for compliance with the NPDES Provision C.3, which regulates new development and redevelopment. Currently, Provision C.3 requires stormwater controls during the construction and operation stages of proposed development. In addition, due to project size and type, the project would also be required to construct permanent on-site stormwater treatment systems and maintain these systems in perpetuity.

NPDES requirements are described in greater detail in Section IV.H (Hydrology and Water Quality) of this DEIR.

Fire Protection Regulations

The 2007 California Building Code (CBC) applies to all occupancies throughout the State of California; however, city, county, or city and county may establish more restrictive building standards reasonably necessary because of local climatic, geological, or topographic conditions. Furthermore, local fire jurisdictions may identify additional fire hazard areas, especially in communities adjacent to wildlands. Development of new buildings located within an area designated by the enforcing agency to be at significant risk from wildfires, for which an application for a building permit and/or plan approval for construction is submitted, shall meet the intent of CBC Chapter 7A, Materials and Construction Methods for Exterior Wildfire Exposure. Regulations require that building products and construction methods comply with applicable codes and ordinances of the local authority having jurisdiction, compliance must be submitted to the building official having jurisdiction for final approval.

In addition, guidelines for design and installation of solar photovoltaic systems mounted on rooftops or the ground are provided by the California Department of Forestry and Fire Protection - Office of the State Fire Marshal (CAL FIRE – OSFM). The local enforcing agency, by local ordinance, is meant to apply to the design, construction and installation of solar photovoltaic systems on buildings regulated by Title 24

[10] *Regional Board, 2007, Order No. R2-2007-0027, NPDES Permit No. CAS0029921.*

of the CBC. Local modifications to CBC must comply with Health and Safety Code Section 18938(b) for Building Standards Law, Health and Safety Code Section 17950 for State Housing Law, or Health and Safety Code Section 13869.7 for Fire Protection Districts. Requirements for clearances for solar systems shall apply to all new buildings or structures that require a building permit issued by San Mateo County (Section 9116).

Regional and Local Requirements

Local responsibility for hazardous materials oversight, permitting, and regulation is through the Certified Unified Program Agencies (CUPA). These programs were developed when the State of California delegated responsibility to local jurisdictions. Each CUPA is responsible for writing and updating a Hazardous Materials Area Plan (for the public safety response in the jurisdiction) and providing guidelines for the Hazardous Materials Business Plan (for local businesses designated as handlers of hazardous materials.) CUPA programs include the Hazardous Materials Business Plan Program, Hazardous Waste Program, Underground Tank Program, Accidental Release Program, and the portions of the Uniform Fire Code that address hazardous materials. This program includes inspections of businesses and review of permit conditions and procedures for the handling, storage, use and disposal of hazardous materials. The Hazardous Materials Business Plan is used to keep track of the use of hazardous materials by businesses in accordance with both state and federal laws. The Hazardous Waste Generator Program is based on the Hazardous Waste Control Law found in the California Health and Safety Code Division 20, Chapter 6.5 and regulations found in the California Code of Regulations, Title 22, Division 4.5.

In the County of San Mateo (County), CUPA is administered through the Department of Health Services by way of a Hazardous Materials Program (5971P). The Hazardous Materials Program provides regulatory oversight, enforcement, emergency response, and educational services for businesses, public agencies, and residents of the County in order to protect public health and the environment against hazardous chemicals and chemical pollution. The Hazardous Materials Program consists of six components: the Certified Unified Program Agency (CUPA), the Hazardous Material Inspections (HMI), the Emergency Response Team (ERT), the Solid and Medical Waste Program, the Ground Water Protection Program (GPP), and the Household Hazardous Waste Program (HHW). The Hazardous Materials Program also works to protect the public and the environment from the chemicals used in the home and small quantity generator facilities.

The County's ERT is a system capable of responding to an emergency incident involving hazardous materials. A hazardous materials incident could involve a fire, spill, container or equipment leaks, container abandonment, or an incident that threatens public health and safety or the environment. The first responder to hazardous material emergencies for the area would likely be the Coastside Fire Protection District, located at Station 41 at 531 Obispo Road in nearby El Granada. State law requires that first responders have a minimum 40 hours of training in accordance with the Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) standard. Additional strategic components of the ERT include one unit from the South County Fire Authority, the Area Office of Emergency Services and an emergency medical provider. The ERT works in conjunction with local fire departments, Caltrans and the California Highway Patrol depending on the

circumstances. For residents outside city and fire district boundaries, the Fire Protection Services Program, which is staffed by the California Department of Forestry and Fire Protection (CAL FIRE) on a contract basis, assists with provision of hazardous materials services in the County.

The San Mateo County Department of Agriculture/Weights & Measures is a regulatory and informational agency serving agriculture, industry and the community. The County Agricultural Commissioner/Sealer of Weights and Measures is the local enforcement authority for the California Department of Food and Agriculture and the California Department of Pesticide Regulation. Regulation of potentially hazardous pesticides and herbicides is under the jurisdiction of the County of San Mateo Agricultural Commissioner.

Wireless uses within communities generally fall under the jurisdiction of state and local governments, within the limits imposed for personal wireless service facilities by Section 332(c)(7) of the Federal Communications Act.

San Mateo County General Plan

The General Plan contains the following policies related to hazards and hazardous materials that are applicable to the proposed project:

Natural Hazards

15.12 Locating New Development in Areas Which Contain Natural Hazards

- As precisely as possible, determine the areas of the County where development should be avoided or where additional precautions should be undertaken during review of development proposals due to the presence of natural hazards.
- Give preference to land uses that minimize the number of people exposed to hazards in these areas.
- Determine appropriate densities and development standards for new development proposed in these areas.
- Require detailed analysis of hazard risk and design of appropriate mitigation when development is proposed in these areas.

15.29 Review Criteria for Locating Development Outside of Fire Hazard Areas

- Insure that fire safety is adequately addressed in the review of new development proposed in unincorporated areas located outside of fire hazard areas through measures including but not limited to referral of proposals for development to appropriate fire protection agencies for conditions of approval.

Man-Made Hazards

16.41 Regulate Land Uses to Assure Airport Safety

- Regulate land uses surrounding airports to assure airport safety. Measures may include restrictions on permitted land uses and development review height criteria.

16.42 Limit Land Uses at Ends of Runways

- Limit land uses in approach zones, clear zones and other areas of high accident potential at ends of airport runways to low intensity, nonstructural uses, including, but not limited to, agriculture, open space, and storage.

16.43 Regulate Location and Height of Development Surrounding Airports

- Regulate development location and height in areas surrounding airport activities to protect air navigation requirements. Measures may include height criteria based upon an approach surface or other representative aircraft flight path.

Additionally, the County has adopted zoning provisions (Chapter 32) to regulate the height of structures and the use of the airspace in the vicinity of the Airport. These provisions are based on the authority granted to the County by the Airport Approaches Zoning Law and are in conformity with Sections 50485 to 50485.13 of the Government Code, and incorporate the restrictions contained in FAR Part 77, as applicable to the Airport.

16.53 Regulate Location of Hazardous Material Uses

- Regulate the location of uses involving the manufacture, storage, transportation, use, treatment, and disposal of hazardous materials to ensure community compatibility. Provide adequate siting, design, and operating standards.

16.54 Encourage Public Disclosure of Hazardous Materials

- Encourage businesses utilizing or storing hazardous materials within the unincorporated area to publicly disclose the types, quantities and health risks of hazardous materials present onsite so as to effect timely and effective emergency response and community risk assessment, improved land use planning and general public awareness.

16.55 Encourage Adoption and Enforcement of Fire Code Hazardous Material Storage Permit Provisions

- Encourage fire protection agencies serving the unincorporated area to adopt and enforce existing Uniform Fire Code provisions which authorize fire agency issuance of hazardous material storage permits so as to: (1) assure proper hazardous material storage, (2) prevent

accidental discharge or spill, and (3) provide necessary inventory information beneficial to timely and efficient incident response and containment. Assure that relevant hazardous material inventory information is referred to the County, and made available to the public.

Half Moon Bay Airport Land Use Plan

A comprehensive plan is a critical and effective part of the process of ensuring land use compatibility around airport facilities. Following is a list of general safety policies of the San Mateo County Comprehensive Airport Land Use Plan (ALUP) for the Half Moon Bay Airport that apply to the proposed project:

- The following safety zones are established at Half Moon Bay Airport: Approach Protection Zone (APZ), Runway Protection Zone (RPZ), and Traffic Overflight Zones (TOZ).

- APZs, defined and illustrated for Half Moon Bay, shall remain free of permanent structures at all times.

- Non-structural uses may be permitted in an APZ if they do not cause a concentration of more than 10 people per net acre on a 24-hour basis.

- Vehicle parking and open storage uses are permitted in APZs if they do not generate more than 25 people per acre at any time.

- Other uses may be permitted in an APZ, on a case-by-case basis, based on review of the relevant airport/aircraft public safety issues.

- The Airport Land Use Commission (C/CAG) and the C/CAG Airport Land Use Committee (ALUC) shall be guided by the safety/land use compatibility criteria table for each airport, (see safety sections of the individual airport land use plan chapters), when considering the consistency of a proposed local agency land use policy action with the relevant airport land use plan.

Height restrictions are necessary to ensure that objects will not impair flight safety or decrease the operational capability of an airport. Airspace protection is also a critical factor for the safe and efficient use of the airspace in the vicinity of an airport by an aircraft in flight. The following is a list of general height restrictions and airspace protection policies that apply to the implementation of the ALUP for each airport in San Mateo County:

- The applicable provisions of FAR Part 77, "Objects Affecting Navigable Airspace" are incorporated, by reference, into the ALUP, to establish height restrictions and airspace protection in the vicinity of each airport located in San Mateo County.

- The C/CAG and the ALUC shall be guided by relevant provisions in FAR Part 77 when considering the consistency of a proposed local agency land use policy action with the relevant airport land use plan.

- Any object or structure that would penetrate any of the imaginary surfaces defined in FAR Part 77, for each airport located in San Mateo County, shall be considered as an obstruction to air navigation, and therefore, inconsistent with the relevant airport land use plan.

- The ALUC, ALUC staff, and the C/CAG shall inform the local agency and the project developer of the federal requirement to notify the FAA of proposed land development in the vicinity of an airport, via notice requirements contained in FAA Form 7460-1, "Notice of Proposed Construction or Alternation."

- The C/CAG shall inform public agencies, land developers, and other interested parties of airspace protection concerns, as identified herein, at all three airports located in the County. The C/CAG will discourage local agency approval of proposed development in an airport environs area that includes land use and/or project design characteristics that would negatively impact the airspace in the vicinity of an airport, as discussed herein, and affect the safety of aircraft in flight.

In addition, certain land use characteristics are recognized by C/CAG as hazards to air navigation in the vicinity of Half Moon Bay Airport. These include the following:

- Any use that would direct a steady or flashing light of white, red, green, or amber color toward an aircraft engaged in an initial straight climb following take-off or toward an aircraft engaged in straight final approach toward a landing, other than FAA-approved navigational lights.

- Any use that would cause sunlight to be reflected toward an aircraft engaged in a straight climb following take-off or toward an aircraft engaged in a straight final approach toward a landing.

- Any use that would generate smoke or rising columns of air.

- Any use that would attract large concentrations of birds within approach-c1imbout areas.

- Any use that would generate electrical/electronic interference that may interfere with aircraft communication equipment and/or aircraft instrumentation.

Any proposed local agency actions that affect property in an airport environs area, shall be reviewed by the C/CAG for a determination of consistency with the relevant provisions in the ALUP.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In accordance with Appendix G to the State *CEQA Guidelines* and the Regulatory Setting requirements, the proposed project could have a significant environmental impact if it would:

a) create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

b) create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

c) emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

d) be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

e) for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area.

f) for a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area.

g) impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

h) expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

As discussed in Section V.C (Impacts Found to Be Less Than Significant) of this DEIR, potential impacts associated with State CEQA Guidelines Threshold (c) above were determined to result in no impact because the project site is neither located within a quarter mile of a school nor is a school proposed to be developed in the vicinity of the project site. In addition, impacts associated with Threshold (d) above were found to have no impact as the Phase I ESA determined that the project is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 69562.5. Finally, impacts associated with Threshold (f) above were determined to have no impact because the project is not located in the vicinity of a private airstrip. Therefore, only Thresholds (a), (b), (e), (g), and (h) listed above are addressed in the following discussion.

Proposed Project

The project proposes development of residential, limited commercial, office, and recreational uses. The project proposes development that provides housing and employment opportunities for low-income developmentally disabled (DD) adults. The project site consists of two parcels: (1) the northern parcel (Office Park); and (2) the southern parcel (Wellness Center). The primary development of the Office Park would consist of four three-story office buildings and associated common areas (i.e., parking lot, walkways, wetland area, and a Communications Building). The office buildings are proposed at 45 feet 6 inches in height, with the closest one located approximately 100 feet from the Airport APZ of Runway 30 and approximately 600 feet southwest of the southern end of Runway 30. The 2,000 square foot

Communications Building would not exceed 32 feet in height and would be located within the Airport APZ, as would parking accommodations and a walking path. The primary development of the Wellness Center would consist of 70 residential units for approximately 50 DD adults and 20 live-in staff members, and associated common and living areas and recreational facilities (i.e., parking lot, walkways, wetland area, fencing, commercial kitchen, dining area, laundry area, office space, a multipurpose auditorium/theater, indoor pool, basketball courts, fitness center, and a separate Storage Building). The Wellness Center building heights would range from 15 feet 10 inches to 35 feet, with the closest residential unit located approximately 900 feet southwest of the southern end of Runway 30. The 20,000 square foot Storage Building is proposed at 36 feet in height and would be located within the Airport APZ, as would parking accommodations and a walking path.

To facilitate water recycling, the project proposes development and operation of an onsite wastewater treatment plant (WWTP) for treating wastewater produced on the site. The project is anticipated to generate approximately 26,000 gallons per day (gpd) of domestic wastewater. Membrane Bio-Reactor (MBR) technology is proposed to be used for the wastewater treatment. The MBR system components include: a preliminary treatment of course and fine screening to remove solids, a secondary biological denitrification process, a tertiary ultraviolet-disinfection treatment, and handling of the residuals (sludge). The WWTP would be sized to provide a maximum monthly treatment capacity of 0.25 million gpd. The majority of treated wastewater from the WWTP would be used for flushing toilets and agricultural irrigation. Recycled wastewater would also be used periodically for landscaping and wetlands restoration. All excess wastewater not recycled would be infiltrated through three drain fields and discharged into the onsite wastewater infiltration system. During drought periods, the project proposes to ration water by reducing agricultural irrigation and would send the majority of the recycled water to the infiltration drain fields for groundwater recharge (final design of the drain fields would be based on certified percolation tests). During wet periods, when groundwater levels are higher and reduce the allowable infiltration of the onsite soils, the WWTP's wastewater effluent would be discharged to the existing Granada Sanitary District's sewer system.

In addition to the discharge of treated effluent, the WWTP will generate sludge which must be disposed of. The proposed MBR system would generate approximately 10 pounds of dry solids per day. The applicant proposes to press and haul the associated sludge to Ox Mountain Landfill or blend it into a worm composting operation constructed in portable spreaders. The composted sludge would then be recycled agriculturally onto the adjacent 12-acre parcel of land immediately east of the Wellness Center property, which the applicant proposes to operate and farm.

The project proposes the use of wireless communications technology to provide significant internet, voice and data transmission capabilities to the Office Park and Wellness Center. The proposed project would leverage a high-capacity, redundant telecom link, which would connect to two 36-inch microwave dishes located on the east face of the proposed two-story Communications Building. The Communications Building would be located on the southeast corner of the proposed Office Park parking lot. The microwave dishes would be integrated into the wall and would not extend beyond five feet of the roofline (refer to Figure III-15). The dishes would face Montara Mountain (east across airport property) to

connect to a repeater tower, and the location and orientation of the dishes would be such that public exposure to radiofrequency electromagnetic fields (radio wave emissions) would be minimized. The proposed telecommunications link is a wireless based link that would connect the Big Wave development with the greater Bay Area internet exchanges and overall global internet, and would interconnect with the public telephone network. The link would operate in Federal Communications Commission (FCC) licensed space.

The project proposes the use of hydrogen fuel cells, wind turbines, and photovoltaic cells as alternative energy sources. Five kilowatts (kW) of molten carbonate fuel cells would be implemented to provide backup direct current (DC) power for the communications system. Molten carbonate fuel cells operate with natural gas and do not require stored hydrogen. If inexpensive and safe methods of hydrogen generation can be identified for off-peak production, the proposed project could potentially implement larger fuel cells for hydrogen generation. Buildings would be heated by either natural gas or solar power. Solar panels would be installed in racks on the rooftops of the Office Park and the Wellness Center, approximately four feet above the roofline. Wind power turbines would also be installed on the rooftops, primarily on the north and west faces, around the solar panel racks and at the same height. The turbines would be located in a screened-in box that rotates to face the prevailing wind direction (north and west).

For a more detailed description of the proposed project, refer to Section III (Project Description) of this DEIR.

Project Impacts and Mitigation Measures

Impact HAZ-1 Routine Transport, Use, and Disposal of Hazardous Materials

An impact is considered significant if a project includes activities that require routine transport, use or disposal of toxic or flammable materials associated with construction and/or operation of the project. Development, maintenance and use of the project site as a living and working community for developmentally disabled adults would introduce hazardous materials. The use, storage and/or disposal of the following substances could reasonably be expected as a result of the construction and operation of the proposed project: fossil fuels (i.e., gasoline, diesel, oil or other petroleum products used for construction and maintenance activities); construction materials (i.e., adhesives, paints, solvents, etc.); maintenance materials (e.g., paints, batteries, chemical cleaning products, disinfectants, chemicals for pool maintenance, pesticides, herbicides and fertilizers for agriculture use, bleach or acids for cleaning the MBR membrane); fuel for back-up power generation; solar cells; and medications/pharmaceuticals. The use, storage and/or disposal of the abovementioned materials could potentially cause contamination of soils and groundwater as well as posing a human health risk if not handled properly according to laws, ordinances and regulations. It is not anticipated that large quantities of these materials would be permanently used or stored within the project site.

Following development, occupancy of new residences would result in the production of normal household waste, and household hazardous waste, which may contain unknown hazardous materials. However, most household products are safe if used, stored, and disposed of correctly. Refer to Section

IV.N (Utilities and Service Systems) of this DEIR, for a more detailed discussion regarding the proposed project's solid waste generation and disposal.

The operation of the proposed WWTP would involve the regular handling, use and disposal of waste products during the course of normal operations. Given that the operation of the proposed, small scale WWTP would involve handling raw and treated sewage and operation of tanks and storage vessels with hazardous materials, there is a potential for these materials to be released to the environment through mishandling or an emergency situation. In addition, as discussed in Section IV.H. (Hydrology and Water Quality) of this DEIR, the proposed project could contribute pollutants to the environment via discharge of wastewater, which generally can have various contaminants when untreated, including human bodily waste, detergents, abrasives, and other household chemicals. Even recycled wastewater can contain relatively high levels of certain contaminants, including salts. However, the applicant proposes to meet the specific discharge requirements of Title 22 for unrestricted reuse of recycled tertiary treated wastewater in the design of the WWTP. The proposed tertiary process would produce treated wastewater that is intended to meet the combined RWQCB and CDPH criteria (i.e., CCR, Title 22, Division 4, Chapter 3, Article 3, §60304). The proposed onsite WWTP would need to be certified by the RWQCB and CDPH in the final permitting process, subject to approval from County Environmental Health, the CDPH, and the RWQCB for permitting the proposed wastewater system.

The applicant proposes to treat wastewater in accordance with standards mandated by the California Water Recycling Law (Water Code §13500 et seq.) and CCR Title 22 §60301 et seq. (i.e., disinfected tertiary recycled water). Recycled water used for flushing toilets would be distributed through purple colored pipelines (non-potable) in accordance with California Health and Safety Code (CHSC) §116815. Recycled water used for irrigation of agricultural row crops, landscaping, and wetlands restoration would be disposed via a subsurface drip emitter infiltration system.

In addition to the discharge of treated effluent, the WWTP will generate sludge which requires disposal. The applicant proposes to press and haul the associated sludge to a landfill facility or blend it into a worm composting operation constructed in portable spreaders and then recycled agriculturally. Sludge from the plant after composting would meet Class A sludge standards (i.e., biosolids pathogen requirements in Subpart D of 40 CFR, Part 503 regulation) for land application and agricultural uses for food crops. WWTP requirements are described in greater detail in Section IV.H (Hydrology and Water Quality) and Section IV.N (Utilities and Service Systems) of this DEIR.

Risk of upset associated with relatively common hazardous materials is anticipated to be minimal and largely site-specific; any upset (spill) would be limited in the area of impact and could be remediated following standard spill response procedures. Furthermore, full compliance with OSHA mandatory compliance safety plans, as well as other applicable federal, state, and local laws, regulations and programs related to the routine transport, use, and disposal of hazardous materials in the workplace would ensure that impacts resulting from the routine transport, use, disposal of hazardous materials associated with the construction and operation of the proposed project would not result in a significant hazard to human health and/or the environment. Therefore, hazardous material impacts associated with

construction and operation of the proposed project would be ***less than significant*** and no mitigation measures are required.

Impact HAZ-2 Accidental Release of Hazardous Materials

An impact would be considered significant if it involved the accidental release of a hazardous material, such as a major oil spill or leaking underground tank. The risk of upset and accidental release of hazardous materials is largely site-specific and would be associated with construction and operation of the Big Wave Wellness Center and Office Park as discussed in Impact HAZ-1 above. The following provides a more detailed discussion of these potential risks.

Illegal Dumping on the Project Site

Historically, the project site has been used for agriculture, and no buildings have been constructed at the project site. According to the applicant, illegal dumping consisting of tires, trees, and a boat has occurred at the project site. Treadwell & Rollo observed clusters of white objects along the northern-central edge of the Office Park parcel and along the southern edge of the Wellness Center parcel in aerial photographs from 2001. Based on the presence of dirt paths that lead to these white objects, it is possible that the white objects represent illegal dumping. Although illegal dumping may have occurred at the project site, there has been no data to indicate that the dumped material was a hazardous substance or a petroleum product. These conditions generally do not represent a threat to human health or the environment and generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. This does not qualify as a recognized environmental condition; therefore, the impact associated with the risk of upset and accidental release of hazardous materials onto the project site from previous illegal dumping would be ***less than significant*** and no mitigation measures are required.

Potential Non-Point Source Pollutants

In the vicinity of the project site, the local groundwater and the surface drainage are expected to flow in a northeast to southwest direction. The project site is relatively flat with a slight slope to the south. A natural drainage swale separates the two project parcels and leads to the Pillar Point Marsh. Non-point source contaminants, originating from properties northeast of the project site (e.g., the Airport) may be transported onto the project site as surface runoff via the drainage swale. However, because the Phase I ESA found no evidence to suggest a material threat of hazardous substances release onto the project site, the presence of the drainage swale does not currently qualify as a recognized environmental condition. Therefore, the impact associated with the risk of upset and accidental release of hazardous materials onto the project from this non-point source would be ***less than significant*** and no mitigation measures are required.

Potential Solvents in Groundwater from Hydraulically Up-Gradient Properties

Chlorinated solvents in groundwater have been identified at properties hydraulically up-gradient and north of the project site (Yu Property and El Granada Mobile Home Park). Quarterly groundwater

samples from the Corona, Culebra, and Retiro Wells located on these properties revealed historic detections of PCE and TCE (chlorinated solvents) in groundwater that steadily decreased from 1994 to 2003. Currently, the only concentrations of PCE and TCE in groundwater have been detected in the Corona Well at or near drinking water standards (located approximately 900 feet north of the project site). Chlorinated solvents have not been detected in groundwater from Retiro Well since 1997 (located approximately 400 feet north and hydraulically up-gradient of the project site). Based on the lack of detections in the Retiro Well and significant decreases in PCE and TCE concentrations in groundwater from the Corona and Culebra Wells, the San Mateo County Health Department indicated that the migration of chlorinated solvents onto the project site is unlikely. Therefore, this does not qualify as a recognized environmental condition, and the impact associated with these properties would be ***less than significant*** and no mitigation measures are required.

An agricultural supply well was installed in the northern part of the project site and has been pumping water intermittently for agricultural use since 1987. The agricultural well is screened within the same aquifer as the Corona, Culebra, and Retiro Wells (up-gradient of the project site) where chlorinated solvents have historically been detected. The pumping of water from this agricultural well may have drawn chlorinated solvents onto the project site. But based on laboratory analytical results from the Retiro Well and on information from the County Health Department, this condition generally does not represent a threat to human health or the environment and generally would not be the subject of an enforcement action. Therefore, this does not qualify as a recognized environmental condition and the impact would be ***less than significant*** and no mitigation measures are required. However, to determine whether hazardous substances have migrated onto the project site from the north or northeast, it is recommended that a groundwater sample be collected from the agricultural supply well (refer to Mitigation Measure HAZ-2 below).

Potential Hazardous Substances or Petroleum Products in Soil or Groundwater

Jet fuel and possibly other hazardous materials or petroleum products have been stored in various locations at the Airport, adjacent to the project site. At least one underground storage tank (UST) with unknown contents is located within 500 feet northeast of the project site. In addition, seven underground pump pits were identified along the taxiways near the hangar buildings, approximately 1,500 feet east of the project site. Although jet fuel has been documented at the Airport, there has been no evidence indicating a release of hazardous substances or petroleum products to soil or groundwater. However, due to the presence of a UST located within 500 feet northeast and up-gradient of the project site, if a release to soil or groundwater has occurred in the past, it may have migrated onto the project site. This condition generally does not represent a threat to human health or the environment and generally would not be the subject of an enforcement action. Therefore, this does not qualify as a recognized environmental condition, and the impact would be ***less than significant*** and no mitigation measures are required.

All other properties were either hydraulically down-gradient or cross-gradient, a significant distance from the project site, or were case-closed; and therefore unlikely to have impacted soil or groundwater at the project site.

Pesticide Use at the Project Site

Pesticides may have been applied to soil at the project site during previous agricultural use. Although the current owner and project site operator both indicate that to their knowledge pesticides have not been applied to soil at the project site, pesticides may have been applied to soil by previous project site users. Based on Treadwell & Rollo's professional experience with similar projects, the presence of pesticides at the project site is likely to be present and therefore qualifies as a recognized environmental condition, constituting a ***potentially significant*** impact. Because the extent of potential past contamination of soils is not yet fully known, the impacts related to the exposure of contaminants to construction workers, nearby businesses and residents during soil grading and excavation activities is unknown; therefore, the following mitigation measure is required.

Mitigation Measure HAZ-2 Accidental Release of Hazardous Materials

Prior to approval of final development plans, a Phase II Environmental Site Assessment (Phase II ESA) shall be performed at the project site to evaluate whether the recognized environmental conditions identified in the Phase I ESA represent an actual release of hazardous substances to soil or groundwater at the project site. To determine whether hazardous substances have migrated onto the project site from the north or northeast, a groundwater sample shall be collected from the agricultural supply well. The Phase II ESA shall include parameters that may be applied to a health risk assessment and remediation (Site Management Plan) if soil is inappropriate for reuse and required to be transported off the project site. The recommendations of the Phase II ESA shall be incorporated into project plans to the satisfaction of the County and in conformance with applicable regulations.

Impact HAZ-3 Hazards Associated with Airport Operations

An impact would be significant if the proposed land uses present a safety hazard associated with airport operations to people or property onsite or in the project area, or if the proposed land use would present a hazard to aircraft utilizing the Airport. As discussed previously, relatively few aircraft accidents are caused by land use conditions which are hazards to aircraft in flight. However, such potential exists, and protecting against such conditions is essential to airport/land use safety compatibility. Airport safety zones are established by the ALUP. Both project parcels fall within approximately 100 feet of the Approach Protection Zone (APZ) of the southern approach (Runway 30). Refer to Figure IV.G-1. As mentioned previously, prevailing winds (north and west) generally favor Runway 30, and this southern approach is used 85 percent of the time. The project site's eastern boundary line is located approximately 500 feet from the centerline of Runway 30. The proposed Office Park buildings would not exceed 45 feet 6 inches in height, with the closest office building located approximately 100 feet from the Airport APZ of Runway 30 and approximately 600 feet southwest of the southern end of Runway 30. The 2,000 square foot Communications Building associated with the Office Park would not exceed 32 feet in height and would be located within the Airport APZ. The proposed Wellness Center building heights would range from 15 feet 10 inches to 35 feet, with the closest residential unit located at the APZ boundary and approximately 900 feet southwest of the southern end of Runway 30. The 20,000 square foot Storage Building associated with the Wellness Center would not exceed 36 feet in height and would be located

within the Airport APZ. The proposed Communications and Storage buildings would be located in the Airport Overlay (AO) setback. The AO setback is the required distance setback from the airport runway approaches. The structures proposed within the AO setback do not include residential uses or uses with three or more persons occupying the use at one time. These buildings would also have an approximately 20-foot setback from the Airport Street Right-of-Way (ROW) line.

The San Mateo County Comprehensive Airport Land Use Plan has designed safety and land use compatibility criteria to minimize the risks associated with potential aircraft accidents. Allowed uses in the APZ are: cemeteries (no chapels or funeral homes and cannot result in a gathering of more than 10 persons per acre at a time); golf courses (no club houses, bars, restaurants, or banquet facilities); industrial uses associated with manufacturing (cannot result in a gathering of more than 10 persons per acre at a time), transportation, and communications; and agricultural uses associated with crop production and livestock pasture and grazing (cannot result in a water area that may cause ground fog or result in bird hazard). It is the policy of the Airport Land Use Commission to keep APZs free of structures. Although the project does propose structures within the APZ, the structures do not include residential uses or uses with three or more persons occupying the use at one time, consistent with AO setback requirements.

Architectural and design features of the proposed project would comply with all applicable regulations and standards. The location and orientation of the microwave dishes would be such that public exposure to radiofrequency electromagnetic fields (radio wave emissions) would be minimized and would not be expected to interfere with Airport communications. The wireless telecommunications link would operate in Federal Communications Commission (FCC) licensed space. Solar panels would be positioned on rooftops so as not to create a glare for aircraft navigation. Building surfaces and a lighting plan would also be designed so as not to create a glare or visual interference for aircraft navigation. Wind turbines would be located in screened boxes to keep birds from hitting the rotating blades as well as from nesting.

During the preparation of the Draft EIR, the County received comments regarding potential wind impacts from the project to planes landing onto Half Moon Bay Airport runway. The comments expressed concern that, due to the orientation of the proposed Office Buildings, a wind tunnel could be created between two of the buildings, directly strong winds towards the Half Moon Bay Airport runways, making it hard for pilots to land planes at the airport, particularly smaller, lighter planes. However, the potential for a project-related wind tunnel is anticipated to be low, due to the terrain at the project site. The Pillar Ridge mountains currently block prevailing winds from the west and would prevent a wind tunnel effect.

Full compliance with all applicable federal, state, regional, and local regulations, programs and plans related to land uses in proximity to a public airport would be required. Therefore, the project would result in a ***less-than-significant*** impact associated with airport safety hazards to people residing or working in the area of a public airport.

The following mitigation is provided to assure that impacts remain less than significant:

Mitigation Measure HAZ-3 Hazards Associated with Airport Operations

Prior to approval of final development plans, a navigational easement shall be established for the project site, to the satisfaction of the County Director of Public Works. The navigational easement shall be recorded and shown on the vesting tentative map.

Impact HAZ-4 Interfere with an Adopted Emergency Response Plan or Emergency Evacuation Plan

As discussed in Sections IV.M (Transportation and Traffic), the proposed project would not generate sufficient traffic to create severe traffic congestion, nor would it interfere with emergency access to the site. Emergency vehicle access to the project site is provided from major roadways near and adjacent to the site. Major roadways near the project site include: State Route (SR) 1 (Cabrillo Highway) and Airport Street. The project site can be directly accessed from the surrounding streets, including: Cypress Avenue, Marine Boulevard; Capistrano Road, Prospect Way; and California and Cornell Avenues, located to the west, east and south of the site, respectively. Fire access and emergency access fencing and gates would be installed for the Wellness Center property and would run along the AO setback line between the buildings (refer to Figure III-24). The gates would be designed to be opened for fire access. In addition, two lock box access points would be available to allow fire trucks access to the proposed walking trail behind the Wellness Center. Development of the project site would be designed in accordance with all County regulations, including those pertaining to emergency access and evacuation. Therefore, impacts associated with an emergency response or evacuation plan would be ***less than significant***.

Impact HAZ-5 Hazards Associated with Wildfires

Although the project site is not located immediately adjacent to wildlands, the County has identified the project site to be located within a Community at Risk zone—neighborhoods or communities that interface with wildlands. Also, nearby agricultural lands adjacent to the Airport and east of Cabrillo Highway interface with an open space area that extends to Montara Mountain. This open space area is identified by CAL FIRE as a very high fire hazard zone. Development of new buildings located within an area designated by the enforcing agency to be at significant risk from wildfires, for which an application for a building permit and/or plan approval for construction is submitted, must meet the intent of CBC Chapter 7A, Materials and Construction Methods for Exterior Wildfire Exposure. Fire safety features in accordance with CBC standards include use of fire resistive building materials and adequate clearance of flammable materials from around buildings. Building standards require that building products and construction methods comply with applicable codes and ordinances of the local authority having jurisdiction, compliance must be submitted to the building official having jurisdiction for final approval.

The project applicant shall submit building plans and plot plans to the County and Coastside Fire Protection District to provide appropriate fire hazard management recommendations for inclusion as project conditions of approval. Therefore potential impacts from wildland fires would be ***less than significant*** and no mitigation measures are required.

For a more detailed discussion of project design in relation to fire safety, refer to Section IV.L (Public Services-Fire Protection) of this DEIR.

CUMULATIVE IMPACTS

Development of the project in combination with the 37 related projects listed in Table III-1, (Related Projects) in Section III (Project Description) of this DEIR has the potential to increase the risk for accidental release of hazardous materials. The related projects list represents the broadest range of reasonable foreseeable development, including a number of projects that have not yet been approved. Each of the 37 related projects would require evaluation for potential threats to public safety, including those associated with transport/use/disposal of hazardous materials, accidental release of hazardous materials into the environment, hazards to sensitive receptors, listed hazardous material sites, aircraft-related hazards, emergency response, and wildland fire-related hazards. Because hazardous materials and risk of upset conditions are largely site-specific, this evaluation would occur on a case-by-case basis for each individual project affected, in conjunction with development proposals on these properties. Furthermore, implementation of Mitigation Measures HAZ-1 and HAZ-2 recommended above would reduce the project's impacts associated with hazards and hazardous materials and impacts would be less than significant and would not contribute to a cumulative impact to hazards and hazardous materials. Further, each related project would be required to follow local, state, and federal laws regarding hazardous materials and other hazards, including emergency response, airport operations and wildland fires (if applicable). Therefore, with full compliance with local, state, and federal laws pertaining to hazards and hazardous materials, cumulative impacts would be ***less than significant*** and no additional mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of mitigation measures listed above the project would have a ***less-than-significant*** impact with respect to hazards and hazardous materials.

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