
V. ENVIRONMENTAL IMPACT ANALYSIS

F. HAZARDS AND HAZARDOUS MATERIALS

INTRODUCTION

This section evaluates the potential public health impacts from exposure to hazardous materials¹ that may be encountered, brought to, or generated at the site during development and operation of the proposed project. The evaluation was based on a review of available information included with the application, published materials, and a site reconnaissance. This section evaluates information from the following site-specific technical reports (including the results of samples collected from the site):

- *Phase I Environmental Site Assessment, 37-Acre Haystack Landing Property, Petaluma, California*, prepared by Fugro West, March 2004.
- *Phase I Environmental Site Assessment Update, Haystack Landing Property, Petaluma, California*, prepared by Fugro West, February 2006.

ENVIRONMENTAL SETTING

As discussed in detail in Section III. Project Description, the Dutra Haystack Landing Asphalt and Recycling Facility project site is located in unincorporated southwestern Sonoma County directly south of the City of Petaluma. The site consists of three vacant parcels and is situated between the Petaluma River and Highway 101. With the exception of a small hill, the undeveloped site is characterized by relatively flat topography. Brush and shrub vegetation exist throughout the majority of the site and some larger trees are dispersed. Levees, drainage ditches and ephemeral channels traverse the site, and several jurisdictional wetland areas are present. Railroad tracks for the Sonoma Marin Area Rail Transit (SMART) run adjacent to the project site.

Project Site Hazardous Materials Setting

Information on previous land uses with potential hazardous materials uses, site reconnaissance observations, and regulatory agency databases reviewed in the Phase I ESA and Phase I ESA Update for the project site are summarized for hazardous materials.

Historical Land Uses

The proposed project area is generally known as Haystack Landing, which was historically a shipping center and stopping point for people and products transported between Petaluma and San Francisco.² A railroad corridor has been in existence since the early 1900s, bisecting the smaller 0.86-acre portion of the site

¹ *The California Health and Safety Code defines a hazardous material as "... any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety, or to the environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous waste, radioactive materials, and any material which the handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment" (Health and Safety Code, Section 25501).*

² *County of Sonoma Permit and Resource Management Department, Environmental Checklist Form, Dutra Haystack Landing Asphalt and Recycling Facility, 17 February 2006.*

adjacent to the Petaluma River from the 37-acre portion of the site to the west of the railroad tracks.³

The 0.86-acre portion of the site has historically been largely undeveloped, with the exception of a residence observed on the property in 2004.⁴ This structure is no longer present at the site.⁵ Various temporary encampments, observed during a 2004 site reconnaissance of the property, have been removed from the site.⁶

The majority of the property (the larger 37-acre portion of the site) was used as a dairy farm from about 1860 until about 1968 when the farm was purchased by a local gravel and asphalt quarry operation located on the west side of Highway 101 just north of the project site.⁷ Farmhouses and associated structures were located on the northwestern corner of the property since the 1860s;⁸ the farm structures have since been removed from the site or have been destroyed by fire.⁹ The northern 27 acres of the site were leased back to the dairy rancher in 1968 and the remaining 10 acres located in the southern portion of the site were used for the disposal of quarry wash-water.¹⁰

By 1968, ponds were constructed in the middle and southern portions of the site as five sedimentation and retention ponds for the quarry.¹¹ Cast iron pipelines were reportedly used to convey the wash-water downhill from the quarry and below the northern portion of the site before emptying into the ponds. The quarry fines were settled out from the quarrying wash-water prior to discharge to the Petaluma River. The northernmost pond was reportedly filled in 1976 with earthen material from an adjacent hill. The remaining ponds were actively used by the quarry until the mid-1970s. Two ponds were in continuous use at the site until at least 1990. None of the ponds have been reported to be used for quarry or other operations since 1990.¹²

Stockpiled soil and building material debris were observed at the time of the site reconnaissances in 2004 and 2006. The material in the stockpiles appeared to be processed building materials. Both brick and fire debris were observed, and were reported to have been illegally discarded on-site and could contain elevated concentrations of metals and/or other chemicals that are not suitable for reuse on-site. The preparers of the Phase I ESA and Update recommended that, if fill material were unsuitable, it should be removed from the site prior to redevelopment.¹³

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Ibid.

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Macmillan, Lucy, and Ecosystems West Consulting Group, Biological Constraints Analysis, Haystack Landing Project Site, Petaluma, California, prepared for Pagliaio Ventures, LLC, Petaluma, California, 15 October 2004.

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Aerial photograph of project site, photograph provided by the client to BASELINE Environmental Consulting, photograph taken 29 December 2005.

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Fugro West, Phase I Environmental Site Assessment Update, Haystack Landing Property, Petaluma, California, prepared for the Dutra Group, February 2006.

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Macmillan, Lucy, Wetlands Specialist, and Ecosystems West Consulting Group, 2004, op. cit.

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County of Sonoma Permit and Resource Management Department, 2006, op. cit.

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Ibid.

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Macmillan, Lucy, Wetlands Specialist, and Ecosystems West Consulting Group, 2004, op. cit.

¹¹

Ibid.

¹²

Ibid.

¹³

Fugro West, Phase I Environmental Site Assessment, 37-Acre Haystack Landing Property, Petaluma, California, prepared for the Dutra Group, March 2004; Fugro, 2006, op. cit.

Soil Sampling and Testing

Miller Pacific developed and implemented an on-site analytical testing program in October 2005 to characterize materials proposed for excavation during proposed grading. Soil samples were collected at 1.5 to seven feet below ground surface (bgs) at seven locations.¹⁴ The samples revealed the site was underlain by three to eleven feet of artificial fill. Groundwater was encountered in one of the seven borings at a depth of three feet bgs.

Sample analysis examined total petroleum hydrocarbons as gasoline (TPHg), diesel (TPHd) and motor oil (TPHmo) with silica gel cleanup, and total metals. No TPHg, TPHd, or TPHmo were reported in any of the samples analyzed. All of the sampling results for metals were reportedly well below the total threshold limit concentrations (TTLc) per Title 22 of the California Code of Regulations,¹⁵ and would therefore not be considered a hazardous waste based on these criteria, once excavated.

With the exception of cobalt, detected metal concentrations were also below the respective Environmental Screening Levels (ESLs) established by the San Francisco Regional Water Quality Control Board¹⁶ for commercial and construction worker exposure scenarios. Cobalt concentrations (16 to 29 mg/kg) were above the 10 mg/kg ESL, but reported to likely represent background concentration and not due to any specific source material. The preparers of the Phase I ESA and Update, however, recommended preparation of a Health and Safety Plan and implementation of dust control practices, site control procedures, and soil handling procedures to reduce exposure to soil and dust, during construction activities.

Asbestos Sampling and Testing

Hazardous Material Assessment collected samples in January 2004 from five structures on the property scheduled for demolition. The samples were analyzed for asbestos.¹⁷ The sampling effort identified no asbestos-containing materials.¹⁸ As stated above, the structures were removed following the survey or were burned in a fire.

Regulatory Agency Listings and Files

The project site is not included on the list of federal, state, or local regulatory agency databases of potential hazardous materials release sites.¹⁹ The provisions in CA Government Code Section 65962.5 are commonly referred to as the "Cortese List" (after the Legislator who authored the legislation that enacted it). Organizations responsible for maintaining state agency databases of hazardous materials release sites on the Cortese List include Department of Toxic Substances Control, State Department of Health Services, State Water Resources Control Board, and California Integrated Waste Management Board. The Sonoma County Environmental Health Department and Sonoma County Fire Department have no case files for these addresses

¹⁴ Miller Pacific Engineering Group, *Letter Regarding Environmental Sampling and Testing, Dutra Haystack Landing, Petaluma, California, prepared for Dutra Materials, 11 November 2005.*

¹⁵ Title 22, *California Code of Regulations, Section 66261.24-1 (Table II-List of Inorganic Persistent and Bioaccumulative Toxic Substances and Their Soluble Threshold Limit Concentration).*

¹⁶ <http://www.waterboards.ca.gov/sanfranciscobay/esl.htm>: Accessed by BASELINE Staff

¹⁷ Hazardous Materials Assessment, Inc. *Letter Regarding Asbestos Survey #04.017, prepared for B. Peer, Dutra Group, 30 January, 2004.*

¹⁸ Fugro, 2006, *op. cit.*

¹⁹ Fugro, 2006, *op. cit.* Environmental Data Resources, Inc. (EDR) database report dated August 16, 2005 (Appendix B).

at the time of preparation of the Phase I ESA. No sites with hazardous materials releases were located within one-quarter mile of the site in either the 2004 or 2006 Phase I ESA or Update reports.

REGULATORY SETTING

Federal/State and Regional/Local

The following section describes the federal, state, and local regulatory framework for hazardous materials and worker health and safety requirements.

Hazardous Materials

In California, the U.S. Environmental Protection Agency (U.S. EPA) has granted most enforcement authority over federal hazardous materials regulations to the California Environmental Protection Agency (Cal/EPA). In unincorporated Sonoma County, the Department of Emergency Services, Hazardous Materials Division (Sonoma County), has the responsibility for the County's Certified Unified Program Agency (CUPA) program (California Health and Safety Code Chapter 6.11), including the hazardous materials business plan, hazardous waste generators, underground tank storage, accidental release prevention and portions of the Uniform Fire Code that address hazardous materials. In the City of Petaluma, the Petaluma Fire Department is the CUPA.

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 (BAAQMD) has oversight over air emissions, and the North Coast Regional Water Quality Control Board (RWQCB) 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 Cal/EPA Department of Toxic Substances Control (DTSC), regional agencies, such as RWQCB, or local agencies, such as Sonoma County.

Any business with hazardous materials storage, use, and/or disposal is required to comply with federal, state, and local requirements for managing hazardous materials. These plans include the primary hazardous materials programs administered by Sonoma County Department of Emergency Services (CUPA Plans, Programs and Permits) as well as other requirements of state and federal laws and regulations. Depending on the precise types and quantities of hazardous materials used, stored, and disposed of from the project site, these applicable hazardous materials requirements may include the preparation of, implementation of, and training in the following plans, programs, and permits.

CUPA Plans, Programs, and Permits

Hazardous Waste Generator Requirements

Facilities that generate more than 100 kilograms per month of hazardous waste, or more than 1 kilogram per month of acutely hazardous waste, must be registered in accordance with the Resource Conservation and Recovery Act (RCRA) (Title 42, U.S. Code, Sections 6901 et seq.)

Aboveground (AST) and Underground Storage Tank (UST) Permits

Facilities with ASTs or USTs must be permitted. Other plans, such as a Spill Prevention Control and Countermeasures (SPCC) Program, may be required due to the size and type of hazardous materials stored in the ASTs. The SPCC Program provides a detailed engineering analysis of the potential for release from

oil-filled equipment, and describes the measures, such as secondary containment and emergency response, that must be implemented to reduce the release potential.

Hazardous Materials Business Plan (Business Plan)

Facilities that use, store, or handle hazardous materials in quantities greater than 500 pounds of solids, 55 gallons of liquid, or 200 cubic feet of compressed gas are required to prepare a Hazardous Materials Business Plan and comply with Uniform Fire Code requirements for storage of hazardous materials. The Business Plan must contain facility maps, up-to-date inventories of all hazardous materials for each shop/area, product transfer areas, emergency response procedures, equipment, and a description of employee training.

Hazardous Material Release Response Plan (Contingency Plan)

As a part of the Hazardous Materials Business Plan, all facilities that generate hazardous waste must prepare an Emergency Response Contingency Plan. The Contingency Plan identifies the duties of the facility Emergency Coordinator and location of emergency equipment, and includes reporting procedures for the facility Emergency Coordinator to follow after a hazardous materials incident.

California Accidental Release Program (CalARP)

Businesses that use significant quantities of acutely hazardous materials must prepare a detailed engineering analysis of the potential accident factors present at a business and the mitigation measures that can be implemented to reduce this accident potential. CalARP requirements typically apply to heavy industrial properties such as factories and refineries.

Non-CUPA Plans, Programs, and Permits

Injury and Illness Prevention Plan

The California General Industry Safety Order requires that all employers in California 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.

Hazard Communication Plan

Facilities involved in the use, storage, and handling of hazardous materials are required to prepare a Hazard Communication program. The purpose of the Hazard Communication program is to provide methods on safe handling practices for hazardous materials, ensure proper labeling of hazardous materials containers, and ensure employee access to Material Safety Data Sheets (MSDS).

Septic Systems

The Sonoma County Permit and Resource Management Department (PRMD) requires permits for operation of sewage disposal systems. Septic systems must be designed by a qualified environmental professional and all SCPRMD requirements for soils analysis, percolation testing, groundwater testing, and design elements must be satisfied to obtain the permit.

Air Quality Permits for Stationary Sources

Facilities that emit pollutants into the air from sources other than motor vehicles and consumer products are required to be permitted by the BAAQMD. (See the Air Quality section for details on air permitting requirements and toxic air contaminants.)

Worker Health and Safety Regulations

Worker health and safety is regulated at the federal level by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA). Under this jurisdiction, workers at hazardous waste sites (or workers coming into contact with hazardous wastes that might be encountered during excavation of contaminated soils) must receive specialized training and medical supervision according to the Hazardous Waste Operations and Emergency Response (HAZWOPER) regulations (29 CFR 1910.120).

Worker health and safety in California is regulated by the California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA). California standards for workers dealing with hazardous materials (including hazardous wastes) are contained in CCR Title 8 and include practices for all industries (General Industrial Safety Orders), and specific practices for construction, and hazardous waste operation and emergency response (CCR Title 8, Section 5192). Cal/OSHA conducts on-site evaluations and issues notices of violation to enforce necessary improvements to health and safety practices.

Sonoma County General Plan

The Sonoma County General Plan was reviewed to ascertain policies relevant to hazardous materials. Although the plan is currently being updated, the 1981 plan is the current plan as of the date of this environmental review. Policies from the Public Health and Safety Element of the General Plan relevant to the proposed project are analyzed in Section V.H (Land Use), Table V.H-2.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In accordance with Appendix G of the *CEQA Guidelines*, the proposed project could have a significant environmental impact on Hazards and Hazardous Materials if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- 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;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- 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;
- 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;
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan;
- 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.

Impacts Not Analyzed Further

The Hazards and Hazardous Materials impacts that were determined by the Initial Study not to rise to the level of significance are discussed below but do not require further analysis in this section, as per thresholds provided in Appendix G of the Hazards and Hazardous Materials *CEQA Guidelines*. The No Impact or Less-than-Significant determination was based on the following information.

- The project site is not near any school, so the criterion of emitting hazardous emissions or handling hazardous, or acutely hazardous material, substance, or waste within one-quarter mile of a school site is not applicable to the project.
- The project site is not listed on the list of hazardous materials sites compiled pursuant to Government Code 65962.5.²⁰ The criterion of a project being located on the list of hazardous materials sites with a resulting significant hazard to public health and the environment is therefore not applicable to the project.

²⁰ *Fugro, 2004; op. cit.; Fugro, 2006, op. cit.*

- The project site is not located within two miles of a public or private airport/airstrip. Gness Field, located north of Novato, is located more than five miles from the proposed project site. The site is also outside of the Airport Land Commission boundary for the Petaluma Airport.²¹ Therefore, there would be no safety hazard for people residing or working on the project site.
- The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- The project site is not located within an area designated as having a very high or high potential for wildland fires.²² Thus, the criterion of the proposed project exposing people or structures to significant loss, injury, or death involving wildland fires is therefore not applicable to the project.

Project Impacts and Mitigation Measures

Impact HAZ-1 Improper Use, Storage, or Disposal of Hazardous Materials During Construction

Construction activities associated with the start-up phase and full build out phase of the project would require the use and transport of hazardous materials, including fuels, oils, and other chemicals (e.g., paints, adhesives) used during construction. It is likely that these hazardous materials and vehicles would be stored by the contractor(s) on-site during construction activities. Improper use and transportation of hazardous materials could result in accidental releases or spills, potentially posing health risks to workers, the public, and the environment. This is a *significant* impact.

Mitigation Measure HAZ-1a

The Storm Water Pollution Prevention Plan (SWPPP) required for the project (see Mitigation Measures in the Hydrology and Water Quality Section) shall include emergency procedures for incidental hazardous materials releases. The procedures shall include necessary personal protective equipment, spill containment procedures, and training of workers to respond to accidental spills/releases.

Mitigation Measure HAZ-1b

The SWPPP shall also include Best Management Practices, which shall include requirements for hazardous materials storage during construction to minimize the potential for releases to occur (See Mitigation Measures in the Hydrology and Water Quality Section). All use, storage, transport and disposal of hazardous materials during construction activities shall be performed in accordance with existing local, state, and federal hazardous materials regulations.

Impact HAZ-2 Site Grading Could Cause a Release of Potential Soil Contaminants or Creation of Safety Hazards to Construction Workers and the General Public

The proposed development for the start-up phase and full build out phase would include grading of the site for construction of the asphalt plant and stockpile areas, barge off-loading facility, conveyor system, and facilities for use by the San Antonio Volunteer Fire Department (SAVFD). Grading and leveling would be balanced (i.e., no import or export of materials) under the proposed project; approximately 36,660 yards of cut would be placed in two fills. Material would be relocated from higher elevations to the intermediate areas

²¹ Sonoma County General Plan, 1989, *op. cit.*

²² Figure PS-1h, Schematic Map of Area Subject to Safety Policy Requirements, Petaluma and Environs, Planning Area, Public Safety Element, Sonoma County General Plan, 1989, *op. cit.*

to establish stable, level building pads. Of the total site area, approximately 28.2 acres would be disturbed as part of the grading operation. Acreage at the southeast end of the site would be preserved as open space/wetlands and could create habitat for vectors that may transmit disease (i.e., mosquitoes).

During site grading, construction workers could encounter residual contaminants (e.g., cobalt) in site soils and underground structures (septic systems, water wells, and petroleum product pipelines near the railroad tracks). These actions could result in a health and safety risk to construction workers and the off-site receptors.

Fill containing brick and fire debris was observed to have been stockpiled in a portion of one of the ponds and could potentially contain hazardous materials and present health risks to construction workers if disturbed or reused on the site. Pipelines that formerly contained quarry wash water were also observed on-site and could be damaged during construction activities, resulting in safety concerns to construction workers.

A release of potential soil contaminants or creation of hazards for construction workers or the general public by site grading activities during the start-up phase and full build out phase is considered a *significant* impact.

Mitigation Measure HAZ-2a

Prior to approval for any grading or construction permits at the project site, a Construction Risk Management Plan (CRMP) shall be prepared by a qualified environmental professional and implemented during the duration of construction activities at the site. The CRMP shall summarize previous environmental investigations conducted for the project site and, in accordance with State and federal laws and regulations, shall describe worker health and safety provisions for all workers potentially exposed to residual contaminants in soil, including the need for dust suppression controls, air monitoring, personal protective equipment to be worn by workers to minimize exposures, soil management procedures, management of dewatered groundwater (as applicable), site control, and emergency response procedures.

The CRMP shall also provide procedures to be undertaken in the event that previously unreported contamination or subsurface hazards (such as septic systems, wells, underground pipelines) are discovered during construction, and establish detailed procedures for the safe storage, stockpiling, sampling, reuse of fill, and off-site disposal of hazardous materials and other materials (fire debris, soil) at the project site.

The CRMP shall incorporate construction safety measures for excavation and other construction activities and procedures for abandonment of the former quarry pipelines. The CRMP shall designate personnel responsible for implementation during construction activities and shall be submitted to the Sonoma County PRMD for review and approval.

Mitigation Measure HAZ-2b

The observed fill material containing brick and fire debris shall be sampled prior to soil disturbance by an environmental professional to assess the presence of hazardous materials and the potential risk to human health and public safety from the contamination (if any). The sampling shall be conducted by a qualified environmental professional in accordance with state and local guidelines and regulations, with oversight from the Sonoma County Department of Environmental Health (SCDEH). The findings of the soil sampling investigation shall be documented in a written report and submitted to SCDEH and SCPRMD.

If the results of the soil sampling investigation indicate the presence of hazardous materials that could affect public health or the environment, remediation of this area shall be required by the applicable regulatory

oversight agencies. Specific remedies would depend on the extent and magnitude of contamination. Under the direction of the SCDEH and the SCPRMD, a Site Remediation Plan shall be prepared, if required, by the project sponsor or contractor(s). The Plan shall specify: 1) measures to be taken to protect workers and the public from exposure to potential site hazards, and 2) certify that the proposed remediation measures would clean up the waste, dispose of the waste, and protect public health and the environment in accordance with local, state, and federal requirements. Any remediation required shall be completed prior to earthwork in the areas affected.

Mitigation Measure HAZ-2c

A mosquito and vector control plan shall be prepared by a qualified professional and submitted to the Marin-Sonoma Mosquito and Vector Control District for approval. The approved plan shall be submitted to SCPRMD prior to on-site earthwork activities and shall be implemented as part of the proposed project. The plan shall specify areas where mosquito larvae are likely to be present on-site (e.g., in areas with standing water) and mosquito management methods. The management methods may include the use of chemicals (i.e., pesticides), biological methods (e.g., use of mosquito fish in water bodies, or *Bacillus thuringiensis*²³), and/or control of excess runoff and areas where water can accumulate.

Impact HAZ-3 Operational Routine Transport, Use, Production, or Disposal of Hazardous Materials and Septage, and Potential Risk of Upset Associated with These Hazardous Materials Uses

Operation of the plant during either the start-up phase or the full build out phase would require materials to be imported to the facility for use in asphalt and rubberized asphalt production including asphaltic oil, recycled asphalt products, sand, fines, aggregate, and recycled crumb rubber. Loaders would be used on-site to take material from stockpiles and place it into bins for use in the asphalt plant. In the production of asphalt, liquid asphalt would be sprayed onto the heated aggregate material and mixed to its final consistency. The asphalt would be stored in storage silos for direct loadout into a customer's truck.

The applicant proposes: a 30,000-gallon tank for asphaltic oil storage and a 500-gallon fuel storage tank for equipment usage. The asphalt would be temporarily stored in silos after it is made and before distribution to the end-user sites. The silos would be heated using natural gas; therefore, no heater fuel storage would be required on-site.

Other hazardous materials and wastes could be transported, used, and generated from on-site vehicle maintenance and equipment activities. A Storm Water Pollution Prevention Plan prepared for the previous off-site Petaluma facility, operated by the applicant, indicated that lesser quantities of other hazardous materials and hazardous wastes were stored and generated on-site, including motor oil, gear lube, automatic transmission fluid, compressed gases, waste oil, and used oil filters.²⁴ It is likely that similar hazardous materials and quantities of these materials would be stored and hazardous wastes generated at the proposed asphalt plant.

²³ *The bacterium Bacillus thuringiensis infects and kills mosquito larvae. It must be consumed by the larvae and acts as a stomach poison, damaging mid-gut cells of mosquito larvae. It is highly selective, killing only mosquitoes and larvae of a few other related flies. Information reviewed on-line, <http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7451.html#MANAGEMENT>, 11 May 2006 accessed by BASELINE Staff.*

²⁴ *The Dutra Group, Petaluma Quarry, Storm Water Pollution Prevention Plan, Updated 21 May 2004.*

In addition, hazardous materials would be stored on-site for the SAVFD. The SAVFD would use the project site to conduct response drills and for equipment storage. Engine oil and other items associated with vehicle and equipment maintenance for four engines housed at the station would be stored on-site in approved storage containers.²⁵

All businesses transporting, storing, using or disposing of hazardous materials (including wastes) must comply with applicable local, state, and federal regulations for hazardous materials management. These include the primary hazardous materials programs administered by Sonoma County Department of Emergency Services as well as other requirements of state and federal laws and regulations, including compliance with the Uniform Fire Code for hazardous material storage. The applicant has prepared an Emergency Response Action Plan at its San Rafael Facility, with procedures for spills, fires, or other emergencies (e.g. earthquake, flood), evacuation routes, and worker training.²⁶

Numerous hazardous materials would be routinely transported, used, produced, and hazardous waste generated at the site under the proposed project. Accidental releases associated with these hazardous materials uses could adversely affect on-site workers, off-site receptors, and the environment. This is a *significant* impact.

Mitigation Measure HAZ-3

The applicant shall engage a Fire Protection Engineer to perform a code analysis and submit a comprehensive fire protection plan for the proposed project for review by the SCPRMD and the County Fire Marshall. The submittal shall include an evaluation of the project's compliance with the uniform fire code requirements relating to storage of hazardous materials (including aboveground tanks), the need for fire suppression system, alarm systems, storage of flammable or combustible materials, containment basins around hazardous materials, and compliance with hazardous materials regulations. Both hazardous materials at the proposed asphalt plant and those for the SAVFD shall be considered in the review.

CUMULATIVE IMPACTS

The use, generation, transport, or disposal of any hazardous substance associated with any of the projects in the vicinity of the proposed project could result in potential impacts to the public health and safety for the construction and operation phases of these projects. These potential impacts would be site-specific.

Local municipalities, like the Sonoma County Department of Emergency Services, and Petaluma Fire Department, which are the local CUPAs for Sonoma County (unincorporated Petaluma) and the City of Petaluma, implement local, state, and federal laws and regulations regarding the storage, use, transport, and disposal of hazardous materials through routine site inspections. Therefore, assuming compliance with applicable laws and regulations for nearby projects, cumulative impacts from hazardous materials during project construction and operation are considered *less than significant*.

The project is not expected to generate significant quantities of materials requiring off-site disposal. To the extent possible, grading and leveling of the site would be balanced under the proposed plan with fill material containing brick and fire debris as the only material potentially requiring off-site disposal. Wastes requiring

²⁵ Corda, Jerry, Fire Chief, San Antonio Volunteer Fire Department, Letter to Dutra Group (no subject), 24 March 2006.

²⁶ San Rafael Rock Quarry Emergency Response Action Plan, transmitted 11 May 2005.

off-site disposal at nearby projects could include contaminated railroad right-of-way ballast for the SMART Project.²⁷ The off-site disposal of hazardous materials is considered a *less-than-significant* cumulative impact, since off-site disposal for the two projects would be limited to the duration of project construction.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Upon implementation of the above mitigation measures and compliance with applicable local, state, and federal hazardous materials regulations, hazardous materials/public health and safety impacts from the proposed project, during project construction and operation, would be *less than significant*.

²⁷

G. Helfrich, Sonoma County Planning and Resource Management Division, Letter Regarding Comments on the DEIR, Sonoma Marin Area Rail Transit (SMART) to L. Hames, SMART District Office, 23 January 2006.