

9

HAZARDS AND HAZARDOUS MATERIALS

9.1 INTRODUCTION

The Hazards and Hazardous Materials chapter of the EIR describes existing and potentially occurring hazards and hazardous materials within the proposed project areas. The chapter includes a discussion of potential impacts posed by such hazards to the environment. In addition, surrounding land uses are discussed in order to provide an assessment of whether the project could impact surrounding land uses. The question of whether surrounding land uses could impact the project's future residents is not a question requiring analysis under CEQA.¹

The Hazards and Hazardous Materials chapter is primarily based on information drawn from the February 2006² and March 2006³ Sampling Analysis for the Whitehawk I (WHI) property by Geocon Consultants, Inc. (Geocon) (see Appendix G), the Phase I Environmental Site Assessment (ESA)⁴ and the July 2014 Sampling Report⁵ prepared for the WHI property by Wallace Kuhl & Associates (WKA) (see Appendix H), and the Phase I ESA⁶ and the June 2014 Sampling Report⁷ prepared for the Whitehawk II (WHII) property by WKA (see Appendix I), as well as the Placer County General Plan,⁸ the Placer County General Plan EIR,⁹ and the Granite Bay Community Plan (GBCP).¹⁰

¹ Per the *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 (CBIA), the California Supreme Court held that “agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents. But when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users. In those specific instances, it is the project's impact on the environment – and not the environment's impact on the project – that compels an evaluation of how future residents or users could be affected by exacerbated conditions.” (*Id.* at pp. 377-378.).

² Geocon Consultants, Inc. *Beaver Creek Residential Development, Granite Bay, Placer County, California, Limited Soil Sampling and Analytical Testing*. February 1, 2006.

³ Geocon Consultants, Inc. *Additional Environmental Assessment of Dredge Tailings, Proposed Beaver Creek Subdivision, Granite Bay, California, Placer County*. March 31, 2006.

⁴ Wallace Kuhl & Associates. *Phase I Environmental Site Assessment, Beaver Creek Property, Douglas Boulevard, Granite Bay, California, WKA No. 10191.01*. July 24, 2014.

⁵ Wallace Kuhl & Associates. *Soil Sampling and Laboratory Analyses Report Beaver Creek, Douglas Boulevard Granite Bay, Placer County California*. July 24, 2014.

⁶ Wallace Kuhl & Associates. *Phase I Environmental Site Assessment, Creekside Oaks Property, Douglas Boulevard, Granite Bay, California*. May 29, 2014.

⁷ Wallace Kuhl & Associates. *Soil Sampling and Laboratory Analyses Report Creekside Oaks Property, Douglas Boulevard Granite Bay, Placer County California*. June 24, 2014.

⁸ Placer County. *Countywide General Plan Policy Document*. August 1994 (updated May 2013).

⁹ Placer County. *Countywide General Plan EIR*. July 1994.

¹⁰ Placer County. *Granite Bay Community Plan*. Adopted February 28, 2012.

9.2 EXISTING ENVIRONMENTAL SETTING

The following section includes a definition of hazardous materials, descriptions of the existing conditions associated with the project sites related to hazards and hazardous materials, including wildfire hazards, and a hazards analysis background.

Hazardous Materials

The term hazardous substance refers to both hazardous materials and hazardous wastes. A material is defined as hazardous if the material appears on a list of hazardous materials prepared by a federal, State, or local regulatory agency or if the material has characteristics defined as hazardous by such an agency. The California Environmental Protection Agency (Cal-EPA), California Department of Toxic Substance Control (DTSC) defines hazardous waste, as found in the California Health and Safety Code, Section 25141(b), as follows:

[...] its quantity, concentration, or physical, chemical, or infectious characteristics: (1) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; (2) pose a substantial present or potential hazard to human health or the environment, due to factors including, but not limited to, carcinogenicity, acute toxicity, chronic toxicity, bioaccumulative properties, or persistence in the environment, when improperly treated, stored, transported, or disposed of, or otherwise managed.

Surrounding Uses

The proposed project sites are located approximately 650 feet apart on the south side of Douglas Boulevard, generally east of Sierra College Boulevard and west of Barton Road, within the GBCP area of Placer County, California. A description of surrounding uses for both WHI and WHII sites is provided below.

WHI Site

Douglas Boulevard forms the site's northern boundary, across from which are medium-density, single-family residential neighborhoods. The Greyhawk I subdivision is located to the west, with an open space lot between the WHI site and adjacent Greyhawk homes. Larger-lot (one to eight-acre parcels) single-family residential uses, as well as a radio antenna facility, are located south of the site at the north end of Quail Lane. The intervening parcel east of the site (the Mac Bride Parcel) is developed with a rural single-family residence and various sheds and outbuildings.

WHII Site

A portion of the WHII site's northern boundary abuts the intersection of Douglas Boulevard and Seeno Avenue. Other portions of the site are separated from Douglas Boulevard by intervening vacant parcels, with the exception of the site's northeastern boundary, where a single family residential unit, also used for commercial business purposes, is located. Single family homes and vacant five-acre lots are located east of the site and accessed from Quartzite Circle. Larger-lot

single-family residential uses are located south of the site along the north ends of Buddecke Place, Farschon Place, and Carriage Drive.

WHI Phase I ESA

A Phase I ESA was conducted by WKA in July 2014 to identify any Recognized Environmental Conditions (RECs) resulting from current and/or former site activities. The American Society of Testing and Materials (ASTM) defines RECs in the E1527-13 Standard as “the presence or likely presence of any hazardous substance or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.”¹¹

The site was dredged for mining in the late 1800s or early 1900s and has remained undeveloped since at least the 1940s. Dredge tailings are the result of regional gold mining activities that began around the turn of the century and lasted through the 1950s. WKA determined that the central portion of the site was dredged for mining. Commensurate with the preparation of the Phase I ESA, WKA conducted soil sampling of the dredge tailings. Given the documentation reviewed and analysis conducted by WKA, WKA determined that evidence of RECs does not exist in connection with the WHI site. The soil sampling efforts for WHI are summarized in the following section.

WHI Soil Sampling

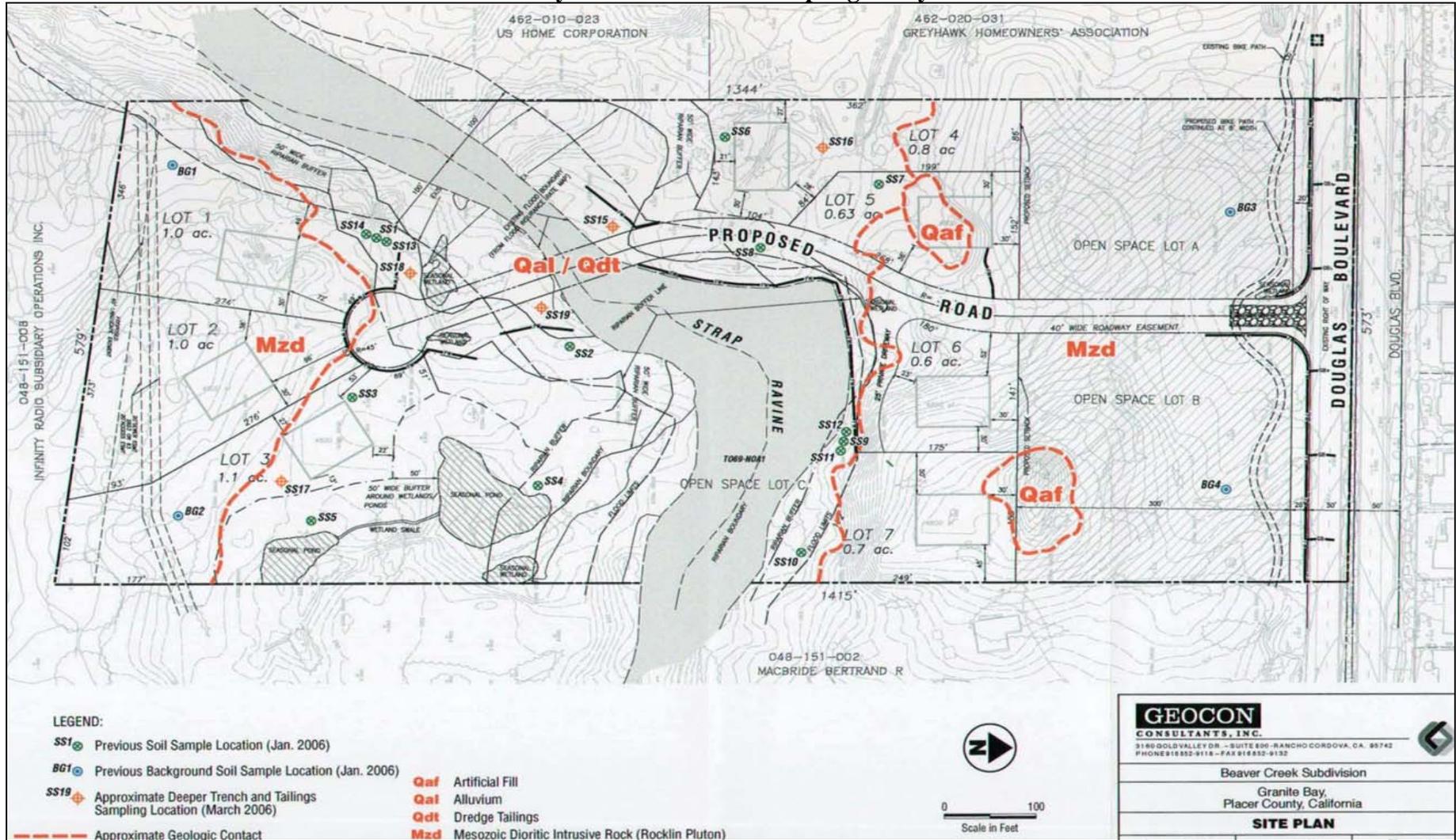
The following section discusses the soil evaluation/sampling efforts conducted for the WHI project site in 2006 and 2014. It should be noted that these reports refer to the WHI project site as “Beaver Creek Estates”, which was a formerly proposed map application for the project site.

February 2006 Geocon Soil Sampling Analysis

Geocon obtained 10 surface samples (SS1 through SS10) within the areas of the dredge tailings at the site at zero to 0.5 feet below ground surface (bgs) (see Figure 9-1). In addition, Geocon obtained four “background” soil samples (BG1 through BG4) outside of the dredge tailing areas. Deeper tailing samples (2 to 2.5 bgs) at SS1 and SS9 were taken. Four additional surface (0 to 6 inches bgs) and four additional deeper (2 to 2.5 feet bgs) tailing samples (SS11 through SS14) were obtained in locations approximately 10 feet from SS1 and SS9 locations. The fourteen surface tailings and soil samples were analyzed for arsenic and lead following the Environmental Protection Agency (EPA) Test Method 6010B and for mercury following EPA Test Method 7471A.

¹¹ American Society of Testing and Materials International Website. Available at: <https://www.astm.org/Standards/E1527.htm>. Accessed February 3, 2017.

**Figure 9-1
 Geocon February and March 2006 Sampling Analysis Locations**



Source: Geocon Consultants, Inc. Additional Environmental Assessment of Dredge Tailings, Proposed Beaver Creek Subdivision, Granite Bay, California, Placer County, March 31, 2006.

Summary of the February 2006 Soil Analytical Data

The results of the February 2006 WHI soil analysis are summarized below.

Arsenic

Arsenic was not detected at concentrations exceeding the laboratory test method detection limit of 1.0 milligrams per kilogram (mg/kg) in any of the tailings or soil samples.

Lead

Lead was detected in each sample at concentrations ranging from 1.3 mg/kg to 36 mg/kg, which is significantly less than the Cal-EPA California Human Health Screening Level (CHHSL) and the USEPA's Preliminary Remediation Goal (PRG) for lead in residential soil of 150 mg/kg. One anomalous lead detection of 3,200 mg/kg was initially reported for sample SS1 0-0.5; however, reanalysis of the sample by the laboratory yielded a result of 36 mg/kg. The anomalous concentration of lead reported for SS1 may have been due to contamination of the sample by a flake of lead-containing paint or some other unknown source of lead. No evidence of former structures or waste materials was observed in or around the sample location. The result of reanalysis of sample SS1, as well as the results of analysis of four additional tailings samples (2.5 to 19 mg/kg) collected from locations approximately 10 feet from the original sample location, shows that the source of elevated lead is not extensive or pervasive.¹²

Mercury

Mercury was detected in six tailings samples and one background soil sample at concentrations ranging from 0.11 to 5.1 mg/kg, which is significantly less than the Cal-EPA CHHSL and the USEPA California-modified PRG for mercury in residential soil of 18 mg/kg and 23 mg/kg, respectively. One anomalous mercury detection of 13 mg/kg was initially reported for sample SS9 0-0.5; however, reanalysis of the sample by the laboratory did not detect mercury above the laboratory method detection limit of 0.10 mg/kg.

Conclusion

Results showed that arsenic was not detected, and lead and mercury concentrations are significantly less than California and federal EPA residential soil criteria. All of the reported concentrations of lead and most of the reported concentrations of mercury are consistent with naturally occurring levels of these metals when compared to California soil background data.¹³ Three of the reported concentrations of mercury (13 mg/kg for SS9 0-0.5; 5.1 mg/kg for SS9 2-2.5; and 2.9 mg/kg for SS11 0-0.5) could be considered higher than naturally occurring levels and may be due to past mining activities on the site.

¹² Geocon Consultants. *Beaver Creek Residential Development, Granite Bay, Placer County, California, Limited Soil Sampling and Analytical Testing* [pg. 3]. February 1, 2006.

¹³ Geocon, *Beaver Creek Soil Sampling* [pg. 3]. February 1, 2006.

Based on the results of the investigation, Geocon concluded that additional assessment of heavy metals in tailings and soil at the site did not appear to be warranted. However, in March 2006, Placer County Environmental Health Department (PCEHD) requested that deeper testing for metals be conducted to assess the potential for future disturbance of tailings during excavation for foundations, utilities, and swimming pools to encounter elevated concentrations of metals (primarily mercury).¹⁴

March 2006 Geocon Soil Sampling Analysis

In March 2006 Geocon conducted deeper testing at WHI for the presence of elevated levels of metals in tailings due to Placer County's discussions with Cal-EPA, DTSC staff. Geocon excavated five additional exploratory trenches (SS15 through SS19, see Figure 9-1) to facilitate observation and sampling of deeper tailings. Each trench was excavated to approximately 10 feet bgs. Representative tailings samples were collected from depths of five and 10 feet bgs.

Summary of the March 2006 Soil Analytical Data

The results of the March 2006 soil analysis are summarized below.

Arsenic

Arsenic was not detected at concentrations exceeding the method detection limit of 1.0 mg/kg in any of the deeper samples.

Lead

Lead was detected in each of the deeper samples, with reported concentrations ranging from 1.9 to 9.5 mg/kg.

Mercury

Mercury was detected in samples collected from trenches SS15, SS16 and SS17, with reported concentrations ranging from 0.24 to 0.60 mg/kg.

Conclusion

Geocon reported that concentrations of lead and mercury from the deeper tailings samples collected from the WHI site are below the regulatory guidelines for residential soil (Cal-EPA CHHSLs and USEPA PRGs) and appear to be consistent with naturally-occurring background levels of the above metals. Geocon determined that the lack of detections of mercury above background levels in 31 to 34 samples collected from the site, including all ten deeper samples, suggests that impacts from past mining activity were minimal and further environmental investigation of soil and tailings was not warranted.

¹⁴ Geocon Consultants. *Additional Environmental Assessment of Dredge Tailings, Proposed Beaver Creek Subdivision, Granite Bay, California* [pg. 3]. March 2006.

July 2014 WKA Soil Sampling

Subsequent to Geocon's 2006 sampling, in July 2014, WKA collected additional soil samples at the WHI property (see Figure 9-2). The objective of the sampling was to evaluate dredge tailings and locations identified to contain imported soil. Two samples (S1-A, S1-B) were collected from the soil stockpile in the approximate center of the site, at depths in the intervals of two to three feet and five to six feet from the top of the stockpile. A third sample (S2) was collected near a trench dug for Geocon's 2005 Geotechnical Investigation, where fill material was observed. Five surface samples (S3, S4, S6, S7, S8) were collected in soils identified as dredge tailings during Geocon's Geotechnical Investigation in a depth interval of zero to 0.5-foot bgs. One additional background sample (S5-BK) was collected at a location outside of the imported fill material and dredge material at a depth interval of two to 2.5 feet bgs.

Summary of the July 2014 Soil Analytical Data

- TPH-as-motor oil (Petroleum hydrocarbons) was found at concentrations (10.8 and 11.1 mg/kg) less than the residential San Francisco Bay Regional Water Quality Control Board Environmental Screening Level (ESL) of 100 mg/kg;
- Arsenic
 - Concentrations in dredge tailing samples S4 and S7 were 2.5 mg/kg and 1.9 mg/kg, respectively;
 - Concentration in the background sample was 1.3 mg/kg;
 - S4, S7, and S5-BK exceeded the residential CHHSL of 0.07 mg/kg for arsenic. However, this limit was established based on arsenic contribution from human sources. Arsenic is a naturally occurring contaminant that is often detected above the residential CHHSL. There is no indication that arsenic found at the site originated from human sources. The DTSC threshold for naturally-occurring arsenic in soil at sensitive land use properties is 12mg/kg. The detected levels of arsenic fall below 12 mg/kg.
- No other California Assessment Manual (CAM) 17 listed metal was present at a concentration exceeding its CHHSL.

WKA determined that the levels detected for all CAM 17 metals do not pose a risk to human health or the environment based on a residential land use.¹⁵

¹⁵ Wallace Kuhl Associates. *Soil Sampling and Laboratory Analyses Report, Beaver Creek, Douglas Boulevard, Granite Bay, Placer County, California* [pg. 3]. July 24, 2014.

Figure 9-2
WHI 2014 Soil Sampling Locations



Source: WKA, 2014.

WHII Phase I ESA

A complete Phase I ESA was conducted by WKA in June 2014 to identify any RECs resulting from current and/or former site activities. WKA determined the site was used for mining in the late 1800s and into the early 1900s. An approximately ten-foot-deep hole was observed on the central portion of the site, south of the creek. WKA assumed the hole was associated with exploration in connection with the historical mining activities of the site. In addition, BMX bike ramps were constructed without permission with soils that originated from the site on the southeastern portion of the project area. Results of the Phase I ESA did not reveal any evidence of RECs in connection with the site, aside from on-site concerns stemming from the historical dredging operations. Based on these concerns, soil sampling was conducted at the project site.

WHII Soil Sampling

The following section describes the sampling efforts at WHII. It should be noted that the WKA report refers to the WHII project site as “Creekside Oaks”, which was a formerly proposed map application for the project site.

June 2014 Sampling

WKA performed a Geotechnical Report in May 2014 and explored 10 test pits (see Figure 9-3). Test pits TP4, TP6, TP7 revealed dredge tailings. The maximum depth at the three test pits was 10 feet. In June 2014, WKA collected three surface soil samples (SS1, SS2, SS3) of dredge tailings between zero and six inches bgs near the locations of TP4, TP6, and TP7. An additional background soil sample (SS4) was collected in an area outside of the dredge tailings at a depth interval of 24 to 30 inches bgs.

Summary of the 2014 Soil Analytical Data

The results of the June 2014 soil analysis are summarized below.

- Arsenic was detected at 2.0 mg/kg (below the DTSC threshold of 12 mg/kg); and
- All other CAM 17 metals fell below the residential CHHSL or laboratory detection limit.

Consistent with the results found for WHI, WKA determined the on-site arsenic was naturally-occurring and did not originate from human sources and that all other CAM 17 metals were found to be present at a concentration that did not pose a risk to human health or the environment. Based on the results, WKA determined that the site is suitable for residential development.¹⁶

¹⁶ Wallace Kuhl Associates. *Soil Sampling and Analyses Report, Creekside Oaks Property, Douglas Boulevard near Seeno Avenue, Granite Bay, Placer County, California* [pg. 2]. June 24, 2014.

Figure 9-3
WHII 2014 Trench and Soil Sampling Locations



Source: WKA, 2014.

Wildfire Hazards

According to the California Department of Forestry and Fire Protection (CAL FIRE) Fire and Resource Assessment Program (FRAP), the WHI and WHII sites are located within an unincorporated Local Responsibility Area (LRA). An LRA is an area that is not under federal or State responsibility and in which the local agencies have sole responsibility for fire suppression activities. The WHI and WHII sites are not located within a Very High Fire Hazard Severity Zone (VHFHSZ).¹⁷ While the WHI and WHII sites are largely surrounded by residential development, the residential areas are of varying densities, and the more rural communities are interspersed with oak woodlands and understory vegetation that provides a fuel source for potential fires.

Other

The mining features located on the WHII property, and unstable soil conditions, are discussed in the Geology and Soils/Mineral Resources chapter of this EIR (see Chapter 8).

9.3 REGULATORY CONTEXT

Many agencies regulate hazardous substances. The following discussion contains a summary of regulatory controls pertaining to hazardous substances, including federal, State, and local laws and ordinances.

Federal Regulations

Federal agencies that regulate hazardous materials include the USEPA, the Occupational Safety and Health Administration (OSHA), the Department of Transportation (DOT), and the National Institute of Health (NIH). Prior to August 1992, the principal agency at the federal level regulating the generation, transport and disposal of hazardous waste was the USEPA under the authority of the Resource Conservation and Recovery Act (RCRA). As of August 1, 1992, however, the California DTSC was authorized to implement the State's hazardous waste management program for the USEPA. The USEPA continues to regulate hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). The following federal laws and related regulations govern hazardous materials.

Occupational Safety and Health Act (29 U.S.C. §651 et seq. [1970])

Congress passed the Occupational and Safety Health Act to ensure worker and workplace safety. Their goal was to make sure employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions. In order to establish standards for workplace health and safety, the Act also created the National Institute for Occupational Safety and Health (NIOSH) as the research institution for the OSHA. OSHA is a

¹⁷ Cal Fire. *Fire Hazard Severity Zones in LRA Placer County*. November 24, 2008.

division of the U.S. Department of Labor that oversees the administration of the Act and enforces standards in all 50 states.

Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. §9601 et seq. [1980])

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) provides a federal "Superfund" to clean up uncontrolled or abandoned hazardous-waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. Through CERCLA, the USEPA was given power to seek out those parties responsible for any release and assure their cooperation in the cleanup. The USEPA cleans up orphan sites when potentially responsible parties cannot be identified or located, or when they fail to act. Through various enforcement tools, USEPA obtains private party cleanup through orders, consent decrees, and other small party settlements. The USEPA also recovers costs from financially viable individuals and companies once a response action has been completed. The USEPA is authorized to implement the Act in all 50 states and U.S. territories.

Superfund Amendments and Reauthorization Act of 1986, Title III; Section 305(a)

The Superfund Amendments and Reauthorization Act (SARA) of 1986 reauthorized CERCLA to continue cleanup activities around the country. Several site-specific amendments, definitions clarifications, and technical requirements were added to the legislation, including additional enforcement authorities. In addition, Title III of SARA authorized the Emergency Planning and Community Right-to-Know Act (EPCRA). SARA, Title III provides funding for training in emergency planning, preparedness, mitigation, response, and recovery capabilities associated with hazardous chemicals. Title III of SARA addresses concerns about emergency preparedness for hazardous chemicals, and emphasizes helping communities meet their responsibilities in preparing to handle chemical emergencies and increasing public knowledge and access to information on hazardous chemicals present in their communities.

Resource Conservation and Recovery Act (42 U.S.C. §6901 et seq. [1976])

The Resource Conservation and Recovery Act (RCRA) gives USEPA the authority to control hazardous waste from the "cradle-to-grave," which includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled USEPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. The federal Hazardous and Solid Waste Amendments (HSWA) - are the 1984 amendments to RCRA that focused on waste minimization and phasing out land disposal of hazardous waste as well as corrective action for releases. Some of the other mandates of this law include increased enforcement authority for USEPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program.

Toxic Substances Control Act (15 U.S.C. §2601 et seq. [1976])

The Toxic Substances Control Act (TSCA) of 1976 provides USEPA with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures. Certain substances are generally excluded from TSCA, including, among others, food, drugs, cosmetics and pesticides. TSCA addresses the production, importation, use, and disposal of specific chemicals including polychlorinated biphenyls (PCBs), asbestos, radon and lead-based paint.

U.S. Department of Transportation

Transportation of hazardous materials is regulated by the U.S. Department of Transportation's (DOT) Office of Hazardous Materials Safety. The office formulates, issues, and revises hazardous materials regulations under the Federal Hazardous Materials Transportation Law. The hazardous materials regulations cover hazardous materials definitions and classifications, hazard communications, shipper and carrier operations, training and security requirements, and packaging and container specifications. The hazardous materials transportation regulations are codified in 49 CFR Parts 100–185.

The hazardous materials transportation regulations require carriers transporting hazardous materials to receive required training in the handling and transportation of hazardous materials. Training requirements include pre-trip safety inspections, use of vehicle controls and equipment including emergency equipment, procedures for safe operation of the transport vehicle, training on the properties of the hazardous material being transported, and loading and unloading procedures. All drivers must possess a commercial driver's license as required by 49 CFR Part 383. Vehicles transporting hazardous materials must be properly placarded. In addition, the carrier is responsible for the safe unloading of hazardous materials at the site, and operators must follow specific procedures during unloading to minimize the potential for an accidental release of hazardous materials.

Asbestos Hazard Emergency Response Act

The 1986 Asbestos Hazard Emergency Response Act (AHERA) was signed into law as Title II of the TSCA, requiring the Asbestos Model Accreditation Plan (MAP) for accrediting individuals conducting asbestos inspection and corrective-action activities in schools and public and commercial buildings. The MAP provides guidance on the minimum training requirements for accrediting asbestos professionals such as, procedural entry, exit, sampling, and monitoring, safety hazards, and relevant federal, state, and local regulatory standards.

Lead-Based Paint Regulations

Lead pollutants are regulated by several laws administered by the USEPA, including the TSCA, the Residential Lead-Based Paint Hazard Reduction Act of 1992, CAA, CWA, Safe Drinking Water Act (SDWA), RCRA, and CERCLA. The aforementioned regulations address lead in paint, dust and soil, lead in air and water, and the disposal of lead wastes. Regulations specific to lead-based paint include, but are not limited to, the Lead Renovation Repair and Painting

Program Rule, the Lead Abatement Program, the residential Lead-based Paint Disclosure Program, and Residential Hazards of Lead in Paint, Dust and Soil. Such regulations require risk assessments, inspections, and work practices that work to minimize exposure to lead hazards.

State Regulations

The Cal-EPA and the California State Water Resources Control Board (SWRCB) establish rules governing the use of hazardous materials and the management of hazardous waste. Within Cal-EPA, DTSC has primary regulatory responsibility, with delegation of enforcement to local jurisdictions that enter into agreements with the State agency, for the management of hazardous materials and the generation, transport, and disposal of hazardous waste under the authority of the Hazardous Waste Control Law (HWCL). The following discussion contains the applicable State laws.

Cortese List: Government Code Section 65962.5(a)

The DTSC shall compile and update as appropriate, but at least annually, and shall submit to the Secretary for Environmental Protection, a list of all of the following:

1. All hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code.
2. All land designated as hazardous waste property or border zone property pursuant to former Article 11 (commencing with Section 25220) of Chapter 6.5 of Division 20 of the Health and Safety Code.
3. All information received by the DTSC pursuant to Section 25242 of the Health and Safety Code on hazardous waste disposals on public land.
4. All sites listed pursuant to Section 25356 of the Health and Safety Code.

Regional Water Quality Control Board

The Cal-EPA and the Office of Emergency Services (OES) establish regulations governing the use of hazardous materials in California. Within Cal-EPA, DTSC has primary regulatory responsibility for hazardous waste management. Enforcement of regulations can be delegated to local jurisdictions that enter into agreements with DTSC for the generation, transport, and disposal of hazardous materials under the authority of the Hazardous Waste Control Law. Along with the DTSC, the RWQCB is responsible for implementing regulations pertaining to management of soil and groundwater investigation and cleanup. The RWQCB's regulations are contained in Title 27 of the CCR. The DTSC, RWQCB, and/or a local agency typically oversees investigation and cleanup of contaminated sites.

California Health and Safety Code

The handling and storage of hazardous materials is regulated on the federal level by the USEPA under CERCLA as amended by the SARA. Under SARA Title III, a nationwide emergency planning and response program was established that imposed reporting requirements for businesses which store, handle, or produce significant quantities of hazardous or acutely toxic

substances as defined under federal laws. SARA Title III required each state to implement a comprehensive system to inform federal authorities, local agencies, and the public when a significant quantity of hazardous, acutely toxic substances are stored or handled at a facility.

Ammonia is an example of an acutely hazardous material (AHM) that is regulated by the California Office of Emergency Services under the California Accidental Release Program (CalARP), the USEPA under the Risk Management Program (40 CFR 68), and the OSHA under the Process Safety Management Program (OSHA 1910.119). The California Accidental Release Program and Risk Management Program require that all facilities that store, handle, or use AHMs above a minimum quantity, known as the threshold planning quantity, are required to develop a plan and prepare supporting documentation that summarizes the facility's potential risk to the local community and identifies safety measures to reduce potential risks to the public.

The HWCL, Chapter 6.5 of the California Health and Safety Code, is administered by Cal-EPA to regulate hazardous wastes. While the HWCL is generally more stringent than RCRA, until the USEPA approves the California program, both the State and federal laws apply in California. The HWCL lists 791 chemicals and about 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal and transportation; and identifies some wastes that cannot be disposed of in landfills.

In California, the underground storage of hazardous materials is regulated by Chapter 6.7 of the California Health and Safety Code per the Underground Storage of Hazardous Substances Act. Under section 25280, the underground storage tanks (USTs) used for the storage of substances hazardous to the public health and safety and to the environment are stored prior to use or disposal in thousands of underground locations in the State. The USTs used for storage are potential sources of contamination of the ground and underlying aquifers, and may pose other dangers to public health and the environment. Chapter 6.7 establishes orderly procedures that will ensure that newly constructed USTs meet appropriate standards and that existing tanks be properly maintained, inspected, tested, and upgraded so that the health, property, and resources of the people of the state will be protected.

The handling and storage of hazardous materials is regulated by Chapter 6.95 of the California Health and Safety Code. Under Sections 25500–25543.3, facilities handling hazardous materials are required to prepare a Hazardous Materials Business Plan. The plan provides information to the local emergency response agency regarding the types and quantities of hazardous materials stored at a facility, and provides detailed emergency planning and response procedures in the event of a hazardous materials release. In the event that a facility stores quantities of specific acutely hazardous materials above the thresholds set forth by the California code, facilities are also required to prepare a Risk Management Plan and California Accidental Release Plan, which provides information on the potential impact zone of a worst-case release, and requires plans and programs designed to minimize the probability of a release and mitigate potential impacts.

California Vehicle Code Section 31303

The California Highway Patrol (CHP) and California Department of Transportation (Caltrans) are the enforcement agencies for hazardous materials transportation regulations. Hazardous materials and waste transporters are responsible for complying with all applicable packaging, labeling, and shipping regulations. California Vehicle Code Section 31303 regulates the transport of hazardous materials.

Emergency Response to Hazardous Materials Incidents

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local governments and private agencies. Response to hazardous material incidents is one part of this plan. The plan is managed by the Governor's Office of Emergency Services (OES), which coordinates the responses of other agencies, including Cal-EPA, CHP, California Department of Fish and Wildlife (CDFW), Central Valley RWQCB, and Placer County Fire.

Local Regulations

Relevant policies from the Placer County General Plan and other local guidelines and regulations related to hazards and hazardous materials are discussed below. The GBCP does not contain specific goals or policies related to hazards and hazardous materials.

Placer County General Plan

The following policies from the Placer County General Plan are applicable to the proposed projects:

- Policy 8.C.5 The County shall ensure that existing and new buildings of public assembly incorporate adequate fire protection measures to reduce the potential loss of life and property in accordance with state and local codes and ordinances.
- Policy 8.C.11 The County shall continue to work cooperatively with the California Department of Forestry and Fire Protection and local fire protection agencies in managing wildland fire hazards.
- Policy 8.D.1 The County shall ensure that new development around airports does not create safety hazards such as lights from direct or reflective sources, smoke, electrical interference, hazardous chemicals, or fuel storage in violation of adopted safety standards.
- Policy 8.G.1 The County shall ensure that the use and disposal of hazardous materials in the County complies with local, state, and federal safety standards.
- Policy 8.G.2 The County shall discourage the development of residences or schools near known hazardous waste disposal or handling facilities.

Placer County Environmental Health Department

The PCEHD is the Certified Unified Program Agency (CUPA) for local implementation of the California Accidental Release Prevention Program and several other hazardous materials and hazardous waste programs. PCEHD is responsible for regulating hazardous materials business plans and chemical inventory, hazardous materials storage, hazardous materials management plans, and risk management plans. The hazardous materials business plan program requires businesses in Placer County to prepare business emergency response plans if hazardous materials storage equals or exceeds 55 gallons of liquid, 500 pounds of solid, or 200 cubic feet of gas. The goal of PCEHD is to protect human health and the environment by ensuring that hazardous materials and hazardous waste are properly managed.

The PCEHD distributes the information in the hazardous materials business plans and business emergency response plans to emergency response agencies, such as fire departments and Hazardous Materials Response Teams. The PCEHD helps to facilitate the resources necessary for first responders to emergency incidents using emergency response plans and training responders for preparedness.

Placer County Local Hazard Mitigation Plan

The 2016 Local Hazard Mitigation Plan (LHMP) was prepared pursuant to the requirements of the Disaster Mitigation Act of 2000 so that Placer County would be eligible for the Federal Emergency Management Agency's (FEMA) Pre-Disaster Mitigation and Hazard Mitigation Grant Programs as well as lower flood insurance premiums. The LHMP is a multi-jurisdictional plan that geographically covers the entire area within Placer County's jurisdictional boundaries. The six goals of the multi-hazard mitigation plan are as follows:

- Prevent future hazard related losses of life and property;
- Increase public awareness/action of vulnerability of hazards;
- Improve community emergency services/management capability;
- Implement and complete identified high priority projects listed in the plan;
- Pursue Multi-Objective Opportunities (MOO) whenever possible; and
- Maintain FEMA eligibility/position jurisdictions for grant funding.

The purpose of this plan is to guide hazard mitigation planning and to better protect the people and property of the County from the effects of hazard events. The LHMP demonstrates the community's commitment to reducing risks from hazards and serves as a tool to help decision makers direct mitigation activities and resources.

Placer County and Placer Operational Area Emergency Operations Plan

The *Placer County and Placer Operational Area Emergency Operations Plan* (EOP) provides the guidelines needed for emergency response planning, preparation, training and execution

throughout unincorporated Placer County.¹⁸ The EOP is applicable to any natural disaster or manmade emergency occurring in or in the proximity of Placer County that affects, or may affect, the unincorporated area of the County (or the entire operational area, should response require coordination of the emergency response efforts of multiple agencies or jurisdictions). Emergency events range from minor oil spills, brush fires and minor flooding to severe winter storms, floods, wildland fires, earthquakes to countywide public health emergencies all of which have potentially catastrophic long-term public safety, economic, social and political implications.

9.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the proposed projects' potential impacts related to hazards and hazardous materials. A discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

In accordance with Appendix G of the CEQA Guidelines and the County's Initial Study Checklist, the effects of a project are evaluated to determine if they would result in a significant adverse impact on the environment. For the purposes of this Draft EIR, an impact is considered significant if the proposed projects would:

- Create a significant hazard to the public or the environment through the routine handling, transport, use, or disposal of hazardous or acutely 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, 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, would the project result in a safety hazard for people residing or working in the project area (see Chapter 16, Effects Not Found to be Significant);
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing in the project area (see Chapter 16, Effects Not Found to be Significant);
- 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;

¹⁸ Placer County Office of Emergency Services. *Placer County and Placer Operational Area Emergency Operations Plan*. Adopted December 14, 2010.

- Create any health hazard or potential health hazard; or
- Expose people to existing sources of potential health hazards.

As noted above, impacts related to safety hazards associated with airports and private airstrips are discussed in Chapter 16, Effects Not Found to be Significant, of this EIR.

Method of Analysis

The WHI and WHII project site conditions have been compared to the standards of significance presented above in order to determine the projects' impact significance. Site conditions and potential project impacts are based primarily on the Phase I ESAs prepared for the WHI and WHII site, as well as the February 2006, March 2006, and the July 2014 sampling conducted for WHI site; and the June 2014 sampling conducted for the WHII site.

Phase I ESAs

The Phase I ESAs meet or exceed the requirements of the ASTM "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process E 1527-05." The Phase I ESA for the WHI and WHII project sites included a site reconnaissance, a preliminary screen for vapor encroachment, a visual inspection of nearby adjoining properties, interviews, and a questionnaire to obtain information about the uses and conditions of the WHI site and WHII site. Additionally, a review of aerial photographs, historical topographic maps, Sanborn maps, ownership records, building department records, zoning and land use records, street directories, prior assessments, and information provided by an environmental database firm was performed to determine the past uses of the project sites.

WHI Soil Sampling

Methodology used to analyze and determine the WHI project's potential impacts related to hazards and hazardous materials is described below for the 2005, 2006, and 2014 sampling reports.

February 2006 Sampling

Geocon obtained ten surface samples (SS1 through SS10) within the areas of the dredge tailings at the site at zero to 0.5 feet bgs (see Figure 9-1). In addition, Geocon obtained four "background" soil samples (BG1 through BG4) outside of the dredge tailing areas. Deeper tailing samples (2 to 2.5 bgs) at the SS1 and SS9 were taken. Four additional surface (0 to 6 inches bgs) and four additional deeper (2 to 2.5 feet bgs) tailing samples (SS11 through SS14) were obtained in locations approximately 10 feet from SS1 and SS9 locations. The fourteen surface tailings and soil samples were analyzed for arsenic and lead following the EPA Test Method 6010B and for mercury following EPA Test Method 7471A.

March 2006 Sampling

In March 2006, Geocon conducted deeper testing at WHI for the presence of elevated levels of metals in tailings due to Placer County's discussions with Cal-EPA, DTSC staff. Geocon excavated five additional exploratory trenches (SS15 through SS19, see Figure 9-1) to facilitate observation and sampling of deeper tailings. Each trench was excavated to approximately 10 feet bgs. Representative tailings samples were collected from depths of five and 10 feet bgs.

July 2014 Sampling

Subsequent to Geocon's 2006 sampling, in July 2014, WKA collected additional soil samples at the WHI property. The objective of the sampling was to evaluate dredge tailings and locations identified to contain imported soil. Two samples (S1-A, S1-B) were collected from the soil stockpile in the approximate center of the site, at depths in the intervals of two to three feet and five to six feet from the top of the stockpile. A third sample (S2) was collected near a trench dug for Geocon's 2005 Geotechnical Investigation, where fill material was observed. Five surface samples (S3, S4, S6, S7, S8) were collected in soils identified as dredge tailings during Geocon's Geotechnical Investigation in a depth interval of zero to 0.5-foot bgs. One additional background sample (S5-BK) was collected at a location outside of the imported fill material and dredge material at a depth interval of two to 2.5 feet bgs.

WHII Soil Sampling

Methodology used to analyze and determine the WHII project's potential impacts related to hazards and hazardous materials is described below for the June 2014 sampling report.

June 2014

WKA performed a Geotechnical Report in May 2014 and explored 10 test pits. Test pits TP4, TP6, TP7 revealed dredge tailings. The maximum depth at the three test pits was 10 feet. In June 2014, WKA collected three surface soil samples (SS1, SS2, SS3) of dredge tailings between zero and six inches bgs near the locations of TP4, TP6, and TP7. An additional background soil sample (SS4) was collected in an area outside of the dredge tailings at a depth interval of 24 to 30 inches bgs.

Project-Specific Impacts and Mitigation Measures

As discussed in Chapter 3, Project Description, of this EIR, although the County has elected to evaluate both the WHI and WHII projects in a single EIR, it is reasonable to consider WHI and WHII as separate projects under the independent utility test, given that each proposal has independent utility and is not necessary for the other to proceed. As such, the following discussion analyzes the potential impacts of the WHI and WHII projects separately. In addition, each impact statement includes an analysis of the combined effects of the two projects.

9-1 Create a significant hazard to the public or the environment through the routine handling, transport, use, or disposal of hazardous or acutely hazardous materials. Based on the analysis below, the impact is *less than significant*.

WHI and WHII

Operations of the proposed residential projects would not include any activities that would involve the routine transport, use, disposal, or generation of substantial amounts of hazardous materials. During operations, hazardous materials use would be limited to landscaping products such as fertilizer, pesticides, as well as typical commercial and maintenance products (cleaning agents, degreasers, paints, batteries, and motor oil). Proper handling and usage of such materials in accordance with label instructions would ensure that adverse impacts to human health or the environment would not result. All chemicals would be stored inside buildings with appropriate containment and ventilation, as required, and such chemicals would be used in limited quantities by experienced personnel according to label instructions.

Implementation of the proposed projects would include the construction of residential communities, as well as associated on- and off-site infrastructure improvements. Construction activities would involve the use of heavy equipment, which would contain fuels and oils, and various other products such as concrete, paints, and adhesives. The project contractors are required to comply with all California Health and Safety Codes and local County ordinances regulating the handling, storage, and transportation of hazardous and toxic materials. Pursuant to California Health and Safety Code Section 25510(a), except as provided in subdivision (b),¹⁹ the handler or an employee, authorized representative, agent, or designee of a handler, shall, upon discovery, immediately report any release or threatened release of a hazardous material to the unified program agency (in the case of the proposed projects, PCEHD) in accordance with the regulations adopted pursuant to this section. The handler or an employee, authorized representative, agent, or designee of the handler shall provide all state, city, or county fire or public health or safety personnel and emergency response personnel with access to the handler's facilities. In the case of the projects, the contractors are required to notify the PCEHD in the event of an accidental release of a hazardous material, who would then monitor the conditions and recommend appropriate remediation measures.

Based on the above, the projects would not create a significant hazard to the public or the environment through the routine handling, transport, use, or disposal of hazardous or acutely hazardous materials. Thus, a *less-than-significant* impact would occur.

Mitigation Measure(s)

None required.

¹⁹ Subdivision (a) does not apply to a person engaged in the transportation of a hazardous material on a highway that is subject to, and in compliance with, the requirements of Sections 2453 and 23112.5 of the Vehicle Code.

9-2 Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment; create any health hazard or potential health hazard; or expose people to existing sources of potential health hazards. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Impacts associated with hazardous materials related to a particular property are site-specific and potential issues at two separate sites would not combine to create exacerbated conditions. As a result, the following discussion is provided for both WHI and WHII.

WHI and WHII

Since the date of WKA's soil sampling report, DTSC issued guidance referred to as HERO Note 3. WKA compared the CHHSLs and the HERO Note 3 lists for thresholds related to arsenic and lead.²⁰ WKA observed that the arsenic increased from the CHHSL residential threshold of 0.07 mg/kg to the HERO Note 3 threshold of 0.11 mg/kg. There is no change in the residential threshold concentration between the residential CHHSL and the residential HERO Note 3 thresholds for lead, 80 mg/kg. No soil samples at either project site yielded concentrations of lead in excess of 80 mg/kg.

The 2014 WKA reports for WHI and WHII show that soil collected between zero and six inches bgs from locations designated as having been shallowly dredged contained arsenic concentrations that did not exceed 2.5 mg/kg and mercury concentrations that did not exceed 0.085 mg/kg.

While 2.5 mg/kg exceeds the CHHSL and HERO Note 3 thresholds for arsenic, arsenic is a naturally occurring contaminant that is often detected above the residential thresholds. The HERO Note 3 cancer and non-cancer residential thresholds for arsenic are universally acknowledged as being lower than naturally-occurring concentrations in California soil.²¹ There is no indication that arsenic found at the site originated from human sources. The DTSC threshold for naturally-occurring arsenic in soil at sensitive land use properties is 12mg/kg. The detected levels of arsenic fall below 12 mg/kg.

The currently published DTSC HERO Note 3 threshold for residential exposure to mercury is 1.0 mg/kg using a non-cancer risk. A HERO Note 3 residential cancer threshold does not exist for mercury. The mercury concentrations detected in WKA's 2014 soil sampling at both project sites did not exceed the HERO Note 3 threshold of 1.0 mg/kg. While three of Geocon's February 2006 surface soil samples at WHI detected mercury concentrations exceeding the HERO Note 3 threshold (i.e., 13 mg/kg for SS9 0-0.5; 5.1 mg/kg for SS9 2-2.5; and 2.9 mg/kg for SS11 0-0.5), Geocon's subsequent

²⁰ Dennis Nakamoto, Senior Hydrogeologist, Wallace Kuhl & Associates. Personal communication [email] with Dave Cook, Cook Development Consulting Services, LLC. May 11, 2018.

²¹ *Ibid.*

deeper samples down to 10 feet at WHI in March 2006 did not detect mercury above the HERO Note 3 threshold; and at least for the 2006 sample yielding a concentration of 13 mg/kg, it was subsequently resampled and yielded a value below the laboratory method detection limit.

Conclusion

WKA found the dredging activity at WHI and WHII served only to remix the affected sediments. WKA did not find information or observe any condition that indicates deeper soil would exhibit a significantly greater concentration of either arsenic or mercury, which appears to be supported by Geocon's March 2006 deeper sampling of the WHI property. Thus, WKA concluded that further sampling of deeper soil at either property is not required, unless future earth-moving activities reveal evidence of non-soil materials buried at either property.²²

In summary, if future earth moving activities at the sites reveal evidence of non-soil materials buried at either property, a *significant* impact could occur with respect to creating a significant hazard to the public or the environment through reasonably foreseeable accident conditions, depending on the nature of the materials.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

WHI and WHII

- 9-2 *If indicators of apparent soil contamination (soil staining, odors, debris fill material, etc.) are encountered at the project sites, the impacted area(s) should be isolated from surrounding, non-impacted areas. The project environmental professional shall obtain samples of the potentially impacted soil for analysis of the contaminants of concern and comparison with applicable regulatory residential screening levels (i.e., Environmental Screening Levels, California Human Health Screening Levels, Regional Screening Levels, etc.). Where the soil contaminant concentrations exceed the applicable regulatory residential screening levels, the impacted soil shall be excavated and disposed of offsite at a licensed landfill facility to the satisfaction of the PCEHD.*

²² Dennis Nakamoto, Senior Hydrogeologist, Wallace Kuhl & Associates. Personal communication [email] with Dave Cook, Cook Development Consulting Services, LLC. May 11, 2018.

- 9-3 Emit hazardous emissions, substances, or waste within one-quarter mile of an existing or proposed school. Based on the analysis below, the impact is *less than significant*.**

WHI and WHII

Neither project site is located within 0.25-mile of an existing or proposed school. The nearest schools, Granite Bay High School and Ridgeview Elementary School, are located approximately 0.5-mile south of the site. The WHI and WHII projects would include the construction of residential units and the combined development of the projects would not involve the routine use or transport of substantial quantities of hazardous materials during operation. As such, neither the individual nor the combined development of the WHI and WHII projects would result in impacts related to hazardous emissions, substances, or waste within 0.25-mile of an existing or proposed school. Therefore, a *less-than-significant* impact would occur.

Mitigation Measure(s)

None required.

- 9-4 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. Based on the analysis below, the projects would have *no impact*.**

WHI and WHII

Neither of the sites is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and impacts related to such would not occur. The WHI and WHII projects would not create a significant hazard to the public or the environment associated with hazardous material sites; therefore, the project would result in *no impact*.

Mitigation Measure(s)

None required.

- 9-5 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. Based on the analysis below, the impact is *less than significant*.**

WHI and WHII

As stated previously, the project sites are not located within a VHFHSZ, which indicates that the project sites are not in an area subject to a substantial hazard due to wildland fires. Additionally, development of the sites for residential uses would reduce the risk of wildland fire because site improvements, such as roadways, driveways and irrigated

landscaping, would reduce readily combustible vegetation. In addition, an Operations and Management Plan will be prepared by the WHI and WHII HOAs for both sites with open space management strategies including fire/fuel modification, maintenance (e.g. mowing), permitted and prohibited uses, preserve management techniques, and trail and preserve maintenance. The Operations and Management Plan for the open space areas on the sites would require non-intrusive fuel load reduction efforts to reduce the risk of wildfires.

Development of the proposed projects would also include the installation of fire suppression systems (e.g., fire hydrants, automatic fire sprinklers, smoke detectors). Furthermore, the projects would be designed in accordance with the latest requirements of the California Fire Code and Placer County. Improvement Plans for WHI and WHII would be routed to the South Placer Fire District, which provides fire prevention services to Placer County, for review and approval. Additional fire safety measures may be included as conditions of approval for the proposed projects, and compliance with such would ensure that potential hazards associated with wildland fires would be reduced.

Based on the above analysis, the proposed projects would not be expected to expose people or structures to a significant risk of loss, injury, or death involving wildland fires and a *less-than-significant* impact would result.

Mitigation Measure(s)

None required.