5.13 HUMAN HEALTH AND RISK OF UPSET

This section evaluates the potential impacts to public health and risk of upset from implementation of the Tahoe Beach Club Project. The analysis presented in this section is based on a Phase I Environmental Site Assessment prepared for the project site and other current information. This section describes the regulatory background, existing environmental conditions at the project site, and potential environmental impacts associated with each of the proposed alternatives, A through E, related to human health and risk of upset. Cumulative impacts are presented in Section 5.14.

5.13.1 REGULATORY BACKGROUND

Numerous federal, state, and regional laws, rules, regulations, plans, and policies define the framework for regulating human health and risk of upset, including hazardous materials, in the Tahoe Basin. The following discussion summarizes hazardous materials and other public health and safety requirements applicable to the Beach Club Project.

HAZARDOUS MATERIALS MANAGEMENT

Federal

Federal laws require planning to ensure that hazardous materials are properly handled, used, stored and disposed of, and if such materials are accidentally released, to prevent or to mitigate injury to health or the environment. The Federal Emergency Planning and Community Right to Know Act of 1986 defines hazardous materials planning requirements to help protect local communities in the event of accidental release.

State

In compliance with the Community Right to Know Act of the Nevada State Emergency Response Commission (SERC) was established in 1987. SERC coordinates and supervises the activities of the Local Emergency Planning Committees to ensure that each Committee has an approved Hazardous Materials Emergency Response Plan. SERC also collects chemical inventory reports, provides funds through grants, and processes requests from the public for information.

Local

Douglas County Code, Title 20, Section 20.690.030 (I) requires projects and/or businesses that store hazardous materials, to prepare a spill management plan and containment systems to the satisfaction of the Fire District with appropriate jurisdiction.

WORKER SAFETY

Federal

The federal Occupational Safety and Health Administration (Fed-OSHA) is the agency responsible for assuring worker safety in the handling and use of chemicals in the Occupational Safety and Health Act of 1970. Fed-OSHA has adopted numerous regulations pertaining to worker safety, contained in the Code of Federal Regulations Title 29 (29 CFR). These regulations set standards for safe workplaces and work practices, including standards relating to hazardous material handling.

State

The Nevada Occupational Safety and Health Act (Nev-OSHA) promotes safe and healthful working conditions to provide job safety and health protection for workers in the State of Nevada. This Act provides the Nev-OSHA the power to issue citations for conditions inspected and found to be unsafe.

The Nev-OSHA poster (to be displayed in Nevada workplaces) states: Each employer shall furnish to each of his employees employment and a place of employment free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees; and shall comply with occupational safety and health standards adopted under the Act (Nev-OSHA 2004).

HAZARDOUS MATERIALS TRANSPORT

Federal

The U.S. Department of Transportation regulates hazardous materials transportation between states. The federal hazardous materials transportation law (federal hazmat law), 49 U.S.C. Section 5101 et seq., (formerly the Hazardous Materials Transportation Act, 49 App. U.S.C. Section 1801 et seq.) is the basic statute regulating hazardous materials transportation in the United States. Hazardous material regulations are enforced by the Federal Highway Administration, the U.S. Coast Guard, the federal Railroad Administration and the Federal Aviation Administration.

State

Nevada Revised Statute NRS 459.7052 requires motor carriers to register and obtain a permit for the transportation of hazardous materials before transporting a hazardous material upon a public highway of the state. As part of this statute the Nevada Department of Motor Vehicles (NDMV) requires anyone applying for a permit to transport hazardous waste to have a commercial driver's license and to undergo a background check that includes a fingerprint based Security Threat Assessment (NDMV 2007).

State agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the officers of the Nevada Highway Patrol (NRS 459.250).

HAZARDOUS WASTE MANAGEMENT

Federal

The federal Resource Conservation and Recovery Act (RCRA) (EPA 2006) requires a comprehensive regulatory system for handling hazardous waste in a manner that protects human health and the environment. This regulatory system includes tracking all generators of hazardous waste. The only potential generator of hazardous waste on the project site is the Kingsbury General Improvement District (KGID) water treatment facilities. However, based on discussions with KGID staff, the facilities do not generate hazardous waste (for additional information see discussion below under Section 5.13.2) (Jacobs, pers. comm., 2007). As such, RCRA regulations related to generators of hazardous waste do not apply.

State

The Nevada Division of Environmental Protection, Bureau of Waste Management manages a Hazardous Waste Program that is responsible for enforcing state hazardous waste statues and regulations in lieu of the U.S. Environmental Protection Agency (EPA). With some modifications, Nevada has adopted the federal hazardous waste regulations. The Hazardous Waste Program is responsible for permitting and inspecting hazardous waste generators and disposal, transfer, storage and recycling facilities.

SOLID WASTE MANAGEMENT

State

The Nevada Division of Environmental Protection, Bureau of Waste Management also manages a solid waste management program, the purpose of which is to regulate the collection and disposal of solid waste. Included in this solid waste management program is a recycling program. Generally the solid waste is required to be collected and disposed of in a manner that will:

- protect public health and welfare,
- prevent water or air pollution,
- prevent the spread of disease and the creation of nuisances,
- conserve natural resources, and
- enhance the beauty and quality of the environment.

County

Chapter 8 of the Douglas County Code discusses health and safety issues. In regards to solid waste the County Code declares the existence of waste matter on public and/or private roads or parcels of land is subject to Code Enforcement Action (County Code Section 8.14.020).

Douglas County Code also declares it unlawful for any person to dump any waste matter (including abandoned vehicles) on any parcel of land, lot, street, highway, gutter or alley, or in any water within Douglas County (County Code Section 8.14.030). Further, Douglas County declares it unlawful for any person to drive any vehicles on any roadways without properly securing its contents to prevent them from escaping from the vehicle. Douglas County declares it unlawful for any person to drive vehicles containing garbage unless the garbage is covered (Sections 8.28.020 and 8.28.030).

FIRE HAZARD MANAGEMENT

Tahoe Regional Planning Agency

Regional Plan for the Lake Tahoe Basin

The Tahoe Regional Planning Agency's (TRPA's) *Regional Plan for the Lake Tahoe Basin* (1986) lists the following goals and policies related to hazards and hazardous materials that are applicable to the proposed project:

> Chapter 2, Land Use Element, Natural Hazards, Policy 3: Inform residents and visitors of the wildfire hazard associated with occupancy in the Basin. Encourage use of fire resistant materials and fire preventative techniques when constructing structures, especially in the highest fire hazard areas. Manage forest fuels to be consistent with state laws and other goals and policies of this plan.

TRPA Code of Ordinances

The TRPA Code of Ordinances (2004), Section IX, Chapter 75, Section 75.3 provides the following ordinances related to hazards and hazardous materials applicable to the proposed project:

> Vegetation Management to Prevent the Spread of Wildfire: Within areas of significant fire hazard, as determined by local, state, or federal fire agencies, flammable or other combustible vegetation may be removed, thinned, or manipulated up to 30 feet from any structure to prevent the spread of wildfire. Sufficient quantities of residual vegetation should remain in this 30 foot zone to stabilize the soil and prevent erosion. Whenever possible, vegetation in this zone should be thinned, tapered, cut back, or

otherwise selectively manipulated, rather than removed entirely. Revegetation with approved species may be required where vegetative ground cover has been eliminated or where erosion problems may occur.

Tahoe-Douglas Fire Protection District

Nevada Community Wildfire Risk/Hazard Assessment Project

In 2002, the Healthy Forests Initiative was announced by the White House to implement the core components of the *National Fire Plan Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment 10-year Strategy (Plan)*. The Plan called for more active forest management to reduce the threat of wildland fire in the wildland-urban interface. A report was prepared specifically for the Douglas County communities within the Tahoe Basin in conjunction with the Nevada Community Wildfire Risk/Hazard Assessment Project. The communities included are among those named in the 2001 Federal Register list of Communities-at-Risk within the vicinity of federal lands that are most vulnerable to the threat of wildfire. The communities assessed in the Douglas County portion of the Tahoe Basin include the Stateline area, in which the project site is located. According to the report, Stateline is in a Moderate Hazard category. This relatively low assessment score is primarily due to good defensible space (i.e., all dry and combustible vegetation removed from within 30 to 100 feet around buildings, depending on the slope) and moderate slopes (Tahoe Douglas Fire Protection District 2004).

DOUGLAS COUNTY EMERGENCY SERVICES

Emergency Dispatch Program

Douglas County provides emergency services through the Emergency Dispatch Program. This provides a direct service to the citizens of Douglas County, Nevada and Alpine County, California on a 24-hour, 7 days per week basis. The program provides a consolidated countywide communications center that dispatches the appropriate response units for the Douglas County Sheriff's Department, East Fork Fire and Paramedic District, Tahoe Douglas Fire District (Fire District), Washoe Tribal Police, and 75% of Alpine County's Sheriff, fire, and medical dispatching services (County of Douglas 2006).

E-911 Program

The County's E-911 Program provides for "Enhanced 911" service to citizens of Douglas and Alpine Counties. This program provides citizens with a single universal three digit emergency number that allows the communications center to quickly identify the caller's phone number and address. With this system, response times to emergencies are substantially reduced, by up to 1 minute, while providing information to the Communications Center in the event the caller cannot talk or does not know their location (County of Douglas 2006).

The Communications Director reports to the County Manager and to the Emergency Response Council that is appointed by the Board of County Commissioners. The Emergency Response Council is made up of the County Manager, Douglas County Sheriff, East Fork Fire Chief, East Fork Deputy Chief in charge of Paramedics, Tahoe Douglas Fire Chief, and a representative of the Nevada Division of Forestry.

MOSQUITO CONTROL

The project site is located within the Douglas County Mosquito Abatement District (District). The District has one full-time employee and utilizes additional seasonal employees to form a small but highly trained unit responsible for the prevention, elimination, and control of mosquitoes and other arthropods known to be potential carriers of infectious diseases or presenting a public nuisance. The District routinely conducts surveillance to locate

mosquito-breeding sources and to solve mosquito problems using physical, biological and chemical means, along with conducting public education outreach efforts.

5.13.2 AFFECTED ENVIRONMENT

The 19.63-acre project site includes 155 mobile home sites (148 are occupied), two asphalt-paved streets (Eugene Drive and Arthur Drive), an office building, maintenance shop, storage shed, and the KGID water pump station and ozonation facility (located on an easement). Other site features include a drainage ditch and three Kahle treatment ponds that collect and treat runoff from the adjacent development.

KGID FACILITIES

KGID, as a water purveyor, has the responsibility of providing safe and reliable drinking water supply to its customers. Water supplied by KGID presently comes entirely from Lake Tahoe. The supply system includes the Lake Tahoe intake pipeline, the Lake Pump Station, and the Ozone Disinfection Facility for treating the surface water. In addition, KGID has an above-ground fuel storage tank and two transformers that are also located on the project site.

Lake Pump Station

KGID operates the Lake Pump Station as its primary source of water supply. Water is drawn from Lake Tahoe using a 24-inch diameter pipeline. Water flows by gravity through an ozonation process for disinfection and is delivered to the water distribution system via the Lake Pump Station. The Lake Pump Station and Ozone Disinfection Facility are housed in a single building structure. The Lake Pump Station, Ozone Disinfection Facility and associated ozone contact chambers and pipelines are located on a KGID non-exclusive easement (on land owned by the project applicant) at the west end of the project site (Exhibit 3-3). A non-exclusive easement permits the landowner to make use of the land as long as they do not unreasonably interfere with KGID's services or facilities (AMEC 2005).

Several chemicals are used and stored at the KGID facilities on-site. Table 5.13-1 provides an inventory of these chemicals.

Table 5.13-1
KGID Lake Pump Station – Chemical Inventory

Common Name	Components	Amount
Zinc Orthophosphate	Phosphoric acid, Zinc Sulfate	120 gallons
Calcium Thiosulphate 30%	Calcium Thiosulphate 30%	350 gallons
Sodium Metabisulfate	Sodium Metabisulfate	450 pounds
Liquid bleach	Sodium Hypochlorite 1%	600 gallons
Liquid bleach	Sodium Hypochlorite 12%	110 gallons
Salt	Sodium Chloride	2,000 pounds
Diesel fuel	--	1,000 gallons
Lubricating oil	--	25 gallons

Source: KGID 2007

These chemicals are not included on EPA's list of chemicals subject to reporting requirements under the Emergency Planning and Community Right-to-Know Act (EPCRA), also known as Title III of the Superfund Amendments and Reauthorization Act of 1986 (KGID 2007).

Ozone

In addition to the chemicals listed above, the Ozone Disinfection Facility uses ozone to disinfect the water. Ozone is a faintly blue gas that forms when oxygen is excited to a higher energy state. This happens when oxygen is exposed to a high-energy source, such as lightening and ultraviolet radiation from the sun in the natural environment, or exposure to high voltage transformers and electrical transmission lines. Ozone's primary health effect is as an irritant, targeting the mucous membranes of the eyes, throat, nose, and lungs. Concentrations exceeding approximately 0.5 parts per million by volume (ppmv) cause extreme irritation. The Fed-OSHA 8-hour allowable exposure limit is 0.1 ppmv and the short-term exposure limit is 0.3 ppmv. However, ozone has a pungent odor at as little as 0.01 ppmv, well below the level at which health effects occur (Kernkamp and Roundtree 2007). Prolonged exposure (50 ppmv for 60 minutes) could be fatal (CDC 2007).

Ozone is an unstable molecule of elemental oxygen that decomposes back to oxygen very quickly, which means it quickly dissipates in the atmosphere and cannot be stored. Therefore, the ozone that is generated on-site at KGID's water treatment plant is readily available for immediate use, but not for storage. Although KGID has the capability to generate up to 100 pounds of ozone per day (at concentrations up to 20,000 ppm), it produces only what it needs on a daily basis (Jacobs, pers. comm., 2007). Three ozone contact chambers are located on-site. The ozone chambers are located below grade and are outside of the KGID buildings and fencing.

Other KGID Facilities

KGID has one 350-gallon above-ground storage tank (AST) for diesel fuel, located adjacent to the maintenance shop on-site. The AST has secondary containment and there was no evidence of leaks or spills observed during a site reconnaissance.

There are also two above ground transformers on-site located just east of the KGID pump station building.

KGID Safety Features

As per the terms of the non-exclusive easement granting KGID the right to operate and maintain a water pumping and treatment system on the Beach Club property, KGID is required to operate and maintain its facilities in accordance with applicable laws and regulations and in a safe, neat and orderly fashion. KGID implements basic safety precautions and signage to ensure public safety and to prevent risk of upset situations such as ozone release, service disruption, and/or water contamination. The pump station equipment and facility includes venting, security alarms and an entry monitoring system (video surveillance, alarms, and sensors) that operates continuously (24 hours per day, 7 days per week) for rapid assessment of unsafe conditions and has the capability to shutdown the ozone system. KGID personnel also visit the site to maintain/check facilities Mondays through Fridays between 8:00 AM and 5:00 PM. Within the ozone facility an ozone analyzer sounds an alarm when a set point of ozone concentration has been reached in the room and activates the automatic shutdown of the ozone generation system. An ozone analyzer also monitors the gas vented downstream of the ozone generating units and triggers an alarm and system shutdown above a set point. Any ozone escaping after a system shutdown would quickly dissipate in the atmosphere. Appropriate signage indicating the presence of ozone on-site is also in place at the ozone facility (Kernkamp and Roundtree 2007), including KGID facilities.

KGID has recently consulted with the project applicant and representatives of the University of Nevada, Reno, 4-H Camp to install a perimeter fence and video surveillance around the KGID facilities. A representative of KGID has indicated the fence and surveillance could serve as added security to possibly detect and delay unauthorized access to the site and separate the public from the water pumping and treatment facilities. Installation of such a fence is not authorized under KGID's non-exclusive easement. Both the project applicant and the 4-H Camp

representatives have rejected KGID's proposal on the basis that KGID has not provided sufficient evidence demonstrating that such a fence is warranted. Accordingly, the proposed project does not include a perimeter fence.

MOSQUITOES/VECTORS

The climate, topography, and plant communities of the Tahoe Basin provide an abundance and variety of larval mosquito habitats. The restoration of stream environment zones has created additional habitat sources. The mosquito population in the Tahoe Basin is most active in the spring and early summer. The female mosquito needs blood in order to produce eggs. Hosts that can supply blood include reptiles, amphibians, mammals, birds, and humans. All mosquito species are potential vectors of organisms that can cause disease to pets, domestic animals, wildlife, or humans.

Mosquitoes require standing water to reproduce and, therefore, areas of standing water are often breeding grounds for mosquitoes. The existing drainage ditch located at the northern boundary of the project site has experienced stagnant water collection resulting in mosquito and nuisance vector breeding. In July of 2006 a mosquito sample taken in the Kahle Meadow area tested positive for the West Nile Virus (Lynch, pers. comm., 2006). Human West Nile Virus infections have been reported in Douglas County (Douglas County 2006).

Biological larvicides, including *Bacillus thuringiensis israelensis*, a naturally occurring bacterium, have been introduced via briquettes to standing water bodies near Kahle Drive and in the pond behind Lakeside Inn within the past 2 years by both the Mosquito Abatement District Control Program (District) and by employees of KGID (Lynch, pers. comm., 2006). Only mosquitoes, black flies, and certain midges are susceptible to these bacteria – other aquatic invertebrates and non-target insects are unaffected. The District has also used pyrethrins and pyrethroids for its adult mosquito-fogging program in and around the project site and in the residential community of Glenbrook. Pyrethrins are insecticides that are derived from an extract of chrysanthemum flowers, and pyrethroids are synthetic forms of pyrethrins. These are generally applied by truck mounted or hand held foggers. All of these mosquito abatement techniques have been approved for use by TRPA.

PHASE I ENVIRONMENTAL SITE ASSESSMENT

In November 2006, a Phase I Environmental Site Assessment (ESA) was prepared specifically for the project site. The purpose of the Phase I ESA is to identify existing or potential recognized environmental conditions or historically recognized environmental conditions (as defined by ASTM Standard E-1527-05) affecting the project site. The assessment is qualitative in nature consisting of a review of readily available information regarding past and present land uses for indications of the manufacture, generation, use, storage, and/or disposal of hazardous substances at the site, and a site reconnaissance to observe existing site conditions (Western Geologic, LLC 2006). The work conducted for the Phase I ESA did not include any testing or sampling of materials (i.e., soil, water, air, building materials). The Phase I ESA, included as an Appendix H, is summarized below.

The project site was undeveloped land until 1969, with the exception of a landing strip that was used in the 1950s. No buildings or fuel storage facilities were identified on the site during this period. In 1970, the existing mobile home park was developed. The existing office building and maintenance shop were constructed in 1978, and the KGID pump station building was built on an easement in the 1980s. The project site also contains one 350-gallon AST for diesel fuel, located adjacent to the maintenance shop. No current or previous underground storage tanks or pipelines (other than KGID water lines related to the pump station) are on the project site.

To the extent observed, no significant areas of stained soil or pavement were present. Areas of minor surface staining were observed in vehicle parking areas, likely the result of motor oil from engine leaks. There was no evidence of distressed vegetation, other surface staining, or surface migration of petroleum releases or hazardous materials onto or off the project site. There is no record of any hazardous materials events, fires, or mold/mildew problems on the project site.

An environmental records search was conducted for the project site and surrounding areas. A regulatory database report was prepared by Environmental First Search (refer to Appendix C in the Phase I ESA) that obtained information from numerous state and federal databases. The search revealed that in 1990 a release of hydraulic elevator oil was reported at the Lake Park Apartments, located 0.33 miles west of the project site. Soil affected by the oil was remediated and a clean closure was reported in 2000. The building containing the elevator was demolished and replaced with a new apartment complex. Given the results of the remediation and the current regulatory status, this site is not considered to pose an environmental risk to the project site.

In addition to the standard Phase I ESA considerations summarized above, the report also addresses asbestos-containing building materials, lead paint, and radon. These issues are summarized below.

Asbestos-Containing Building Materials

Asbestos is a naturally occurring mineral commonly used as an acoustic insulator, thermal insulation, fire proofing, and in other building materials. Prior to the 1970s, many types of building products and insulation materials used in building construction contained asbestos. When inhaled in sufficient quantities, asbestos fibers can cause serious health problems. EPA defines asbestos-containing material (ACM) as materials that contain greater than 1% asbestos as detected by laboratory analysis. Emissions of asbestos fiber to the ambient air, which can occur during activities such as renovation or demolition of structures made with ACMs (e.g., insulation), are regulated in accordance with Section 112 of the federal Clean Air Act. Many of the on-site structures were built before the 1980s and may have building materials containing asbestos. As part of the Phase I ESA, no suspect ACM was observed in building materials during the site inspection. However, sampling was not performed as part of the Phase I ESA.

Lead Paint

Lead is a highly toxic metal that was used for many years in products found in and around homes. Lead-based paint is more common and was used more extensively in buildings built before 1950. In 1978, paint containing more than 0.06% lead was banned; however, older stocks of leaded paint were still used for more than a decade. Most homes built before 1978 contain some lead-based paint. Lead may cause a range of health effects, from behavioral problems and learning disabilities, to seizures and death. At the project site, paint sampling for lead paint was not performed.

Radon

Radon is an invisible, odorless, radioactive gas produced by decay of uranium in rock and soil. Radon gas enters buildings through cracks in the foundation, areas surrounding drainage pipes, and other openings in the foundation and walls. The radon decay products, once inside a building, may become attached to dust particles and inhaled, or the decayed radioactive particles alone may be inhaled and cause damage to lung tissue. Radon is measured in picocuries per liter of air (pCi/L). EPA has established the recommended safe radon level at 4 pCi/L. EPA and US Geological Survey (USGS) have evaluated radon potential on a county-wide basis as an aid in deciding whether radon-resistant features are applicable in new construction. One of three zones is assigned based on radon potential. Each zone designation reflects the average short-term radon measurement that can be expected to be measured in a building without the implementation of radon control methods. According to EPA's Map of Radon Zones, Douglas County is located in a High Radon Potential Zone (greater than 4 pCi/L). At the project site, radon sampling was not performed as part of the Phase I ESA.

Phase I Conclusions

The Phase I ESA concludes there is no evidence of recognized environmental conditions in connection with the project site based on historical and current uses. There are no conditions at the project site indicative of releases or threatened releases of hazardous substances that would warrant additional investigation. No further environmental

investigations were recommended. However, no testing or sampling of onsite materials, soils, air or water was performed.

5.13.3 Environmental Consequences and Recommended Mitigation Measures

Criteria of Significance

An impact would be considered significant if the Beach Club Project caused any of the following:

- involve a risk of an explosion or the release of hazardous substances including, but not limited to, oil, pesticides, chemicals, or radiation in the even of an accident or upset conditions;
- involve possible interference with an emergency evacuation plan;
- creation of any health hazard or potential health hazard (excluding mental health);
- exposure of people to potential health hazards; or
- disruption to public services.

Alternative A – Proposed Project

IMPACT 5.13.A-1 Expose the Public or Environment to Hazardous Materials. *Alternative A would involve the storage, use, and transport of hazardous materials on the project site during construction and operation of the project. However, use of hazardous materials would be in compliance with local, state, and federal regulations. The existing KGID facility is a source of nearby hazardous materials on-site that could pose a significant health risk for people on the project site during a risk of upset event or other threat event. However, the project would not significantly alter the existing conditions at the site. Therefore, impacts related to exposure of the public or environment to significant hazardous materials would be considered* ***less than significant****.*

Construction and operation of the proposed project would involve the use and storage of hazardous materials (e.g., asphalt, fuel, lubricants, paint). All materials would be used, stored, and disposed of in accordance with applicable federal, state, and local laws including Nev-OSHA, and Nevada's Hazardous Waste Management Program regulations, as well as manufacturer's instructions. Transportation of hazardous materials on area roadways is regulated by the Nevada Highway Patrol. In addition, the project proposes several Best Management Practices (BMPs) that would also reduce potential impacts from accidental releases of hazardous materials. These include, but are not limited to:

- Fueling and concrete washout area lined with polyethylene sheeting and protected by silt fence;
- Designated staging and storage area protected by a silt barrier;
- Instruct on-site construction personnel in spill prevention practices;
- Provide pallets or secondary containment areas for chemicals, drums, or bagged materials and use drip pans or secondary containment measures beneath vehicles during storage;
- Immediately clean up and transport to a legal disposal site any spilled petroleum products or petroleum-contaminated soils, to the maximum extent possible and to the satisfaction of TRPA and Nevada Department of Environmental Protection; and

- Place wastes (i.e., grease, oil, transmission fluids, cleaning solutions, batteries, etc.) in proper containers, store the containers in designated areas and ultimately recycle or properly dispose of the materials.

These proposed BMPs and protective local, state, and federal requirements would be sufficient to minimize exposure of hazardous materials (e.g., asphalt, fuel, lubricants, paint) to the public and environment. Potential impacts related to these hazardous materials would be considered less than significant.

The existing KGID Lake Pump Station and Ozone Disinfection Facility would continue to be maintained on the project site. The KGID facilities would be in close proximity to proposed recreational and residential land uses. The closest proposed facility would be the swim and beach club located approximately 20 feet from KGID's facilities. The closest residential unit would be approximately 400 feet from KGID's facility. The potential exists for risk of upset situations such as ozone release, service disruption, and/or water contamination to occur. However, as required by the Homeland Security Act, KGID has conducted a Vulnerability Assessment that identifies measures to manage potential threats that could lead to risk of upset events. The management plan is currently being implemented and is updated as needed (Jacobs, pers. comm., 2007). KGID also implements basic safety precautions and signage to ensure public safety. The pump station equipment and facility includes venting, security alarms and an entry monitoring system (video surveillance, alarms, and sensors) that operates continuously (24 hours per day, 7 days per week) for rapid assessment of unsafe conditions and has the capability to shutdown the ozone system. KGID personnel also visit the site to maintain/check facilities Mondays through Fridays between 8:00 AM and 5:00 PM. Within the ozone facility an ozone analyzer sounds an alarm when a set point of ozone concentration has been reached in the room and activates automatic shutdown of the ozone generation system. An ozone analyzer also monitors the gas vented downstream of the ozone generating units and triggers an alarm and system shutdown above a set point. Any ozone escaping after a system shutdown would quickly dissipate in the atmosphere. Appropriate signage indicating the presence of ozone on-site is also in place at the ozone facility (Kernkamp and Roundtree 2007), including KGID facilities. As per the terms of the non-exclusive easement granting the KGID the right to operate and maintain a water pumping and treatment system on Beach Club property, KGID is required to operate and maintain its facilities in accordance with applicable laws and regulations and in a safe, neat and orderly fashion.

The project would add up to 54 part-time residents, but would decrease the full-time population by 27, for a net change of 27 additional people on-site (see Section 5.2, "Population and Housing," for more detail). Although the project would result in a slight increase in population on the site that could be exposed to a potential risk of upset situation of ozone or other existing chemical, existing measures are in place to address potential impacts as noted above. In addition, a security fence is proposed along the southern property boundary, between the project site and the 4-H Camp to the south that would discourage non-residents from entering the site. A pedestrian path would also be provided that directs residents and visitors away from KGID facilities (Exhibit 3-4) as compared to the existing path that directs resident and visitors directly to the KGID facilities.

Furthermore, residents are currently living on the site and using the beach and lake for recreating, including swimming and boating and the KGID facilities would continue to operate under the same conditions. Therefore, the project would not create any hazardous conditions. Because residents already live and recreate in the project area, the proposed project would not result in any new risk of exposure. Residences are currently located near the KGID facilities and the project would not significantly alter the distance between residents and the KGID facilities. Therefore, impacts related to exposing the public or environment to hazardous materials would be **less than significant**.

Mitigation Measures

No mitigation is required.

IMPACT 5.13.A-2 Create a Safety Hazard to Construction Workers. *Demolition, excavation, and construction activities on the project site associated with Alternative A could result in the exposure of construction workers to hazardous materials, including asbestos and lead-based paint. This impact is considered* ***potentially significant****.*

With the implementation of Alternative A, the existing mobile home park, including all structures and roadways, would be removed and a new roadway, new residential buildings, a beach and swim club, and associated facilities would be constructed. Development of the project would involve site grading, excavation for utilities and demolition of existing facilities and any manufactured homes that are not relocated.

Asbestos is designated as a hazardous substance when the fibers have the potential to come in contact with air because the fibers are small enough to lodge in the lung tissue and cause health problems. The presence of ACMs in existing buildings poses an inhalation threat only if the ACMs are found to be in a friable state. If the ACMs are not friable, there is no inhalation hazard because asbestos fibers would not become airborne. Emissions of asbestos fiber to the ambient air, which can occur during activities such as renovation or demolition of structures made with ACMs (e.g., insulation), are regulated in accordance with Section 112 of the federal Clean Air Act. Many of the on-site structures were built before the 1980s and may have building materials containing asbestos.

Human exposure to lead has been determined by EPA and Fed-OSHA to be an adverse health risk, particularly to young children. Demolition of structures containing lead-based paint requires specific remediation activities regulated by federal, state, and local laws. The use of lead as an additive to paint was discontinued in 1978. However, many of the on-site structures were built before the 1980s and may contain lead-based paints.

According to the Phase I ESA, areas of minor surface staining of petroleum hydrocarbons were observed in vehicle parking areas, likely the result of motor oil from engine leaks. There was no evidence of distressed vegetation, other surface staining or surface migration of petroleum releases or hazardous materials onto or off the project site.

No testing or sampling of materials was conducted as part of the Phase I ESA. Many of the structures on-site were constructed prior to the 1970s and 1980s, when asbestos containing materials and lead-based paints were commonly used. During construction activities, construction workers could come in contact with and be exposed to hazardous materials present in on-site buildings. Exposure to these hazardous materials could create a significant environmental or health hazard. This would be a **potentially significant** impact.

Mitigation Measure 5.13.A-2. Prepare and Implement a Site Health and Safety Plan, Conduct Investigation for Asbestos and Lead-Based Paint. To avoid health risks to construction workers, the project applicant's contractor shall prepare a Site Health and Safety Plan. This plan shall outline measures that will be employed to protect construction workers and the public from exposure to hazardous materials during demolition and construction activities. These measures could include, but would not be limited to, posting notices, limiting access to the site, air monitoring, and watering. Construction contractors shall be required to comply with state health and safety standards for all demolition work.

In addition, before demolition of any on-site structures, the applicant shall hire a qualified consultant to investigate whether any of the on-site structures to be demolished contain asbestos-containing materials and lead that could become friable or mobile during demolition activities. If found, the ACM and lead shall be removed by an accredited inspector in accordance with EPA and Nev-OSHA standards. In addition, all activities (construction or demolition) in the vicinity of these materials shall comply with Fed-OSHA and Nev-OSHA asbestos and lead worker construction standards, as determined necessary. Any materials found to contain asbestos and/or lead shall be disposed of properly at an appropriate off-site disposal facility.

With implementation of Mitigation Measure 5.13.A-2, Impact 5.13.A-2 would be **less than significant.**

IMPACT 5.13.A-3 Disruption of Public Services. *Demolition, excavation, and construction activities on the project site associated with Alternative A could result in the disruption of continuous public services in and around the project site. This impact is considered* ***potentially significant****.*

The existing utilities including electricity, natural gas, water, wastewater, solid waste, and telecommunication services would continue to be provided by the same service providers. On-site utilities would be upgraded to serve the proposed project and would be realigned to follow the new roadway or dedicated utility easements. In addition, pursuant to Chapter 30 of the TRPA Code of Ordinances, any above ground utility lines would be placed underground. Because utilities would be altered as part of the project, construction of the project could result in the disruption of continuous public services on adjacent properties. This would be a **potentially significant** impact.

Mitigation Measure 5.13.A-3. Minimize Loss of Service. The project applicant shall coordinate with all affected utility providers including Sierra Pacific Power Company, Southwest Gas Corporation, KGID, Douglas County Sewer Improvement District, South Tahoe Refuse, and SBC Communications to minimize any potential loss of service. Measures that could be implemented include, but are not limited to scheduling necessary outages, limiting the hours of disruption, informing affected users in advance of the disruption, and avoiding outages during periods of high demand. Any measures would require review and approval by the affected utility provider.

With implementation of Mitigation Measure 5.13.A-3, Impact 5.13.A-3 would be **less than significant**.

IMPACT 5.13.A-4 Expose Future Residents to Potential Health Hazard Related to Radon. *The project site is located in a High Radon Potential Zone, as designated by EPA's Map of Radon Zones for Douglas County. Development of Alternative A in this area could expose future residents to radon levels that exceed EPA's recommended safe level of 4 pCi/L. This impact is considered* ***potentially significant****.*

EPA and USGS have evaluated radon potential on a county-wide basis as an aid in deciding whether radon-resistant features are applicable in new construction. One of three zones is assigned based on radon potential. Each zone designation reflects the average short-term radon measurement that can be expected to be measured in a building without the implementation of radon control methods. According to EPA's Map of Radon Zones, Douglas County is located in a High Radon Potential Zone (greater than 4 pCi/L). Radon could be present in project site soils, therefore posing a risk of radon exposure to future residents. This would be a **potentially significant** impact.

Mitigation Measure 5.13.A-4. Conduct Investigation and Implement Radon Resistant Construction Techniques. The project applicant shall conduct onsite testing for radon by a certified professional. If radon is found, mitigation plans shall be developed by a certified professional. Radon resistant new construction techniques may be required to reduce levels to less than 4 pCi/L. Basic elements include a gas permeable layer beneath foundation construction, a layer of plastic sheeting, sealing and caulking, vent pipe and venting fan. Any radon resistant new construction techniques shall be reviewed and approved by TRPA and the Douglas County Building Department.

With implementation of Mitigation Measure 5.13.A-4, Impact 5.13.A-4 would be **less than significant**.

IMPACT 5.13.A-5 **Increased Risk of Health Hazards From Vector-Born Diseases.** *The Alternative A BMP Plan would include the construction of stormwater detention basins that could serve as potential breeding areas for mosquitoes. The project would also increase the number of people living in an area recognized as containing several mosquito breeding sites and, therefore, would increase the number of people potentially exposed to vector-borne diseases carried by mosquitoes. The Tahoe Basin portion of Douglas County is currently serviced by the Douglas County Mosquito Abatement District. Over the past 2 years District employees, as well as KGID employees, have employed TRPA-approved mosquito abatement measures in the project area and would continue to do so. This would be a* ***less-than-significant*** *impact.*

The Alternative A BMP Plan would include the construction of stormwater detention basins that could serve as potential breeding grounds for mosquitoes. While creating potential mosquito breeding ground could increase mosquitoes in the area and, therefore, increase the possibility of vector-born diseases transmitted by mosquitoes, this condition would be lessened by the actions of Douglas County Mosquito Abatement Program employees who have been active in monitoring mosquito activity, testing mosquitoes for vector-born illnesses and utilizing mosquito abatement techniques in the project area over the past 2 years. Program employees have also taught KGID staff how to use abatement control substances such as the briquettes containing *Bacillus thuringiensis israelensis*. The continued mosquito abatement actions of the Douglas County Mosquito Abatement Control Program, assisted by the actions of KGID staff, would reduce the potential increase in vector-born disease carried by mosquitoes created by the stormwater detentions basins.

Implementation of the project would increase the number of people living in an area recognized as containing several mosquito breeding sites and, therefore, would increase the number of people routinely exposed to vector-born diseases carried by mosquitoes. However, people already live and recreate in the project area and, therefore, construction of the project would not result in any new risk of exposure to vector-born diseases. In addition, the techniques employed in mosquito abatement are considered safe and appropriate for human exposure by TRPA and Douglas County. Therefore, there would be no new risk of adverse health affects associated with mosquito control. This increase in human exposure would be mitigated by the activities of Douglas County Mosquito Abatement Program.

The activities of the Douglas County Mosquito Abatement Control Program would reduce impacts related to vector-born diseases carried by mosquitoes to a **less-than-significant** level.

Mitigation Measures

No mitigation is required.

IMPACT 5.13.A-6 **Increased Exposure to Wildland Fire Hazard.** *The project site is located in a moderate fire hazard area. The residential units proposed for the site would incorporate fire resistant roofs and defensible space, and adequate fire protection services are available to the serve the project. These measures would reduce the project's potential to increase exposure of people or structures to wildland fires. This would be a* ***less-than-significant*** *impact.*

The Fire District classifies the fire hazard rating in the Stateline area as moderate because of moderate slopes and good defensible space. The Fire District recommends a minimum of 30 feet of defensible space around residential uses on relatively flat terrain (greater setbacks for areas with slopes) with minimal wildland vegetation (Tahoe Douglas Fire Protection District 2007). The project site is in a developed area where the topography is fairly level and fuel loading is low. The proposed project would provide appropriate setbacks given the flat terrain of the project site and proposed landscaping. In addition, the residential units proposed for the site would incorporate fire resistant roofs (i.e., asphalt shingles or other fire resistant material). Adequate fire protection services are available to the serve the project. Furthermore, the project site is already developed and is currently used as a residential site; therefore, no new potential for exposure to a wildland fire would occur. Therefore, the proposed

project's potential to increase exposure of people or structures to wildland fire would be considered **less than significant**.

Mitigation Measures

No mitigation is required.

IMPACT 5.13.A-7 Increased Exposure to Boating Hazards. *By reconstructing and extending the private pier at the project site, there would be a potential to increase exposure of people to boating hazards. However, the project includes buoy-designated and roped off swimming areas, as well as appropriate signage. These measures would reduce the project's potential to increase exposure of people to boating hazards. This would be a* ***less-than-significant*** *impact.*

The project proposes to reconstruct and expand the existing 109-foot private pier by approximately 50 linear feet, for a total length of 159 feet from Lake Tahoe High Water Datum (elevation 6229.1). A portion of the pier would be floating, and the pier would include a ramp capable of adapting to boat entry levels. However, no general public parking or access would be provided and boating levels in the project area are expected to be similar to existing boating levels. The project would prohibit boat access along the pier's southerly side via navigational buoys and signage to protect swimmers from adjacent boating activities. In addition, a swimming area would be roped off along the shore of the project site. Further, people already live and recreate in the project area and; therefore, project development would not result in any new risk of exposure to boating hazards. These proposed measures, and the fact that boating levels in the area would be similar to existing levels, reduces the potential for increased exposure of people to boating hazards to a **less-than-significant** level.

Mitigation Measures

No mitigation is required.

ALTERNATIVE B – TWO-LOT ALTERNATIVE, SINGLE-FAMILY ESTATES

IMPACT 5.13.B-1 Expose the Public or Environment to Hazardous Materials. *Because Alterative B would be constructed on the same site and would result in similar facilities, this impact is the same as Impact 5.13.A-1 described above. Implementation of Alternative B would involve the storage, use, and transport of hazardous materials on the project site during construction and operation. However, use of hazardous materials would be in compliance with local, state, and federal regulations. The existing KGID facility is a source of nearby hazardous materials on-site that could pose a significant health risk for people at the project site during a risk of upset event or other threat event. However, Alternative B would not significantly alter the existing conditions at the site. Therefore, impacts related to exposure of the public or environment to significant hazardous materials would be considered* ***less than significant****.*

This impact is the same as Impact 5.13.A-1 for Alternative A. See full discussion above.

Alternative B would involve the storage, use, and transport of hazardous materials at the project site during construction, and to a lesser extent, following construction. Two single-family residences would be constructed rather than condominium units for Alternative B. Use of hazardous materials would be in compliance with local, state, and federal regulations. In addition, the project proposes several BMPs that would reduce potential impacts from accidental releases of hazardous materials. These proposed BMPs and protective local, state, and federal requirements are sufficient to minimize exposure of hazardous materials (e.g., asphalt, fuel, lubricants, paint) to the public and environment. Potential impacts related to these hazardous materials would be considered less than significant.

The existing KGID Lake Pump Station and Ozone Disinfection Facility would be maintained on the project site. The KGID facilities are in close proximity to proposed residential land uses. The potential exists for risk of upset situations such as ozone release, service disruption, and/or water contamination. However, existing measures are in place to address potential impacts as noted under Impact 5.13.A-1. It should also be noted that for Alternative B there would be a significant decrease in the population on the site that could be exposed to a potential risk of upset situation of ozone or any other existing chemical.

Therefore, impacts related to exposing the public or environment to hazardous materials would be **less than significant**.

Mitigation Measures

No mitigation is required.

IMPACT 5.13.B-2 Create a Safety Hazard to Construction Workers. *This impact is the same as Impact 5.13.A-2 as described above for Alternative A. Demolition, excavation, and construction activities at the project site associated with Alternative B could result in the exposure of construction workers to hazardous materials, including asbestos and lead-based paint. This impact is considered potentially significant.*

Mitigation Measure 5.13.B-2. Prepare and Implement a Site Health and Safety Plan, Conduct Investigation for Asbestos and Lead-Based Paint. See Mitigation Measure 5.13.A-2 described above for Alternative A. The same mitigation measure would apply.

IMPACT 5.13.B-3 Disruption of Public Services. *This impact is the same as 5.13.A-3 described above for Alternative A. Demolition, excavation, and construction activities at the project site associated with Alternative B could result in the disruption of continuous public services in and around the project site. This impact is considered potentially significant.*

Mitigation Measure 5.13.B-3. Minimize Loss of Service. See Mitigation Measure 5.13.A-3 described above for Alternative A. The same mitigation measure would apply.

IMPACT 5.13.B-4 Expose Future Residents to Potential Health Hazard Related to Radon. *This impact is the same as Impact 5.13.A-4 described above for Alternative A. The project site is located in a High Radon Potential Zone, as designated by the EPA's Map of Radon Zones for Douglas County. Development of Alternative B in this area could expose future residents to radon levels that exceed EPA's recommended safe level of 4 pCi/L. This impact is considered potentially significant.*

Mitigation Measure 5.13.B-4. Conduct Investigation and Implement Radon Resistant Construction Techniques. See Mitigation Measure 5.13.A-4 described above for Alternative A. The same mitigation measure would apply.

IMPACT 5.13.B-5 Increased Risk of Health Hazards From Vector-Born Diseases. *This impact is similar to Impact 5.13.A-5. As with Alternative A, Alternative B could include the construction of stormwater detention basins that could serve as potential breeding areas for mosquitoes. Contrary to Alternative A, Alternative B would decrease the number of people living in an area recognized as containing several mosquito breeding sites and, therefore, would decrease the number of people potentially exposed to vector-borne diseases carried by mosquitoes. The Tahoe Basin portion of Douglas County is currently serviced by the Douglas County Mosquito Abatement District. Over the past 2 years District employees, as well as KGID employees, have employed TRPA-approved mosquito abatement measures in the project area and would continue to do so. This would be a less-than-significant impact.*

Mitigation Measures

No mitigation is required.

IMPACT 5.13.B-6 Increased Exposure to Wildland Fire Hazard. *This impact is the same as Impact 5.13.A-6. The project site is located in a moderate fire hazard area. The residential units proposed for the site would incorporate fire resistant roofs and defensible space and adequate fire protection services are available to the serve the project. These measures would reduce the project's potential to increase exposure of people or structures to wildland fires. This would be a* ***less-than-significant*** *impact.*

Mitigation Measures

No mitigation is required.

IMPACT 5.13.B-7 Increased Exposure to Boating Hazards. *This impact is the same as Impact 5.13.A-7. Although the existing pier would be extended, the boating levels are expected to be similar or less than existing levels. Alternative B would include buoy-designated and roped off swimming areas, as well as appropriate signage. These measures would reduce Alternative B's potential to increase exposure of people to boating hazards. This would be a* ***less-than-significant*** *impact.*

Mitigation Measures

No mitigation is required.

ALTERNATIVE C – TWO-LOT ALTERNATIVE MULTI-FAMILY RESIDENTIAL

IMPACT 5.13.C-1 Expose the Public or Environment to Hazardous Materials. *Because Alterative C would be constructed on the same site and would include similar facilities as Alternative A, this impact would be the same as Impact 5.13.A-1 described above. Implementation of Alternative C would involve the storage, use, and transport of hazardous materials on the project site during construction and operation. However, use of hazardous materials would be in compliance with local, state, and federal regulations. The existing KGID facility is a source of nearby hazardous materials on-site that could pose a significant health risk for people at the project site during a risk of upset event or other threat event. However, the project would not significantly alter the existing conditions at the site. Therefore, impacts related to exposure of the public or environment to significant hazardous materials would be considered* ***less than significant****.*

This impact is the same as Impact 5.13.A-1 for Alternative A. See full discussion above.

Alternative C would involve the storage, use, and transport of hazardous materials at the project site during construction and operation. However, use of hazardous materials would be in compliance with local, state, and federal regulations. In addition, the project proposes several BMPs that would reduce potential impacts from accidental releases of hazardous materials. These proposed BMPs and protective local, state, and federal requirements are sufficient to minimize exposure of hazardous materials (e.g., asphalt, fuel, lubricants, paint) to the public and environment. Potential impacts related to these hazardous materials would be considered less than significant.

The existing KGID Lake Pump Station and Ozone Disinfection Facility would be maintained on the project site. The KGID facilities are in close proximity to proposed residential and recreational land uses. The potential exists for risk of upset situations such as ozone release, service disruption, and/or water contamination. Although there would be a slight increase in population at the site that could be exposed to a potential risk of upset situation of ozone or any other existing chemical, existing measures are in place to address potential impacts as noted under Impact 5.13.A-1.

Therefore, impacts related to exposing the public or environment to hazardous materials would be **less than significant**.

Mitigation Measures

No mitigation is required.

IMPACT 5.13.C-2 Create a Safety Hazard to Construction Workers. *This impact is the same as Impact 5.13.A-2 as described above for Alternative A. Demolition, excavation, and construction activities at the project site associated with Alternative C could result in the exposure of construction workers to hazardous materials, including asbestos and lead-based paint. This impact is considered* ***potentially significant****.*

Mitigation Measure 5.13.C-2. Prepare and Implement a Site Health and Safety Plan, Conduct Investigation for Asbestos and Lead-Based Paint. See Mitigation Measure 5.13.A-2 described above for Alternative A. The same mitigation measure would apply.

IMPACT 5.13.C-3 Disruption of Public Services. *This impact is the same as 5.13.A-3 described above for Alternative A. Demolition, excavation, and construction activities at the project site associated with Alternative C could result in the disruption of continuous public services in and around the project site. This impact is considered* ***potentially significant****.*

Mitigation Measure 5.13.C-3. Minimize Loss of Service. See Mitigation Measure 5.13.A-3 described above for Alternative A. The same mitigation measure would apply.

IMPACT 5.13.C-4 Expose Future Residents to Potential Health Hazard Related to Radon. *This impact is the same as Impact 5.13.A-4 described above for Alternative A. The project site is located in a High Radon Potential Zone, as designated by the EPA's Map of Radon Zones for Douglas County. Development of Alternative C in this area could expose future residents to radon levels that exceed EPA's recommended safe level of 4 pCi/L. This impact is considered* ***potentially significant****.*

Mitigation Measure 5.13.C-4. Conduct Investigation and Implement Radon Resistant Construction Techniques. See Mitigation Measure 5.13.A-4 described above for Alternative A. The same mitigation measure would apply.

IMPACT 5.13.C-5 Increased Risk of Health Hazards From Vector-Born Diseases. *This impact is the same as Impact 5.13.A-5. As with Alternative A, Alternative C could include the construction of stormwater detention basins that could serve as potential breeding areas for mosquitoes. Alternative C would also increase the number of people living in an area recognized as containing several mosquito breeding sites and therefore would increase the number of people potentially exposed to vector-borne diseases carried by mosquitoes. The Tahoe Basin portion of Douglas County is currently serviced by the Douglas County Mosquito Abatement District. Over the past 2 years District employees, as well as KGID employees, have employed TRPA-approved mosquito abatement measures in the project area and would continue to do so. This would be a* ***less-than-significant*** *impact.*

Mitigation Measures

No mitigation is required.

IMPACT 5.13.C-6 Increased Exposure to Wildland Fire Hazard. *This impact is the same as Impact 5.13.A-6. The project site is located in a moderate fire hazard area. The residential units proposed for the site would incorporate fire resistant roofs and defensible space and adequate fire protection services are available to the serve the project. These measures would reduce the project's potential to increase exposure of people or structures to wildland fires. This would be a* ***less-than-significant*** *impact.*

Mitigation Measures

No mitigation is required.

IMPACT 5.13.C-7 Increased Exposure to Boating Hazards. *This impact is the same as Impact 5.13.A-7. By reconstructing and extending the private pier at the project site there would be a potential to increase exposure of people to boating hazards. However, consistent with Alternative A, Alternative C would include buoy-designated and roped off swimming areas, as well as appropriate signage. These measures would reduce Alternative C's potential to increase exposure of people to boating hazards. This would be a* ***less-than-significant*** *impact.*

Mitigation Measures

No mitigation is required.

ALTERNATIVE D – NO PROJECT – JERE WILLIAMS PLAN

IMPACT 5.13.D-1 Expose the Public or Environment to Hazardous Materials. *This impact is the same as Impact 5.13.A-1. Alterative D could involve the storage, use, and transport of hazardous materials on the project site during utility upgrade and replacement of mobile home units. However, use of hazardous materials would be in compliance with local, state, and federal regulations. Therefore, impacts related to exposure of the public or environment to significant hazardous materials would be considered* ***less than significant****.*

Mitigation Measures

No mitigation is required.

IMPACT 5.13.D-2 Disruption of Public Services. *This impact is the same as Impact 5.13.A-2 as described above for Alternative A. Repairs, maintenance, and replacement of on-site utilities could result in the disruption of public services on and around the project site. This impact is considered* ***potentially significant****.*

Mitigation Measure 5.13.D-2. Minimize Loss of Service. See Mitigation Measure 5.13.A-3 described above for Alternative A. The same mitigation measure would apply.

IMPACT 5.13.D-3 Expose Future Residents to Potential Health Hazard Related to Radon. *This impact is the same as Impact 5.13.A-4 described above for Alternative A. The project site is located in a High Radon Potential Zone, as designated by the EPA's Map of Radon Zones for Douglas County. Implementation of Alternative D on this site could expose future residents to radon levels that exceed EPA's recommended safe level of 4 pCi/L. This impact is considered* ***potentially significant****.*

Mitigation Measure 5.13.D-3. Conduct Investigation and Implement Radon Resistant Construction Techniques. See Mitigation Measure 5.13.A-4 described above for Alternative A. The same mitigation measure would apply.

IMPACT 5.13.D-4 Increased Exposure to Wildland Fire Hazard. *This impact is the same as Impact 5.13.A-6. The project site is located in a moderate fire hazard area. The new manufactured housing proposed for the site would incorporate fire resistant roofs and defensible space and adequate fire protection services are available to the serve the project site. These measures would reduce the project's potential to increase exposure of people or structures to wildland fires. This would be a* ***less-than-significant*** *impact.*

Mitigation Measures

No mitigation is required.

ALTERNATIVE E – NO PROJECT – MANUFACTURED HOUSING

IMPACT 5.13.E-1 Expose the Public or Environment to Hazardous Materials. *This impact is the same as Impact 5.13.A-1. Alterative E would involve the storage, use, and transport of hazardous materials on the project site during utility upgrade and replacement and mobile home units. However, use of hazardous materials would be in compliance with local, state, and federal regulations. Therefore, impacts related to exposure of the public or environment to significant hazardous materials would be considered* ***less than significant****.*

Mitigation Measures

No mitigation is required.

IMPACT 5.13.E-2 Create a Safety Hazard to Construction Workers. *This impact is the same as Impact 5.13.A-2 as described above for Alternative A. Demolition, excavation, and construction activities at the project site associated with Alternative E could result in the exposure of construction workers to hazardous materials, including asbestos and lead-based paint. This impact is considered* ***potentially significant****.*

Mitigation Measure 5.13.E-2. Prepare and Implement a Site Health and Safety Plan, Conduct Investigation for Asbestos and Lead-Based Paint. See Mitigation Measure 5.13.A-2 described above for Alternative A. The same mitigation measure would apply.

IMPACT 5.13.E-3 Disruption of Public Services. *This impact is the same as 5.13.A-3 as described above for Alternative A. Repairs, maintenance, and replacement of on-site utilities could result in the disruption of public services on the project site associated with Alternative E could result in the disruption of continuous public services on and around the project site. This impact is considered* ***potentially significant****.*

Mitigation Measure 5.13.E-3. Minimize Loss of Service. See Mitigation Measure 5.13.A-3 described above for Alternative A. The same mitigation measure would apply.

IMPACT 5.13.E-4 Expose Future Residents to Potential Health Hazard Related to Radon. *This impact is the same as 5.13.A-4 as described above for Alternative A. The project site is located in a High Radon Potential Zone, as designated by the EPA's Map of Radon Zones for Douglas County. Implementation of Alternative E on this site could expose future residents to radon levels that exceed EPA's recommended safe level of 4 pCi/L. This impact is considered* ***potentially significant****.*

Mitigation Measure 5.13.E-4. Conduct Investigation and Implement Radon Resistant Construction Techniques. See Mitigation Measure 5.13.A-4 described above for Alternative A. The same mitigation measure would apply.

IMPACT 5.13.E-5 Increased Exposure to Wildland Fire Hazard. *This impact is the same as Impact 5.13.A-6. The project site is located in a moderate fire hazard area. The new manufactured housing proposed for the site would incorporate fire resistant roofs and defensible space and adequate fire protection services are available to the serve the project site. These measures would reduce the project's potential to increase exposure of people or structures to wildland fires. This would be a* ***less-than-significant*** *impact.*

Mitigation Measures

No mitigation is required.