#### 16 HAZARDOUS MATERIALS AND HAZARDS

This chapter addresses potential impacts related to hazardous materials and hazards associated with historic and current use of the project site and surrounding areas. The potential for impacts on fire personnel and other emergency responders is addressed in Chapter 15, Public Services and Utilities, of this document. The impacts of airborne toxics risks are discussed in Chapter 9, Air Quality, of this document.

#### 16.1 ENVIRONMENTAL SETTING

# 16.1.1 LAND USES AND CONDITIONS ON THE EASTERN REGIONAL MRF AND TRANSFER STATION SITE

The Eastern Regional MRF and Transfer Station operates under Solid Waste Facility Permit #31-AA-0625 issued by CalRecycle and is permitted as a 32.9-acre transfer/processing facility as well as a wood waste, chipping and grinding, and inert debris processing facility. The existing MRF and Transfer Station buildings, as well as Tahoe Area Regional Transit (TART) facilities located within the facility boundary, are clustered in the southern portion of the property. The closest residences to the proposed biomass facility include two onsite temporary caretaker residences in the southern portion of the site. One of the caretaker residences is located on the project site. The closest offsite residence to the project site is approximately 1,500 feet to the east along SR 89 in the Truckee River Canyon.

The 292-acre Eastern Regional Landfill operated on the site as a Class III landfill from 1973 until June 1996, when it stopped receiving waste for disposal and the transfer station was constructed. Final cover construction and formal closure activities for the landfill began in June 1998. Closure was completed in January 2000. The Central Valley Regional Water Quality Control Board (RWQCB), Lahonton Region issued revised Waste Discharge Requirements for the closed landfill in 2004 that required ongoing monitoring of the site's surface and groundwater conditions (RWQCB 2004).

In June 2005, volatile organic compounds (VOCs) were detected in one of the landfill's groundwater monitoring wells (MW-14). Groundwater monitoring has continued on a semiannual basis since the landfill's closure. In the Second Semiannual and Annual 2010 Monitoring Report, VOCs continued to be detected in an onsite well, which is assumed to be due to contact between the landfill gas generated in the closed landfill and the groundwater underlying the landfill. However, VOC concentrations in this well showed a general decreasing trend. Ongoing field adjustments are being made to the site's landfill gas collection system to maximize its efficiency as a corrective measure and monitoring and reporting activities at the closed landfill will continue pursuant to the requirements of the Waste Discharge Requirements Order No. R6T-2004-0016 (SCS Engineers 2011, pg. iv).

The Eastern Regional MRF and Transfer Station has been diverting and processing wood waste on site since about 1996. According to Eastern Regional MRF staff, they have never had an incidence of fire related to their wood processing operations (Achiro 2010). Fire prevention methods include stirring wood chip piles, maintaining a buffer between storage piles and forested areas, maintaining three water trucks on site, and round the clock onsite personnel that includes three watchmen. Material is currently being hauled to Quincy, California. (Achiro 2010).

#### WILDLAND FIRE HAZARDS

Wildland fire is an ongoing concern in the Sierra Nevada, including the Tahoe Basin and area surrounding the project site. Generally, the fire season extends from early spring through late fall of each year during the hotter, dryer months. Increased wildfire conditions arise from a combination of high temperatures, low moisture content in the air and fuel, dense forest vegetation, and high winds. The project site is located in an area of Placer County that is rated "very high" for wildfire threat (Placer County 2010: 4.98). The most recent major wildfire in the general area of the project site occurred in 2001, the Martis fire, which burned approximately 20,000 acres in the area between Truckee and Reno, Nevada (Placer County 2010: 4.108). In June 2007, the Angora Fire in the El Dorado County portion of the Lake Tahoe Basin burned 3,100 acres of forest and destroyed more than 250 homes and 75 other structures (Placer County 2010: 4.111).

Potential losses from wildfire include human life, structures and other improvements, natural and cultural resources, quality and quantity of water supplies, wildlife habitat, cropland, timber, and recreational opportunities. Smoke and air pollution from wildfires can be a severe health hazard. In addition, catastrophic wildfire can create favorable conditions for other hazards such as flooding, landslides, and erosion during the rainy season.

The Tahoe National Forest has a very active fuels management program, treating thousands of acres of vegetation every year to reduce the fire hazard to woodlands and communities adjacent to National Forest lands. Fuels management activities consist of forest thinning projects, pile burning, and prescribed burning. From January 2011 through April 2012, over 1,600 acres of thinning, pile burns, and prescribed burns were conducted on the Forest (USFS 2012).

#### FIRE PROTECTION AND EMERGENCY MEDICAL RESPONSE

Fire protection and emergency medical response services in the project area are provided by several entities through automatic aid and mutual aid agreements between the agencies. For the Eastern Regional MRF and Transfer Station area, fire protection services are provided by the United States Forest Service (USFS), the California Department of Forestry and Fire Protection (CAL FIRE), the Truckee Fire Protection District, and the North Tahoe Fire Protection District (NTFPD). For a detailed discussion of these service providers, please see the discussion of fire protection and emergency medical response services included in Chapter 15, Public Services and Utilities of this document.

### 16.2 REGULATORY SETTING

#### 16.2.1 DEFINITIONS OF TERMS

For purposes of this section, the term "hazardous materials" refers to both hazardous substances and hazardous wastes. A "hazardous material" is defined in the Code of Federal Regulations (CFR) as "a substance or material that ... is capable of posing an unreasonable risk to health, safety, and property when transported in commerce" (49 CFR 171.8). California Health and Safety Code Section 25501 defines a hazardous material as follows:

"Hazardous material" means any material that, because of its quantity, concentration, or physical, or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

"Hazardous wastes" are defined in California Health and Safety Code Section 25141(b) as wastes that:

... because of their quantity, concentration, or physical, chemical, or infectious characteristics, [may either] cause, or significantly contribute to an increase in mortality or an increase in serious illness [, or] pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

#### **16.2.2 FEDERAL**

#### U.S. ENVIRONMENTAL PROTECTION AGENCY

The U.S. Environmental Protection Agency (EPA) is the agency primarily responsible for enforcement and implementation of federal laws and regulations pertaining to hazardous materials. Applicable federal regulations pertaining to hazardous materials are contained mainly in CFR Titles 29, 40, and 49. Hazardous materials, as defined in the CFR (see "Definitions of Terms" above), are listed in 49 CFR 172.101. The Resource Conservation and Recovery Act of 1976 (RCRA) (42 U.S. Code [USC] 6901 et seq.) regulates the generation, transportation, and disposal of hazardous waste under the jurisdiction of EPA. RCRA also sets forth a framework for management of non-hazardous wastes. In 1992, the EPA granted enforcement authority of RCRA to the California Department of Toxic Substances Control (DTSC) (see below for further discussion).

#### **HAZARDOUS SUBSTANCES**

Hazardous substances are a subclass of hazardous materials. They are regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, and the Superfund Amendments and Reauthorization Act (SARA) (and the federal Clean Water Act for water resources). Under CERCLA, EPA has authority to seek the parties responsible for releases of hazardous substances and ensure their cooperation in site remediation. CERCLA also provides federal funding (the "Superfund") for remediation. SARA Title III, the Emergency Planning and Community Right-to-Know Act, requires companies to declare potential toxic hazards to ensure that local communities can plan for chemical emergencies. EPA maintains a National Priority List of uncontrolled or abandoned hazardous waste sites identified for priority remediation under the Superfund program. EPA also maintains the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database, which contains information on hazardous waste sites, potential hazardous waste sites, and remedial activities across the nation.

#### **HAZARDOUS WASTES**

Hazardous wastes, although included in the definition of hazardous materials and hazardous substances, are regulated separately under RCRA. A waste can legally be considered hazardous if it is classified as ignitable, corrosive, reactive, or toxic. Title 22, Section 66261.24 of the California Code of Regulations (CCR) (i.e., 22 CCR 66261.24) defines characteristics of toxicity. Under RCRA, EPA regulates hazardous waste from the time that the waste is generated until its final disposal ("cradle to grave"). RCRA also gives EPA or an authorized state the authority to conduct inspections to ensure that individual facilities are in compliance with regulations, and to pursue enforcement action if a violation is discovered. EPA can delegate its responsibility to a state if the state's regulations are at least as stringent as the federal ones. RCRA was updated in 1984 by the passage of the federal Hazardous and Solid Waste Amendments, which required phasing out land disposal of hazardous waste.

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#### **REGULATION OF PESTICIDES**

The federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) (7 USC 136 et seq.) provides federal control of pesticide distribution, sale, and use. EPA was given authority under FIFRA not only to study the consequences of pesticide usage but also to require users (farmers, utility companies, and others) to register when purchasing pesticides. Later amendments to the law required users to take exams for certification as applicators of pesticides. All pesticides used in the United States must be registered (licensed) by EPA. Registration assures that pesticides will be properly labeled and that if used in accordance with specifications, they will not cause unreasonable harm to the environment.

#### REGULATION OF POLYCHLORINATED BIPHENYL (PCBs)

The Toxic Substances Control Act of 1976 (15 USC 2605) banned the manufacture, processing, distribution, and use of PCBs in totally enclosed systems. PCBs are considered hazardous materials because of their toxicity; they have been shown to cause cancer in animals, along with effects on the immune, reproductive, nervous, and endocrine systems, and studies have shown evidence of similar effects in humans (EPA 2012). The EPA Region 9 PCB Program regulates remediation of PCBs in several states, including California. 40 CFR Section 761.30(a)(1)(vi)(A) states that all owners of electrical transformers containing PCBs must register their transformers with EPA. Specified electrical equipment manufactured between July 1, 1978, and July 1, 1998, that does not contain PCBs must be marked by the manufacturer with the statement "No PCBs" (Section 761.40[g]). Transformers and other items manufactured before July 1, 1978, containing PCBs must be marked as such.

#### U.S. DEPARTMENT OF TRANSPORTATION

The U.S. Department of Transportation (DOT), in conjunction with EPA, is responsible for enforcement and implementation of federal laws and regulations pertaining to transportation of hazardous materials. The Hazardous Materials Transportation Act of 1974 (49 USC 5101 et seq.) directs DOT to establish criteria and regulations regarding safe storage and transportation of hazardous materials. Hazardous materials regulations are contained in 49 CFR 171–180, and address transportation of hazardous materials, types of materials defined as hazardous, and the marking of vehicles transporting hazardous materials. In particular, 49 CFR 173, titled "Shippers' General Requirements for Shipments and Packaging," defines hazardous materials for transportation purposes; within this portion of the code, 49 CFR 173.3 provides specific packaging requirements for shipment of hazardous materials, and 49 CFR 173.21 lists categories of materials and packages that are forbidden for shipping. 49 CFR 177, titled "Carriage by Public Highway," defines unacceptable hazardous materials shipments.

#### OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION

The Occupational Safety and Health Administration (OSHA) of the U.S. Department of Labor is responsible for enforcement and implementation of federal laws and regulations pertaining to worker health and safety.

#### 16.2.3 STATE

#### CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

The DTSC, a division of California EPA (Cal/EPA), has primary regulatory responsibility over hazardous materials in California, working in conjunction with the federal EPA to enforce and implement hazardous materials laws and regulations. DTSC can delegate enforcement responsibilities to local jurisdictions.

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The hazardous waste management program enforced by DTSC was created by the Hazardous Waste Control Act (California Health and Safety Code Section 25100 et seq.), which is implemented by regulations described in CCR Title 26. The State program thus created is similar to, but more stringent than, the federal program under RCRA. The regulations list materials that may be hazardous and establish criteria for their identification, packaging, and disposal.

Environmental health standards for management of hazardous waste are contained in CCR Title 22, Division 4.5. In addition, as required by California Government Code Section 65962.5, DTSC maintains a Hazardous Waste and Substances Site List for the state, commonly called the Cortese List.

California's Secretary for Environmental Protection has established a unified hazardous waste and hazardous materials management regulatory program (Unified Program) as required by Senate Bill 1082 (1993). The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities for the following environmental programs:

- hazardous waste generator and hazardous waste onsite treatment programs;
- Underground Storage Tank program,
- ▲ hazardous materials release response plans and inventories;
- ▲ California Accidental Release Prevention Program (CalARPP);
- ▲ Aboveground Petroleum Storage Act requirements for spill prevention, control, and countermeasure plans; and
- California Uniform Fire Code (UFC) hazardous material management plans and inventories.

The six environmental programs within the Unified Program are implemented at the local level by local agencies—Certified Unified Program Agencies (CUPAs). CUPAs carry out the responsibilities previously handled by approximately 1,300 State and local agencies, providing a central permitting and regulatory agency for permits, reporting, and compliance enforcement.

#### STATE WATER RESOURCES CONTROL BOARD

The SWRCB has primary responsibility to protect water quality. The project site is located within the jurisdiction of the RWQCB. The RWQCB is authorized by the Porter-Cologne Water Quality Control Act of 1969 to protect the waters of the state. The RWQCB provides oversight for sites where the quality of groundwater or surface waters is threatened. Extraction and disposal of contaminated groundwater due to dewatering during construction would require a permit from the RWQCB if the water were discharged to storm drains, surface water, or land.

## CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS, DIVISION OF OCCUPATIONAL HEALTH ADMINISTRATION

The California Department of Industrial Relations, Division of Occupational Safety and Health Administration (Cal/OSHA), assumes primary responsibility for developing and enforcing workplace safety regulations within the state. Cal/OSHA standards are more stringent than federal OSHA regulations, and are presented in CCR Title 8. Standards for workers dealing with hazardous materials include practices for all industries (General Industry Safety Orders); specific practices are described for construction, and hazardous waste operations and emergency response. Cal/OSHA conducts onsite evaluations and issues notices of violation to enforce necessary improvements to health and safety practices.

#### CALIFORNIA OFFICE OF EMERGENCY SERVICES

The California Office of Emergency Services (OES) issued the State of California Multi-Hazard Mitigation Plan (Multi-Hazard Mitigation Plan) (California Office of Emergency Services 2004) in September 2004. The federal Disaster Mitigation Act required all state emergency services agencies to issue such plans by November 1, 2004, for the states to receive federal grant funds for disaster assistance and mitigation under the Stafford Act (44 CFR 201.4). The overall intent of the Multi-Hazard Mitigation Plan is to reduce or prevent injury and damage from natural hazards in California, such as earthquakes, wildfires, and flooding. The plan identifies past and present hazard mitigation activities, current policies and programs, and mitigation goals, objectives, and strategies for the future (California Office of Emergency Services 2004).

## CALIFORNIA DEPARTMENT OF TRANSPORTATION AND CALIFORNIA HIGHWAY PATROL

The California Department of Transportation (Caltrans) and California Highway Patrol (CHP) enforce and monitor U.S. Department of Transportation hazardous materials and waste transportation laws and regulations in California. Together, these agencies determine container types used and license hazardous waste haulers for hazardous waste transportation on public roads. All motor carriers and drivers involved in transportation of hazardous materials must apply for and obtain a hazardous materials transportation license from CHP. When transporting explosives, inhalation hazards, and highway route-controlled quantities of radioactive materials, safe routing and safe stopping-places are required, as described in 26 CCR, Section 13 et seq. A route map must be carried in the vehicle.

## TITLE 27, CALIFORNIA CODE OF REGULATIONS (CCR), SECTION 21190, POSTCLOSURE LAND USE

The project site is located within 1,000 feet of the closed Eastern Regional Landfill. Title 27 of the CCR, Section 21190(c) states in part that the California Department of Resources Recycling and Recovery (CalRecycle) as enforcing agency (EA) shall review and approve proposed postclosure land uses if the project involves structures within 1,000 feet of the disposal area, structures on top of waste, modification of the low permeability layer, or irrigation over waste. Section 21190(a) requires that postclosure land uses shall be designed and maintained to 1) protect public health and safety and prevent damage to structures, roads, utilities and gas monitoring and control systems; 2) prevent public contact with waste, landfill gas and leachate; and 3) prevent landfill gas explosions.

Furthermore, under 21190(d), the regulations state that the owner shall demonstrate to the satisfaction of the EA that the activities will not pose a threat to public health and safety and the environment. Section 21190(g) requires the following:

- ▲ All on site construction within 1,000 feet of the boundary of any disposal area shall be designed and constructed in accordance with the following, or in accordance with an equivalent design which will prevent gas migration into the building, unless an exemption has been issued:
  - (1) a geomembrane or equivalent system with low permeability to landfill gas shall be installed between the concrete floor slab of the building and subgrade;
  - (2) a permeable layer of open graded material of clean aggregate with a minimum thickness of 12 inches shall be installed between the geomembrane and the subgrade or slab;
  - (3) a geotextile filter shall be utilized to prevent the introduction of fines into the permeable layer;

- (4) perforated venting pipes shall be installed within the permeable layer, and shall be designed to operate without clogging;
- (5) the venting pipe shall be constructed with the ability to be connected to an induced draft exhaust system;
- (6) automatic methane gas sensors shall be installed within the permeable gas layer, and inside the building to trigger an audible alarm when methane gas concentrations are detected; and
- (7) periodic methane gas monitoring shall be conducted inside all buildings and underground utilities in accordance with Article 6, of Subchapter 4 of this chapter (section 20920 et seq.).

#### 16.2.4 LOCAL

#### PLACER COUNTY OFFICE OF EMERGENCY PREPAREDNESS

The Placer County Office of Emergency Services (OES) implements the State's Right-to-Know Ordinance that gives the OES the authority to inventory hazardous materials used by businesses. The OES is responsible for the administration of the Placer County emergency management program on a day-to-day basis and during disasters. The office is charged with providing the necessary planning, coordination, response support, and communications with all agencies affected by large-scale emergencies or disasters. OES works in a cooperative effort with other disciplines such as law enforcement, fire, emergency medical services, state and federal agencies, utilities, private industry and volunteer groups in order to provide a coordinated response to disasters. In any disaster, the OES becomes the single focal point for centralized management and coordination of emergency response and recovery operations during a disaster or emergency affecting the County. The OES will be activated when an emergency situation occurs that exceeds local and/or in field capabilities to adequately respond to and mitigate the incident.

#### PLACER COUNTY LOCAL HAZARD MITIGATION PLAN

The purpose of the Placer County Local Hazard Mitigation Plan (LHMP) is to reduce or eliminate long-term risk to people and property from natural hazards and their effects in Placer County (Placer County 2010: i). The plan was prepared to meet the Disaster Mitigation Act of 2000 requirements in order to maintain Placer County's eligibility for the Federal Emergency Management Agency (FEMA) Pre-Disaster Mitigation (PDM) and Hazard Mitigation Grant Programs (HMGP).

The County followed a planning process prescribed by FEMA, which began with the formation of a Hazard Mitigation Planning Committee (HMPC) comprising key county, city, district and stakeholder representatives. The HMPC conducted a risk assessment that identified and profiled hazards that pose a risk to Placer County, assessed the County's vulnerability to these hazards, and examined the capabilities in place to mitigate them. Placer County is vulnerable to several natural hazards that are identified, profiled, and analyzed in the plan. Wildfires, floods, severe weather, and drought are some of the hazards that can have a significant impact on the county.

The plan puts forth several mitigation goals and objectives that are based on the results of the risk assessment. To meet identified goals and objectives, the plan also includes specific recommendations for actions that can mitigate future disaster losses. This plan has been formally adopted by each participating entity and is required to be updated a minimum of every five years (Placer County 2010: i).

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#### CERTIFIED UNIFIED PROGRAM AGENCY

The Unified Program is a consolidation of state environmental programs into one program under the authority of a Certified Unified Program Agency (CUPA). A CUPA can be a county, city or Joint Powers Authority (JPA). This program was established by amendments to the California Health and Safety Code made in SB 1082 in 1994.

The Placer County Environmental Health Division serves as the CUPA for all areas of the county except for the City of Roseville, and administers this consolidated hazardous materials program. Environmental Health's Hazardous Materials Section inspects hazardous materials facilities, hazardous waste facilities, underground storage tank facilities, groundwater monitoring wells, waste tires, and solid waste. Agencies participating with the County in the program are listed below:

- California Environmental Protection Agency,
- Department of Toxic Substances Control,
- Office of State Fire Marshal, and
- State Water Resources Control Board.

#### PLACER COUNTY FIRE AND LIFE SAFETY REGULATIONS

The Placer County Code Chapter 9, Article 9.32 identifies specific fire hazard regulations that apply to properties within the County. These regulations define the standards for building setbacks, maintenance of defensible space, storage of explosives and hydrocarbon liquids, and overall fire protection.

#### PLACER COUNTY GENERAL PLAN

The Health and Safety Element of the General Plan includes the following policies relevant to hazardous material and human safety related impacts within Placer County. Refer to Table 4-1 in Chapter 4, Land Use for analysis of the project's consistency with applicable General Plan policies.

- **Policy 8.C.1.** The County shall ensure that development in high-fire-hazard areas is designed and constructed in a manner that minimizes the risk from fire hazards and meets all applicable state and county fire standards.
- Policy 8.C.2. The County shall require that discretionary permits for new development in fire hazard areas be conditioned to include requirements for fire-resistant vegetation, cleared fire breaks, or a long-term comprehensive fuel management program. Fire hazard reduction measures shall be incorporated into the design of development projects in fire hazard areas.
- Policy 8.C.3. The County shall require that new development meets state, County, and local fire district standards for fire protection.
- **Policy 8.C.4.** The County shall refer development proposals in the unincorporated County to the appropriate local fire agencies for review for compliance with fire safety standards. If dual responsibility exists, then both agencies shall review and comment relative to their area of responsibility. If standards are different or conflicting, the more stringent standards shall be applied.
- 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.3. The County shall review all proposed development projects that manufacture, use, or transport hazardous materials for compliance with the County's Hazardous Waste Management Plan (CHWMP).

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■ Policy 8.G.6. The County shall require secondary containment and periodic examination for all storage of toxic materials.

- ▶ Policy 8.G.7. The County shall ensure that industrial facilities are constructed and operated in accordance with current safety and environmental protection standards.
- Policy 8.G.9. The County shall require that applications for discretionary development projects that will generate hazardous wastes or utilize hazardous materials include detailed information on hazardous waste reduction, recycling, and storage.
- ▶ Policy 8.G.10. The County shall require that any business that handles a hazardous material prepare a plan for emergency response to a release or threatened release of a hazardous material.
- Policy 8.G.12. The County shall identify sites that are inappropriate for hazardous material storage, maintenance, use, and disposal facilities due to potential impacts on adjacent land uses and the surrounding natural environment.
- Policy 8.G.13. The County shall work with local fire protection and other agencies to ensure an adequate countywide response capability to hazardous materials emergencies.

## PLACER COUNTY CALIFORNIA STRATEGIC PLAN FOR THE WILDFIRE PROTECTION AND BIOMASS UTILIZATION PROGRAM, OCTOBER 2007

The Strategic Plan was adopted by the Placer County Board of Supervisors in 2007. The goals of the Program are to promote projects that will diminish the threat of catastrophic wildfires, improve public health and safety, reduce air pollution from open burning woody biomass, find beneficial uses for excess biomass, and enhance the environment. In an effort to achieve these goals, Placer County has generated several objectives for the Wildfire Protection and Biomass Utilization Program to accomplish. These objectives include the following;

- ▲ Determine the feasibility and options for removing excess woody biomass from lands within the County.
- Determine the feasibility and options for transporting excess biomass from the source to a biomass processing and/or utilization facility.
- Determine the feasibility and options for converting excess biomass into electrical power, alternative transportation fuels, or another commodity beneficial to the citizens of Placer County.
- Examine the feasibility of the various alternatives for removing excess biomass from wildlands in Placer County.

As a component of the Strategic Plan, the Board previously determined that the study of a small biomass energy facility in Eastern Placer County was consistent with the Plan's goals. To that end, staff was directed to evaluate the technological, economic, and environmental aspects of a potential facility and multiple sites were selected for study. This effort has been consistent with local, state and federal initiatives and has been partially funded using federal grant money.

### 16.3 IMPACTS

#### 16.3.1 SIGNIFICANCE CRITERIA

For this analysis, significance criteria are based on Placer County's Environmental Questionnaire and the checklist presented in Appendix G of the State CEQA Guidelines. An impact on hazards and/or hazardous materials is considered significant if implementation of an alternative would do any of the following:

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- create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- ▲ be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, 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 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area;
- for a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area;
- impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- 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.

#### 16.3.2 METHODS AND ASSUMPTIONS

This analysis considers the range and nature of foreseeable hazardous materials use, storage, and disposal resulting from the project and identifies the primary ways that these hazardous materials could expose individuals or the environment to health and safety risks. Local and State agencies would be expected to continue to enforce applicable requirements to the extent that they do so now.

The following reports documenting potential hazardous conditions at the project site were reviewed for this analysis:

- ▲ Land use plans for the project;
- ▲ Available literature, including documents published by city, county, State, and federal agencies; and
- ▲ Applicable elements from the Placer County General Plan.

The information obtained from these sources was reviewed and summarized to establish existing conditions and to identify potential environmental effects, based on the standards of significance presented in this chapter. In determining the level of significance, the analysis assumes that development of the project would comply with relevant federal, State, and local ordinances and regulations.

#### 16.3.3 ISSUES OR POTENTIAL IMPACTS NOT DISCUSSED FURTHER

The project is not located within an airport land use plan or within two miles of a public airport. As such, no safety hazards related to public airports are anticipated. Also, the project is not anticipated to affect emergency response plans or emergency evacuation plans. The Eastern Regional MRF and Transfer Station site is located in a relatively remote location west of State Route 89. Any accidents at this site would not restrict use of State Route 89 as an evacuation route for the Tahoe City community or the Town of Truckee. The County Sheriff and Fire Departments would review the site design and circulation layout as part of the County's project review process to ensure adequate emergency access/evacuation route is provided. The proposed facility includes the use of green waste for biomass fuel that would be imported from areas that may include guarantined materials.

However, a review of the latest version of the on-line Plant Quarantine Manual (CDFA 2012) shows that there are no quarantine areas within the proposed project's core fuel supply area (see Exhibit 3-7 in Chapter 3, Project Description). Therefore, the project would not be expected to cause a public health hazard associated with the importation of green waste. These issues are not discussed further in the EIR.

#### 16.3.4 IMPACT ANALYSIS AND MITIGATION MEASURES

#### Impact 16-1

Impacts from Exposure to Unknown Hazardous Materials. Volatile organic compounds have been identified in the groundwater underlying the Eastern Regional Landfill (closed) adjacent to the project site. Although not expected to be encountered during facility construction, excavation and construction activities in the area could result in the exposure of construction workers and the general public to previously undiscovered hazardous materials contamination. This impact is considered **significant**.

Due to the prior landfill use north of the project site, the presence of VOCs has been detected in groundwater underlying the adjacent closed landfill site. Although the excavation for utilities, trenching, backfilling, and construction of proposed facilities associated with project development would not be expected to encounter VOCs, construction workers and the general public could be exposed to previously undiscovered hazardous materials contamination. These hazardous materials could include petroleum hydrocarbons, pesticides, herbicides, and fertilizers; contaminated debris; elevated levels of chemicals that could be hazardous; or hazardous substances that could be inadvertently spilled or otherwise spread. Because the release of hazardous materials into the environment could result in a safety hazard for people residing or working in the project area, this impact is considered **significant**.

#### Impact 16-2

Impacts from Exposure to Hazardous Materials During Project Construction. Use of various paints, solvents, cements, glues, and fuels is expected during construction of the project. Construction workers and the general public could be exposed to hazardous materials as a result of improper handling or use; accident; environmentally unsound disposal methods; or fire, explosion, or other emergencies, resulting in adverse health effects. However, all allowable uses would be subject to compliance with federal, state, and local hazardous materials regulations, and would be monitored by the state (e.g., Cal/OSHA, DTSC, and CHP) and/or local jurisdictions. Therefore, the potential for human exposure to hazardous materials during construction would be considered a less-than-significant impact.

Hazardous materials would be used in varying amounts during construction of the project. Construction and maintenance activities would use hazardous materials, such as fuels (gasoline and diesel), oils and lubricants, paints and paint thinners, glues, and cleaners (which could include solvents and corrosives in addition to soaps and detergents). Construction workers and the general public could be exposed to hazards and hazardous materials as a result of improper handling or use during construction activities (particularly by untrained personnel); transportation accidents; or fires, explosions, or other emergencies. Construction workers could also be exposed to hazards associated with accidental releases of hazardous materials, which could result in adverse health effects.

The proposed construction activities will comply with regulations on the transportation of hazardous materials codified in 49 CFR 173 and 49 CFR 177 and CCR Title 26, Division 6. These regulations, which are under the jurisdiction of Caltrans and the CHP, provide specific packaging requirements, define unacceptable hazardous materials shipments, and prescribe safe-transit practices by carriers of hazardous materials.

Hazardous materials regulations, which are codified in CCR Titles 8 and 22, and their enabling legislation set forth in Chapter 6.5 (Section 25100 et seq.) of the California Health and Safety Code, were established at the State level to ensure compliance with federal regulations to reduce the risk to human health and the environment from the routine use of hazardous substances. Construction specifications include the following requirements in compliance with applicable regulations and codes, including, but not limited to CCR Titles 8 and 22, Uniform Fire Code (UFC), and Division 20 of the California Health and Safety Code: all reserve fuel supplies and hazardous materials must be stored within the confines of a designated construction area; equipment refueling and maintenance must take place only within the staging area; and construction vehicles shall be inspected daily for leaks. These regulations and codes must be implemented, as appropriate, and are monitored by the State and/or local jurisdictions, including the Placer County Environmental Health Division and the North Tahoe Fire Protection District.

Contractors would be required to comply with Cal/EPA's Unified Program; regulated activities would be managed by the Placer County Environmental Health Division, the designated Certified Unified Program Agency for Placer County, in accordance with the regulations included in the Unified Program (e.g., hazardous materials release response plans and inventories, California UFC hazardous material management plans and inventories). Such compliance would reduce the potential for accidental release of hazardous materials during construction of this alternative. As a result, it would lessen the risk of exposure of construction workers and the public to accidental release of hazardous materials, as well as the demand for incident emergency response.

Compliance with federal, State, and local hazardous materials regulations and codes, would ensure that impacts related to hazards for construction workers and the general public involving the release of hazardous materials into the environment or through the routine transport, use, or disposal of hazards materials would remain less than significant

#### Impact 16-3

Impacts from Exposure to Hazardous Materials During Project Operations. The project facility would use many materials, some of which are considered hazardous, during the course of its daily operations. Compliance with federal, State, and local hazardous materials regulations, which would be monitored by the State and/or local jurisdictions, would avoid significant impacts associated with the use, transport, and storage of hazardous materials during operation of the project. Therefore, impacts related to creation of significant hazards to the public or the environment would be less than significant.

The proposed facility would use many materials, some of which are considered hazardous, during the course of its daily operations. Employees and the general public could be exposed to hazardous materials as a result of improper handling or use; transportation accidents; environmentally unsound disposal methods; or fire, explosion, or other emergencies, resulting in adverse health effects.

Hazardous materials storage on the site would include: (1) diesel fuel; (2) urea reagent; and (3) oils. The diesel fuel would be stored in a 250-gallon above ground storage tank that would include secondary containment. The diesel fuel would be used to fuel the wheeled loader. The urea pellets would be stored in a steel or plastic tank located within a secondary containment basin. Urea is used in the nitrogen oxide  $(NO_x)$  emissions control system and up to 1,000 pounds would be stored on the site. The oils, including turbine, gear and hydraulic oil, would be stored in three individual 55-gallon drums and would be used for general facility and equipment lubrication requirements.

The facility would generate biochar as a byproduct of the biomass gasification process, which would require transport off of the project site. The fuel procurement plan prepared for the project describes the forest-sourced and WUI-sourced fuel specifications that would be used for the fuel delivered to the facility. According

to these specifications, the facility's fuel supply shall not exceed the California established thresholds for classification of the ash as a hazardous waste per Title 22, Section 66261.24 (a) (2) of the California Code of Regulations. Therefore, the biochar generated from the facility would not be considered a hazardous material. This is consistent with the characterization of ash generated from other biomass facilities in California (Jones & Stokes April 2008).

Following the biomass gasification process, the biochar would be transferred directly from the gasification vessel into a biochar container housed within the power generating building. The biochar containers would be fully contained when transported by truck off of the site. Biochar generated at the site would either be reused in one of several non-disposal applications (e.g., building materials or as a soil amendment), or disposed of at an appropriately permitted facility (e.g., Lockwood Regional Landfill in Sparks, Nevada). Although relatively remote, the public could be exposed to biochar if the trucks transporting it from the site are involved in an accident on local roads or state highways. However, because biochar is not considered a hazardous material, any public exposure on roadways due to an accident would not be expected to cause a public health hazard.

As with construction, operation of the project is required to comply with all applicable federal, State, and local laws and regulations addressing hazardous materials management and environmental protection, including, but not limited to 49 CFR 173 and 177, and CCR Title 26, Division 6 for transportation of hazardous materials, and CCR Titles 8 and 22, Uniform Fire Code, and Division 20 of the California Health and Safety Code for routine use of hazardous materials. These regulations and codes must be implemented, as appropriate, and are monitored by the State and/or local jurisdictions, including Caltrans, the CHP, the Placer County Environmental Health Division, and the North Tahoe Fire Protection District.

In addition, because the project site is located less than 1,000 feet from the former Eastern Regional Landfill, the project must comply with Title 27 of the California Code of Regulations, Section 21190. The California Department of Resources Recycling and Recovery (CalRecycle) as the enforcing agency (EA), RWQCB, the local air district, and local land use agency must review and approve proposed postclosure land uses within 1,000 feet of a disposal area, and the project must be designed and constructed to prevent accumulation of methane gas inside of buildings on the site. Specific design measures that would be incorporated into the project include: installation of a geomembrane or equivalent system between the concrete floor slab of the building and subgrade; installation of a permeable layer of open graded material of clean aggregate with a minimum thickness of 12 inches shall be installed between the geomembrane and the subgrade or slab; installation of a geotextile filter to prevent the introduction of fines into the permeable layer; installation of perforated venting pipes within the permeable layer; installation of automatic methane gas sensors; inside the building to trigger an audible alarm when methane gas concentrations are detected; and periodic methane gas monitoring would be conducted inside all buildings and underground utilities in accordance with Article 6, of Subchapter 4 of this chapter (section 20920 et seq.).

The Placer County Environmental Health Division, as the local CUPA, oversees hazardous materials registrations, underground storage tank programs, aboveground petroleum storage tank spill prevention control and countermeasure plans, risk management plans, and some fire safety planning. Additionally, businesses are regulated as employers by Cal/OSHA and are, therefore, required to ensure employee safety. Specific requirements include identifying hazardous materials in the workplace, providing safety information to workers that handle hazardous materials, and adequately training workers.

The project would be required to comply with all applicable federal, State, and local regulations pertaining to safe-transit practices, workplace safety, spill prevention, and other hazardous materials-related concerns. The Placer County Environmental Health Division and the local fire departments would be required to enforce compliance, including tracking and inspections of hazardous materials transportation and storage. As a result,

operation of the project would not be expected to create a significant hazard to the general public or the environment involving the release of hazardous materials into the environment or through the routine transport, use, or disposal of hazards materials. Therefore, this impact is considered **less than significant**.

#### Impact 16-4

Impacts from Exposure of People or Structures to Wildland Fires. Because the proposed facility would store potentially combustible woody biomass fuels, the facility operator would be required to incorporate applicable fire protection measures into the project design and operation procedures consistent with North Tahoe Fire Protection District, Truckee Fire Protection District, and CAL FIRE requirements and the fire and life safety regulations identified in Placer County Code Chapter 9, Article 9.32 including provisions for the prevention of wildland fires. However, as a result of the extensive storage of woody biomass fuel on the site, there is an increased risk for wildfire and exposure of people or structures to fire from this source. Therefore, this impact would be **potentially significant**.

Operation of the proposed facility would result in the storage of potentially combustible woody biomass materials that could result in or be combustible during a wildland fire. During the winter months primarily, there would be extensive storage of woody biomass fuel on the site. Biomass stored in piles could be subject to biodegradation internal to the piles creating heat build-up, spontaneous combustion, and risk of fire. In addition, the operation of the facility equipment, including the turbine, the boiler, the bag house, and the fuel feed system and storage area could contribute to this fire risk due to the potential for an explosion or electrical fire.

As described in detail in Chapter 15, Public Services and Utilities of this document, the project would be required to incorporate all California Fire Code requirements, Placer County's Local Hazard Mitigation Plan requirements, Placer County's fire and life safety regulations identified in Placer County Code Chapter 9, Article 9.32 including provisions that would prevent wildland fires. The USFS requires a minimum building setback of 30 feet from surrounding properties. A minimum of 50 feet of setback would be provided with the project. Further, as described in the Chapter 3, Project Description, hazard reduction thinning would be implemented on adjacent national forest land to reduce wildfire potential. For these and other reasons enumerated in Chapter 15, Public Services and Utilities, the project would not be expected to expose people or structures to a significant risk of loss, injury, or death involving wildland fires. However, because of the extensive storage of woody biomass fuel on the site the risk of impacts from exposure of people or structures to fire from this source is considered **potentially significant.** 

### **16.4 MITIGATION MEASURES**

### Mitigation Measure 16-1

If during site preparation and construction activities, previously undiscovered or unknown evidence of hazardous materials contamination is observed or suspected through either obvious or implied measures (e.g., stained or odorous soil, unknown storage tanks, etc.), construction activities in the area of the find shall immediately cease. County staff shall be immediately consulted and a qualified consultant registered in DTSC's Registered Environmental Assessor Program shall be contracted to assess the situation. Based on the assessment, the Applicant shall implement necessary remediation activities including but not limited to removal of soil and debris, treatment of contaminated groundwater, and capping the site prior to development. All required remediation shall include a DTSC Remedial Action Work Plan or equivalent. Based on consultation between the Registered Environmental Assessor and DTSC, remediation of the site shall be conducted consistent with all applicable regulations.

Ascent Environmental Hazardous Materials and Hazards

#### **Level of Significance After Mitigation**

Implementation of this mitigation measure would reduce potentially significant impacts associated with the potential exposure of construction workers and the general public to previously undiscovered hazardous materials contamination to a less-than-significant level because construction activities would stop and appropriate remediation activities would be implemented to remove the potential hazard.

#### Mitigation Measure 16-4

The Applicant shall regularly compact the fuel piles to minimize fire risk in storage piles. The Applicant shall also prepare detailed written procedures for the management of biomass piles to prevent inadvertent combustion and fires, and that minimize vectors, odors, litter, and human contact with, inhalation, ingestion, and transportation of dust, particulates, and pathogenic organisms. The written procedures shall outline the specific measures that would be implemented to reduce the total pile storage area, and to prevent potential pile fires due to spontaneous combustion. The written procedures shall be subject to review and input by the County LEA that oversees the SWFP for the site and the Truckee Fire Protection District prior to initiating operations at the site. These measures shall include at a minimum the following:

- a) A schedule for periodic and random load checks of incoming biomass truckloads;
- b) Restricted public access to the facility (e.g., fencing);
- Fire prevention, protection, and control measures, including, but not limited to temperature monitoring
  of piles at least weekly, adequate water supply for fire suppression, and the isolation of potential
  ignition source from the biomass piles;
- d) Fire lanes between piles shall be provided to allow fire control equipment access to all operational areas;
- e) Daily visual inspections of the storage piles to observe whether temperature-related effects are occurring (e.g., steam); and
- f) Leachate shall be controlled to prevent contact with the public.

As necessary, measures such as moisture management (e.g., wetting), pile aeration, tarping, among others could be implemented to optimally manage the storage piles.

#### **Level of Significance After Mitigation**

Implementation of this mitigation measure would reduce potentially significant impacts associated with potential spontaneous combustion in woody biomass fuel piles stored on the project site because adequate control measure would be in place to monitor and prevent fires. This impact would be **less than significant.** 

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