3.22 PUBLIC SAFETY

This section discusses the potential effects on public safety and inconveniences that are commonly associated with transmission lines.

The BLM's Preferred Routes for each segment of the Project are listed below. Where applicable, the preferred route identified by another federal agency or a county or state government is also noted. The BLM's Preferred Routes only apply to federal lands. If approved, the BLM's Preferred Routes could affect private lands adjacent to or between federal areas; however, decisions on siting and construction requirements for non-federal lands are under the authority of state and local governments (see Table 1.4-1 for permits that would be required and Section 3.17.1.3 for a description of the regulatory requirements).

- **Segment 1W:** The BLM's Preferred Route is the Proposed Route (Figure A-2). This route is also the State of Wyoming's preferred route.
- **Segment 2:** The BLM's Preferred Route is the Proposed Route (Figure A-3). This route is also the State of Wyoming's preferred route.
- **Segment 3:** The BLM's Preferred Route is the Proposed Route, including 3A (Figure A-4). This route is also the State of Wyoming's preferred route.
- **Segment 4:** The BLM's Preferred Route is the Proposed Route (Figures A-5 and A-6) except within the Caribou-Targhee NF. The portion of this route in Wyoming is also the State of Wyoming's preferred route. The Forest Service's preferred route is the Proposed Route within the NF incorporating Alternative 4G (Figure A-6).
- **Segment 5:** The BLM's Preferred Route is the Proposed Route incorporating Alternatives 5B and 5E, assuming that WECC reliability issues associated with 5E are resolved (Figure A-7). Power County's preferred route is the Proposed Route incorporating Alternatives 5C and 5E (Figure A-7).
- **Segment 6:** The BLM's Preferred Route is the proposal to upgrade the line voltage from 345 kV to 500 kV (Figure A-8).
- **Segment 7:** The BLM's Preferred Route is the Proposed Route incorporating Alternatives 7B, 7C, 7D, and 7G (Figure A-9). The Proposed Route in the East Hills and Alternative 7G will be microsited to avoid sage-grouse PPH. Power and Cassia Counties' preferred route is Alternative 7K (Figure A-9).
- **Segment 8:** The BLM's Preferred Route is the Proposed Route incorporating Alternative 8B (Figure A-10). This is also IDANG's preferred route.
- **Segment 9:** The BLM's Preferred Route is the Proposed Route incorporating Alternative 9E, which was revised to avoid PPH and the community of Murphy (Figure A-11). Owyhee County's preferred route is Alternative 9D (Figure A-11).
- **Segment 10:** The BLM's Preferred Route is the Proposed Route (Figure A-12).

3.22.1 Affected Environment

This section discusses those aspects of the environment that could be impacted by the Project. It starts with a discussion of the Analysis Area considered, identifies the issues

that have driven the analysis, and characterizes the existing conditions across the Proposed Route in Wyoming and Idaho.[1]

3.22.1.1 Analysis Area

The Analysis Area is 0.25 mile on either side of the centerline for the Proposed Route and Route Alternatives. This area was selected because it is where workers would operate, soil disturbance would occur, and public safety impacts from operation of the transmission line would occur.

3.22.1.2 Issues Related to Public Safety

The following public safety issues were brought up by the public during public scoping (Tetra Tech 2009) and comments on the Draft EIS, were raised by federal and state agencies during scoping and agency discussions, or are issues that must be considered as stipulated in law or regulation:

- Whether the Project would cause environmental contamination or expose workers or the public to contamination;
- What the effects of electric and magnetic fields would be;
- Whether the transmission line would withstand wind and ice storms;
- Whether the transmission line would cause fires or create a fire hazard;
- Whether workers or the public would be safe from electrocution;
- What the effects would be of the transmission line on human health;
- What the Proponents would do to prevent the dangers of downed lines and tower failure;
- How the Proponents would protect against potential vandalism or acts of terrorism to Project structures; and
- Whether electrical safety procedures would be followed.

Other issues related to public health and safety include health risks associated with EMF; powerline-induced voltages and currents on conductive objects, such as metal roofs or buildings, fences, and vehicles; and interference with radio/television signals, GPS equipment, and cardiac pacemakers. Impacts relating to EMF issues are discussed in detail in Section 3.21 – Electrical Environment.

3.22.1.3 Regulatory Framework

The subsequent section discusses the regulatory requirements associated with public safety issues that are applicable to the Project. A regulatory review was completed at the federal and state levels.

Environmental Contamination

Hazardous substances are defined as having specific chemical, physical, or infectious properties that cause them to be considered hazardous. Hazardous substances are

[1] The Project no longer has a route in Nevada.

defined in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 101(14) as the following:

> *A hazardous material is a substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when properly treated, stored, transported or disposed of or otherwise managed.*

Remediation of hazardous wastes discovered at a site is required if the material is excavated. If soils or groundwater at a site found to be contaminated do not have the characteristics required to be defined as hazardous, remediation may still be required and such requirements are typically evaluated on a case-by-case basis by the presiding agency.

Federal

The Federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA) established a program administered by the USEPA for the regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste. The RCRA was amended in 1984 by the Hazardous and Solid Waste Act, which affirmed and extended the "cradle to grave" system of regulating hazardous wastes. The use of certain techniques for the disposal of some hazardous wastes was specifically prohibited by the Hazardous and Solid Waste Act. These techniques include land disposal of untreated hazardous waste unless migration of the hazardous constituents is not possible for as long as the waste remains hazardous or if the waste has been treated to meet USEPA levels or methods of treatment, which substantially diminish the toxicity of the waste or likelihood of migration of the hazardous constituents.

State

The WDEQ, Solid and Hazardous Waste Division, provides assistance on federal and state regulations and the proper management of the following waste types: hazardous waste, municipal solid waste, industrial waste, petroleum contaminated solids, asbestos, polychlorinated biphenyls, and others. The WDEQ has adopted regulations that parallel the federal hazardous waste regulations (Wyoming Hazardous Waste Rules and Regulations, WDEQ Chapter 1 *et seq.).* Releases of hazardous substances that enter the waters of the state or are determined to be a threat to waters of the state must be reported to WDEQ immediately (Wyoming Water Quality Rules and Regulations, Chapter 4). As defined by WDEQ, a hazardous substance is any substance or waste that, after release, constitutes a threat to public health or welfare, or other aquatic life or wildlife, because of its quantity, concentration, chemical, corrosive, flammable, reactive, toxic, infectious, or radioactive characteristics.

The IDEQ has incorporated, by reference, the federal hazardous waste regulations (Idaho Rules of Practice and Procedures 58.01.05). Effective July 1, 1997, the name of the State Emergency Response Commission was changed to Idaho Bureau of

Hazardous Materials. The Idaho Bureau of Hazardous Materials carries out the requirements of the USEPA Emergency Planning and Community Right-to-Know Act (EPCRA) and the Idaho Hazardous Substance Emergency Response Act (Idaho Code 39-7101 through 39-7115). It serves as an emergency response coordination and liaison organization for Idaho and works in cooperation with state and federal agencies to prepare for, respond to, and recover from hazardous materials incidents. The Idaho Bureau of Hazardous Materials keeps records concerning hazardous material storage, transport, and release within Idaho, including the toxics release inventory reports. Any person who has responsibility for reporting a release of CERCLA hazardous materials or EPCRA extremely hazardous substances must, as soon as practicable after gaining knowledge of the reportable release, notify the Idaho Bureau of Hazardous Materials (Idaho Code 38-7108).

Wind and Ice Storm

The IPUC Construction Standards (provided under Statute 61), the Wyoming PSC's Title 37 Public Utilities Statutes, and the NESC include loading requirements related to wind conditions. NESC Rule 230B specifies ice and wind loading for clearance purposes according to the geographical region (or zone as termed in the Code) where the overhead lines are located. Sagging of overhead lines resulting from such conditions must be checked at identified temperatures according to zone. Maintenance of Clearance and Spacings (Rule 230I of the NESC) would require that conductors be resagged if an excessive ice or wind storm stretches conductors to the point of a clearance violation (Marne 2007).

Fire Hazards

Design codes that prevent fire hazards are given in the IPUC Construction Standards (provided under Statute 61) and the Wyoming PSC's Title 37 Public Utilities Statutes. These design codes and the NESC include requirements pertaining to the prevention of fire hazards related to outdoor public utility installations. NESC Rule 152A requires that energized parts of power transformers be enclosed or physically isolated and that the enclosure of a substation transformer and regulator be effectively grounded. In addition, details are provided pertaining to minimizing fire hazards related to liquid-filled power transformers and regulators installed in outdoor substations, such as using less flammable liquids, specifics on space separation, fire-resistant barriers, automatic extinguishing systems, absorption beds, and enclosures.

The National Fire Protection Association Uniform Fire Code Handbook also gives guidance related to the clearance of brush and vegetative growth in and around transmission lines. For instance, for line voltages of 230 kV and 500 kV, a minimal radial clearance between the conductor and vegetation at the time of clearing is listed as 10 feet and 15 feet, respectively. There are separate minimum clearance requirements that must be maintained between the placement of electrical lines. The National Fire Protection Association Code also directs the utility company to perform the required work to the extent necessary to clear the hazard in the event of an electrical power line emergency.

Electrocution

Occupational Safety and Health Administration (OSHA) regulation 29 CFR 1926 Subpart V specifically pertains to safe work practices related to power transmission and distribution. The regulation includes specific requirements including assessing existing conditions prior to starting work such as determining if lines are energized, condition of poles, and the locations of circuits and equipment. For the protection of all employees, all conductors and equipment are treated as energized until tested and otherwise determined to be de-energized or until grounded. Minimum working clearance distances are established corresponding to the voltage range of the transmission line. Appropriate personal protective equipment is detailed, including rubber insulating gear. Provisions are given for both overhead and underground power lines, and energized substations.

3.22.1.4 Methods

The public safety assessment is based on an evaluation of the following measures to be taken during design, pre-construction, construction, and operations phases of the Project.

- Are all aspects of the Project being designed in accordance with applicable federal, state, and industry codes to minimize the potential for wind, ice, or fire to affect public safety?
- Will an environmental database search be conducted covering the area where ground will be broken to identify sites with known environmental contamination; sites with underground storage tanks; or sites that store, use, and dispose of hazardous materials off site with reported incidents of spills or inadequacies during inspections or in hazardous material records prior to construction?
- Have the Proponents committed to preparation and implementation of spill prevention, control and containment, notification protocols, immediate spill response procedures, hazardous material handling, and fire management plans during construction?
- Are plans covering routine and emergency measures planned to govern operations and maintenance?

3.22.1.5 Existing Conditions

Environmental Contamination

The Project is located on public land, or private land in largely rural areas. These areas would generally contain a lower density of existing environmentally contaminated sites compared to areas of higher human occupancy and more commercial or industrial use. Rural facilities that sometimes contain contamination could include active or abandoned mining sites, municipal solid waste landfills, aerial crop dusting facilities, railroads, oil or gas well sites, and/or petroleum pipelines. The routes were sited to avoid these types of facilities where possible. None of the Proposed or Alternative Routes are located in areas known to contain environmental contamination and the risk of encountering existing environmental contamination would be low.

Wind and Ice Storm

Wyoming

Surface wind direction and precipitation in the Project Analysis Area vary significantly due to differences in geographical location and features. Annual average wind speeds within the Analysis Area range from 7.7 to 12.9 mph. Annual average wind directions are predominately from the southwest, with fluctuations from the west and southeast. The highest annual average temperatures range from 50°F to 55°F and the lowest annual average temperatures range from 31°F to 34.3°F within the Analysis Area. The annual average precipitation amounts range from 12.7 to 19.0 inches per year within the Analysis Area. The climate of any area in Wyoming is largely determined by its latitude, altitude, and local topography. These factors influence weather system airflow patterns, temperature variations, precipitation, and humidity as they migrate eastward. During the winter there are frequent periods when the wind reaches 30 to 40 mph with gusts to 50 or 60 mph. Prevailing directions in the different localities vary from west-southwest through west to northwest.

Hailstorms are the most destructive type of local storm for this state. Tornadoes occur, but records show they are much less frequent and destructive than those that occur in the Midwest. The relatively small amount of destruction from tornadoes is partly due to the fact that most of Wyoming is open range country and sparsely populated. However, records show that tornadoes that occur in Wyoming are somewhat smaller and have a shorter duration. Many of them touch the ground for only a few minutes before receding into the clouds. The season extends from April through September. June has the greatest number on average followed by May and most occur in the eastern part of the state (University of Wyoming 2009b).

FEMA lists 20 declared disasters and emergencies in Wyoming from 1963 through 2006. These events included 2 winter storms, 2 tornadoes, one drought, 11 fires, and 4 weather-related phenomena (rain, hail, mudslides, and flooding) (FEMA 2009).

Idaho

The mean monthly temperatures for January range from approximately 18°F at Montpelier, near the Idaho-Wyoming border, to 27°F throughout south-central Idaho, and 29°F at Caldwell in southwestern Idaho near the western terminus of the Project. The average annual wind speed ranges from 12 to 16 mph.

In Idaho there are 28 declared disasters and emergencies on record occurring between 1956 and 2007. These events included 16 rainfall/snowmelt/flooding-related events, 8 fires, one drought, one dam collapse, one earthquake, and one other (FEMA 2009). In addition, disasters or emergencies related to wind or ice storms are recorded in Idaho.

3.22.2 Direct and Indirect Effects

This section is organized to present effects to public safety from construction, then operations, followed by decommissioning activities for the proposed Project. Route Alternatives are discussed in Section 3.22.2.3.

EPMs are presented in detail within this section only if it is the first time they have been discussed in Chapter 3; all other measures are referenced or summarized. A

comprehensive list of all EPMs and the land ownership to which they apply can be found in Table 2.7-1 of Chapter 2.

Plan Amendments

Proposed amendments to BLM RMPs and MFPs are summarized in Table 2.2-1 of Chapter 2, while BLM plan amendments associated with other routes are summarized in Table 2.2-2. BLM plan amendments are discussed in detail in Appendices F-1 and G-1. Proposed amendments to Forest Plans are summarized in Table 2.2-3 of Chapter 2 and discussed in detail in Appendices F-2 and G-2. Amendments are needed to permit the Project to cross various areas of BLM-managed lands and NFS lands. Effects described for areas requiring an amendment in order for the Project to be built would only occur if the amendment were approved. Amendments that alter land management designations could change future use of these areas. No amendments specific to public safety are proposed for the Project and no impacts to public safety resulting from approving the amendments beyond the impacts of the Project are anticipated.

3.22.2.1 No Action Alternative

Under the No Action Alternative, the BLM would not issue a ROW grant to the Proponents of Gateway West and the Project would not be constructed across federal lands. No land management plans would be amended to allow for the construction of this Project. No Project-related impacts to public safety would occur; however, impacts would continue as a result of natural events (such as fire, drought, and severe weather) as well as from existing and planned developments within the Analysis Area and from other projects, including wind farms, mining, agricultural, or other competing land uses. The demand for electricity, especially for renewable energy, would continue to grow in the Proponents' service territories. If the No Action Alternative is implemented, the demand for transmission services, as described in Section 1.3, Proponents' Objectives for the Project, would not be met with this Project and the area would have to turn to other proposals to meet the transmission demand. Under the No Action Alternative, impacts similar to those described below may occur due to new transmission lines built to meet the increasing demand in place of this Project.

3.22.2.2 Effects Common to All Action Alternatives

Construction

Environmental Contamination

The Proponents have committed to removing all waste materials, including petroleum-based products, during final cleanup in order to reduce the risk of contamination.

REC-22 Final Cleanup: Final cleanup will ensure that all construction areas are free of any construction debris including but not limited to: assembly scrap metals, oil or other petroleum-based liquids, construction wood debris, and worker-generated litter. Permanent erosion control devices will be left in place.

Pre-existing environmental contamination is not expected, but isolated occurrences are possible along the transmission line route. The following EPM will be applied in the event of discovery of environmental contamination:

CON-1 All construction staff will be trained on the types of contamination that could be encountered and how to respond if contamination is encountered.

During construction, hazardous materials such as vehicle fuels, oils, and other vehicle maintenance fluids would be used and stored in construction staging yards. All potentially hazardous materials stored in construction staging yards would be stored in accordance with OSHA and USEPA requirements. There is potential for incidents involving the release of gasoline, diesel fuel, oil, hydraulic fluid, and lubricants from vehicles or other equipment or the release of paints, solvents, adhesives, or cleaning chemicals from construction activities. Improperly maintained equipment could leak fluids. Spills and leaks of hazardous materials during construction could result in soil or groundwater contamination. This could result in exposure of the facility, maintenance workers, and the public to hazardous materials; and could result in contamination to soil and/or groundwater. However, development and implementation of the spill prevention plan would minimize exposures and the likelihood of groundwater contamination. Exposure to employees, contractors, and the public could also result from the use of required chemical substances like herbicides. Again, legal requirements to apply herbicides following label directions and the required use of licensed applicators minimize the risk that exposure would be a hazard to people or the environment.

Ground disturbance along the transmission line ROW consists primarily of excavation at and near transmission structures and grading of new access roads. No known environmentally contaminated sites have been identified along the transmission line segments; however, there remains the potential to encounter unknown contamination during construction. Unknown contamination may be present in developed areas near the ROW and near remote area roads due to illegal dumping. Uncovering contaminated sites could have adverse impacts on Project personnel and other individuals that may come into contact with the site. In addition, there is the potential presence of residual pesticide and herbicide contamination of the soil and/or groundwater in the agricultural areas along the alignment, which could pose potential health hazards to those who come into contact with the soil or groundwater.

The Proponents have committed to prepare an SPCC Plan for review and approval by the appropriate regulatory agencies. That plan will include site-specific implementation of cleanup procedures in the event of soil contamination from spills or leaks of fuels, lubricants, coolants, or solvents as outlined in the Framework Construction SPCC Plan (see Appendix B). Cleanup procedures will be conducted in accordance with the SPCC Plan by on-site contractors selected by the Proponents. The Proponents have also committed to prepare and implement procedures for refueling and equipment operation near waterbodies, procedures for emergency response and incident reporting, and training requirements.

Wind and Ice Storm

The occurrence of ice storm conditions during Project construction is not expected because construction is scheduled to take place during the spring, summer, and fall. Periods of elevated winds may cause delays in Project construction schedule due to worker safety concerns.

Fire Hazards

Construction of the new transmission line would take place during spring, summer, and fall. The construction season would be short, with the majority of activities occurring during summer when weather is warm and dry. The potential for fire is relatively high because of the vegetation in the vicinity of the ROW, and it increases with the use of vehicles, chainsaws, and other motorized equipment. In addition, fire hazards can be related to workers smoking, refueling, and operating vehicles and other equipment off roadways. Welding during construction of towers or support structures could also potentially result in the combustion of native materials near the welding site. The Proponents have identified the following EPMs to ensure that fire prevention and suppression measures are carried out in accordance with federal, state, and local regulations (refer to the Framework Fire Prevention and Suppression Plan in Appendix B). The Fire Prevention Plan shall address the specific requirements of applicable BLM and Forest Service handbooks and provide BMPs for fire management on privately owned lands. The final plan will incorporate input from the contractor to ensure coordination with local firefighters and emergency responders for effective emergency response. The EPMs include:

FIRE-1 Train all personnel about the measures to take in the event of a fire including fire dangers, locations of extinguishers and equipment, and individual responsibilities for fire prevention and suppression.

FIRE-2 Equip all construction equipment operating with internal combustion engines with spark arresters.

FIRE-3 Restrict motorized equipment, including worker transportation vehicles, to the designated and approved work limits.

FIRE-4 Require all motor vehicles and equipment to carry, and individuals using handheld power equipment to have, specified fire prevention equipment.

FIRE-5 Provide a list of equipment capable of being adapted to fighting fires to local fire protection agencies.

FIRE-6 Notify the appropriate fire suppression agencies of scheduled road closures.

FIRE-7 Prohibit burning of slash, brush, stumps, trash, explosives storage boxes, or other Project-generated debris unless authorized by the applicable land management agency.

FIRE-8 Designate a Fire Guard on each construction crew prior to the start of construction activities each day and providing a communications system for maintaining contact with fire control agencies.

FIRE-9 The Proponents shall comply with fire restrictions and/or waivers as applicable.

Electrocution

Electrocution poses a potential hazard to those who come in close contact with overhead transmission lines during energization and commissioning, especially those doing construction using mobile equipment. It is recommended that mandatory worker safety training, as required by OSHA, be part of any contract between the Proponents and the contractors.

Operations

Environmental Contamination

Electrical equipment, such as transformers, reactors, and circuit breakers, is filled with an insulating mineral oil. The SPCC Plan would require containment structures to prevent oil from this equipment from getting into the groundwater or surface water bodies in the event of a rupture or leak. Installation of containment structures would minimize the potential for release of hazardous materials from operation of substations. Another source of environmental contamination during Project operations would result from accidental releases of gasoline, diesel fuel, oil, hydraulic fluid, and lubricants from vehicles or other equipment during regular Project maintenance activities. The amount of released material (should it occur) is expected to be minimal and would not pose a risk to human health or the environment.

Wind and Ice Storms

Transmission line structures used to support overhead transmission lines must meet the requirements of the IPUC Construction Standards, the Wyoming PSC Public Utilities Statutes, and the NESC.

These structures are typically constructed on steel lattice towers or tubular steel poles. Transmission support structures are designed to withstand different combinations of loading conditions, including extreme winds. These design requirements include the use of safety factors that consider the type of loading as well as the type of material used (e.g., steel or concrete). Failures of transmission line support structures are extremely rare and are typically the result of anomalous loading conditions such as ice storms or tornadoes. In addition to structure strength, overhead transmission lines consist of a system of support structures and interconnecting wire that is inherently flexible and is designed for dynamic loading under variable wind conditions that may exceed earthquake loads. The Project has been designed so that the public safety impact of wind and ice storms on transmission towers would be minimized.

The Proponents have developed a Framework Operations, Maintenance, and Emergency Response Plan (see Appendix B). This plan provides for routine air patrols from a helicopter to inspect for structural and conductor defects, conductor clearance problems, and hazardous trees.

Fire Hazards

Transmission line structures used to support overhead transmission lines must meet the requirements of the IPUC Construction Standards, the Wyoming PSC Public Utilities Statutes, and the NESC.

Fire hazards causing wildfire ignitions are more prevalent for distribution and lower-voltage transmission lines than for higher-voltage transmission lines, such as those being employed for the proposed Project. The preferred support structure types selected for the 500-kV segments are both single-circuit and double-circuit lattice steel type (delta configuration), whereas an H-frame steel structure was selected for the 230-kV segments. Steel towers do not burn easily and are designed to protect against lightning strikes. Under the Framework Operations, Maintenance, and Emergency Response Plan, the integrity of the grounding would be tested on a regular basis during scheduled maintenance visits made by a contractor, thereby minimizing fire ignitions.

The energized conductors on distribution and lower-voltage transmission lines are much closer together than those on higher-voltage transmission lines. Fallen or wind-blown tree limbs and debris can more easily come into contact with and bridge two distribution conductor phases, which can cause electrical arcs that can set fire to debris. Regulatory requirements for vegetation clearance in proximity to 230-kV and 500-kV lines minimize fire hazard risk related to tree limb debris, because tree clearance requirements are designed to create an adequate separation distance from conductors to prevent any contact or flashover. Other transmission line-related ignition sources may include airborne debris (e.g., kites) coming into contact with conductors or insulators, dust or dirt on insulators, and accidents related to weapons, airplanes, and helicopters coming into contact with conductors, poles, and towers. Transmission line protection and control systems are designed to detect faults (such as arcing from debris contacting the line) and rapidly shut off power flow in 1/60th to 3/60th of a second.

Birds perched on power poles or flying between poles can simultaneously contact two conductors, causing an electrical flashover. This electrocutes the bird and occasionally causes its feathers to catch fire. The bird may fall to the ground and ignite nearby vegetation. These types of flashovers are expected to be impossible for transmission lines of the proposed Project due to the large conductor separation distance of distribution lines to substations and regeneration stations. The primary ignition threats associated with higher-voltage transmission lines like those used in the proposed Project are indirect, consisting of human-caused accidents during construction and maintenance activities. Construction and maintenance activities that may ignite fires include blasting, the use of equipment such as chainsaws, and the presence of personnel who may inadvertently ignite fires while smoking. The following EPMs would be implemented to ensure blasting is conducted safely:

BLA-1 The Blasting Plan will identify blasting procedures including safety, use, storage, and transportation of explosives that will be employed where blasting is needed, and will specify the locations of needed blasting.

BLA-2 All blasting will be performed by registered licensed blasters who will be required to secure all necessary permits and comply with regulatory requirements in connection with the transportation, storage, and use of

explosives, and blast vibration limits for nearby structures, utilities, wildlife, and fish (where blasting is conducted in waterbodies).

BLA-3 Appropriate flags, barricades, and warning signals will be used to ensure safety during blasting operations. Blast mats will be used when needed to prevent damage and injury from fly rock.

BLA-4 Blasting in the vicinity of pipelines will be coordinated with the pipeline operator, and will follow operator-specific procedures, as necessary.

BLA-5 Damages that result from blasting will be repaired or the owner fairly compensated.

To reduce the potential for operations-related fires, the Proponents would liaison with the local fire, police, and public officials to define the resources and responsibilities of each emergency response organization and to coordinate mutual assistance in the event of a fire incident.

Electrocution

Similar to potential effects during Project construction, electrocution poses a potential hazard in the operations phase to those who come in close contact with overhead transmission lines. Such groups include Project workers during regular maintenance, but could also include other off-site trade contractors such as tree trimmers, roofers, siding and sheet metal workers, and utility/communication workers.

Intentional Destructive Acts

Transmission lines, substations, and associated facilities could be targets of intentional destructive acts, such as sabotage, terrorism, vandalism, and theft. Such acts include firing at insulators, powerlines, transmission towers, or substation equipment; vandalism; and theft of equipment, supplies, tools, or materials. Of these acts, vandalism and thefts are most common. Depending on the size, voltage, and configuration of the transmission line, destroying towers or other equipment could disrupt electrical service. The impacts of destroying towers could range from no noticeable effect on electrical service to large areas being without power for a period of time.

Transmission support structures would be constructed in such a way that displacement would be extremely difficult. Physical deterrents such as regular line inspections, fencing, cameras, and signs at substations would be employed to prevent theft, vandalism, and unauthorized access. In the event of intentional destructive acts being directed at the proposed Project, operational protocols would be implemented with detailed procedures in accordance with the Proponents' emergency response procedures, which are included in Appendix B.

Decommissioning

Potential impacts related to public health and safety are expected to be similar to those that could occur during the Project construction phase.

3.22.2.3 Preferred/Proposed Route and Alternatives

For the Preferred/Proposed Route or Route Alternatives, there is no strong geographical distinction driven by public safety. If the protective measures proposed by the Proponents and additional measures identified by the BLM are incorporated into the Project design, construction, and operations, the expected public safety impacts would be low.