3.20 AIR QUALITY

This section addresses potential impacts from the Proposed Action and Action Alternatives during construction, operations, and decommissioning. Emissions of air pollutants from the proposed Project would primarily be generated from the following activities: 1) construction of on- and off-ROW access roads, 2) construction of the support structure pad sites and structure erection, and 3) post-construction activities involved with the ongoing use and maintenance of the transmission line, substations, and corridor. The Project is located in Wyoming and Idaho, and as such the air quality regulations of each state are applicable to construction and operations.[1]

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.

- **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).

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

3.20.1 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.

3.20.1.1 Analysis Area

The Analysis Area for purposes of the air quality assessment encompasses the geographic areas defined by applicable state air quality plans, federal General Conformity thresholds, and local requirements within the geographic areas crossed by the Proposed Action and Action Alternatives.

3.20.1.2 Issues Related to Air Quality

The following air quality-related 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:

- Would the proposed Project be inconsistent with the applicable air quality plans?
- What would be the effects on human health of any increase in airborne pollutants caused by the Project?
- Would the proposed Project generate emissions of air pollutants that would exceed established thresholds, or cause adverse impacts on air quality?
- Would the proposed Project cause or contribute to any violation of any state or federal ambient air quality standards?
- Would the proposed Project expose sensitive receptors, i.e., schools, daycare centers, convalescent care centers, and hospitals, to substantial pollutant concentrations?
- What would be the methods used to control dust?
- What would be the steps taken to minimize air quality impacts?
- How much greenhouse gas (GHG) emissions would be associated with this Project, and what would be the effect of the Project on climate change?

3.20.1.3 Regulatory Framework

Federal Level

Separate procedures have been established for federal pre-construction review of certain large proposed projects in attainment areas versus non-attainment areas. Federal pre-construction review for affected sources located in attainment areas is formally called Prevention of Significant Deterioration; the review process is intended to prevent a new source from causing air quality to deteriorate beyond acceptable levels. Federal pre-construction review for affected sources located in non-attainment areas is commonly referred to as New Source Review (NSR).

The emission threshold for "major stationary sources" varies between Prevention of Significant Deterioration (PSD) and NSR according to the type of facility and the attainment status of the area. The emissions calculations discussed later in this section indicate that none of the Gateway West facilities during construction are considered stationary sources, nor would they be large enough, subsequent to construction, to trigger PSD or NSR requirements. Further information on the determination of applicability of PSD and/or NSR is presented below.

Prevention of Significant Deterioration—PSD thresholds apply to emissions of attainment pollutants from stationary sources. The proposed construction of the transmission line, substation expansion, and related additions at associated aboveground facilities are not considered to be stationary sources, and as such they are not subject to the provisions of the PSD regulations.

Federal New Source Review (Non-attainment)—Federal NSR provisions apply to emissions of nonattainment pollutants from stationary sources. The proposed construction of the transmission line, substation expansion, and related additions are not considered to be stationary sources, and as such they are not subject to the provisions of the NSR regulations.

New Source Performance Standards—Currently, there are no New Source Performance Standards applicable to construction activities pertaining to transmission lines and substation expansion.

National Emission Standards for Hazardous Air Pollutants—Currently, there are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) applicable to construction activities pertaining to transmission lines and substation expansion.

Title V Operating Permits

Currently, there are no Title V regulations applicable to construction activities pertaining to transmission line and substation construction or expansion.

General Conformity

A federal agency must make a determination that permitting or approving an activity will conform to the state implementation plan in accordance with 40 CFR Part 93.150. A conformity determination is required for each pollutant when the total of direct and indirect emissions caused by a federal action in a non-attainment area would equal or exceed threshold quantities specified in 40 CFR Parts 93.153(b) (1) and (2). The applicable conformity thresholds for the Project area are as follows:

- NSR – 100 tons per year for nitrogen oxides, carbon monoxide, volatile organic compounds, sulfur oxides, and particulate matter with a diameter of less than 10 microns (NO_x, CO, VOC, SO_x, and PM_{10}, respectively).
- PSD – 250 tons per year for NO_x, CO, VOC, SO_x, and PM_{10}.
- Title V – 100 tons per year for NO_x, CO, VOC, SO_x, and PM_{10}.
- Conformity Thresholds – 100 tons per year for NO_x, CO, VOC, SO_x, and PM_{10}.

Based upon the use of conservative emissions estimates, the emissions from the construction and operation of Gateway West, in the identified nonattainment areas,

would be below the conformity thresholds; therefore, the Project would be exempt from performing a comprehensive conformity analysis.

State Level

Wyoming air emissions are regulated by the Wyoming Air Quality Standards and Regulations. Chapter 3 of the standards and regulations addresses emissions of particulates, NO_x, SO_x, CO, VOCs, hydrogen sulfide, and asbestos. This regulation also requires the control of fugitive dust generated during the construction phase.

Idaho air emissions are regulated by the IDAPA. IDAPA Chapter 58.01.01 presents the applicable regulations for criteria pollutants and fugitive dust control.

Table 3.20-1 presents a summary of applicable regulations for each state.

Table 3.20-1. Regulatory Applicability Summary

General Regulatory Programs Applicable to Gateway West	Wyoming	Idaho
New Source Review	No	No
Prevention of Significant Deterioration	No	No
NESHAPs – Title III	No	No
Title IV – Acid Rain	No	No
Title V – Part 70 Permits	No	No
General Permit Requirements[1/]	Yes	Yes
Dispersion Modeling	No	No
Impact Analysis	No	No
Fugitive Dust Mitigation Program	Yes[2/]	Yes[3/]

NESHAP – National Emission Standards for Hazardous Air Pollutants

Fugitive Dust Control

Sources, including construction projects, operating within Wyoming and Idaho are required to control fugitive dust emissions. Table 3.20-2 lists the fugitive dust regulations and control measures that apply to the Project.

Table 3.20-2. Fugitive Dust Regulations

Wyoming Regulations pursuant to Chapter 3, Section 2(f)
(f) Fugitive Dust. Sources operating within the State of Wyoming are required to control fugitive dust emissions. The following control measures or any equivalent method approved by the Division Administrator shall be considered appropriate for minimizing fugitive dust:
(i) Construction/Demolition Activities. (A) Any person engaged in clearing or leveling of land, earthmoving, excavation, or movement of trucks or construction equipment over access haul roads or cleared land shall take steps to minimize fugitive dust from such activities. Such control measures may include frequent watering and/or chemical stabilization. (B) Any person engaged in demolition activities including razing of homes, buildings, or other structures; or removing paving material from roads and/or parking areas shall take steps to minimize fugitive dust from such activities. Such control measures may include frequent watering and/or chemical stabilization. (C) Any person who is engaged in construction or demolition activities which tracks earth or other materials onto paved streets shall promptly remove such material by water or other means. (D) Any person engaged in sandblasting or similar operations shall take steps to minimize fugitive dust from such activities. Such control measures may include the installation and use of hood, fans and fabric filters to enclose and vent the handling of dusty materials.

Table 3.20-2. Fugitive Dust Regulations (continued)

Idaho Regulations pursuant to Rules 650 and 651
***(ii) Handling and Transporting of Materials*.** (A) Any person owning, operating or maintaining a new or existing material storage, handling and/or hauling operation shall minimize fugitive dust from such an operation. Such control measures may include the application of asphalt, oil, water or suitable chemicals on unpaved roads, material stockpiles and other surfaces which can give rise to airborne dusts. Control measures for material handling may also include installation and use of hoods, fans and fabric filters to enclose and vent dusty materials. (B) When transporting materials likely to give rise to airborne dust, open bodied trucks shall be covered when in motion.
650. RULES FOR CONTROL OF FUGITIVE DUST. The purpose of Sections 650 through 651 is to require that all reasonable precautions be taken to prevent the generation of fugitive dust. (5-1-94)
651. GENERAL RULES. All reasonable precautions shall be taken to prevent particulate matter from becoming airborne. In determining what is reasonable, consideration will be given to factors such as the proximity of dust emitting operations to human habitations and/or activities, the proximity to mandatory Class I Federal Areas and atmospheric conditions which might affect the movement of particulate matter. Some of the reasonable precautions may include, but are not limited to, the following: (3-30-07)
01. Use of Water or Chemicals. Use, where practical, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land. (5-1-94)
02. Application of Dust Suppressants. Application, where practical, of asphalt, oil, water or suitable chemicals to, or covering of dirt roads, material stockpiles, and other surfaces which can create dust. (5-1-94)
03. Use of Control Equipment. Installation and use, where practical, of hoods, fans and fabric filters or equivalent systems to enclose and vent the handling of dusty materials. Adequate containment methods should be employed during sandblasting or other operations. (5-1-94)
04. Covering of Trucks. Covering, when practical, open bodied trucks transporting materials likely to give rise to airborne dusts. (5-1-94)
05. Paving. Paving of roadways and their maintenance in a clean condition, where practical. (5-1-94)
06. Removal of Materials. Prompt removal of earth or other stored material from streets, where practical.

Permitting Exemptions for Portable Concrete Batch Plants

Wyoming – Chapter 6 of the Wyoming Air Quality Standards and Regulations does not contain any specific permitting exemptions applicable to portable concrete plants. Chapter 6, section (k) provides a general exemption based upon emissions rates and ambient impacts. Considering the remote location of the route and the emissions rate noted below, it would be reasonable to assume that the concrete batching activities may qualify for the Section (k) exemption in Wyoming. Additionally, the Wyoming Air Quality Standards and Regulations allow for the movement of portable sources which already have existing permits (Chapter 6, section (b)(ii). Portable batch plants which already have permits from the Wyoming Air Division under this provision would be allowed to utilize a “self issuance” permit to operate for new locations along the Wyoming portion of the route.

Idaho – IDAPA 58.01.01, sections 220 through 222, contain provisions for permit exemptions. Portable concrete batch plants would in all likelihood meet the requirements for permit exemption under these provisions especially when considering that “fugitive emissions shall not be considered in determining whether a source meets the applicable exemption criteria unless required by federal law”, per Section 220, and fugitive emissions would be the predominant emissions from such plants.

3.20.1.4 Methods

The methods used to estimate emissions from the construction and operations phases of the proposed Project are explained in detail in the Air Quality Technical Report found in the Administrative Record. These methods represent currently accepted techniques for deriving emissions estimates from construction and operations activities. These methods consider:

- Construction disturbance areas within the Proposed Action or Action Alternatives, i.e., access road construction and use during the construction phase, tower construction areas, and substation construction areas;
- Construction equipment exhaust emissions;
- Use of portable concrete batch plants during the construction phase;
- Vehicle exhaust emissions associated with construction worker travel and construction supply delivery along the routes;
- Use of unpaved access roads during the operations phase; and
- Vehicle emissions used for inspection and maintenance during the operations phase.

3.20.1.5 Existing Conditions

Climate

Wyoming

The regional climate of the Analysis Area is predominantly classified as continental with some areas in Wyoming classified as semi-arid. Surface wind direction and precipitation in the Project area vary significantly due to differences in geographical location and geographical features. Annual average wind speeds within the Analysis Area range from 7.7 to 12.9 mph. Annual average wind directions are predominantly from the southwest, with fluctuations from the west and southeast. Highest annual average temperatures range from 50°F to 55°F, while the lowest annual average temperatures range from 31°F to 34.3°F, within the Analysis Area. Summer temperatures in southern Wyoming can rarely exceed 100°F but average July temperatures range between 85°F and 95°F. January is typically the coldest month with minimum average temperatures of approximately 5°F and 10°F. However, low temperatures below 0°F are not uncommon (Curtis and Grimes 2008). 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. Surface elevations range from the summit of Gannett Peak in the Wind River Mountains, at 13,804 feet, to the Belle Fourche River Valley in the state's northeast corner, at 3,125 feet. This difference in elevation explains why areas in the northern part of the state at 4,400 feet have mean annual July temperatures of about 7°F higher than areas in the southwest corner of the state, at 6,800 feet. Wyoming is located deep in the interior of the North American continent, away from any moderating influence of oceans, resulting in long winters and mild summers. In winter, Wyoming is often beneath the jet stream, or north of it, which accounts for its frequent strong winds, blasts of arctic air and precipitation. In

summer, the jet stream retreats northward over Canada, leaving the state's weather mild and pleasant. Generally, summer daytime temperatures display a range in the 70s and 80s. Ninety degree days are rare anywhere in the state, and daily temperatures over 100˚F are rarely experienced.

Idaho

Idaho lies entirely west of the Continental Divide. The northern part of the state averages lower in elevation than the much larger central and southern portions, where numerous mountain ranges form barriers to the free flow of air from all points of the compass. In the north the main barrier is the rugged chain of Bitterroot Mountains forming much of the boundary between Idaho and Montana. The extreme range of elevation in the state is from 738 feet of the confluence of the Clearwater and Snake Rivers to 12,655 feet at Mt. Borah in Custer County. Comprising rugged mountain ranges, canyons, high grassy valleys, arid plains, and fertile lowlands, the state reflects in its topography and vegetation a wide range of climates.

To a large extent, the source of moisture for precipitation in Idaho is the Pacific Ocean. In summer, there are some exceptions to this when moisture-laden air is brought in from the south at high levels to produce thunderstorm activity, particularly in the eastern part of Idaho. Sizeable areas in the Clearwater, Payette, and Boise River Basins receive an average of 40 to 50 inches per year, with a few points or small areas receiving in excess of 60 inches. Large areas including the northeastern valleys, much of the Upper Snake River Plains, Central Plains, and the lower elevations of the Southwestern Valleys receive less than 10 inches annually. Snowfall distribution is affected both by availability of moisture and by elevation. Annual snowfall totals in Northern Idaho have reached nearly 500 inches in the past. The major mountain ranges of the state accumulate a deep snow cover during the winter months, and the release of water from the melting snowpack in late spring furnishes irrigation water for more than 2 million acres, mainly within the Snake River Basin above Weiser.

Air Quality

Federal and state air regulations are designed to ensure that ambient air quality, including background, existing, and new sources, are in compliance with the ambient standards. The USEPA has established National Ambient Air Quality Standards for criteria pollutants for the purpose of protecting human health (primary standards) and public welfare (secondary standards). These criteria pollutants are: nitrogen dioxide, CO, ozone, SO_2, lead, PM_{10}, and $PM_{2.5}$ (particulate matter with diameter of less than 2.5 microns).

USEPA has designated all areas of the United States as “attainment,” “non-attainment,” or “unclassified” with respect to ambient air quality standards. Existing air quality in each of the states is generally good to excellent. Table 3.20-3 delineates the current federal and state-specific ambient air quality standards. Figure 3.20-1 shows the current locations of the Idaho and Wyoming nonattainment areas, and other areas of air quality concern. Idaho is in attainment with the exception of two PM_{10} nonattainment areas in the southeast corner of the state, i.e., Fort Hall PM_{10} and Franklin County (Cache Valley) $PM_{2.5}$, and the north Ada County CO and PM_{10} nonattainment (maintenance) area. Canyon and Ada Counties include the Treasure Valley Ozone and $PM_{2.5}$ Area of

Concern. An additional nonattainment area lies in the northern part of the state in Bonner County, i.e., Sandpoint PM_{10} nonattainment area. The Portneuf Valley PM_{10} maintenance area, which lies well to the north of the route, has recently been re-classified as attainment. At present, there are no nonattainment areas in the State of Wyoming, although the WDEQ has proposed that an ozone nonattainment area be established in the Upper Green River Basin area (State of Wyoming 2009). Each of the states in question has numerous Class I areas. Figure 3.20-1 shows the Class I area locations in Idaho and Wyoming. The closest Class I areas to the Project (both in Idaho) are: 1) the Craters of the Moon National Monument and Preserve area approximately 50 miles north of the route, and 2) the Sawtooth Class I area approximately 54 miles northeast of the route. The Jarbidge Wilderness Class I area in Nevada lies approximately 60 miles to the west-southwest of Alternative 7K, a portion of which is on the north side of the Idaho-Nevada state border.

Table 3.20-3. Ambient Air Quality Standards

Pollutant	Averaging Time	Idaho Standards Concentration	Wyoming Standards Concentration	National Standards Concentration
Ozone	1 hour	0.12 ppm	–	–
	8 hours		0.08 ppm	0.075 ppm (147 μg/m^3) (3-year average of annual 4th-highest daily maximum)
Carbon Monoxide	8 hours	9 ppm	9 ppm	9 ppm (10,000 μg/m^3)
	1 hour	35 ppm	35 ppm	35 ppm (40,000 μg/m^3)
Nitrogen Dioxide	Annual Average	0.05 ppm	0.05 ppm	0.053 ppm (100 μg/m^3)
	1 hour			
Sulfur Dioxide	Annual Average	80 μg/m^3	60 μg/m^3	0.03 ppm (80 μg/m^3)
	24 hours	365 μg/m^3	260 μg/m^3	0.14 ppm (365 μg/m^3)
	3 hours	1,300 μg/m^3	1,300 μg/m^3	0.5 ppm (1,300 μg/m^3)
	1 hour	–	–	–
PM_{10}	24 hours	150 μg/m^3	150 μg/m^3	150 μg/m^3
	Annual Arithmetic Mean	50 μg/m^3	50 μg/m^3	–
$PM_{2.5}$	Annual Arithmetic Mean	–	15 μg/m^3	15 μg/m^3 (3-year average)
	24 hours	–	65 μg/m^3	35 μg/m^3 (3-year average of 98th percentiles)
Lead	Calendar Quarter	1.5 μg/m^3	1.5 μg/m^3	1.5 μg/m^3

μg/m^3 – microgram per cubic meter
ppm – part per million
$PM_{2.5}$ – particulate matter with a diameter of less than 2.5 microns
PM_{10} – particulate matter with a diameter of less than 10 microns

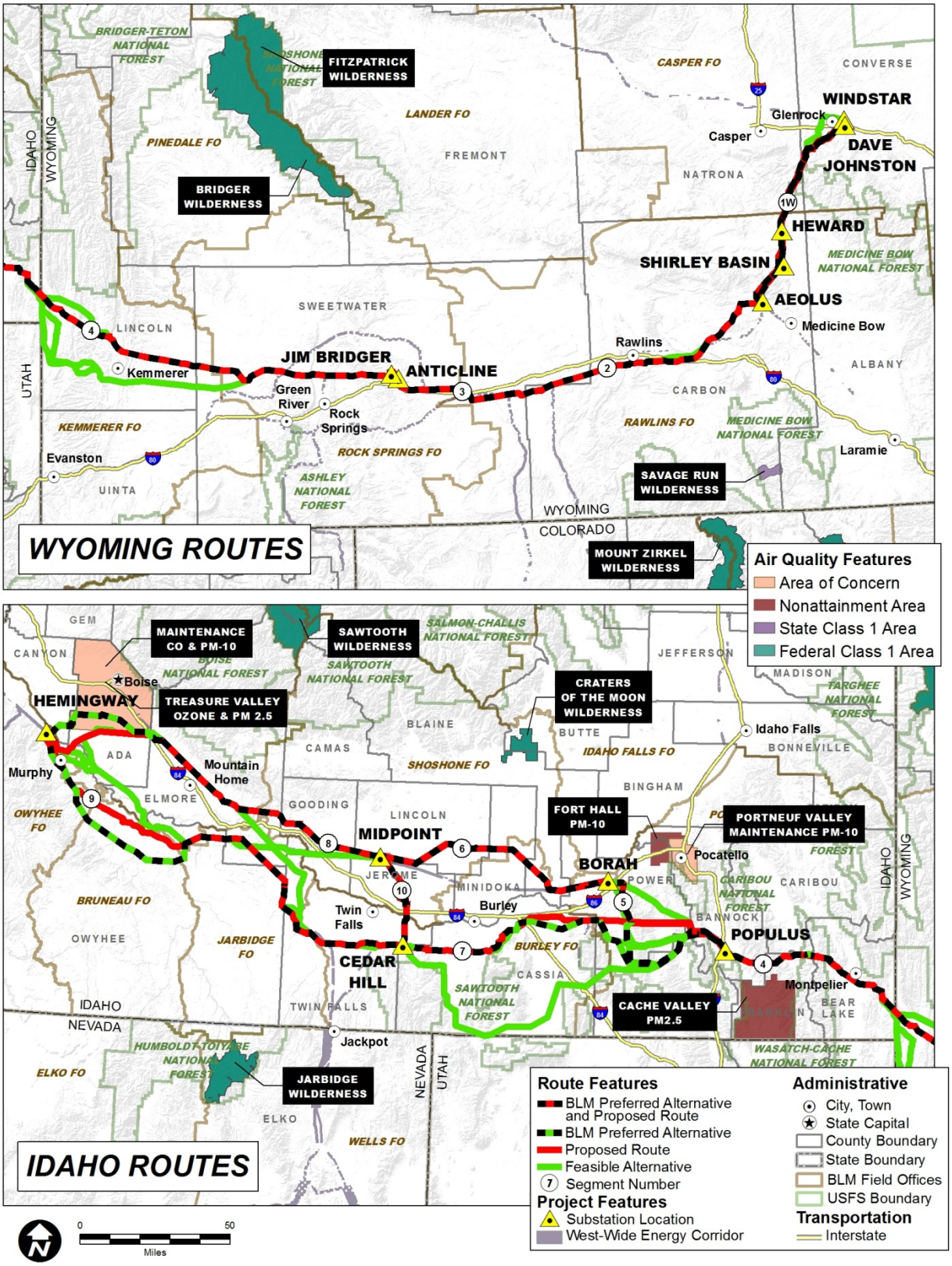

Figure 3.20-1. Air Quality Features

Greenhouse Gas Emissions

Preliminary GHG emissions inventories have been prepared for each state via a cooperative effort between the Center for Climate Strategies and the Departments of Environmental Quality for each state. These inventories do not represent reporting from all identified sectors, so the inventories most likely do not represent a complete analysis capture of GHG emissions for each state. Table 3.20-4 presents a summary of GHG (CO_2 equivalent or CO_2e) emissions data for each state for reporting years 2005, 2010, and 2020. The year 2010 data represent the inventory year closest to the beginning of construction for the proposed Project.

Table 3.20-4. Greenhouse Gas Summary by State (CO_2e)

State	2005[3/]	2010[3/]	2020[3/]
Idaho[1/]	40,920,000	43,560,000	48,510,000
Wyoming[2/]	61,160,000	66,330,000	76,340,000

1/ CCS 2008
2/ CCS 2007
3/ Values converted from metric tons to short tons.
CO_2e – carbon dioxide equivalent

3.20.2 Direct and Indirect Effects

This section is organized to present first construction, then operations, followed by the decommissioning effects from the Proposed Action. For both construction and operations, there are sections summarizing emissions of criteria pollutants (NO_x, CO, SO_X, VOCs, and $PM_{10}/PM_{2.5}$), and greenhouse gases (CO_2, methane [CH_4], and NO_x) for the Proposed Action. Route Alternatives and the comparison portions of the Proposed Route are analyzed in detail below in Section 3.20.2.3.

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 ownerships 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 air quality are proposed for the Project and no impacts to air quality resulting from approving the amendments beyond the impacts of the project are anticipated.

3.20.2.1 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 air quality 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.

3.20.2.2 Effects Common to All Action Alternatives

Construction Emissions

Construction activities for the Proposed Action would take place in the following sequence: site preparation/trenching; foundation work; installation of structures and conductors; and ROW/site restoration. The anticipated construction periods for the various components of the proposed Project are described in Appendix B. Construction would occur over a 1- to 2-year period depending on the transmission segment length. For purposes of analysis, all segments are assumed to be completed within 5.42 years (65 months) of the start of construction. The construction activities that would generate emissions include land clearing, ground excavation, and cut and fill operations. These construction activities would occur 6 days per week for up to 12 hours per day during the construction periods. The intermittent and short-term emissions generated by these activities would include dust from soil disruption and combustion emissions from the construction equipment. Emissions associated with construction equipment include PM_{10}, $PM_{2.5}$, NO_x, CO, VOCs, SO_x, and small amounts of air toxics. These emissions could result in minor, temporary impacts on air quality in the vicinity, i.e., within 1,000 feet of the centerline of the Proposed Action construction route. Table 3.20-5 lists the estimated emissions of these criteria pollutants that would be generated by construction of the Proposed Action facilities by segment.

Emissions from construction of the transmission line, substations, and regeneration facilities are not expected to cause or significantly contribute to a violation of an applicable ambient air quality standard or contribute substantially to an existing or projected air quality violation because the construction equipment would be operated on an as-needed basis during daylight hours only and the emissions from gasoline and diesel engines would be minimized because the engines must be built to meet the standards for mobile sources established by the USEPA. Most of the construction equipment would be powered by diesel engines that would meet current USEPA emissions standards based upon engine size and date of manufacture, and Project- related vehicles and construction equipment would be required to use the new low sulfur diesel fuel as soon as it is commercially available. The following

Table 3.20-5. Estimated Emissions of Criteria Pollutants from Project Construction

Segment	~Length miles	NO_x (tons)	CO (tons)	VOC (tons)	SO_x (tons)	PM_{10} (tons)[1/]	$PM_{2.5}$ (tons)[1/]	CO_2 (tons)
Segment 1 (1W(a), 1W(c))	147	276.4	119.1	29.4	1.5	80.85	27.9	31,325.70
Segment 2	92	173.0	74.5	18.4	0.9	50.6	17.5	19,605.20
Segment 3	51	95.9	41.3	10.2	0.5	28.05	9.7	10,868.10
Segment 4 [In Wyoming]	131	246.3	106.1	26.2	1.3	72.05	24.9	27,916.10
Total Emissions in Wyoming	***421***	*791.5*	*341.0*	*84.2*	*4.2*	*231.6*	*80.0*	*87,715.10*
Segment 4 [In Idaho]	67	137.5	59.0	14.7	0.7	40.2	13.4	15,523.90
Segment 5	56	114.8	49.3	12.3	0.6	33.6	11.2	12,975.20
Segment 6	0.5	1.0	0.4	0.1	0.0	0.3	0.1	115.85
Segment 7	118	241.9	103.8	26.0	1.2	70.8	23.6	27,340.60
Segment 8	132	270.6	116.2	29.0	1.3	79.2	26.4	30,584.40
Segment 9	162	332.1	142.6	35.6	1.6	97.2	32.4	37,535.40
Segment 10	34	69.7	29.9	7.5	0.3	20.4	6.8	7,877.80
Total Emissions in Idaho	***569.5***	*1,167.5*	*501.2*	*125.3*	*5.7*	*341.7*	*113.9*	*131,935.15*
Total Project Emissions [2/]	***990.5***	***1,958.955***	***842***	***209.49***	***9.9***	***573.25***	***193.9***	***221,668.25***

1/ PM_{10} and $PM_{2.5}$ include fugitive dust and equipment exhaust PM.
2/ Totals may not match other tables due to mileage multiplication and rounding.
NO_x – nitrogen oxides
CO – carbon monoxide
VOC – volatile organic compounds
CO_2 – carbon dioxide
SO_x – sulfur oxides
$PM_{2.5}$ – particulate matter with a diameter of less than 2.5 microns
PM_{10} – particulate matter with a diameter of less than 10 microns

EPMs would substantially reduce impacts to air quality. The Proponents have incorporated these measures into their POD.

AIR-1 Minimize idling time for diesel equipment whenever possible.

AIR-2 Ensure that diesel-powered construction equipment is properly tuned and maintained, and shut off when not in direct use.

AIR-3 Prohibit engine tampering to increase horsepower.

AIR-4 Reduce construction-related trips as feasible for workers and equipment, including trucks.

None of the above related construction activities are required to have stationary or indirect source permits by any of the affected states, and the activities are exempt from the major regulatory programs such as NSR, PSD, NESHAPs, Title IV, and Title V. The construction activities must, however, comply with the applicable state fugitive dust control requirements as outlined in Table 3.20-3.

Fugitive dust emissions (e.g., PM_{10}/$PM_{2.5}$) would depend on the moisture content and texture of the soils that would be disturbed. The construction emissions would vary from day to day depending on the level of activity, the specific operations, and prevailing weather. The Air Quality Technical Report (in the Administrative Record) presents the support data and methodologies used to estimate emissions from the construction phase. The following EPM will be implemented for dust control:

AIR-5 Dust suppression techniques will be applied, such as watering construction areas or removing dirt tracked onto a paved road as necessary to prevent

safety hazards or nuisances on access roads and in construction zones near residential and commercial areas and along major highways and interstates.

Operations Emissions

Operations-related emissions would be from the following types of sources and activities:

- Use of motor vehicles to transport inspection and maintenance personnel along the final route to perform inspection and maintenance as required; and
- Travel on the unpaved access roads during the inspection and maintenance related activities.

The Air Quality Technical Report presents the emissions estimation methodologies and support data for the operations phase.

Table 3.20-6 presents the estimated emissions from inspection and maintenance activities (operations phase). The total emissions estimates for all phases are presented in Table 3.20-7.

Table 3.20-6. Operations Emissions (Inspection/Maintenance)

VOC (ROG) (tons/yr)	NO_x (tons/yr)	CO (tons/yr)	SO_x (tons/yr)	PM_{10} (tons/yr)	$PM_{2.5}$ (tons/yr)	CO_2 (tons/yr)
0.075	0.09	0.81	0.0007	13.6	2.9	68.9

ROG – reactive organic gases
NO_x – nitrogen oxides
CO – carbon monoxide
VOC – volatile organic compounds
SO_x – sulfur oxides
$PM_{2.5}$ – particulate matter with a diameter of less than 2.5 microns
PM_{10} – particulate matter with a diameter of less than 10 microns

Table 3.20-7. Total Project Estimated Emissions

VOC (ROG) (tons/yr)	NO_x (tons/yr)	CO (tons/yr)	SO_x (tons/yr)	PM_{10} (tons/yr)	$PM_{2.5}$ (tons/yr)	CO_2 (tons/yr)
Construction[1/], Tons per Construction Period						
229.9	2,169.3	938.1	10.2	635.4	214	245,532
Operations, Tons per Year						
0.075	0.09	0.81	0.0007	13.6	2.9	68.9

NO_x – nitrogen oxides
CO – carbon monoxide
VOC – volatile organic compounds
SO_x – sulfur oxides
$PM_{2.5}$ – particulate matter with a diameter of less than 2.5 microns
PM_{10} – particulate matter with a diameter of less than 10 microns
1/ Includes helicopter emissions, which may or may not occur.

Greenhouse Gas Emissions Estimates

Emissions of GHGs such as CO_2, CH_4, and NO_x from the construction and operation of the transmission line are derived primarily from the fuel combustion sources involved in construction and operations. Support data for the GHG analysis herein were derived from the California Climate Action Registry *General Reporting Protocol, Version 3.1* (2009a), and *Power Generation /Electric Utility Reporting Protocol, Version 1.1* (2009b). The Air Quality Technical Report presents the emissions calculations, methodologies, and support data for the GHG emissions.

Emissions Summary by State

Route and construction data supplied by the Proponents indicate that approximately 53.4 percent of the construction emissions will occur in Idaho, with the remaining 46.6 percent occurring in Wyoming. Emissions for construction and operations are broken down for each state based on these approximated values in Table 3.20-8. The emissions from the alternative routes are presented in Table 3.20-13.

Operations emissions are essentially *de minimus*. Table 3.20-9 presents the construction emissions on a yearly basis assuming the Proposed Action construction period is 65 months (5.42 years).

Table 3.20-8. Emissions Breakdown by State

Pollutant	Wyoming	Idaho
Construction (Tons per Period)		
NO_x (nitrogen oxides)	1,010.9	1,158.4
CO (carbon monoxide)	437.2	500.9
VOC (volatile organic compounds)	107.1	122.8
SO_x (sulfur oxides)	4.8	5.4
PM_{10} (particulate matter with a diameter of less than 10 microns)	296.1	339.3
$PM_{2.5}$ (particulate matter with a diameter of less than 2.5 microns)	99.7	114.3
CO_2 (carbon dioxide)	114,418.0	131,114.0
Operations (Tons per Year)		
NO_x	0.04	0.05
CO	0.38	0.43
VOC	0.04	0.04
SO_x	0.0003	0.00037
PM_{10}	6.34	7.27
$PM_{2.5}$	1.35	1.55
CO_2	32.1	36.8

Table 3.20-9. Annualized Construction Emissions Breakdown by State

Pollutant	Wyoming (Tons per Year)	Idaho (Tons per Year)
NO_x (nitrogen oxides)	186.5	213.7
CO (carbon monoxide)	80.7	92.4
VOC (volatile organic compounds)	19.8	22.7
SO_x (sulfur oxides)	0.9	1.0
PM_{10} (particulate matter with a diameter of less than 10 microns)	54.6	62.6
$PM_{2.5}$ (particulate matter with a diameter of less than 2.5 microns)	18.4	21.1
CO_2 (carbon dioxide)	21,110.0	24,191.0

Table 3.20-10 presents the construction emissions as derived from Table 3.20-7 on a per mile basis.

Table 3.20-10. Construction Period Emissions per Mile Basis

Pollutant	Wyoming Average Emissions (Tons per Mile)	Idaho Average Emissions (Tons per Mile)
NO_x (nitrogen oxides)	1.88	2.05
CO (carbon monoxide)	0.81	0.88
VOC (volatile organic compounds)	0.20	0.22
SO_x (sulfur oxides)	0.01	0.01
PM_{10} (particulate matter with a diameter of less than 10 microns)	0.55	0.60
$PM_{2.5}$ (particulate matter with a diameter of less than 2.5 microns)	0.19	0.20
CO_2 (carbon dioxide)	213.1	231.7

Table 3.20-11 presents the construction emissions as derived from Table 3.20-10 on a per mile per year basis.

Table 3.20-11. Construction Period Emissions per Mile per Year Basis

Pollutant	Wyoming Average Emissions (Tons per Mile per Year)	Idaho Average Emissions (Tons per Mile per Year)
NO_x (nitrogen oxides)	0.35	0.38
CO (carbon monoxide)	0.15	0.16
VOC (volatile organic compounds)	0.04	0.04
SO_x (sulfur oxides)	0.002	0.002
PM_{10} (particulate matter with a diameter of less than 10 microns)	0.10	0.11
$PM_{2.5}$ (particulate matter with a diameter of less than 2.5 microns)	0.04	0.04
CO_2 (carbon dioxide)	39.32	42.75

For purposes of conformity, the values in Table 3.20-11 can be used to estimate the emissions from construction activities that occur in any identified nonattainment or maintenance area along the route. The only Proposed Action locations within nonattainment or maintenance areas are as follows:

- Approximately 40 miles of the centerline of Segment 8, Midpoint to Hemingway, crosses Canyon and Ada Counties, which contain the Treasure Valley Ozone and $PM_{2.5}$ Area of Concern, and the Ada County CO and PM_{10} Nonattainment (Maintenance) Area.
- None of the proposed or alternative routes pass through the ozone nonattainment area being proposed by the WDEQ for the Upper Green River Basin area. The nearest route point to the southern extent of the proposed nonattainment area is approximately 20 miles distant. The ozone nonattainment area would not be affected.

- The Proposed Route passes to the north of the Franklin County $PM_{2.5}$ nonattainment area. This area also extends into Utah and is known as the Cache Valley $PM_{2.5}$ nonattainment area. Only the portion in Idaho is shown on Figure 3.20-1.

Table 3.20-12 presents the estimated annualized emissions for the above noted areas of concern for purposes of conformity comparison.

Table 3.20-12. Annualized Construction Emissions Estimates for Areas of Concern

Pollutant	Franklin County Area	Canyon/Ada County Area
NO_x (nitrogen oxides)	7.6 tons/year	15.2 tons/year
CO (carbon monoxide)	3.2 tons/year	6.4 tons/year
VOC (volatile organic compounds)	0.8 ton/year	1.6 tons/year
SO_x (sulfur oxides)	0.04 ton/year	0.08 ton/year
PM_{10} (particulate matter with a diameter of less than 10 microns)	2.2 tons/year	4.4 tons/year
$PM_{2.5}$ (particulate matter with a diameter of less than 2.5 microns)	0.7 ton/year	1.5 tons/year

Values presented in Table 3.20-12 indicate that emissions in the nonattainment or maintenance areas of concern would not trigger the need for a conformity determination.

Decommissioning

Project facilities would be removed at the end of the operational life of the transmission line. Structures and foundations would be removed to below the ground surface level. Removal of Project structures following decommissioning would result in temporary impacts to air quality.

Decommissioning activities would not be expected to result in air emissions similar in magnitude to those associated with construction. The types and numbers of equipment used in demolition and removal of the substations and tower structures would be far less than those proposed for use during construction. Demolition and removal time frames would be significantly less than construction time frames, and surface disturbance activities during demolition and removal would be significantly less than those associated with initial construction.

3.20.2.3 Proposed Route and Alternatives

The Route Alternatives are subject to the same air quality regulatory requirements and air quality standards as the Preferred/Proposed Route.

Table 3.20-13 presents the emissions increases and/or decreases associated with the Preferred/Proposed Route and Alternatives. It should be noted that not all of the Route Alternatives would be chosen to replace the comparison portion of the Proposed Route. Alternative 4G would not have a differential effect to air quality compared to the Proposed Route (i.e., why Alternative 4G is not shown in this table).

Table 3.20-13. Alternative Route Emissions (tons)

Segment	Route Designation	Miles	NO_x	CO	VOC	SO_x	PM_{10}	$PM_{2.5}$	CO_2
1W(a)	Proposed – Comparison Portion for Alternative 1W(a)-B	16.50	31.02	13.37	3.30	0.17	9.08	3.14	3,516.15
	Alternative 1W(a)-B	20.90	39.29	16.93	4.18	0.21	11.50	3.97	4,453.79
	Difference	*4.40*	*8.27*	*3.56*	*0.88*	*0.04*	*2.42*	*0.84*	*937.64*
2	Proposed – Comparison Portion for Alternative 2A	16.80	31.58	13.61	3.36	0.17	9.24	3.19	3,580.08
	Alternative 2A	16.00	30.08	12.96	3.20	0.16	8.80	3.04	3,409.60
	Difference	*-20.90*	*-39.29*	*-16.93*	*-4.18*	*-0.21*	*-11.50*	*-3.97*	*-4,453.79*
	Proposed – Comparison Portion for Alternative 2B	12.50	23.50	10.13	2.50	0.13	6.88	2.38	2,663.75
	Alternative 2B	12.20	22.94	9.88	2.44	0.12	6.71	2.32	2,599.82
	Difference	*-0.30*	*-0.56*	*-0.24*	*-0.06*	*0.00*	*-0.17*	*-0.06*	*-63.93*
4	Proposed – Comparison Portion for Alternative 4B	85.20	382.74	164.69	63.76	1.98	111.99	38.20	43,339.03
	Alternative 4B	100.20	189.80	81.75	36.36	1.00	55.53	19.12	21,508.86
	Difference	*15.00*	*-192.94*	*-82.94*	*-27.40*	*-0.97*	*-56.46*	*-19.08*	*-21,830.17*
	Proposed – Comparison Portion for Alternative 4C	85.20	382.74	164.69	63.76	1.98	111.99	38.20	43,339.03
	Alternative 4C	101.60	192.44	82.88	36.89	1.02	56.30	19.39	21,807.20
	Difference	*16.40*	*-190.31*	*-81.80*	*-26.87*	*-0.96*	*-55.69*	*-18.81*	*-21,531.83*
	Proposed – Comparison Portion for Alternative 4D	85.20	382.74	164.69	63.76	1.98	111.99	38.20	43,339.03
	Alternative 4D	100.80	190.93	82.24	36.59	1.01	55.86	19.24	21,636.72
	Difference	*15.60*	*-191.81*	*-82.45*	*-27.17*	*-0.97*	*-56.13*	*-18.96*	*-21,702.31*
	Proposed – Comparison Portion for Alternative 4E	85.20	382.74	164.69	63.76	1.98	111.99	38.20	43,339.03
	Alternative 4E	102.20	193.75	83.45	37.15	1.02	56.69	19.52	21,956.37
	Difference	*17.00*	*-188.99*	*-81.24*	*-26.61*	*-0.95*	*-55.31*	*-18.68*	*-21,382.66*
	Proposed – Comparison Portion for Alternative 4F	85.20	382.74	164.69	63.76	1.98	111.99	38.20	43,339.03
	Alternative 4F	87.50	165.61	71.33	31.89	0.88	48.45	16.69	18,767.15
	Difference	*2.30*	*-217.14*	*-93.36*	*-31.88*	*-1.10*	*-63.54*	*-21.51*	*-24,571.88*
5	Proposed – Comparison Portion for Alternative 5A	22.30	45.72	19.62	4.91	0.22	13.38	4.46	5,166.91
	Alternative 5A	29.70	60.89	26.14	6.53	0.30	17.82	5.94	6,881.49
	Difference	*7.40*	*15.17*	*6.51*	*1.63*	*0.07*	*4.44*	*1.48*	*1,714.58*
	Proposed – Comparison Portion for Alternative 5B	22.30	45.72	19.62	4.91	0.22	13.38	4.46	5,166.91
	Alternative 5B (part of the BLM Preferred Route)	40.40	82.82	35.55	8.89	0.40	24.24	8.08	9,360.68
	Difference	*18.10*	*37.11*	*15.93*	*3.98*	*0.18*	*10.86*	*3.62*	*4,193.77*
	Proposed – Comparison Portion for Alternative 5C	32.90	67.45	28.95	7.24	0.33	19.74	6.58	7,622.93
	Alternative 5C	26.00	53.30	22.88	5.72	0.26	15.60	5.20	6,024.20
	Difference	*-6.90*	*-14.15*	*-6.07*	*-1.52*	*-0.07*	*-4.14*	*-1.38*	*-1,598.73*

Table 3.20-13. Alternative Route Emissions (tons) (continued)

Segment	Route Designation	Miles	NO_x	CO	VOC	SO_x	PM_{10}	$PM_{2.5}$	CO_2
5 (cont.)	Proposed – Comparison Portion for Alternative 5D	19.20	39.36	16.90	4.22	0.19	11.52	3.84	4,448.64
	Alternative 5D	17.00	34.85	14.96	3.74	0.17	10.20	3.40	3,938.90
	Difference	*-2.20*	*-4.51*	*-1.94*	*-0.48*	*-0.02*	*-1.32*	*-0.44*	*-509.74*
	Proposed – Comparison Portion for Alternative 5E	5.80	11.89	5.10	1.28	0.06	3.48	1.16	1,343.86
	Alternative 5E (part of the BLM Preferred Route)	5.30	10.87	4.66	1.17	0.05	3.18	1.06	1,228.01
	Difference	*-0.50*	*-1.03*	*-0.44*	*-0.11*	*-0.01*	*-0.30*	*-0.10*	*-115.85*
7	Proposed – Comparison Portion for Alternative 7A,B	35.10	71.96	30.89	7.72	0.35	21.06	7.02	8,132.67
	Alternative 7A	37.70	77.29	33.18	8.29	0.38	22.62	7.54	8,735.09
	Difference	*2.60*	*5.33*	*2.29*	*0.57*	*0.03*	*1.56*	*0.52*	*602.42*
	Proposed – Comparison Portion for Alternative 7A,B	35.10	71.96	30.89	7.72	0.35	21.06	7.02	8,132.67
	Alternative 7B (part of the BLM Preferred Route)	46.20	94.71	40.66	10.16	0.46	27.72	9.24	10,704.54
	Difference	*11.10*	*22.76*	*9.77*	*2.44*	*0.11*	*6.66*	*2.22*	*2,571.87*
	Proposed – Comparison Portion for Alternative 7C	20.10	41.21	17.69	4.42	0.20	12.06	4.02	4,657.17
	Alternative 7C (part of the BLM Preferred Route)	20.30	41.62	17.86	4.47	0.20	12.18	4.06	4,703.51
	Difference	*0.20*	*0.41*	*0.18*	*0.04*	*0.00*	*0.12*	*0.04*	*46.34*
	Proposed – Comparison Portion for Alternative 7D	6.20	12.71	5.46	1.36	0.06	3.72	1.24	1,436.54
	Alternative 7D (part of the BLM Preferred Route)	6.80	13.94	5.98	1.50	0.07	4.08	1.36	1,575.56
	Difference	*0.60*	*1.23*	*0.53*	*0.13*	*0.01*	*0.36*	*0.12*	*139.02*
	Proposed – Comparison Portion for Alternative 7E	3.80	7.79	3.34	0.84	0.04	2.28	0.76	880.46
	Alternative 7E	4.50	9.23	3.96	0.99	0.05	2.70	0.90	1,042.65
	Difference	*0.70*	*1.44*	*0.62*	*0.15*	*0.01*	*0.42*	*0.14*	*162.19*
	Proposed – Comparison Portion for Alternative 7F	10.50	21.53	9.24	2.31	0.11	6.30	2.10	2,432.85
	Alternative 7F	10.80	22.14	9.50	2.38	0.11	6.48	2.16	2,502.36
	Difference	*0.30*	*0.62*	*0.26*	*0.07*	*0.00*	*0.18*	*0.06*	*69.51*
	Proposed – Comparison Portion for Alternative 7G	3.30	6.77	2.90	0.73	0.03	1.98	0.66	764.61
	Alternative 7G (part of the BLM Preferred Route)	3.40	6.97	2.99	0.75	0.03	2.04	0.68	787.78
	Difference	*-114.80*	*-235.34*	*-101.02*	*-25.26*	*-1.15*	*-68.88*	*-22.96*	*-26,599.16*
	Proposed – Comparison Portion for Alternative 7K	118.20	242.31	104.02	26.00	1.18	70.92	23.64	27,386.94
	Alternative 7K	148.10	303.61	130.33	32.58	1.48	88.86	29.62	34,314.77
	Difference	*29.90*	*61.30*	*26.31*	*6.58*	*0.30*	*17.94*	*5.98*	*6,927.83*

Table 3.20-13. Alternative Route Emissions (tons) (continued)

Segment	Route Designation	Miles	NO_x	CO	VOC	SO_x	PM_{10}	$PM_{2.5}$	CO_2
8	Proposed – Comparison Portion for Alternative 8A	51.90	106.40	45.67	11.42	0.52	31.14	10.38	12,025.23
	Alternative 8A	53.60	109.88	47.17	11.79	0.54	32.16	10.72	12,419.12
	Difference	*1.70*	*3.49*	*1.50*	*0.37*	*0.02*	*1.02*	*0.34*	*393.89*
	Proposed – Comparison Portion for Alternative 8B	45.30	92.87	39.86	9.97	0.45	27.18	9.06	10,496.01
	Alternative 8B (part of the BLM Preferred Route)	45.80	93.89	40.30	10.08	0.46	27.48	9.16	10,611.86
	Difference	*0.50*	*1.03*	*0.44*	*0.11*	*0.01*	*0.30*	*0.10*	*115.85*
	Proposed – Comparison Portion for Alternative 8C	6.50	13.33	5.72	1.43	0.07	3.90	1.30	1,506.05
	Alternative 8C	6.40	13.12	5.63	1.41	0.06	3.84	1.28	1,482.88
	Difference	*-0.10*	*-0.21*	*-0.09*	*-0.02*	*0.00*	*-0.06*	*-0.02*	*-23.17*
	Proposed – Comparison Portion for Alternative 8D	6.90	14.15	6.07	1.52	0.07	4.14	1.38	1,598.73
	Alternative 8D	8.10	16.61	7.13	1.78	0.08	4.86	1.62	1,876.77
	Difference	*1.20*	*2.46*	*1.06*	*0.26*	*0.01*	*0.72*	*0.24*	*278.04*
	Proposed – Comparison Portion for Alternative 8E	7.00	14.35	6.16	1.54	0.07	4.20	1.40	1,621.90
	Alternative 8E	18.30	37.52	16.10	4.03	0.18	10.98	3.66	4,240.11
	Difference	*11.30*	*23.17*	*9.94*	*2.49*	*0.11*	*6.78*	*2.26*	*2,618.21*
9	Proposed – Comparison Portion for Alternative 9A	7.80	15.99	6.86	1.72	0.08	4.68	1.56	1,807.26
	Alternative 9A	7.70	15.79	6.78	1.69	0.08	4.62	1.54	1,784.09
	Difference	*-0.10*	*-0.21*	*-0.09*	*-0.02*	*0.00*	*-0.06*	*-0.02*	*-23.17*
	Proposed – Comparison Portion for Alternative 9B	49.10	100.66	43.21	10.80	0.49	29.46	9.82	11,376.47
	Alternative 9B	53.20	109.06	46.82	11.70	0.53	31.92	10.64	12,326.44
	Difference	*4.10*	*8.41*	*3.61*	*0.90*	*0.04*	*2.46*	*0.82*	*949.97*
	Proposed – Comparison Portion for Alternative 9C	14.40	29.52	12.67	3.17	0.14	8.64	2.88	3,336.48
	Alternative 9C	14.40	29.52	12.67	3.17	0.14	8.64	2.88	3,336.48
	Difference	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*

Table 3.20-13. Alternative Route Emissions (tons) (continued)

Segment	Route Designation	Miles	NO_x	CO	VOC	SO_x	PM_{10}	$PM_{2.5}$	CO_2
9 (cont.)	Proposed – Comparison Portion for Alts. 9D,F,G,H	57.20	117.26	50.34	12.58	0.57	34.32	11.44	13,253.24
	Alternative 9D	60.10	123.21	52.89	13.22	0.60	36.06	12.02	13,925.17
	Difference	*2.90*	*5.95*	*2.55*	*0.64*	*0.03*	*1.74*	*0.58*	*671.93*
	Proposed – Comparison Portion for Alts. 9D,F,G,H	57.20	117.26	50.34	12.58	0.57	34.32	11.44	13,253.24
	Alternative 9F	63.30	129.77	55.70	13.93	0.63	37.98	12.66	14,666.61
	Difference	*6.10*	*12.51*	*5.37*	*1.34*	*0.06*	*3.66*	*1.22*	*1,413.37*
	Proposed – Comparison Portion for Alts. 9D,F,G,H	57.20	117.26	50.34	12.58	0.57	34.32	11.44	13,253.24
	Alternative 9G	57.80	118.49	50.86	12.72	0.58	34.68	11.56	13,392.26
	Difference	*0.60*	*1.23*	*0.53*	*0.13*	*0.01*	*0.36*	*0.12*	*139.02*
	Proposed – Comparison Portion for Alts.9D,F,G,H	57.20	117.26	50.34	12.58	0.57	34.32	11.44	13,253.24
	Alternative 9H	61.00	125.05	53.68	13.42	0.61	36.60	12.20	14,133.70
	Difference	*3.80*	*7.79*	*3.34*	*0.84*	*0.04*	*2.28*	*0.76*	*880.46*
	Proposed – Comparison Portion for Alt. 9E (revised)	61.40	125.87	54.03	13.51	0.61	36.84	12.28	14,226.38
	Alternative 9E (revised) (part of the BLM Preferred Route)	70.60	144.73	62.13	15.53	0.71	42.36	14.12	16,358.02
	Difference	*9.20*	*18.86*	*8.10*	*2.02*	*0.09*	*5.52*	*1.84*	*2,131.64*

NO_x – nitrogen oxides
CO – carbon monoxide
CO_2 – carbon dioxide
VOC – volatile organic compounds
SO_x – sulfur oxides
$PM_{2.5}$ – particulate matter with a diameter of less than 2.5 microns
PM_{10} – particulate matter with a diameter of less than 10 microns

3.20.2.4 Preferred/Proposed and Alternative Route Conclusions

Construction emissions are not anticipated to be significant in terms of ambient impacts to receptors (including sensitive receptors) along the various Route Alternatives due to the following:

- Implementation of the EPMs as listed in Section 3.20.2.2;
- Compliance with the Wyoming and Idaho fugitive dust rules per Table 3.20-2;
- Compliance with the construction EPMs per Appendix B;
- Short-term nature of the emissions at any single point along the construction corridor; and
- Overall remote locations of the corridor route and substation sites, i.e., the distances from these areas to population centers, either urban or rural.

Construction emissions data presented herein are estimated to reflect the anticipated worst-case emissions taking into account the action construction schedules.

3.20.3 Conclusions

The following conclusions are derived from the analysis presented herein and the support data presented in the Air Quality Technical Report (in the Administrative Record):

- At the present time, there is no known phase or activity proposed to be conducted during the Project that is not consistent with current air quality plans in Idaho or Wyoming.
- Neither the construction nor operations phase of the proposed Project is expected to: 1) exceed state or federal general conformity thresholds; 2) cause any adverse impacts to air quality related values; 3) cause any adverse impact to air quality-related values in a federal Class I area or state wilderness area since emissions impacts will be primarily confined to within 1,000 feet of the centerline of the Proposed Route corridor and no Class I areas were noted within this distance; or 4) exceed the PSD emissions thresholds of 250 tons per year of any attainment pollutant.
- Neither the construction nor operations phase of the proposed Project is expected to: 1) contribute to any new violation of any state or federal ambient air quality standard in the Project area, 2) interfere with the maintenance or attainment of any state or federal ambient air quality standard in the Project area, 3) increase the frequency or severity of any existing violations of any state or federal ambient air quality standard in the Project area, or 4) delay the timely attainment of any standard, interim emission reduction, or other air quality milestone promulgated by the USEPA or state air quality agency.
- Considering the Proposed Route location, and the fact that the impacts from construction and/or operations would occur overwhelmingly within the right-of-way corridor, no sensitive receptor impacts are expected. (No sensitive receptors as

defined in Section 3.20.1.2 were identified within 1,000 feet of the route corridor centerline.)

- Construction GHG emissions are expected to be both temporary and insignificant when compared to the preliminary statewide GHG inventories. Operations GHG emissions would be *de minimus* and insignificant.