Appendix F.  Standard Language
This project has elements that will cause a depletion to the South Platte River basin. To address the effects this depletion will have on federally listed species downstream that depend on the river for their survival, CDOT, as a state agency, is participating in the South Platte Water Related Activities Program (SPWRAP). CDOT is cooperating with the Federal Highway Administration (FHWA), which provides a federal nexus for the project. In response to the need for formal consultation for the water used from the South Platte basin, FHWA has prepared a Programmatic Biological Assessment (PBA) dated February 22, 2012 that estimates total water usage until 2019. The PBA has since been extended through 2032 and addresses the following species: Least Tern (interior population) (*Sternula antillarum*), pallid sturgeon (*Scaphirhynchus albus*), Piping Plover (*Charadrius melodus*), western prairie fringed orchid (*Platanthera praeclara*), and the Whooping Crane (*Grus americana*). On April 4, 2012, the U.S. Department of Interior Fish and Wildlife Service (USFWS) signed a Biological Opinion that concurs with this approach and requires a yearly reporting of water usage. The extension, which has the same reporting requirements, was signed by the USFWS on March 29, 2019. The water used for this project will be reported to the USFWS at the year’s end after the completion of the project as per the aforementioned consultation. Effects to species not addressed in the PBA or affected by causes other than water depletions to the South Platte will be analyzed separately.

**GLOBAL CLIMATE CHANGE CUMULATIVE EFFECTS STANDARD LANGUAGE**

*The following information shall be copied into all air quality technical reports written for EAs and EISs.*

**Greenhouse Gases**

Human activity is changing the earth’s climate by causing the buildup of heat-trapping greenhouse gas (GHG) emissions through the burning of fossil fuels and other human activities. Carbon dioxide (CO$_2$) is the largest component of human-produced emissions; other prominent emissions include methane (CH$_4$), nitrous oxide (N$_2$O), and hydrofluorocarbons. These emissions are different from criteria air pollutants since their effects in the atmosphere are global rather than local and also since they remain in the atmosphere for decades to centuries, depending on the species.

GHG emissions have accumulated rapidly as the world has industrialized, with concentration of atmospheric CO$_2$ increasing from roughly 300 parts per million (ppm) in 1900 to over 400 ppm today. Over this timeframe, global average temperatures have increased by roughly 1.5 degrees Fahrenheit (1 degree Celsius), and the most rapid increases have occurred over the past 50 years. Scientists have warned that significant and potentially dangerous shifts in climate and weather are possible without substantial reductions in GHG emissions. They have commonly cited 2 degrees Celsius (1 degree Celsius beyond warming that has already occurred) as the total amount of warming the earth can tolerate without serious and potentially irreversible climate effects. For warming to be limited to this level, atmospheric concentrations of CO$_2$ would need to stabilize at a maximum of 450 ppm, requiring annual global emissions to be reduced 40 to 70 percent below 2010 levels by 2050 (IPCC, 2014).
State and national governments in many developed countries have set GHG emissions reduction targets of 80 percent below current levels by 2050, recognizing that post-industrial economies are primarily responsible for GHGs already in the atmosphere. As part of a 2014 bilateral agreement with China, the United States pledged to reduce GHG emissions 26 to 28 percent below 2005 levels by 2025; this emissions reduction pathway is intended to support economy-wide reductions of 80 percent or more by 2050 (The White House, 2014).

GHG emissions from vehicles using roads are a function of distance traveled (expressed as VMT), vehicle speed, and road grade. A major factor in mitigating increases in VMT is EPA’s GHG emissions standards, implemented in concert with national fuel economy standards. The U.S. Energy Information Administration projects that vehicle energy efficiency (and thus, GHG emissions) on a per-mile basis will improve by 28 percent between 2012 and 2040 (EIA, 2016). This improvement in vehicle emissions rates is more than sufficient to offset the increase in VMT.

Construction and subsequent maintenance of the selected project alternative would generate GHG emissions. Preparing the roadway corridor (for example, by earth-moving activities) would involve a considerable amount of energy consumption and resulting GHG emissions; manufacturing of the materials used in construction and fuel used by construction equipment would also contribute GHG emissions. Typically, construction emissions associated with a new road account for about 5 percent of the total 20-year lifetime emissions from the road, although this can vary widely with the extent of construction activity and the number of vehicles that use the road.

The addition of new road-miles to the roadway network in the project study area would also increase the energy and GHG emissions associated with maintaining those new road-miles in the future. The increase in maintenance needs as a result of adding new roadway infrastructure would be partially offset by the reduced need for maintenance on existing routes (because of lower total traffic and truck volumes on those routes).

References


In addition, the following information shall be copied into all air quality technical reports written for EISs, with the highlighted text modified for the project.

EPA’s MOVES2014b model can be used to estimate vehicle exhaust emissions of CO$_2$ and other GHGs. CO$_2$ is frequently used as an indicator of overall transportation GHG emissions because the quantity of these emissions is much larger than that of all other transportation GHGs combined and because CO$_2$ accounts for 90 to 95 percent of the overall climate impact from transportation sources. For informational purposes, the MOVES2014b model was run to estimate GHG emissions in the project study area with the No Action Alternative and Alternatives A1 and B1. Input parameters for the model were the same as those used for other MOVES2014b analyses. Table X shows the GHG emissions associated with the [name of project] project.
Table X  Emissions of Greenhouse Gases with Alternatives A1 and B1 in the [name of the project] Study Area in 2040

<table>
<thead>
<tr>
<th>Greenhouse Gas</th>
<th>2019 Existing Conditions Emissions (tpy)</th>
<th>2040 No Action Alternative Emissions (tpy)</th>
<th>Emissions (tpy) and Percent Change from No Action Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methane (CH₄)</td>
<td>10.208</td>
<td>7.528</td>
<td>Alternative A1: 7.645 (+1.55%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Alternative B1: 7.684 (+2.07%)</td>
</tr>
<tr>
<td>Nitrous oxide (N₂O)</td>
<td>2.461</td>
<td>2.154</td>
<td>Alternative A1: 2.144 (-0.46%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Alternative B1: 2.150 (-0.19%)</td>
</tr>
<tr>
<td>Atmospheric CO₂</td>
<td>519,121</td>
<td>489,027</td>
<td>Alternative A1: 498,140 (+1.86%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Alternative B1: 500,884 (+2.42%)</td>
</tr>
<tr>
<td>Total</td>
<td>519,134</td>
<td>489,037</td>
<td>Alternative A1: 498,150 (+1.86%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Alternative B1: 500,894 (+2.42%)</td>
</tr>
</tbody>
</table>

As shown in Table X, GHG emissions would decrease in 2040 due to improvements in vehicle emission rates, even with increased VMT in 2040. There are minor increases in the modeled GHG emissions for the [name of project] action alternatives compared to the No Action Alternative. When comparing the 2040 No Action and action alternatives, the GHG emissions would increase by about 1.5 to 2.5 percent, depending on the GHG.

To help address the global issue of climate change, the U.S. Department of Transportation (USDOT) is committed to reducing GHG emissions from vehicles traveling on highways. USDOT and EPA are working together to reduce these emissions by substantially improving vehicle efficiency standards and moving toward less-carbon-intensive fuels. The agencies have jointly established new, more-stringent fuel economy standards and the first-ever GHG emissions standards for cars and light trucks in model years 2012 to 2025, with an ultimate real-world fuel economy goal of 36 miles per gallon for cars and light trucks by model year 2025. In addition, on September 15, 2011, the agencies jointly published the first-ever fuel economy and GHG emissions standards for heavy-duty trucks and buses. Also, increasing use of technological innovations that can improve fuel economy, such as gasoline- and diesel-electric hybrid vehicles, will improve air quality and reduce CO₂ emissions in future years.

Finally, the construction best practices described in Section XX are practicable project-level measures that could help reduce GHG emissions incrementally and could contribute in the long term to meaningful cumulative reduction when considered across the federal-aid highway program.

Standard language may be needed for Mobile Source Air Toxics (MSATs) if an analysis is included in a NEPA Document. This language is discussed in CDOT’s Air Quality Project-Level Analysis Guidance and in FHWA’s Interim Guidance on MSATs.
RIGHT-OF-WAY AND RELOCATION STANDARD LANGUAGE

Relocation Statement

In certain situations, it may also be necessary to acquire improvements that are located within a proposed acquisition parcel. In those instances where the improvements are occupied, it becomes necessary to “relocate” those individuals from the subject property (residential or business) to a replacement site. The Uniform Act provides for numerous benefits to these individuals to assist them both financially and with advisory services related to relocating their residence or business operation. Although the benefits available under the [Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, (Uniform Act)] are far too numerous and complex to discuss in detail in this document, they are available to both owner occupants and tenants of either residential or business properties. In some situations, only personal property must be moved from the real property and this is also covered under the relocation program. As soon as feasible, any person scheduled to be displaced shall be furnished with a general written description of the displacing agency’s relocation program that provides, at a minimum, detailed information related to eligibility requirements, advisory services and assistance, payments, and the appeal process. It shall also provide notification that the displace person(s) will not be required to move without at least 90 days advance written notice. For residential relocatees, this notice cannot be provided until a written offer to acquire the subject property has been presented, and at least one comparable replacement dwelling has been made available. Relocation benefits will be provided to all eligible persons regardless of race, color, religion, sex, or national origin. Benefits under the [Uniform] Act, to which each eligible owner or tenant may be entitled, will be determined on an individual basis and explained to them in detail by an assigned right-of-way Specialist.

Acquisition Statement

For any person(s) whose real property interests may be impacted by this project, the acquisition of those property interests will comply fully with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act). The Uniform Act is a federally mandated program that applies to all acquisitions of real property or displacements of persons resulting from federal or federally assisted programs or projects. It was created to provide for and ensure the fair and equitable treatment of all such persons. To further ensure that the provisions contained within this act are applied “uniformly,” CDOT requires Uniform Act compliance on any project for which it has oversight responsibility regardless of the funding source. Additionally, the Fifth Amendment of the U.S. Constitution provides that private property may not be taken for a public use without payment of “just compensation.” All impacted owners will be provided notification of the acquiring agency’s intent to acquire an interest in their property including a written offer letter of just compensation specifically describing those property interests. A right-of-way specialist will be assigned to each property owner to assist them with this process.
STATUTE OF LIMITATIONS STANDARD LANGUAGE

The Federal Highway Administration may publish a notice in the Federal Register, pursuant to 23 United States Code (USC) § 139(I), indicating that one or more Federal agencies have taken final action on permits, licenses, and approvals for a transportation project. If such notice is published, claims seeking judicial review of those Federal agency actions will be barred unless such claims are filed within 150 days after the date of publication of the notice, or within such shorter time period as is specified in the Federal laws pursuant to which judicial review of the Federal agency action is allowed. If no notice is published, then the periods of time that otherwise are provided by the Federal laws governing such claims will apply.