

U.S. DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION
FINAL ENVIRONMENTAL ASSESSMENT
and
FINDING OF NO SIGNIFICANT IMPACT

Special Permit Information:

Docket Number:	PHMSA-2020-0005
Requested By:	Colorado Interstate Gas Company, LLC
Operator ID#:	2564
Original Date Requested:	December 23, 2019
Issuance Date:	August 4, 2022
Code Section(s):	49 CFR 192.611(a) and (d) and 192.619(a)

I. Background

The National Environmental Policy Act (NEPA), 42 United States Code (U.S.C.) 4321 – 4375 et seq., Council on Environmental Quality Regulations, 40 Code of Federal Regulations (CFR) 1500-1508, and U.S. Department of Transportation (DOT) Order No. 5610.1C, requires the Pipeline and Hazardous Materials Safety Administration (PHMSA) Office of Pipeline Safety (OPS)¹ to analyze a proposed action to determine whether the action will have a significant impact on the human environment. PHMSA analyzes special permit requests for potential risks to public safety and the environment that could result from our decision to grant, grant with additional conditions, or deny the request. As part of this analysis, PHMSA evaluates whether a special permit would impact the likelihood or consequence of a pipeline failure as compared to the operation of the pipeline in full compliance with the Federal pipeline safety regulations. PHMSA’s environmental review associated with the special permit application is limited to

¹ Throughout this special permit the usage of “PHMSA” or “PHMSA OPS” means the U.S. Department of Transportation’s Pipeline and Hazardous Materials Safety Administration Office of Pipeline Safety.

impacts that will result from granting or denying the special permit. PHMSA developed this assessment to determine what effects, if any, our decision would have on the environment.

Pursuant to 49 U.S.C. 60118(c) and 49 CFR 190.341, PHMSA may only grant special permit requests that are not inconsistent with pipeline safety. PHMSA will impose conditions in the special permit if we conclude they are necessary for safety, environmental protection, or are otherwise in the public interest. If PHMSA determines that a special permit will be inconsistent with pipeline safety or is not justified, the application will be denied.

The purpose of this final environmental assessment (FEA) is to comply with National Environmental Policy Act (NEPA) for the Colorado Interstate Gas Company, LLC (CIG)² special permit to waive compliance from 49 CFR 192.611(a) and (d) and 192.619(a) for two (2) *special permit segments* and two (2) *special permit inspection areas* along 260.05 feet (approximately 0.049 miles) of the natural gas transmission pipeline systems in Wyoming. This FEA and finding of no significant impact (FONSI) is prepared by PHMSA to assess the pipeline special permit request, in accordance with 49 CFR 190.341, and is intended to specifically analyze any environmental impact associated with the waiver of 49 CFR 192.611(a) and (d) and 192.619(a). This FEA assesses the pipeline special permit request, in accordance with 49 CFR 190.341, and is intended to specifically analyze any environmental impact associated with the waiver of certain Federal pipeline safety regulations found in 49 CFR 192.611(a) and (d) and 192.619(a).

II. Introduction

Pursuant to 49 U.S.C. 60118(b) and 49 CFR 190.341, CIG submitted a special permit application to PHMSA on December 23, 2019, requesting that PHMSA waive the requirements of 49 CFR 192.611(a) and (d) and 192.619(a) to permit CIG to maintain the maximum allowable operating pressure (MAOP) to the pipeline segments where the class location has changed from Class 1 to Class 3 located in Sweetwater County, Wyoming.

PHMSA is granting a special permit to waive certain regulatory requirements where it is not inconsistent with pipeline safety. A special permit is typically conditioned on the performance

² Colorado Interstate Gas Company, LLC is owned by Kinder Morgan, Inc.

of additional measures beyond minimum Federal pipeline safety regulations, in accordance with 49 CFR 190.341.

III. Regulatory Background

PHMSA regulations at 49 CFR 192.611(a) require that an operator confirm or revise the MAOP of a pipe segment that is in satisfactory condition when the hoop stress of the segment is no longer commensurate with class location. Under 49 CFR 192.611(a), an operator may be required to reduce the operating pressure of a pipe segment, or alternatively, may have to replace the pipe in order to maintain the MAOP. Below is the relevant text of 49 CFR 192.611(a):

49 CFR 192.611 Change in class location: Confirmation or revision of maximum allowable operating pressure.

(a) If the hoop stress corresponding to the established maximum allowable operating pressure of a segment of pipeline is not commensurate with the present class location, and the segment is in satisfactory physical condition, the maximum allowable operating pressure of that segment of pipeline must be confirmed or revised according to one of the following requirements:

(1) If the segment involved has been previously tested in place for a period of not less than 8 hours:

(i) The maximum allowable operating pressure is 0.8 times the test pressure in Class 2 locations, 0.667 times the test pressure in Class 3 locations, or 0.555 times the test pressure in Class 4 locations. The corresponding hoop stress may not exceed 72 percent of the [specified minimum yield strength] SMYS of the pipe in Class 2 locations, 60 percent of SMYS in Class 3 locations, or 50 percent of SMYS in Class 4 locations.

(ii) The alternative maximum allowable operating pressure is 0.8 times the test pressure in Class 2 locations and 0.667 times the test pressure in Class 3 locations. For pipelines operating at alternative maximum allowable pressure per §192.620, the corresponding hoop stress may not exceed 80 percent of the SMYS of the pipe in Class 2 locations and 67 percent of SMYS in Class 3 locations.

(2) *The maximum allowable operating pressure of the segment involved must be reduced so that the corresponding hoop stress is not more than that allowed by this part for new segments of pipelines in the existing class location.*

3) *The segment involved must be tested in accordance with the applicable requirements of subpart J of this part, and its maximum allowable operating pressure must then be established according to the following criteria:*

(i) *The maximum allowable operating pressure after the requalification test is 0.8 times the test pressure for Class 2 locations, 0.667 times the test pressure for Class 3 locations, and 0.555 times the test pressure for Class 4 locations.*

(ii) *The corresponding hoop stress may not exceed 72 percent of the SMYS of the pipe in Class 2 locations, 60 percent of SMYS in Class 3 locations, or 50 percent of SMYS in Class 4 locations.*

(iii) *For pipeline operating at an alternative maximum allowable operating pressure per §192.620, the alternative maximum allowable operating pressure after the requalification test is 0.8 times the test pressure for Class 2 locations and 0.667 times the test pressure for Class 3 locations. The corresponding hoop stress may not exceed 80 percent of the SMYS of the pipe in Class 2 locations and 67 percent of SMYS in Class 3 locations.*

(d) *Confirmation or revision of the maximum allowable operating pressure that is required as a result of a study under §192.609 must be completed within 24 months of the change in class location. Pressure reduction under paragraph (a) (1) or (2) of this section within the 24-month period does not preclude establishing a maximum allowable operating pressure under paragraph (a)(3) of this section at a later date.*

49 CFR 192.619 What is the maximum allowable operating pressure for steel or plastic pipelines?

(a)(2)(ii) For steel pipe operated at 100 p.s.i. (689 kPa) gage or more, the test pressure is divided by a factor determined in accordance with **Table 1 – Maximum Allowable Operating Pressure for Steel or Plastic Pipelines.**

Table 1 - Maximum Allowable Operating Pressure for Steel or Plastic Pipelines

Table 1 to Paragraph (a)(2)(ii)				
Class location	Installed before (Nov. 12, 1970)	Factors, ¹ segment -		
		Installed after (Nov. 11, 1970) and before July 1, 2020	Installed on or after July 1, 2020	Converted under § 192.14
1		1.1	1.1	1.25
2		1.25	1.25	1.25
3		1.4	1.5	1.5
4		1.4	1.5	1.5

¹ For offshore pipeline segments installed, uprated or converted after July 31, 1977, that are not located on an offshore platform, the factor is 1.25. For pipeline segments installed, uprated or converted after July 31, 1977, that are located on an offshore platform or on a platform in inland navigable waters, including a pipe riser, the factor is 1.5.

(3) The highest actual operating pressure to which the segment was subjected during the 5 years preceding the applicable date in the second column. This pressure restriction applies unless the segment was tested according to the requirements in paragraph (a)(2) of this section after the applicable date in the third column or the segment was uprated according to the requirements in subpart K of this part.

- 49 CFR 192.619(a) requires Class 3 location pipe to be pressure tested to 1.5 times MAOP.

IV. Purpose and Need

CIG requested a waiver from the requirements of 49 CFR 192.611(a) and (d) and 192.619(a) for the *special permit segments* consisting of approximately 0.049 miles of natural gas transmission pipelines listed below in **Table 2 – Special Permit Segments**. Without a special permit, the cited regulations require that CIG complete pipe replacement, hydrotest, and pressure reduction, based on population changes in the vicinity of the segments. CIG must apply the special permit conditions to two (2) *special permit segments* to provide an equivalent margin of safety and environmental protection to meet the requirements of 49 CFR 192.611, as outlined in the special permit conditions.

The special permit establishes conditions to maintain pipe integrity and protect both the public and the environment for the class location units in which the *special permit segments* are located for the length of pipeline covered by the special permit. In addition, CIG must comply with conditions as provided in the terms of the special permit for all the impacted *special permit segments* and the *special permit inspection areas* in the special permit.

The special permit will also include future class changes within the *special permit inspection areas (special permit segment extensions)* under the special permit, providing the *special permit segment extensions* meet the special permit conditions applicable to *special permit segments*. In that case, CIG must also notify PHMSA and update this FEA/FONSI.

V. Site Description

The *special permit segments* consist of 260.05 feet (approximately 0.049 miles) of the 20-inch diameter 0155-A and 24-inch diameter line 0233-A Pipelines located in Sweetwater County, Wyoming. The extent of the *special permit segments* is provided in **Table 2 - Special Permit Segments**. The *special permit inspection areas* extend across approximately 192.53 miles of the pipeline. In each location, the class location has changed from Class 1 to Class 3 location in Sweetwater County, Wyoming.

VI. Special Permit Segments and Special Permit Inspection Areas

Special Permit Segments:

This special permit applies to the *special permit segments* identified in **Table 2 – Special Permit Segments** and are identified using the CIG survey station (SS) references.

Table 2 – Special Permit Segments

Special Permit Segment Number	Outside Diameter (inches)	Line Name	Length (feet)	Start Survey Station (MP - SS)	End Survey Station (MP - SS)	County, State	No. Dwellings	Year Installed	Seam Type	MAOP (psig)
1 (KM 551)	20	0155-A	112.81	00 – 443	00 – 556	Sweetwater, WY	2	1992	HF – ERW	1,100
2 (KM 552)	24	0233-A	147.24	00 – 195	00 – 343	Sweetwater, WY	2	2006	HF - ERW	1,480

Notes: HF-ERW is High Frequency Electric Resistance Welded-.

Special Permit Inspection Areas:

The *special permit inspection areas* are defined as the areas that extends 220 yards on each side of the centerline as listed in **Table 3 – Special Permit Inspection Areas**.

Table 3 – Special Permit Inspection Areas

Special Permit Inspection Area Number	Special Permit Segment(s) Included	Outside Diameter (inches)	Line Name	Master Segment Name	Start Survey Station (MP - SS)	End Survey Station (MP - SS)	Length ³ (miles)
1	1 (KM 551)	20	0155-A	Wamsutter to Greasewood	00 – 222	138 – 2131	138.40
2	2 (KM 552)	24	0233-A	Wamsutter to Snake River C/S	00 - 0	54 – 1432	54.13

³ If the *special permit inspection area* footage does not extent from launcher to receiver then the *special permit inspection area* would need to be extended.

Attachments B-1 through B-2 are general maps that include the pipeline route map showing the *special permit segments* and *special permit inspection areas*. **Attachments C-1 through C-2** consist of more detailed maps showing the area near the *special permit segments*.

PHMSA grants this special permit request based on this document and the "Special Permit Analysis and Findings" document, which is incorporated by reference into this document and can be read in its entirety in Docket No. PHMSA-2020-0005 in the Federal Docket Management System (FDMS) located on the internet at www.regulations.gov.

VII. Alternatives

Alternative 1: “No Action” Alternative

If PHMSA were to select the “No Action” Alternative, PHMSA would deny CIG’s special permit request and CIG would be required to fully comply with 49 CFR 192.611(a) and (d) and 192.619(a). In order to maintain the existing MAOP, CIG would be required to replace the approximately 0.049 miles (260.05 feet) of pipe in the *special permit segments* or CIG would be required to reduce pressure on the segments.⁴ CIG stated that it would choose to replace the *special permit segments* to maintain the MAOP because a pressure reduction would prevent it from meeting its contractual obligations to deliver natural gas to its customers. Nonetheless, CIG maintains that replacing the pipe would cause interruptions in customers’ services and cause construction-related environmental disruption, including the release of methane, a known greenhouse gas (GHG).

Alternative 2: “Selected” Alternative – Issuance of the Special Permit

PHMSA is granting the special permit with the below conditions, and CIG is allowed to continue to operate at the current MAOP as detailed in **Table 2 – Special Permit Segments**, in the Class 3 location without replacing pipe while complying with the special permit conditions, as described below.

⁴ These regulatory options are specified in 49 CFR 192.611 Change in class location: Confirmation or revision of maximum allowable operating pressure.

Overview of Special Permit Conditions

The special permit conditions are designed to prevent leaks and ruptures such that the special permit is not inconsistent with pipeline safety. This section provides an overview of the special permit conditions. For CIG specific technical requirements and the special permit conditions can be read in its entirety in Docket No. PHMSA-2020-0005 in the Federal Docket Management System located on the internet at www.regulations.gov or on the PHMSA website for special permits issued at <https://www.phmsa.dot.gov/pipeline/special-permits-state-waivers/special-permits-issued>.

1) Current Status of Pipe in the Ground

To ensure that key characteristics of the pipe currently installed in each *special permit segment* are known, records that confirm pipe specifications, successful pressure tests, and girth weld non-destructive tests are required. Should records be unavailable or unacceptable, additional activities as detailed in the special permit must be completed. If these additional activities are not completed or should pipe be discovered that does not meet specific requirements of eligibility, the *special permit segment* must be replaced.

2) Operating Conditions

The *special permit inspection area* must continue to be operated at or below the existing MAOP until a restoration or uprating plan has been approved, if allowed by the special permit. To ensure compliance with special permit conditions, CIG's Operations and Maintenance Manual (O&M), integrity management (IM) procedures, and Damage Prevention (DP) program must be modified to implement the special permit conditions. In addition, PHMSA must approve any long-term flow reversals that will impact each *special permit segment*.

3) Threat Management

Threats are factors that can lead to the failure of a pipeline. Activities are required to identify, assess, remediate, and monitor threats to the pipeline.

- a) **General activities.** CIG must perform annual data integration and identification of threats to which the *special permit inspection area* is susceptible. These activities must include integrity assessments with specific inline inspection tools, strict anomaly repair criteria, and appropriate environmental assessment and permitting. Additional integrity

assessment methodologies may be used if allowed by the special permit. Integrity assessments must then be conducted periodically at an interval determined in the special permit for each threat identified.

- b) **External corrosion control requirements.** The special permit requires additional activities to monitor and mitigate external corrosion. These activities include installation and annual monitoring of cathodic protection (CP) test stations, periodic close interval surveys (CIS), and clearing or remediating shorted casings that may impede CP effectiveness. These activities ensure the appropriate level of CP is reaching the pipeline in areas where coating loss or damage has occurred in order to prevent or mitigate external corrosion. In addition, the permittee will be required to develop and implement a plan that identifies and remediates interference from alternating or direct current (AC/DC) sources (such as high-voltage powerlines) that could adversely impact the effectiveness of CP.
- c) **Internal corrosion control requirements.** The special permit includes gas quality specifications to mitigate internal corrosion because internal corrosion is highly dependent on the quality of the gas transported within the pipeline.
- d) **Stress corrosion cracking requirements.** To ensure that stress corrosion cracking (SCC) is discovered and remediated, any time a pipe segment is exposed during an excavation the CIG must examine coating to determine type and condition. If the coating is in poor condition, CIG must conduct additional SCC analysis. If SCC is confirmed, CIG must implement additional special permit defined remediation and mitigation.
- e) **Pipe seam requirements.** CIG must perform an engineering integrity analysis to determine susceptibility to seam threats. CIG must re-pressure test any *special permit segment* with an identified seam to ensure the issue is not systemic in nature.
- f) **External pipe stress requirements.** Upon identification of any source of external stress on the pipeline (such as soil movement), CIG must develop procedures to evaluate and periodically monitor these stresses.
- g) **Third-party specific requirements.** To assist in identifying the pipeline location and minimizing the chance of accidental pipeline strikes, CIG must install and maintain line-

of-site markers for the pipeline. CIG must perform mitigation activities for any location where a depth-of-cover survey shows insufficient soil cover.

4) **Consequence Mitigation**

To ensure quick response and decreased adverse outcome in the event of a failure, each side (upstream and downstream) of a *special permit segment* must have and maintain operable automatic shutoff valves (ASV) or remote-controlled valves (RCV). CIG must monitor valves through a control room with a supervisory control and data acquisition (SCADA) system. In addition to the mainline valves, should a crossover or lateral connect between the valve locations, additional isolation valves may be required.

5) **Post Leak or Failure**

If a *special permit inspection area* experiences an in-service or pressure test leak/failure, CIG must conduct a root cause analysis to determine the cause. If the cause is determined to be systemic in nature, CIG must implement a remediation plan or the *special permit segment* must be replaced, as determined by the special permit specific conditions.

6) **Class Location Study and Potential Extension of Special permit segment**

CIG must conduct a class location study at an interval specified in the special permit. This allows CIG to quickly identify extended locations that must comply with the *special permit segment* requirements. CIG may extend a *special permit segment* with proper notification, update of the Final Environmental Assessment, and implementation of all requirements in the special permit.

7) **PHMSA Oversight and Management**

PHMSA maintains oversight and management of each special permit. This includes annual meetings with executive level officers on special permit implementation status, written certification of the special permit, special permit required notification of planned activities, notification of root cause analysis results, and notification prior to certain excavation activities so that PHMSA may observe.

8) **Gas Leakage Surveys and Remediation**

Each *special permit segment* and *special permit inspection area* has requirements in the special permit to conduct leakage surveys more frequently than is presently required in 49 CFR 192.706. Gas leakage surveys using instrumented gas leakage detection equipment

must be conducted along each *special permit segment* and at all valves, flanges, pipeline tie-ins with valves and flanges, inline inspection tool (ILI) launcher, and ILI receiver facilities in each *special permit inspection area* at least twice each calendar year, not to exceed 7½ months. The type of leak detection equipment used, survey findings, and remediation of all instrumented gas leakage surveys must be documented by operator. The special permit will require a three-step grading process with a time interval for remediation based upon the type of leak.

9) **Documentation**

CIG must maintain documentation that supports compliance with special permit conditions for the life of the pipeline.

VIII. Affected Resources and Environmental Consequences

A. Affected Resources and Environmental Consequences of the “Selected” Alternative and the “No Action” Alternative

CIG is granted a special permit that waives compliance with 49 CFR 192.611(a) and (d) and 192.619(a) for two (2) *special permit segments* totaling 260.05 feet (approximately 0.049 miles) located within two (2) *special permit inspection areas* totaling approximately 192.53 miles. CIG must comply with the special permit conditions within the *special permit segments*.

Implementation of the special permit conditions, provides an additional level of safety without the impacts of excavation to remove existing pipe, install the replacement pipe, and conduct pressure testing of the existing pipe. Thus, CIG will avoid disturbing approximately 0.049 miles of the pipeline right of way (ROW), with the exception of additional inspections that may be required to satisfy the conditions of the special permit such as those related to the IM protocols that may require verification digs and potential anomaly evaluations or repairs.

Implementing additional preventative and mitigative measures enables a pipeline to improve its knowledge and understanding of the pipeline’s integrity, accelerate the identification and repair of actionable anomalies, and better manage and mitigate threats to the public and environment. Therefore, implementing enhanced inspection and assessment practices within the *special permit inspection areas*, in lieu of replacing and pressure testing the small sections of pipe

experiencing the class location changes, extends pipeline safety benefits to a much greater area, and avoids environmental disturbances.

An analysis of environmental resources and potential environmental consequences in the vicinity of the *special permit segments* are provided in the following sections. This FEA incorporates the special permit analysis and findings (SPAF), which is available under this docket on www.regulations.gov. The SPAF does not describe any integrity issue that would affect the approval of the special permit or the development of the special permit conditions.

Aesthetics: The visual character of the *special permit segments* and the *special permit inspection areas* will not be changed by the approval of this special permit request. The objective of the special permit is to avoid construction or ground disturbances in the pipeline ROW that would be necessitated if the special permit was not granted. Therefore, the issuance of the requested special permit will result in sporadic and temporary aesthetic impacts due to increased monitoring, maintenance, and repair activities along the affected *special permit segments* or *special permit inspection areas*.

Denial of the special permit request would require the replacement or pressure testing of all the pipeline segments associated with this special permit request. Pipe replacement would require removal of the existing pipe and installation of a new pipe. This would result in the use of heavy equipment and ground disturbance. Furthermore, pressure testing would also require disturbances along the pipeline ROW.

Agricultural Resources: The area surrounding the *special permit segments* contain cultivated crops. The issuance of the special permit will reduce impact to agricultural resources in the *special permit segments*. Increased monitoring and maintenance requirements imposed by the special permit conditions could increase these activities causing temporary and isolated impacts to the *special permit inspection areas*. The aim of the special permit is to avoid the higher impact construction activities associated with pipeline replacement in the ROW along the *special permit segments*.

Air Quality: CIG will avoid replacement of two (2) *special permit segments* totaling 0.049 miles of 20-inch diameter 0155-A and 24-inch diameter 0233-A Pipelines. Replacement of these pipeline segments would require blowdown of 20 miles for each of the Pipelines. Pipeline

removal and replacement would also result in emissions associated with the manufacture of new pipeline, transportation of the pipeline, removal of the existing pipeline, and installation of the new segment. These activities would be required for compliance with 49 CFR Part 192 if the special permit is not granted. However, granting the permit will also increase the monitoring and maintenance requirements, which could increase the frequency of use of equipment, including heavy machinery for conducting excavations and repairs, which result in the emission of oxides of nitrogen (NO_x), carbon monoxide (CO), volatile organic compounds (VOC), sulfur dioxide (SO₂), particulate matter (PM), and Hazardous Air Pollutants (HAPs), as well as carbon dioxide (CO₂) from fuel combustion. The “No Action” Alternative would have a more substantial, though still minimal effects on air quality, with additional emissions that are temporary caused by equipment use during excavation, pipe removal, pipe replacement, and pipe installation.

Biological Resources: The *special permit segments* are dominated by grasslands land cover. There are no federally listed species or critical habitat that may occur within the project vicinity.

Any potential impacts to wildlife will be temporary in nature and may include disturbance from increased human presence, vehicle access, vegetation clearing, and use of mechanized equipment within the project area. Some avian species may occasionally fly over or forage within the project location or stop over during migration.

Table 4. Federally and State Listed Threatened and Endangered Species with the Potential to Occur along the Special Permit Segments and Preliminary Effect Determination for the “Selected” Alternative, Sweetwater County, Wyoming						
Common Name	Scientific Name	Federal	State	Habitat Description	Occurrence	Effect
Mammals						
White-tailed prairie dog	<i>Cynomys leucurus</i>	--	SC	This species is generally found at altitudes ranging between 5,000 and 10,000 feet in desert grasslands and shrub grasslands. (USFWS 2020b).	Potential to occur within ROW	No effect
Pygmy rabbit	<i>Brachylagus idahoensis</i>	--	SC	This species occurs in areas of tall, dense sagebrush. (USFWS 2015).	Not likely to occur	No effect
Wyoming pocket gopher	<i>Thomomys clusius</i>	--	SC	This species inhabits shrub steppe and mixed desert shrublands. Associated habitats are typically characterized by having less	Not likely to occur	No effect

Table 4. Federally and State Listed Threatened and Endangered Species with the Potential to Occur along the Special Permit Segments and Preliminary Effect Determination for the “Selected” Alternative, Sweetwater County, Wyoming

Common Name	Scientific Name	Federal	State	Habitat Description	Occurrence	Effect
				big sagebrush (<i>Artemisia tridentata</i>), and more winterfat (<i>Krascheninnikovia lanata</i>) and Gardner’s saltbrush (<i>Atriplex gardneri</i>). (USFWS 2020c).		
Birds						
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	T	--	Western yellow-billed cuckoos appear to require large blocks of riparian habitat for nesting. In Wyoming, cuckoos prefer large stands of cottonwood (<i>Populus</i> sp.)/willow (<i>Salix</i> spp.) habitat. (USFWS 2017).	Not likely to occur	No effect
Mountain plover	<i>Charadrius montanus</i>	--	SC	This species nests in shortgrass prairies and in high, open, semi-desert habitats (up to nearly 11,000 feet elevation). It winters in similar agricultural habitats, prairies, and alkaline flats. (USFWS 2020d).	Not likely to occur	No effect
Greater sage-grouse	<i>Centrocercus urophasianus</i>	--	SC	The breeding habitat for the greater sage-grouse is sagebrush country. They nest on the ground under sagebrush or grass patches. They live in elevations ranging from 4,000 to over 9,000 feet; cannot survive in areas where sagebrush does not exist. (USFWS 2020e).	Potential to occur within ROW	No effect
Fishes						
Bonytail	<i>Gila elegans</i>	E	--	Bonytail chub prefer backwaters with rocky or muddy bottoms and flowing pools, although they have been reported in swiftly moving water. They are mostly restricted to rocky canyons. (USFWS 2014).	Not likely to occur	No effect
Colorado Pikeminnow	<i>Ptychocheilus lucius</i>	E	--	The Colorado pikeminnow inhabits medium to large rivers. Young pike minnows prefer small, quiet backwaters. Adult pikeminnows use various	Not likely to occur.	No effect

Table 4. Federally and State Listed Threatened and Endangered Species with the Potential to Occur along the Special Permit Segments and Preliminary Effect Determination for the “Selected” Alternative, Sweetwater County, Wyoming

Common Name	Scientific Name	Federal	State	Habitat Description	Occurrence	Effect
				habitats which include deep, turgid, strongly flowing waters, eddies, runs, flooded bottoms or backwaters (especially during high flows). (USFWS 2020f).		
Humpback Chub	<i>Gila cypha</i>	E	--	Currently, the humpback chub is found in the Little Colorado River, adjacent portions of the Colorado River and in the White River. (USFWS 2020g)	Not likely to occur.	No effect
Pallid Sturgeon	<i>Scaphirhynchus albus</i>	E	--	Pallid sturgeons evolved and adapted to living close to the bottom of large, silty rivers with natural a hydrograph. Their preferred habitat has a diversity of depths and velocities formed by braided channels, sand bars, sand flats and gravel bars. (USFWS 2019a).	Not likely to occur.	No effect
Razorback Sucker	<i>Xyrauchen texanus</i>	E	--	Razorback suckers prefer to live over sand mud, or gravel bottoms. They can inhabit a diversity of habitats from mainstream channels to the backwaters of medium and large streams of rivers. The razorback sucker spends most of its life at depths where ultraviolet light cannot penetrate but these fish will move into the shallows to spawn. (USFWS 2020h).	Not likely to occur	No effect
Flowering Plants						
Ute ladies'-tresses	<i>Spiranthes diluvialis</i>	T	--	The orchid occurs along riparian edges, gravel bars, old oxbows, high flow channels, and moist to wet meadows along perennial streams. It typically occurs in stable wetland and seepy areas associated with old landscape features within historical floodplains of major rivers. It also is found in wetland and seepy areas	Potential to occur within wetland areas within the ROW	No effect

Table 4. Federally and State Listed Threatened and Endangered Species with the Potential to Occur along the Special Permit Segments and Preliminary Effect Determination for the “Selected” Alternative, Sweetwater County, Wyoming						
Common Name	Scientific Name	Federal	State	Habitat Description	Occurrence	Effect
				near freshwater lakes or springs. (USFWS 2020i).		
Western Prairie Fringed Orchid	<i>Platanthera praeclara</i>	T	--	This species is found most often in mesic to wet unplowed tallgrass prairies and meadows but have been found in old fields and roadside ditches. (USFWS 2019b).	Potential to occur within wetland areas within the ROW	No effect
T: Threatened (Federal) E: Endangered (Federal) SC: Species of Concern (State)						

The “Selected” Alternative will not alter the current habitat conditions, or wetlands or waterbodies, and therefore will have no effect on listed species or other biological resources in the vicinity of the *special permit segments*.

Construction-related activities under the “No Action” Alternative for pipe replacement will include excavation and use of equipment and additional vehicle traffic, including associated localized, temporary, and short-term impacts associated with noise and air quality from equipment use and traffic. These land disturbance activities have the potential to impact federally and state listed and protected species. Prior to construction activities, field surveys will be required to identify preferred habitat and occurrences of protected species. Permitting and mitigation measures will be determined based on the presence of protected species or suitable habitat. Construction activities will be anticipated to have a potential short-term, minimal impacts on biological resources in the vicinity of the *special permit segments*.

Climate Change: The scope and duration of any activities associated with the *special permit segments*, including maintenance and repair activities will have minimal impact on climate change. A benefit of the “Selected” Alternative is that it will avoid methane venting, construction, or ground disturbances in the pipeline ROW. The “No Action” Alternative where a special permit were not granted, pipe replacement and/or hydrotesting would be required, which would necessitate the use of heavy equipment during construction and blowing down the pipeline releasing natural gas, a known GHG. Pipeline operators can and should mitigate blowdowns through pressure reductions and capture and storage of natural gas during pipeline

work. However, PHMSA does not currently have authority to mandate these mitigation measures.

The “Selected” Alternative will result in emissions that result from increased maintenance, monitoring, and repair requirements for the duration of the special permit. These emissions would be expected to be significantly less than the replacement associated with the “No Action” Alternative. The scope and duration of any activities associated with the special permit will have an insignificant impact on climate change.

Cultural Resources: There are no cultural, archaeological, or paleontological resources that will be impacted by this special permit request because the right of way was disturbed during initial construction of the pipeline.

Environmental Justice: The “Selected” Alternative will not have an adverse impact on the local population. The *special permit segments* are not situated in or disproportionately impact any predominantly minority, low income, or non-English language populations as demonstrated in **Table 5 – Demographic Information for Special Permit Segments – Using EPA EJScreen**. In any event, the activities of the special permit are intended to maintain safety along the *special permit segments* and increase the level of the safety along the 192.53-mile *special permit inspection areas*.

The special permit is intended to maintain or increase safety with the implementation of the special permit conditions in the *special permit segments*. Many special permit conditions also apply to the *special permit inspection areas* and will not have a disparate impact on any minority, low income, or limited English proficiency populations. This special permit will also reduce climate change impacts, which are understood to disproportionately affect low-income and minority communities. Therefore, consistent with DOT Order 5610.2C (“Department of Transportation Actions to Address Environmental Justice in Minority Populations and Low-Income Populations”) and Executive Orders 12898 (“Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations”), 13985 (“Advancing Racial Equity and Support for Underserved Communities Through the Federal Government”), 13990 (“Protecting Public Health and the Environment and Restoring Science To Tackle the Climate Crisis”), 14008 (“Tackling the Climate Crisis at Home and Abroad”), 12898 and DOT Order 5610.2(a), and Department of Transportation Actions to Address Environmental Justice in

Minority Populations and Low-Income Populations, PHMSA does not anticipate that the special permit will result in disproportionately high and adverse effects on minority or low-income populations.

Table 5 - Demographic Information for Special Permit Segments – Using EPA EJScreen

Special Permit Segment No.	State	County	Total Population (Along Special Permit Segment)	Minority*/ People of Color** Population	Low Income Population	Linguistically Isolated
1	WY	Sweetwater	79	9%	32%	0%
2	WY	Sweetwater	79	9%	32%	0%

Minority*: The term minority is used in the currently active DOT Environmental Justice Order 5610.2(a), available at: https://www.fhwa.dot.gov/environment/environmental_justice/ej_at_dot/orders/order_56102a/index.cfm

People of Color**: The term people of color is used in the EPA’s Environmental Justice Screening and mapping tool (EJSCREEN). An overview of demographic indicators through EJSCREEN is available at: <https://www.epa.gov/ejscreen/overview-demographic-indicators-ejscreen>

Geology and Soils: The *special permit segments* are located within the Wasatch Geological Formation, which is characterized by drab sandstone, drab to variegated claystone and siltstone. The dominate soils are the Terada fine sandy loam. Soils in this group are well drained and are not classified as prime farmland.

There have been 53 historical earthquakes in a 62-mile radius from the *special permit segments*. The epicenter of the closest historic earthquake is located ~ 19.48 and 62.39 miles from *special permit segment 1* and *special permit segment 2* respectively. The most severe historical earthquake has a magnitude of 4.3, which is classified as a Light Earthquake. There is one (1) additional historical earthquake with a magnitude of 4.0 and classified as a Light Earthquake. The remainder of the historical earthquakes range from magnitude 1.3-3.2, which are classified as Micro Earthquakes to Minor Earthquakes.

Earthquake activity impact analysis for CIG’s pipelines is based upon magnitude, location, intensity extents, and analytical information provided by the USGS quantifying ground shaking and strength at our pipelines. The Modified Mercalli Intensity (MMI scale) provides an understanding of the intensity decrease with distance. For CIG, conditions of initial interest will not be expected until an earthquake magnitude reaches M4.5 (referenced and explained in chart below – **Attachment A-1**) and greater with the epicenter directly at the pipeline or when the

local ground shaking at the pipeline resulting from a remotely located event reaches an assigned MMI (Modified Mercalli Intensity) value of at least VI, see **Attachment A-2**.

Indian Trust Assets: There are no Indian Trust Assets in the area. The “Selected” Alternative {special permit) does not impact a federally recognized Tribal Reservation thus Tribal coordination is not required. Any work associated with the *special permit segments* will have no impact on Native Americans or any land owned or otherwise administered by Native American tribes. The scope and duration of this project will have little to no effect or impact on the socioeconomics in the vicinity of this project. No tribal land exists along the *special permit segments* thus tribal coordination is not required.

Land Use: Land use in the area is residential, commercial, agricultural and parks, open space, and greenways. The “Selected” Alternative will not impact land use or planning. The aim of the special permit request is to avoid construction or other disturbances in the ROW. There is not a land use plan implemented by a local government near the *special permit segments*. Implementation of the special permit will not require permitting above and beyond what is required for normal pipeline operation and maintenance activities.

Noise: The “Selected” Alternative will not negatively alter the noise levels in the vicinity of the *special permit segments*. Granting the permit will increase the monitoring, maintenance, and repair requirements and could increase the frequency of use of equipment, including heavy machinery for conducting excavations and repairs throughout the life of the pipeline’s operation under this special permit. These activities will result in short term, isolated, and sporadic noise impacts in the *special permit inspection areas*. Replacement of the pipeline segments under the “No Action” Alternative will generate comparatively more noise from operation of construction equipment in the *special permit segments*, but these impacts will end with completion of the replacement. Construction will progress along the route such that impacts at any one (1) location will be of a short duration. Nonetheless, noise impacts resulting from both the “Selected” Action and the “No Action” Alternative will be localized, minor, and temporary.

Recreation: There are no recreational resources in the *special permit segments*. The aim of the special permit is to avoid construction in the ROW. The “Selected” Alternative will not impact any recreational resources in the *special permit inspection areas*, except for those in *special*

permit inspection areas associated with temporary and sporadic maintenance, monitoring, and repair activities required by the special permit conditions.

Under the “No Action” Alternative – Pipe Replacement, construction-related impacts associated with pipe replacement, including construction transport and use of construction equipment, are anticipated to temporarily disrupt recreational activities within the immediate vicinity of the ROW, and could also result in temporary impacts to access to recreational activities near the ***special permit segments***.

Safety: Class locations are based upon the population (dwellings for human occupancy) within a “class location unit” which is defined as an onshore area that extends 220 yards on either side of the centerline of any continuous one-mile of pipeline. These locations are determined by surveying the pipeline for population growth. The more conservative safety factors are required as the number of dwellings for human occupancy (population growth) increases near the pipeline. Pipeline operators must conduct surveys and document population growth within 220 yards on either side of the pipeline. A higher population along the pipeline may trigger any of the following for the pipeline segment with the higher population: a reduced MAOP, a new pressure test at a higher pressure, or new pipe with either or both heavier walled or higher-grade pipe to protect against integrity risks to occupants along the pipeline segment. If the special permit had been denied, CIG would replace the existing ***special permit segments*** that underwent class location change with new pipe that meets a higher safety factor and has new pipeline coating. Pipe replacement would result in pipeline safety benefits.

The special permit conditions are designed to identify and mitigate integrity threats that could threaten the ***special permit segments*** and cause failure. The effect of the monitoring and maintenance requirements in the special permit conditions will ensure the integrity of the pipe and protection of the population living near the pipeline segment to a similar degree of a lower MAOP, new pressure test, or a thicker walled or higher-grade pipe that would not have the enhanced IM protections. The special permit with conditions and pipeline attributes (such as pipe diameter, wall thickness, grade, pipe seam type, and maximum allowable operating pressure) for the ***special permit segments*** can be reviewed on the Federal Docket Management System (FMDS) under the special permit docket (PHMSA-2020-0005) located on the internet at www.regulations.gov or on the

PHMSA website for special permits issued at <https://www.phmsa.dot.gov/pipeline/special-permits-state-waivers/special-permits-issued>.

Under the “Selected” Alternative of granting a special permit, PHMSA will require increased IM inspections for each *special permit inspection area* adjacent to the *special permit segments*, which will lower the risk in areas beyond each *special permit segment*. CIG must implement the conditions in each *special permit inspection area* for the duration of the special permit.

PHMSA analyzed the integrity conditions and history of the CIG natural gas transmission pipeline system, and PHMSA determined that the pipeline is in satisfactory condition for the issuance of the special permit. Details about the pipeline’s integrity and compliance history are provided in the SPAF s document, which is available in the docket.

Performance of the conditions in the special permit provides an equivalent level of safety for the public and environment; and imposes no additional safety risks as a result of the waived regulation. The pipeline *special permit segments* will be treated as HCAs with the additional risk analysis and remedial activities associated with this designation. The special permit also includes a number of conditions that address potential safety risks. Among these are incorporation of these segments into the CIG’s IM program, close interval corrosion surveys, implementation of a cathodic protection reliability improvement plan, an in-line inspection program with intervals not to exceed seven years, anomaly evaluation and repair meeting more stringent criteria, additional testing and remediation of interference currents caused by induced alternating current sources, pipe seam evaluations, criteria for the identification of pipe properties, installation of line-of-sight markers, and the integration of all inspection and remediation data.

(a) Will operation under a special permit change the risk of rupture or failure?

Operation under the special permit will not be expected to have an impact on the risk of failure or rupture as the operating conditions of the *special permit segments* have not changed. The *special permits segments* in the special permit will have inspections at intervals similar to IM program intervals, which will maintain the integrity of the *special permit segments* over the life of the special permit.

(b) If a failure occurred, will consequences and spill or release volumes be different if PHMSA granted the permit? Will granting this permit increase, decrease, or have no change on the risk of failure?

The consequences of any spill or release will not be impacted as a result of the special permit and the potential for such an event is expected to be less likely with the added safety programs noted above.

(c) Will the Potential Impact Radius (PIR) of a rupture change under the Special Permit? Please calculate and provide the PIR data, if applicable. Will more people be affected by a failure if PHMSA granted the permit?

As compared to current operation, the PIR is calculated in accordance with 49 CFR 192.903 and will not change under the special permit since the maximum allowable operating pressure and pipe diameter will not change. Thus, there will be no additional impact on the public. The PIR for each ***special permit segment*** is calculated below.

$$\text{PIR} = 0.69 * (\text{MAOP} * \text{NOMINAL DIAMETER}^2)^{0.5}$$

For ***special permit segment 1***, calculated $\text{PIR} = 0.69 * (1,100 * 20)^{0.5} = 458$ feet

For ***special permit segment 2***, calculated $\text{PIR} = 0.69 * (1,480 * 24)^{0.5} = 637$ feet

(d) Will operation under the Special Permit have any effect on pipeline longevity or reliability? Will there be any life cycle or maintenance issues?

Operation under the special permit conditions will provide a positive impact on pipeline longevity and reliability. PHMSA does not anticipate any deleterious life cycle or maintenance issues related to operation of the pipeline ***special permit segments*** by implementation the special permit by CIG.

Socioeconomics: This special permit will not be situated in, or disproportionately impact, any predominantly low-income populations. Approximately 12% of families in Sweetwater County, Wyoming, are living below the poverty level. The ***special permit segments*** are not situated in, or disproportionately impacts, any predominantly low-income populations.

The “Selected” Alternative will not alter the current economic or population conditions in Sweetwater County associated with the ***special permit inspection areas***.

The “No Action” Alternative would require pipe replacement. Local expenditures associated with pipe replacement activities would result in a negligible, short-term, positive impact on the local economy and employment in Sweetwater County, Wyoming. A negligible increase in the population would occur if non-local staff were to be used for pipe replacement activities, which would have negligible short-term, negative impacts on public services, traffic, and transportation.

Topography: The topography of the area surrounding the requested *special permit segments* is flat open and forested land. The aim of the special permit is to avoid construction and other ground disturbing activities in the ROW.

The “Selected” Alternative will not require excavation, thus will not alter the existing terrain. Alternatively, the “No Action” Alternative will require excavation of the pipeline trench to allow the existing *special permit segments* to be removed and to install replacement pipe. In the event of any excavations due to special permit requirements, or anomaly digs, there are no anticipated long-term effects on topography in the vicinity of the *special permit segments*.

Transportation: In the event that the *special permit segments* need to be accessed in order to perform tasks required under the conditions of the special permit, existing ROW access points will be used. The granting of the special permit will not significantly increase traffic or require additional roads to be constructed or maintained more frequently. The “Selected” Alternative will not alter the current transportation conditions near the *special permit segments*.

Under the “No Action” Alternative pipe replacement activities could pose adverse impacts to local roads and transportation would be anticipated as the *special permit segments* cross multiple existing local roads. Temporary road closures may be necessary during pipe and equipment delivery and a minor increase in local traffic would be anticipated to occur within the immediate vicinity of the *special permit segments* ROW.

Water Resources: The nearest natural water source to *special permit segments 1 and 2* is the Latham Draw, which is approximately 4,000 feet to the southeast of the *special permit segments*. The *special permit segments* are located within the Latham Draw watershed. The *special permit inspection areas* are located within the Great Divide (140402) and White-Yampa (140500) watersheds and are not located within a mapped Federal Emergency Management Agency (FEMA) floodplain. The *special permit inspection areas* traverse one (1) potential palustrine emergent wetland.

B. Comparative Environmental Impacts of Alternatives

As PHMSA recognized in its June 29, 2004, Federal Register Notice (69 FR 38948), implementing additional preventative and mitigative measures enables a pipeline operator to improve its knowledge and understanding of the pipeline's integrity, accelerate the identification and repair of actionable anomalies, and better manage and mitigate threats to the public and environment. Implementing enhanced inspection and assessment practices throughout the *special permit segments* and *special permit inspection areas*, in lieu of replacing small segments of pipe experiencing the class location change, extends pipeline safety benefits to a much greater area along the pipeline. In addition, avoiding pipe excavation and replacement will avoid delivery interruptions and supply shortages, and avert environmental disturbance. All of these benefits will be realized under a granting of the special permit.

If the special permit is not granted, 49 CFR 192.611(a) would require pipe replacement. However, the monitoring conditions associated with the special permit would not be applicable if the special permit was denied because those conditions are not mandated by applicable regulations. Accordingly, both alternatives are anticipated to lead to a similar safety result.

The natural environment would be temporarily disturbed if the pipe is replaced; a special permit will have no impact on the environment. Although relatively minor, greater environmental and noise impacts could result from replacement of the pipeline segment that has undergone a class-location change due to the population increase.

IX. Consultation and Coordination

The following CIG employees were consulted in the preparation of this document:

Jaime Hernandez - Director of Codes and Standards

Charlie Childs - Manager, IC Pipeline Integrity

Justin Durham - Manager, Engineering

Gary Taylor - Manager, Pipeline Compliance Systems

Johnson Samuel - Project Management Specialist Compliance systems

Megan Mater - Specialist SR 1, Project Permitting - Minor Projects

The following PHMSA employees were involved in the preparation of this document:

Amelia Samaras, Attorney

Joshua Johnson, Engineer

Steve Nanney, Engineer

X. Response to Public Comments Placed on Docket PHMSA-2020-0005

PHMSA published the special permit request in the Federal Register (85 FR 79074) for a 30-day public comment period from December 8, 2020, through January 7, 2021. The special permit application from CIG, draft environmental assessment, and draft special permit conditions were available in Docket No. PHMSA-2020-0005 at: www.regulations.gov for public review.

PHMSA received no public comments concerning this special permit renewal request through February 22, 2021.

XI. Finding of No Significant Impact

In consideration of the FEA and special permit conditions explained above, pipeline condition, and safety history, PHMSA finds that no significant negative impact will result from the issuance and full implementation of the above-described special permit to waive the requirements of 49 CFR 192.611(a) and (d) and 192.619(a) for two (2) *special permit segments*, which consists of 260.05 feet (approximately 0.049 miles) of the 20-inch diameter 0155-A and 24-inch diameter line 0233-A Pipelines located in Sweetwater County, Wyoming. The special permit requires CIG to implement additional conditions to the operations, maintenance, and IM of the *special permit segments* and *special permit inspection areas*.

XII. Bibliography

No other agencies were consulted by PHMSA, but PHMSA considered environmental information, special permit conditions, and documents submitted by CIG.

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Completed by PHMSA in Washington, DC on: August 4, 2022

Attachment A-1

Earthquake Magnitude Scale

Richter Magnitudes	Description	Earthquake Effects	Frequency of Occurrence
Less than 2.0	Micro	Micro-earthquakes, not felt.	About 8,000 per day
2.0 - 2.9	Minor	Generally not felt, but recorded.	About 1,000 per day
3.0 - 3.9	Minor	Often felt, but rarely causes damage.	49,000 per year (est.)
4.0 - 4.9	Light	Noticeable shaking of indoor items, rattling noises. Significant damage unlikely.	6,200 per year (est.)
5.0 - 5.9	Moderate	Can cause major damage to poorly constructed buildings over small regions. At most slight damage to well-designed buildings.	800 per year
6.0 - 6.9	Strong	Can be destructive in areas up to about 160 kilometers (100 mi) across in populated areas.	120 per year
7.0 - 7.9	Major	Can cause serious damage over larger areas.	18 per year
8.0 - 8.9	Great	Can cause serious damage in areas several hundred miles across.	1 per year
9.0 - 9.9	Great	Devastating in areas several thousand miles across.	1 per 20 years
10.0+	Epic	Never recorded	Extremely rare (Unknown)

(Based on U.S. Geological Survey documents.)^[2]

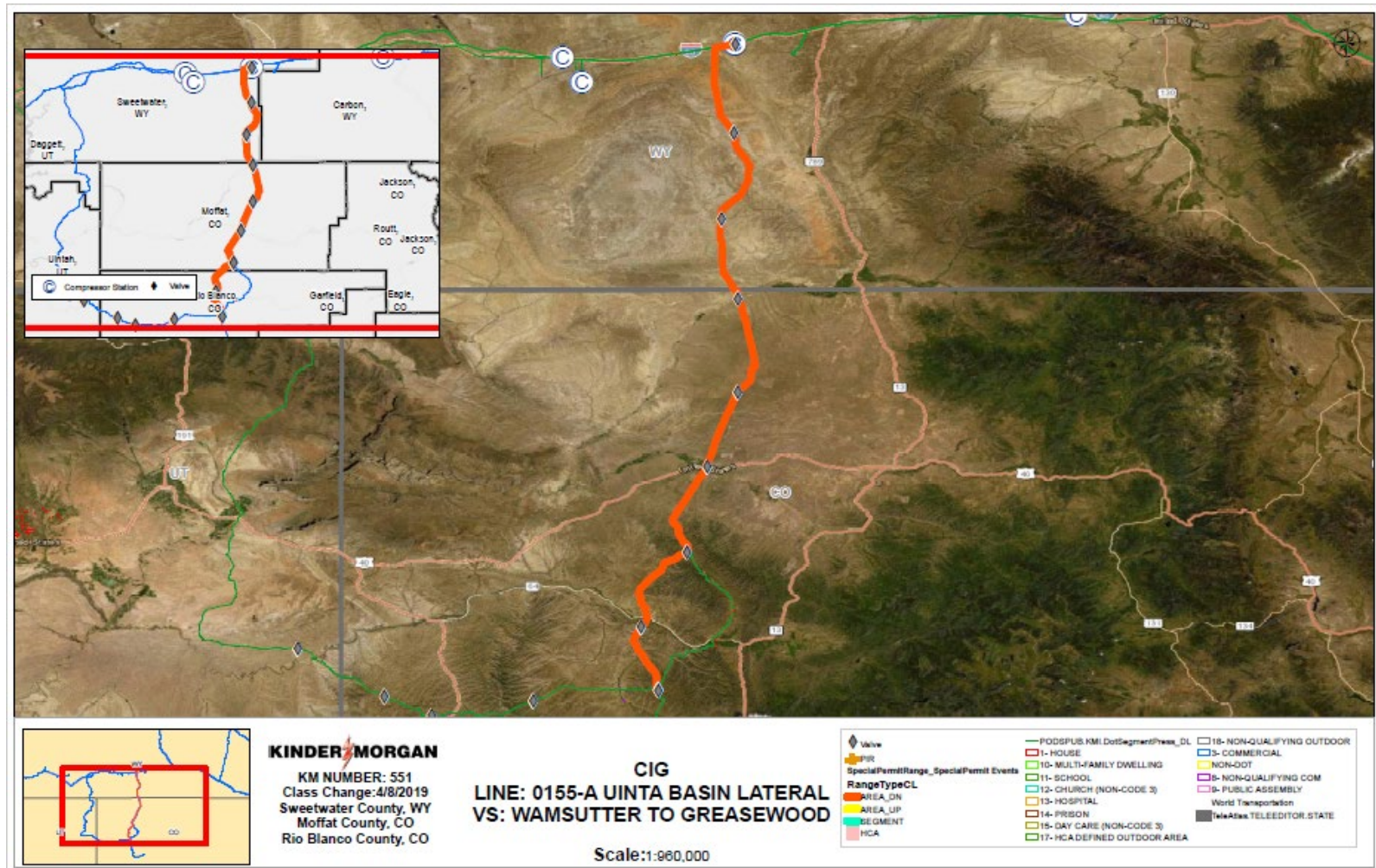
Attachment A-2

Modified Mercalli Intensity Scale

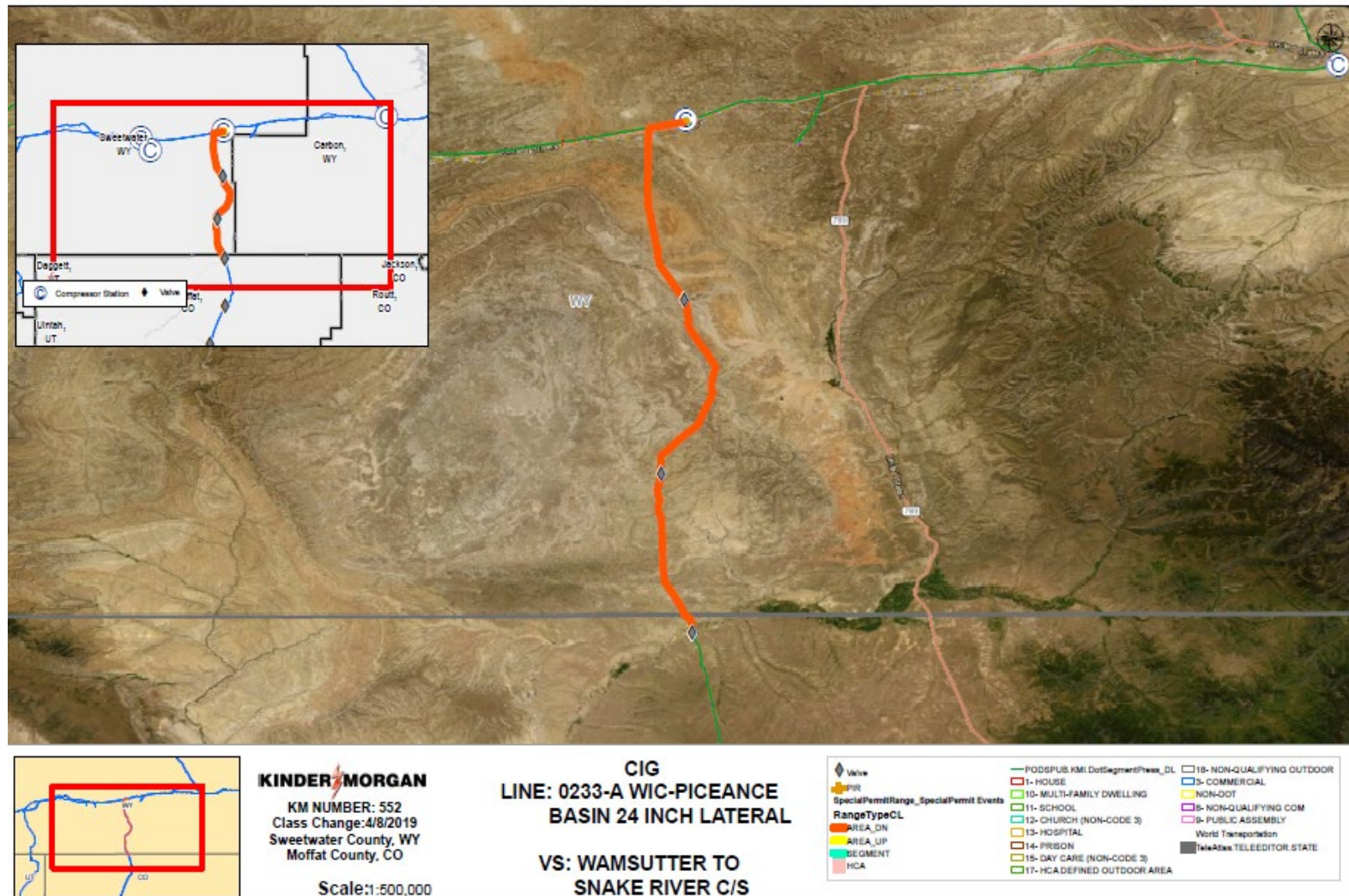
Intensity	Shaking	Description/Damage
I	Not felt	Not felt except by a very few under especially favorable conditions.
II	Weak	Felt only by a few persons at rest, especially on upper floors of buildings.
III	Weak	Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated.
IV	Light	Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.
V	Moderate	Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
VI	Strong	Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.
VII	Very strong	Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.
VIII	Severe	Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned.
IX	Violent	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
X	Extreme	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.

(Public domain.)

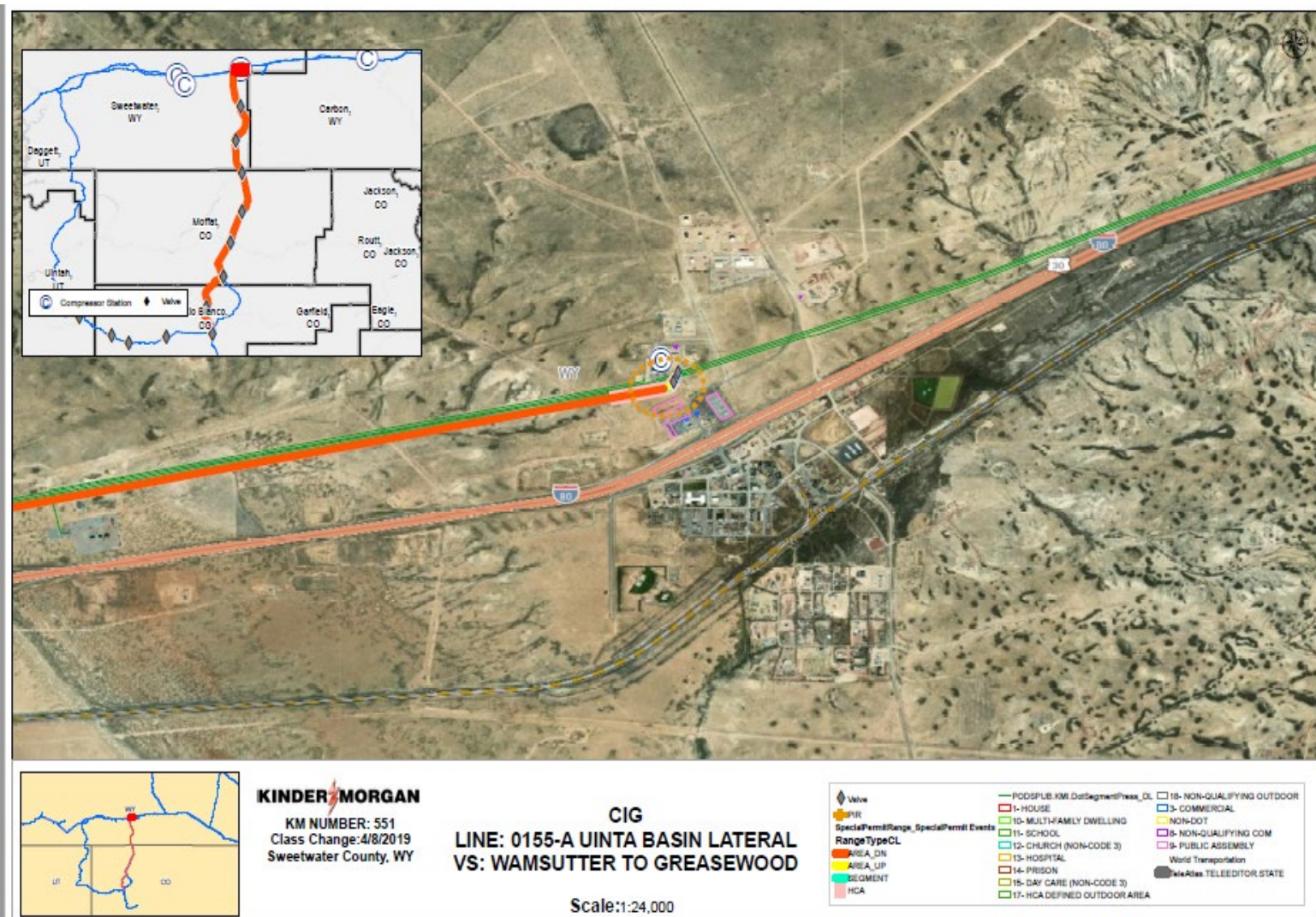
Attachment B-1 - Special Permit Inspection Area Map



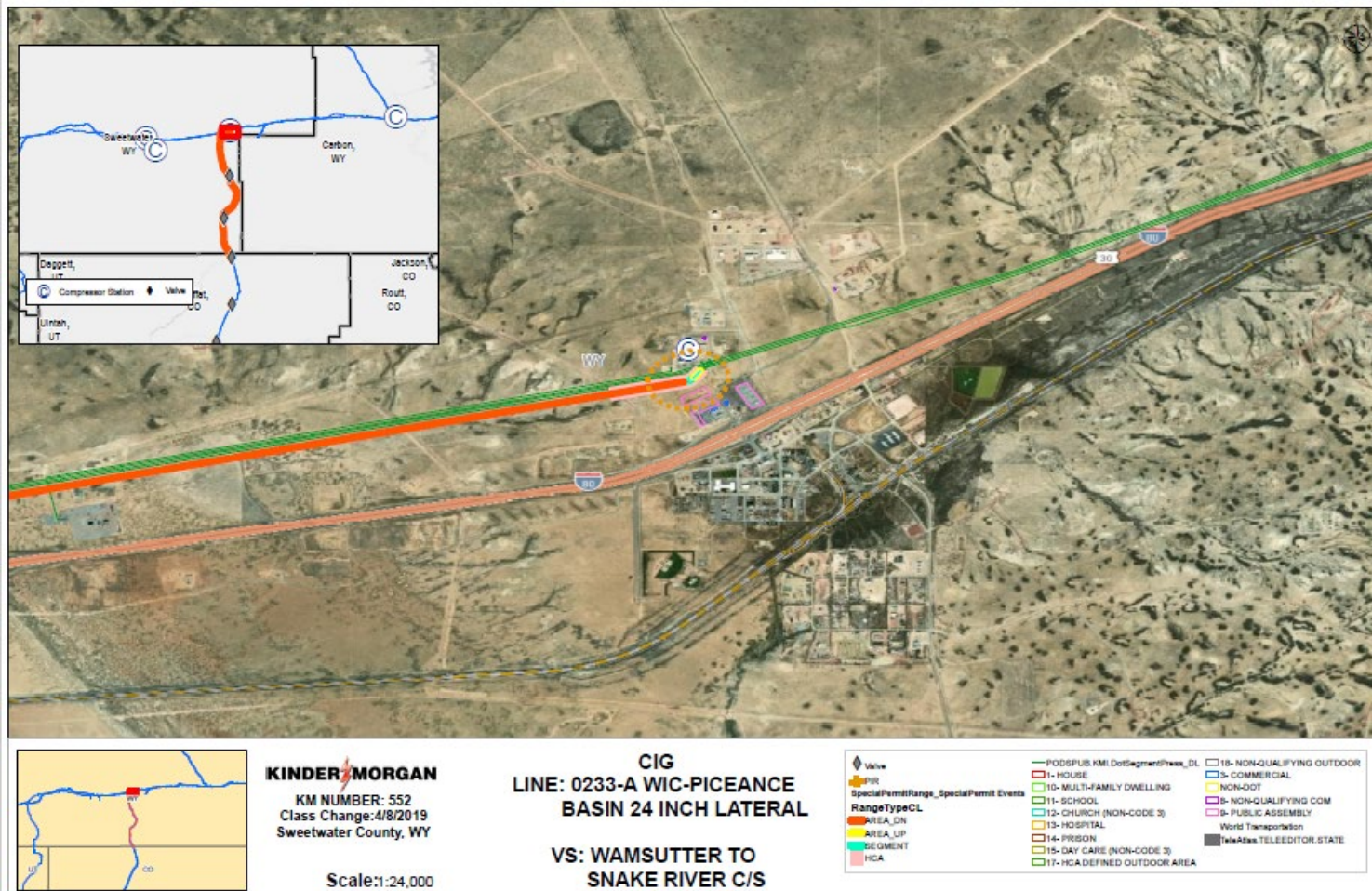
Attachment B-2 - Special Permit Inspection Area Map



Attachment C-1 –Special Permit Segment Map



Attachment C-2 –Special Permit Segment Map



Last Page of the FEA and FONSI