



# Utility Restoration, Replacement, and Relocation in the State of Wyoming

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*DRAFT Programmatic Environmental Assessment  
Wyoming / May 2017*



**FEMA**



**Federal Emergency Management Agency  
U.S. Department of Homeland Security**

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**ACRONYMS AND ABBREVIATIONS**

BMP	Best Management Practice
CDBG-DR	Community Development Block Grant – Disaster Recovery
CEQ	Council on Environmental Quality
CFLHD	Central Federal Lands Highway Division
CFR	Code of Federal Regulations
DHS	Department of Homeland Security
DURT	Disaster Unified Review Team
EA	Environmental Assessment
EDA	Economic Development Administration
EO	Executive Order
ESA	Endangered Species Act
EWP	Emergency Watershed Protection
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FONSI	Finding of No Significant Impact
FWCA	Fish and Wildlife Coordination Act
GPD	Grants Program Directorate
HMA	Hazard Mitigation Assistance
HMGP	Hazard Mitigation Grant Program
HUD	U.S. Department of Housing and Urban Development
IPaC	Information, Planning and Consultation System
MBTA	Migratory Bird Treaty Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act of 1996
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
OSHA	Occupational Health and Safety Administration
PA	Public Assistance
PDM	Pre-Disaster Mitigation Program
PEA	Programmatic Environmental Assessment
PFHD	Provisional Flood Hazard Delineation
PPE	Personal Protective Equipment
ROW	Right of Way
SCMP	Stream Corridor Master Plan
SEA	Supplemental Environmental Assessment
SFHA	Special Flood Hazard Area
SHPO	State Historic Preservation Officer
SRIA	Sandy Recovery Improvement Act



USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USFWS	U.S. Fish and Wildlife Service
WYDNR	Wyoming Department of Natural Resources
WYDOT	Wyoming Department of Transportation
WYDEQ	Wyoming Department of Environmental Quality

## SECTION ONE | INTRODUCTION

### 1.1 OVERVIEW

*In accordance with Unified Federal Review as outlined in The Sandy Recovery Improvement Act (SRIA), Section 6: Unified Federal Review mandates the establishment of an “...expedited and unified interagency review process to ensure compliance with environmental and historic requirements under Federal law relating to disaster recovery projects, in order to expedite the recovery process, consistent with applicable law.”*

The Federal Government, through multiple agencies and their programs, proposes to restore, replace, upgrade, expand, redesign, and relocate public utilities, in the State of Wyoming. A utility is defined as infrastructure supplying a community with electricity, gas, water, or sewage services. Utilities may be built, upgraded, or repaired under funding programs from various federal Agencies.

The Federal Emergency Management Agency (FEMA) with support from the Economic Development Agency (EDA) has prepared this Programmatic Environmental Assessment (PEA) to analyze the potential environmental consequences associated with the proposed actions while providing a framework for the evaluation of Federal and State laws and regulations. The proposed action and no action alternative is being analyzed in accordance with the National Environmental Policy Act of 1969 (NEPA)<sup>1</sup>, the Council on Environmental Quality (CEQ) implementing regulations<sup>2</sup> and the Emergency Management and Assistance Code of Federal Regulations (CFR)<sup>3</sup>. This analysis is programmatic in nature and does not address individual site-specific impacts, which will be evaluated for individual projects prior to approval.

### 1.2 BACKGROUND

Geography, climate, and demographic trends have necessitated development of a complex infrastructure of utility systems across Wyoming. Aging infrastructure, the need for increased capacity, and damage due to manmade and natural disasters all have the potential to limit the ability of these utility systems to function as designed. Failure of these systems can cause injury and loss of life; residents, government entities and businesses may lose capital and access to property and critical infrastructure: and significant environmental impacts may occur. Local governments may be unable to provide critical services including fire suppression, emergency communication, power generation, potable water and wastewater treatment. Sheltering and protection from the elements may be unavailable creating a potential threat to life, public health and safety. In an effort to restore these services and/or mitigate these impacts, federal agencies may provide funds for utility system restoration, replacement, upgrade, expansion, redesign, or relocation.

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<sup>1</sup> 42 United States Code [USC] 55 parts 4321 et seq., 2000

<sup>2</sup> 40 Code of Federal Regulations [CFR] 30 parts 1500 et seq., 2004

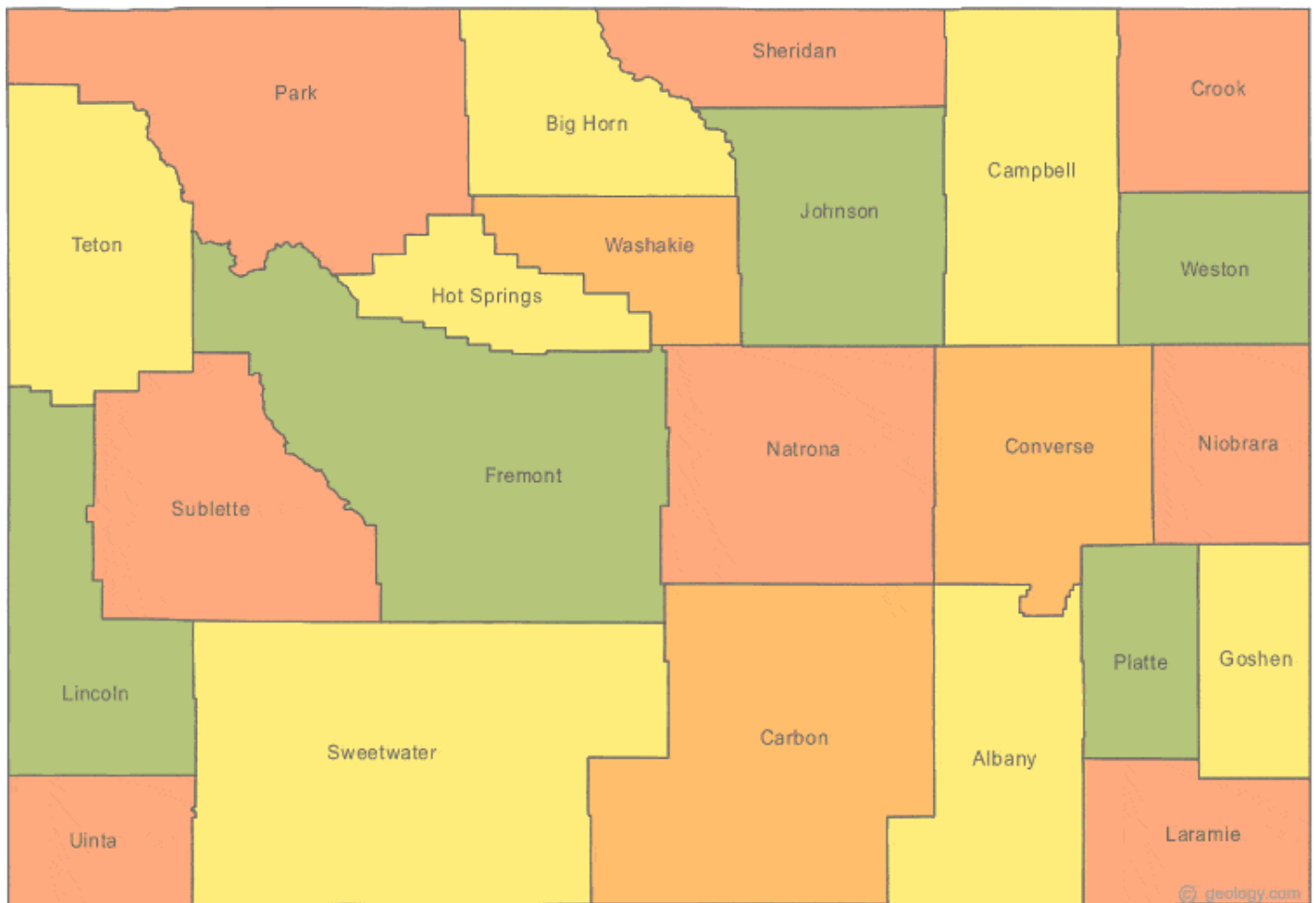
<sup>3</sup> 44 Code of Federal Regulations [CFR] 1 part 10, and 23 CFR 771., 2013

NEPA and its implementing regulations direct federal agencies to take into consideration the consequences of proposed actions on the human and natural environment during the decision-making process. All federal agencies must comply with NEPA before making Federal funds available. FEMA has taken the lead in determining that the projects under consideration for funding have reached the level where an Environmental Assessment is required and can be grouped by type of action or location. FEMA proposes that the groups of actions related to the restoration, replacement, upgrade, expansion, redesign, or relocation of utility systems can be evaluated in a PEA for compliance with NEPA and its implementing regulations without the need to develop an individual agency Environmental Assessment (EA) for every action.

In accordance with Unified Federal Review as outlined in SRIA, FEMA coordinated with other federal agencies in order to facilitate a comprehensive strategy to address recovery and mitigation efforts for the State of Wyoming. The programmatic nature of this document is a result of Unified Review coordination as federal agencies with the potential to provide recovery or mitigation funding have been asked to participate in the development of this PEA.

The interagency environmental analysis found that the project types identified in the PEA will not have a significant impact on the quality of the environment. Compliance with all other federal, tribal, state and local laws, regulations, Executive Orders, etc. is required and will be evaluated on a project-specific basis. If the description of the site-specific project work and the levels of analysis are fully and accurately described in this PEA, then Agencies will take no further action other than what is necessary to support and document that conclusion. All projects reviewed using this PEA must use the Utility Checklist (Appendix A) to document the project specific information and that the project is consistent with the PEA. If a specific project is expected to (1) create impacts not described in the PEA; (2) create impacts greater in magnitude, extent, or duration than those described in the PEA; or (3) require mitigation measures to keep impacts below significant levels that are not described in the PEA; then a Supplemental Environmental Assessment (SEA) is to be prepared by the grantee to address the specific action. The SEA would be tiered from this PEA, in accordance with 40 CFR Part 1508.28. Actions determined during the preparation of the SEA to require a more detailed or broader environmental review than covered in this document will be subject to a project specific EA.

**Figure 1: Wyoming State Map<sup>4</sup>**



<sup>4</sup> Ezilon Maps. Political Map of Wyoming. [www.ezilon.com/maps/united-states/Wyoming-counties-and-road-maps.html](http://www.ezilon.com/maps/united-states/Wyoming-counties-and-road-maps.html). Accessed 12/09/2014

## SECTION TWO | PURPOSE AND NEED

This PEA addresses numerous individual projects where the restoration, replacement, upgrade, expansion, redesign, or relocation of utilities will be undertaken by Agencies to provide permanent restoration of function. It also addresses hazard mitigation activities that reduce disaster losses to existing utilities from future disaster damages and protect life and property. These actions are applicable to all proposed alternatives described in this document. This PEA also provides the public and decision-makers with the information required to understand and evaluate the potential environmental consequences of these actions and to consider these impacts in decision making. The purpose of this action is to help Agencies fulfill and expedite the environmental review process required by NEPA.

Agencies will use this PEA to determine the level of environmental analysis and documentation required under NEPA for permanent utility repairs or modifications for any of the proposed alternatives. Utility projects will be funded with a variety of federal sources including but not limited to, grants provided by FEMA, US Economic Development Administration (EDA), Federal Highway Administration (FHWA), US Department of Housing and Urban Development (HUD) and the Natural Resources Conservation Service (NRCS). These agencies all have programs that share a similar goal of helping state, local, or tribal governments recover from disasters and mitigate future losses.

The purpose of proposed projects to restore, replace, upgrade, expand, redesign, or relocate utilities is to meet these programs' goals. These projects will satisfy the need to:

- Restore utilities to a safe, sustainable, and permanent function and capacity;
- Minimize and mitigate future losses and impacts on the essential utilities; and
- Develop and construct resilient facilities with minimal impacts to natural and historic resources.

Other Federal agencies may use this document to demonstrate compliance with NEPA at their discretion and under their own authorities.

## SECTION THREE | ALTERNATIVES

### 3.1 INTRODUCTION

The following Alternatives are being considered for further evaluation in this PEA. These alternatives represent classes of actions that may be implemented individually or in combination with one another. Depending upon the response or mitigation action The Agencies determines is necessary to maintain utilities, and the individual characteristics of the specific site, there may be only one viable option to be implemented. The following list of alternatives may not be available in all project locations. Therefore, each project may have a different preferred alternative. The selected alternative (or combination of alternatives) will be documented in the Utilities Checklist (Appendix A).

### 3.2 ALTERNATIVES CONSIDERED

#### ***Alternative 1: No Action***

A No Action Alternative is required to be included in the environmental analysis and documentation in accordance with the Council on Environmental Quality regulations implementing NEPA. The No Action Alternative is defined as maintaining the status quo with no Agency involvement for any alternative. The No Action Alternative is used to evaluate the effects of not implementing the building, utility replacement, repair, relocation, or upgrade action on a programmatic level; thus, this alternative provides a benchmark against which other alternatives may be evaluated.

"No action" means the proposed activity would not take place and the utility would remain in its existing condition. Access may remain restricted due to the loss of service. For the purpose of the environmental analysis, under the No Action Alternative local governments would have to rely on savings, insurance, loans, or other forms of assistance to restore and retain access to utilities.

#### ***Alternative 2: Replacement***

This alternative applies to replacement of an existing utility with a new iteration in the existing location. In some situations leaving utilities in their existing locations may be the safest or most cost-effective option that also meets most private property owners' desires. This alternative differs from No Action in that it includes projects such as ground stabilization, grade control, etc.; the hazard in that segment is mitigated without relocating the utility.

Changes to materials and dimensions are included in this alternative. This may include upgrades to meet existing codes and standards as well as upgrades warranted to address conditions that have changed since the original construction. In the case of corridors that no longer serve as functional routes, bank stabilization and/or grade control may be needed to restore function and

stability. Included in this alternative are upgrades to current codes, standards, and construction of utilities necessary to maintain current infrastructure. Applicable design codes will be followed for all construction design.

### ***Alternative 3: Relocation***

This alternative includes utility realignment or relocation. In some locations the current utility alignment poses too great a threat to public safety and infrastructure, and prevents private property owners from returning to their homes. Utilities in these locations may need to be relocated to protect life and property during future events.

Included in this alternative is the construction of new or relocated utilities which are necessary to communities. Utility relocations will contain a beginning and end point that tie to the original segment. These segments may be either longer or shorter than the segments they are replacing, and/or include upgrades to meet existing codes and standards as well as upgrades needed to address site-specific conditions. Utilities that are replaced would be abandoned and/or removed. Applicable design codes will be followed for all construction.

### ***Alternative 4: Combination***

Alternative 4 includes some combination of No Action, Replacement, and Relocation. Individual utility segments may be left in their existing location and condition if it is determined that No Action is the safest, most cost-effective alternative. Adjacent utilities within the same reach may be replaced or relocated to mitigate risk and restore infrastructure.

## **3.3 ALTERNATIVES NOT CONSIDERED**

Applicants for federal grant funding may repair utilities to pre-disaster condition or with minor mitigation upgrades under programs like FEMA's Public Assistance Program or Hazard Mitigation Grant Program. These types of projects may fall into a Statutory Exclusion or a Categorical Exclusion under the NEPA DHS Directive effective as of 08/22/2016, and will be evaluated accordingly. No further review of these types of projects will be considered in this PEA if they fall within the allowance of CATEX N7;

Federal Assistance for Structure and Facility Upgrades. Federal assistance for the reconstruction, elevation, retrofitting, upgrading to current codes and standards, and improvements of pre-existing facilities in existing developed areas with substantially completed infrastructure, when the immediate project area has already been disturbed, and when those actions do not alter basic functions, do not exceed capacity of other system components, or modify intended land use. This category does not include actions within or affecting streams or stream banks or actions seaward of the limit of moderate wave action (or V zone when the limit of moderate wave action has not been identified)

In addition, some proposed projects may involve significant upgrades, expansion, and redesign that may be too extensive to be considered under this PEA. These projects will be fully evaluated to determine the appropriate level of NEPA review.



## SECTION FOUR | AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

### 4.1 PHYSICAL RESOURCES

#### 4.1.1 Affected Environment

Wyoming is located in the Rocky Mountain section of the western United States. Wyoming is bounded on the north by Montana, on the east by South Dakota and Nebraska, on the south by Colorado and Utah, and on the west by Utah, Idaho and Montana. Wyoming is one of three states entirely bounded by straight lines. From the north border to the south border it is 276 miles; from the east to the west

Wyoming is the tenth (10th) largest state, with an area of 97,814 square miles but with the smallest population (50th) at 563,626, according to the 2010 census. Wyoming has several medium sized cities with concentrated populations and vast areas of extremely low population densities. Overall the population density is just under 6 persons per square mile. Cheyenne, the State Capitol, is located in the southeast corner of the state and is the largest city with an estimated 2011 population of 60,096.

**Table 1 - Land Cover of Wyoming**

Land Cover Classes	State Totals Units in Square Miles
Water	453
Perennial Ice/Snow	138
Low Intensity Residential	539
High Intensity Residential	76
Commercial/Industrial/Transportation	309
Bare Rock	1,111
Quarries/Mines	19
Transitional	89
Deciduous Forest	7,121
Evergreen Forest	21,663
Mixed Forest	798

<b>Land Cover Classes</b>	<b>State Totals Units in Square Miles</b>
Shrubland	16,878
Orchards/Vineyard	5
Grasslands/Herbaceous	41,073
Pasture/Hay	3,107
Row Crops	3,266
Small Grains	24,987
Fallow	2,291
Urban/Recreational Grasses	91
Woody Wetlands	14
Emergent/Herbaceous Wetlands	67
<b>State Total</b>	<b>104,094</b>

Source: USGS 2010

According to the Economic Research Service of the U.S. Department of Agriculture, there were 31,604,901 acres in Wyoming classified as farmland and 36,700 farms. Prime farmland is found throughout the state. Prime farmland, as defined by the U.S. Department of Agriculture, is the land that is best suited to food, feed, and forage, fiber, and oilseed crops. Wyoming had approximately 1,696,800 acres of nonfederal prime farmland recorded in 1997. This represents over 2 percent of the state's total land area or 4 percent of the nonfederal land in Wyoming. Nationally, 64 percent of soils classified as prime farmland are being used for cropland. In Wyoming, 93 percent of the soils classified as prime farmland are being utilized as cropland. There has been a gradual loss overall of prime farmlands in Wyoming. Approximately 53,300 acres of prime farmland were converted urban or rural development between 1982 and 1997.

#### **4.1.2 Environmental Consequences**

##### ***Alternative 1: No Action***

Under the No Action alternative there is no federal action. Alternative 1 has potential to permanently disrupt utility service to communities. Loss in residential, commercial, agricultural,

or recreational land use may occur. This could lead to vegetation reclaiming right-of-way's (ROW), public, private properties in the State of Wyoming.

### ***Alternative 2: Replacement***

Under this alternative, the existing utilities would be maintained. Existing utilities would be expanded to accommodate best construction practices as well as the changes in topography. However, the utility footprint is expected to remain within the previous ROW so no significant changes in land use are anticipated.

In some cases, small portions of new ROW may be required due to the additional width of infrastructural elements or topographical changes. There may be changes to land use but these impacts are not expected to be significant. If the footprint extends outside of the ROW into US Forest Service (USFS) land, a new or revised easement will be required from the USFS. If the footprint extends outside of the ROW into other state or federal lands, additional coordination and permitting will be required from the owner agency. For all ROW acquisitions, the Agencies will comply fully with federal and state requirements including the Uniform Relocation Assistance and Real Property Acquisition Policies act of 1970, as amended (Uniform Act).

### ***Alternative 3: Relocation***

Alternative 3 would entail relocation of utilities. Small parcels of ROW may be repurposed into private property, and vice versa, to accommodate the relocation. Local governments may buy out some parcels of private if it is unsafe to rebuild. These purchased parcels would no longer be used for residential purposes and may instead be turned into public parking, a park, etc. If the footprint extends outside of the ROW into US Forest Service (USFS) land, a new or revised easement will be required from the USFS. If the footprint extends outside of the ROW into other state or federal lands, additional coordination and permitting will be required from the owner agency. For all ROW acquisitions, the Agencies will comply fully with federal and state requirements including the Uniform Act.

Vegetation along utility corridors may be lost in the short term. However, stabilization projects will use bioengineered, vegetative stabilization methods wherever possible, increasing the amount of vegetation in the long term.

The floodplain designation of certain parcels may change following relocation utilities.

### ***Alternative 4: Combination***

The environmental consequences of Alternative 4 would be similar to the consequences identified in Alternatives 2 and 3.

## **4.2 TRANSPORTATION FACILITIES**

### **4.2.1 Affected Environment**

Wyoming has 88,259 miles of highways, roads and streets and 8,260 bridges as of 2010. There were 5,024,145 registered motor vehicles in the state as of 2009 and 3,638,374 licensed drivers in the state as of 2010. Mobility in regional areas is critical for social, recreational and economic activities. Commuting is a part of daily life and truck transportation plays a vital role in Wyoming's economy. Any impediment to freight movement hinders economic performance and growth.

### **4.2.2 Environmental Consequences**

#### ***Alternative 1: No Action***

Under the No Action alternative no federal funding would be provided to repair utilities. Utilities would remain in disrepair and communities may be isolated or abandoned unless the State or local agencies took actions to maintain or improve utilities. This alternative may result in significant adverse impacts due to lack of access to community-sustaining utilities.

#### ***Alternative 2: Replacement***

This alternative would maintain the utility infrastructure. Short term impacts would be expected during construction as temporary outages may be required. No significant adverse long term impacts are expected to the utility infrastructure form and function. Utility facilities would be more resilient and less likely to experience substantial damage from future events.

#### ***Alternative 3: Relocation***

This alternative would generally maintain the existing utility network. Short term impacts would occur during construction from possible outages. No significant long term impacts are expected to the utility infrastructure. Relocating utilities farther from waterways may make the facilities more resilient and much less likely to experience substantial damage from future events.

#### ***Alternative 4: Combination***

Generally, the impacts to utilities from this alternative would be similar to those described for Alternatives 2 and 3.

## **4.3 SAFETY AND OCCUPATIONAL HEALTH**

### **4.3.1 Affected Environment**

Safety and occupational health issues include exposure to natural hazards; one-time and long-term exposure to asbestos, lead, radiation, chemicals, and other hazardous materials; and injuries or deaths resulting from a one-time accident. Safety and occupational health concerns could impact personnel working on the project and in the surrounding area, as well as travelers using

the project sites. Utilities are damaged or isolated creating public safety issues due to disaster events. Structures may be present in the project area that were constructed prior to 1978 and have the potential to contain lead-based paint or asbestos.

Lead exposure can result from paint chips or dust, or inhalation of lead vapors from torch-cutting operations. Lead exposure can adversely affect the human nervous system. Due to the size of children, exposure to lead based paint is especially dangerous to small children. Occupational Health and Safety Administration (OSHA) considers all painted surfaces in which lead is detectable to have a potential for occupational health exposure.

Asbestos exposure can result from the inhalation of dust from a plethora construction materials or household products. In 1988 the EPA issued regulations requiring certain companies to report the asbestos used in their products. However, to this day these products can easily be found anywhere in the United States. Asbestos fibers cannot be seen with the naked eye and when inhaled can cause asbestosis that often progresses to disability and death.

Residents of Wyoming are vulnerable to natural hazards, the most significant of which include flood, debris flows, wildfire; drought, and windstorm. Other hazards that could impact Wyoming include hailstorm, lightning, and severe winter storms.

### **4.3.2 Environmental Consequences**

#### ***Alternative 1: No Action***

In the no action alternative utilities would not be repaired, leaving communities without service. Damaged utilities are a safety concern as they remain vulnerable to future events. Utility infrastructure may be abandoned. A No Action Alternative results in restricted power, sanitary, or communications access for emergency, police and fire services causing the potential for significant delay. The No Action Alternative provides a significant adverse safety affect to localities in Wyoming.

#### ***Alternative 2: Replacement***

Alternative 2 would have no significant impact to public safety or occupational health. Utilities would be built to current codes and standards. Removal or repair of materials with painted surfaces or containing Asbestos may be required and construction workers are required to follow OSHA regulations to provide appropriate Asbestos abatement and avoid release of lead from paint. Construction workers and equipment operators are required to wear appropriate personal protective equipment (PPE) and be properly trained for the work being performed. All solid or hazardous wastes that might be generated by the activities of entities replacing utilities must be removed and disposed of at a permitted facility or designated collection point (e.g., for solid waste, a utility or construction company's own dumpster). Standard construction traffic control measures will be used to protect workers, residents and the travelling public.

### ***Alternative 3: Relocation***

Alternative 3 would have no significant impacts to public safety or occupational health. The new relocated utility would be designed to handle the capacity of pre-event function. Removal of materials with painted surfaces or containing Asbestos may be required and construction workers are required to follow OSHA regulations to provide appropriate Asbestos abatement and avoid release of lead from paint. Construction workers and equipment operators are required to wear appropriate personal protective equipment (PPE) and be properly trained for the work being performed. All solid or hazardous wastes that might be generated by the activities of entities replacing utilities must be removed and disposed of at a permitted facility or designated collection point (e.g., for solid waste, a utility or construction company's own dumpster). Standard construction traffic control measures will be used to protect workers, residents and the travelling public.

### ***Alternative 4: Combination***

Generally the impacts to public safety or occupational health from this alternative would be similar to those described for Alternatives 2 and 3.

## **4.4 SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE**

### **4.4.1 Affected Environment**

The current statewide overview of potential losses to guide implementation of mitigation measures, to prioritize jurisdictions most at risk from natural disasters, and to integrate data provided in local risk assessments.

The Vulnerability Summary of this report summarizes the findings of the risk assessment with risk factor rankings and a statewide overview of potential losses and most vulnerable jurisdictions by hazard.

### **Population Projections and Development Trends**

The 2010 census data provides the most complete available population data. It was utilized in the last update and is not further updated in this planning cycle. The 2010 Census reveals Wyoming has experienced higher percentage growth greater than experienced over the United States over all. Wyoming's growth rate over the past ten years exceeded 14% while the national growth rate was only 9.7%. Despite Wyoming's faster paced growth, it remains predominately rural with a population density of not quite 6 persons per square mile and a total population of 563,626.

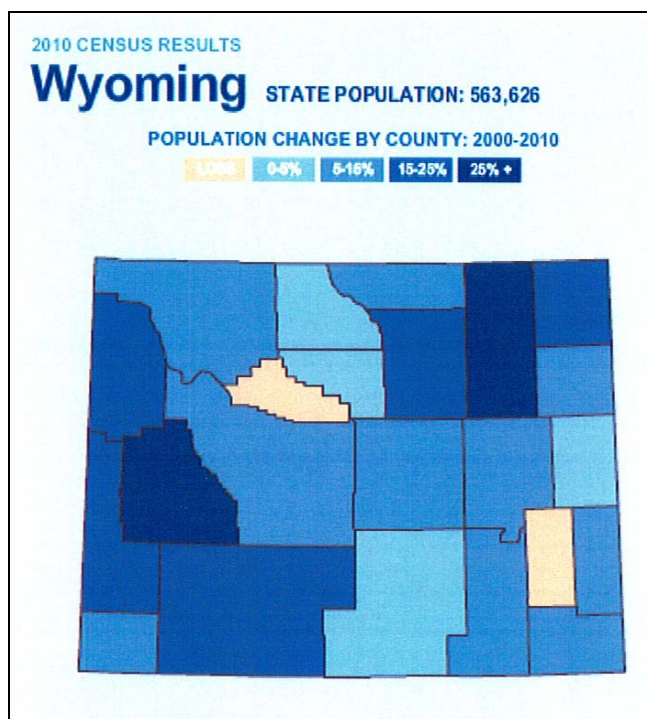
**Table 2. Population Change<sup>5</sup>**

State or Region	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	2010
<b>Population</b>	145,965	194,402	225,565	250,742	290,529	330,066	332,416	469,557	453,588	493,782	563,626
<b>Percent Change</b>	57.7%	33.2%	16.0%	11.2%	15.9%	13.6%	0.7%	41.3%	-3.4%	8.9%	14.1%
<b>People per sq. mile</b>	1.5	2.0	2.3	2.6	3.0	3.4	3.4	4.8	4.7	5.1	5.8
<b>Density Rank</b>	50	50	50	50	50	50	51	51	51	51	51

With a population of 563,626, Wyoming remains the state with the smallest population, as well as the least densely populated state with less than 6 persons per square mile. Laramie County in the southeast corner, and Natrona County, in the center of the state, are the most populated counties, followed by Campbell, Fremont, and Sweetwater Counties.

After twenty years of losing population (1970-1990) or maintaining a fairly steady population (1990-2000), the 2010 Census revealed Wyoming's population overall has increased at a slightly greater rate than the U.S. population overall in the years between 2000 and 2010. Two counties experienced a loss in population; two counties experienced a greater-than 25% increase in population, with the majority of the state's counties increasing in population by between 5%-16%. [See Appendix A]

<sup>5</sup> <http://2010.census.gov/2010census/data/index.php> (Accessed 5/3/2011)



**Figure 2. Population Change by County<sup>6</sup>**

The following map and table show population projection figures by county, as reported by the Wyoming A&I Economic Analysis Division (<http://eadiv.state.wy.us/pop/>). The table is sorted by estimated growth percent between 2010 and 2030. Percent growth was calculated using the following equation:  $\text{Population Growth} = (\text{2030 Pop} - \text{2010 Pop}) / \text{2010 Pop} * 100$ . Highest growth rates are expected in Sublette and Campbell Counties. This data is used in the plan to consider how changes in development might impact vulnerability and loss estimates across jurisdictions for all hazards in Wyoming.

<sup>6</sup> <http://www.census.gov/prod/cen2010/briefs/c2010br-01.pdf> (Accessed 5/3/2011)



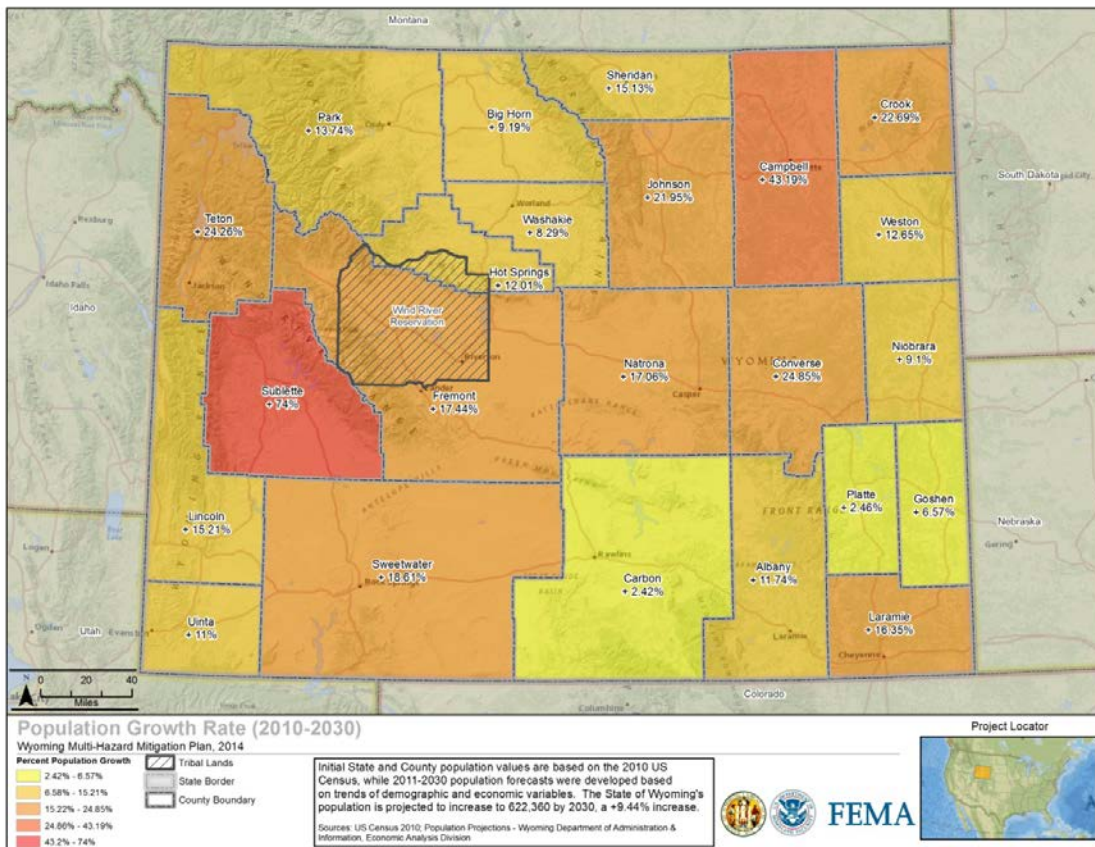


Figure 3. Anticipated Population Growth Rate 2010-2030

Table 3. Population Projections 2010-2030

Rank	County	2010	2020	2030	Percent Growth (2010-2030)
1	Sublette County	10,247	13,880	17,830	74.00%
2	Campbell County	46,133	56,890	66,060	43.19%
3	Converse County	13,833	15,950	17,270	24.85%
4	Teton County	21,294	23,360	26,460	24.26%
5	Crook County	7,083	8,040	8,690	22.69%
6	Johnson County	8,569	9,450	10,450	21.95%
7	Sweetwater County	43,806	49,280	51,960	18.61%
8	Fremont County	40,123	44,360	47,120	17.44%

Rank	County	2010	2020	2030	Percent Growth (2010-2030)
9	Natrona County	75,450	82,490	88,320	17.06%
10	Laramie County	91,738	99,710	106,740	16.35%
11	Lincoln County	18,106	19,170	20,860	15.21%
12	Sheridan County	29,116	31,380	33,520	15.13%
13	Park County	28,205	30,440	32,080	13.74%
14	Weston County	7,208	7,900	8,120	12.65%
15	Hot Springs County	4,812	5,310	5,390	12.01%
16	Albany County	36,299	38,910	40,560	11.74%
17	Uinta County	21,118	22,580	23,440	11.00%
18	Big Horn County	11,668	12,350	12,740	9.19%
19	Niobrara County	2,484	2,660	2,710	9.10%
20	Washakie County	8,533	9,130	9,240	8.29%
21	Goshen County	13,249	13,960	14,120	6.57%
22	Platte County	8,667	8,780	8,880	2.46%
23	Carbon County	15,885	16,380	16,270	2.42%
	<i>TOTALS</i>	<b>563,626</b>	<b>622,360</b>	<b>668,830</b>	<b>18.67%</b>

Development in Wyoming is driven by employment opportunities. Development also tends to focus within already-existing population centers. The table below shows building permitting over the ten-year period from 2001 through 2010 and documents development throughout the state. Based on building permitting, the counties experiencing the greatest development are Laramie, Natrona, Campbell, and Albany Counties.

The most significant increase in mineral extraction employment between 2000 and 2010 was experienced in Campbell County. Campbell County saw an increase of 3,060 employees in mineral extraction, which represents a 67.83% increase. Campbell County was followed by Uinta (696), Sublette (667), Converse (524) and Fremont Counties (386). Driven by employment increases, Campbell County has seen the most significant increase in development, followed by Laramie and Natrona Counties where the largest population centers are located.

## 4.4.2 Environmental Consequences

### ***Alternative 1: No Action***

Under the No-Action alternative, impacted utilities would not receive federal assistance. There is no requirement for compliance with Executive Orders (EO) 12898 (Environmental Justice) and 13045 (Protection of Children from Environmental Health Risks and Safety Risks) since there are no federal actions. Alternative 1 has potential to result in significant adverse impact to socioeconomics of a community if buildings and critical infrastructural elements such as utilities are not restored.

### ***Alternative 2: Replacement***

During the construction period this alternative may provide some short term benefits by providing construction jobs and a multiple effect of increased expenditures in the local economy. There may be major effects to populations during construction periods due to service interruption, road detours, and building construction.

Efforts would be made during any construction to minimize short-term disruption to the local utility system. Low income and minority populations may actually benefit during the construction process through the provision of construction jobs and multiplier effects of expenditures in the local economy. Any adverse impacts to low income or minority populations are expected to be short-term and not significant.

### ***Alternative 3: Relocation***

Generally, the impacts to socioeconomics and environmental justice from this alternative would be similar to those described for Alternative 2 although there is the potential for original utility infrastructure to be abandoned.

During the construction period this alternative may provide some short term benefits by providing construction jobs and a multiple effect of increased expenditures in the local economy.

In addition, this alternative would potentially impact agricultural production at some locations. The agricultural effects anticipated to result from where construction of new utilities requires acquiring farmland and converting it into a permanent ROW. Agricultural land conversions may adversely impact low income and minority population, if done at a significant scale. It is not anticipated that the amount of land required for utility relocations would be significant.

### ***Alternative 4: Combination***

Generally, the impacts to socioeconomics and environmental justice from this alternative would be similar to those described for Alternatives 2 and 3.

## 4.5 AIR QUALITY

### 4.5.1 Affected Environment

Wyoming is currently in attainment or maintenance for air quality.

### 4.5.2 Environmental Consequences

#### ***Alternative 1: No Action***

Under the No Action alternative, there would be no federal action. Alternative 1 has potential to permanently disrupt utility service to communities. Loss in residential, commercial, agricultural, or recreational land use may occur. Areas without utility access may experience a reduction in localized vehicle emissions; while other areas may experience an increase compared to pre-disaster conditions due to construction efforts related to the relocation of disaster affected communities.

#### ***Alternative 2: Replacement***

Construction of utilities may include pre-cast concrete and some poured in place concrete. During construction there may be temporary increases in equipment exhaust emissions and fugitive dust. However, the temporary increase in equipment exhaust is expected to be negligible as long as the equipment is well maintained and idling is minimized. All necessary measures must be taken to minimize fugitive dust emissions created during construction activities. Any complaints that may arise are to be dealt with in an efficient and effective manner.

If fugitive dust were to become a problem it can be mitigated by periodic watering of active construction areas, particularly areas close to any nearby sensitive receptors (e.g., hospitals, senior citizen homes, schools). Impacts from fugitive dust are anticipated to be short-term and negligible.

Where removal of utility infrastructure is required there would be some short term increase in fugitive dust and vehicular emissions. Mitigation of fugitive dust, if necessary, can be accomplished by periodically watering the demolition site.

The Wyoming Department of Public Health and Environment (WYDPHE) Air Pollution Control Division may require a land development permit. Projects that last less than 6 months and disturb less than 25 acres do not require a permit. Generator engines in place for more than one year would require a permit, though most projects should have a shorter duration.

#### ***Alternative 3: Relocation***

Generally, the impacts to air quality from this alternative would be similar to those described for Alternative 2.

### ***Alternative 4: Combination***

Generally, the impacts to air quality from this alternative would be similar to those described for Alternatives 2 and 3 with temporary air quality impacts affecting both the replacement and relocation project sites.

## **4.6 NOISE**

### **4.6.1 Affected Environment**

Sounds that disrupt normal activities or otherwise diminish the quality of the environment are considered noise. Noise that occurs during the night (9 p.m. to 7 a.m.) are generally considered more annoying than those that occur during normal waking hours (7 a.m. to 9 p.m.).

Noise events in the project vicinity are associated with climatic conditions (e.g., wind, thunder); transportation noise (e.g., traffic on roads, airplanes) and “life sounds” (e.g., people talking, children playing).

### **4.6.2 Environmental Consequences**

#### ***Alternative 1: No Action***

Under this alternative, utilities would remain damaged due to the event. This would result in a natural shift in occupation density and transportation patterns. Transportation noise along other roadway segments within the County may increase under this alternative due to increasing traffic on alternate roadways. Noise in the immediate area would decrease as communities may be abandoned. Overall noise levels in the immediate area may also decrease due to some migration of residents from the region.

#### ***Alternative 2: Replacement***

Utility restoration is anticipated to carry a similar noise level to that which it had at pre-disaster damage levels. Noise from construction activities may have short term adverse effects on persons who live nearby. Noise levels can be minimized by ensuring that construction equipment is equipped with a recommended muffler in good working order. Noise impacts on residences can also be minimized by ensuring that construction activities are not conducted during early morning or late evening hours. Noise levels of construction equipment (70 to 72 dB) at the distance in which affected parties would likely be located (>200 feet/60 meters) will not be of a duration to be significant.

#### ***Alternative 3: Relocation***

There would be no short term noise impacts from construction activities under this alternative at the original location. Noise from construction activities may have short term adverse effects on persons who live nearby. Noise levels can be minimized by ensuring that construction equipment is equipped with a recommended muffler in good working order. Noise impacts on residences

can also be minimized by ensuring that construction activities are not conducted during early morning or late evening hours. Noise levels of construction equipment (70 to 72 dB) at the distance in which affected parties would likely be located (>200 feet/60 meters) will not be of a duration to be significant.

***Alternative 4: Combination***

Generally, the noise impacts from this alternative would be similar to those described for Alternatives 2 and 3 with noise impacts affecting both the replacement and relocation project sites.

## **4.7 PUBLIC SERVICES AND UTILITIES**

### **4.7.1 Affected Environment**

Utility lines often cross or run along roads, either overhead or underground. Public services and utilities include:

- Fire protection
- Law Enforcement
- Emergency Medical Services
- Schools
- Water
- Wastewater
- Sanitation
- Solid waste disposal
- Stormwater drainage
- Electric utilities
- Natural gas
- Telephone/Telecommunications

### **4.7.2 Environmental Consequences**

***Alternative 1: No Action***

This alternative does not include any Agency action. Alternative 1 does have the potential to affect public services and utilities because natural hazards would continue to damage roads, bridges, utilities which would adversely impact the ability to provide service. Fire, emergency, law enforcement, and school services would be delayed as a result of continued inaccessibility of the route due to closed roads, bridges or disrupted utilities. Depending on the length of detour required or utility service unavailable these services could be significantly impacted. In addition, any utility repair crews may not be able to reach damaged utility lines, resulting in lengthy service outages.

**Alternative 2: Replacement**

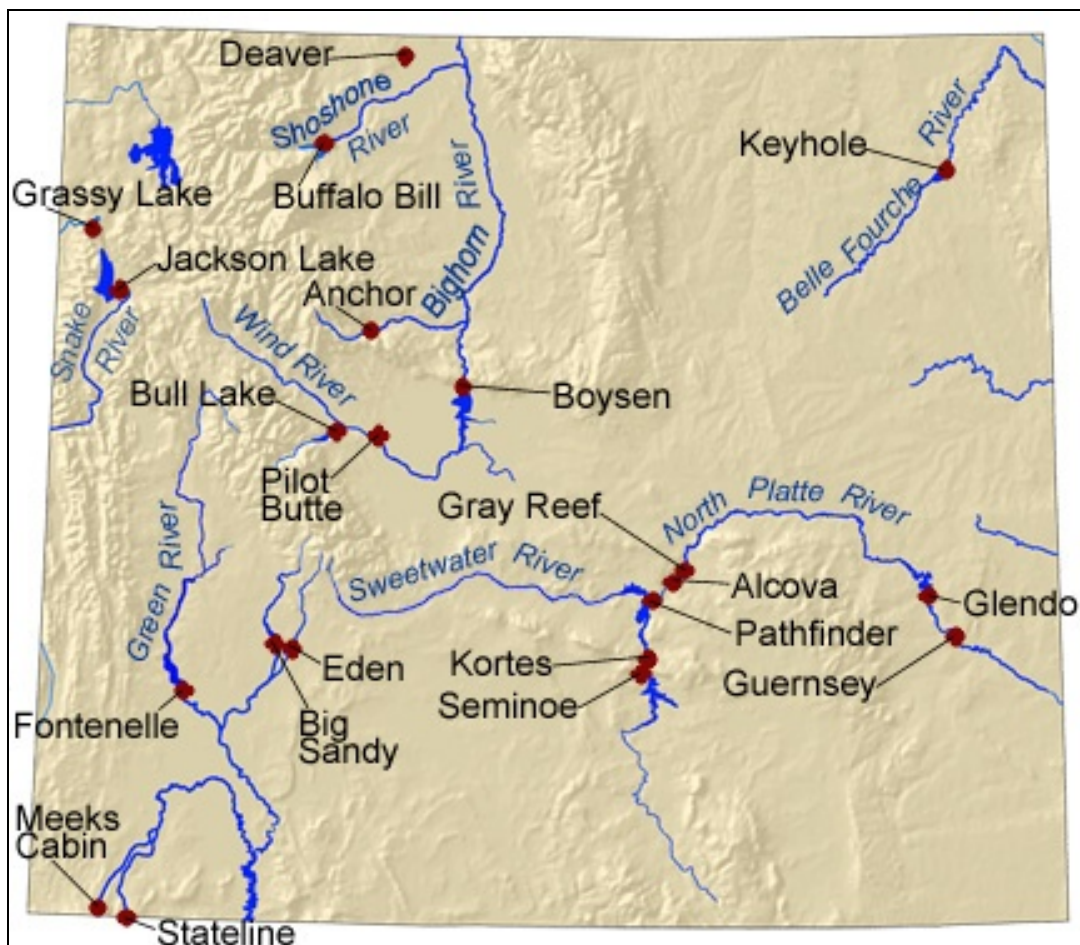
During construction utility interruption and delays in fire, emergency, law enforcement, and school services would continue, but these would be short term impacts. Once completed, public services would be restored to pre-disaster levels. No long term impacts would occur under this alternative.

**Alternative 3: Relocation**

Relocations could produce short term disruptions to customers. Fire, emergency, law enforcement, and school services could be temporarily impacted depending on the length of alternate routes.

**Alternative 4: Combination**

Utility services, fire, emergency, law enforcement, and school services may be temporarily delayed as a result of construction. Depending on the increase in the length of alternate routes, these services could be temporarily impacted. Impacts to utilities under this alternative would be similar to those described in Alternative 3.

**4.8 WATER RESOURCES**

### **4.8.1 Affected Environment**

Water resources in Wyoming are heavily regulated. Wyoming has more than 105,344 river miles and more than 249,787 lake acres. There are seven major river basins in Wyoming: the Arkansas, Rio Grande, San Juan, Wyoming, Green, Platte and Republican. Four major river systems – the Platte, Wyoming, Arkansas, and Rio Grande – originate within the mountains of Wyoming. These systems drain fully one-third of the landmass of the lower 48 states. Around 80 percent of the state’s population lives on the Eastern Slope of Wyoming between Fort Collins and Pueblo, but about 80 percent of Wyoming’s precipitation falls on the Western Slope.

Sixty-three percent of Wyoming’s 4.3 million residents obtain at least part of their water from areas west of the Continental Divide via natural channels and a vast network of artificial conveyances such as tunnels, ditches, aqueducts, pipelines, and canals.

Wyoming is divided into eight ground water regions: Kiowa-Bijou, Southern High Plains, Upper Black Squirrel Creek, Lost Creek, Camp Creek, Upper Big Sandy, Upper Crow Creek, and Northern High Plains. Groundwater provides 18% of public water supply and 85% of agricultural water supply in Wyoming. 2,780,000 acre-feet of ground water are used annually in Wyoming.

There are nine principle aquifers within the state that are categorized as follows: unconsolidated Quaternary age alluvial aquifers associated with the major river systems; poorly consolidated or unconsolidated sediments; consolidated sedimentary rock aquifers; and volcanic and crystalline rock aquifers.

#### ***Wild and Scenic Rivers***

Wyoming has approximately 108,767 miles of river, of which 408 miles are designated as wild & scenic—less than 4/10ths of 1% of the state's river miles.

#### **Snake River Headwaters**

The Snake River Headwaters encompasses parts of Yellowstone and Grand Teton National Parks, the John D. Rockefeller Memorial Parkway and the Bridger-Teton National Forest. The river lies at the heart of the Greater Yellowstone Area (GYA), often referred to as one of the last intact functioning temperate ecosystems on earth (U.S. House of Representatives 1985; Keiter and Boyce 1991; Schullery 1997). Thus, the rivers included in the Snake River Headwaters Legacy Act of 2009 (PL 111-11) are among the most pristine in the nation. They have many outstandingly remarkable values and offer myriad recreational opportunities.



**Designated Reach:**

1. Bailey Creek from the divide with the Little Greys River north to its confluence with the Snake River.
2. Blackrock Creek from its source to the Bridger-Teton National Forest boundary.
3. The Buffalo Fork of the Snake River consisting of: the North Fork, Soda Fork, and the South Fork, upstream from Turpin Meadows; and the Buffalo Fork from Turpin Meadows to its confluence with the Snake River.
4. Crystal Creek from its source to its confluence with the Gros Ventre River.
5. Granite Creek from its source to the end of Granite Creek Road and from Granite Hot Springs to the point one mile upstream from its confluence with the Hoback River.
6. The Gros Ventre River from its source to the upstream boundary of Grand Teton National Park, excluding the section along Lower Slide Lake, and the segment flowing across the southern boundary of Grand Teton National Park to the Highlands Drive Loop Bridge.
7. The Hoback River from the point 10 miles upstream from its confluence with the Snake River to its confluence with the Snake River.
8. The Lewis River from Shoshone Lake to Lewis Lake and from the outlet of Lewis Lake to its confluence with the Snake River.
9. Pacific Creek from its source to its confluence with the Snake River.
10. Shoal Creek from its source to the point eight miles downstream from its source.
11. The Snake River from its source to Jackson Lake, from one mile downstream of Jackson Lake Dam to one mile downstream of the Teton Park Road Bridge at Moose, Wyoming, and from the mouth of the Hoback River to the point one mile upstream from the Highway 89 Bridge at Alpine Junction.
12. Willow Creek from the point 16.2 miles upstream from its confluence with the Hoback River to its confluence with the Hoback River.
13. Wolf Creek from its source to its confluence with the Snake River.

**Classification/Mileage:**

Wild — 236.9 miles; Scenic — 141.5 miles; Recreational — 33.8 miles; Total — 412.2 miles.

November 28, 1990. From Crandall Creek Bridge downstream to the north boundary of Section 13, T56N, R104W at Clarks Fork Canyon.

### **Yellowstone River (Clarks Fork)**

Nationally, this river segment's scenery is important due to its near proximity to the Chief Joseph State Scenic Byway and the Beartooth All American Highway. (All American Highways are the National Scenic Byway Program's elite designation; approximately six National Byways have qualified for this title.) Generally, these scenic highways follow the Clarks Fork of the Yellowstone River with high mountain peaks in the background and very little development or other human activities nearby. National and international visitors travel this scenic/recreation corridor on their way to Yellowstone National Park.

The Clarks Fork possesses regionally and nationally important wildlife habitat for a diverse array of species including large carnivores and ungulates: grizzly bears, gray wolves, moose, elk, deer and other smaller species. The area offers world class fishing and hunting opportunities. Dramatic waterfalls exist within the inner gorges; few visitors trek the harsh and rugged terrain to access the river's gorges.

Most access is by wildlife, volunteer and other lightly defined paths; otherwise access to the river shores is by overland orienteering. Much of the river bottom and/or gorges are inaccessible to traditional hikers. This river segment offers a high-quality wilderness experience without the formal "wilderness" designation. Neither special access permit regulations nor fees are in effect. Review the Shoshone National Forest travel management maps and brochures prior to planning any motorized vehicle access

### **Classification/Mileage:**

Wild — 20.5; Total — 20.5 miles

Executive Order (EO) 11988 requires federal agencies to consider the effect of their actions on the floodplain, evaluate alternatives to taking action in the floodplain and to provide opportunity for public comment if there is no practicable alternative. Wyoming has 245 participating and 16 non-participating entities in the National Flood Insurance Program (NFIP). Under requirements established in 44 CFR Section 60.3, participating communities shall require permits for all development, including temporary development, in the Special Flood Hazard Areas (SFHA). Development is defined as “any man-made change to improved and unimproved real estate,

including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.” It includes both permanent and temporary actions such as stream crossings and conveyance structures (public and private), sediment removal, channel restoration and relocation, etc.

### ***Wetlands***

EO 11990 requires federal agencies minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands. To meet these objectives, the EO requires federal agencies, in planning their actions, to consider alternatives to wetland sites and limit potential damage if an activity affecting a wetland cannot be avoided. Wyoming has lost approximately half of its naturally occurring wetlands since settlement. Wetlands provide flood control, recharge groundwater, stabilize stream flows, improve water quality, and provide habitat for wildlife; however, these positive attributes have not always been recognized. The Federal Clean Water Act (CWA) requires that impacts to wetlands be avoided, then minimized, and finally mitigated. If no practicable alternative exists for wetland filling projects then wetlands will continue to be impacted in the face of development.

## **4.8.2 Environmental Consequences**

### ***Alternative 1: No Action***

In the No Action alternative, utilities are not repaired, leaving communities without services and vulnerable to future flood events. No work would occur in water, thus there would be no impact to water due to project work. Erosion and sedimentation may increase if banks are further damaged from being left unrepaired. Damaged utility infrastructure may cause a flow impediment, potentially causing significant impacts to stream and floodplain hydraulics and function.

### ***Alternative 2: Replacement***

Existing utilities may be expanded within the existing footprint or ROW. Fill material may be needed around utility infrastructure thus impacting waters. The discharge of fill material into surface water may provide a temporary alteration of surface water quality including but not limited to temperature, dissolved oxygen, or turbidity.

The design of some utility features may require a hydrologic analysis to determine the magnitude and frequency of flows and a hydraulic analysis to locate and size drainage facilities. During construction, the Agencies would mitigate impacts by requiring projects to apply Best Management Practices (BMPs) to reduce sediment and fill material from entering the water. Projects may be required to prepare a storm water pollution prevention plan (SWPPP). Projects may also be required to obtain a Section 404 or other permit from the U. S. Army Corps of Engineers (USACE) and a Section 401 Water Quality Certification permit from WY DEQ Water Quality Control Division or EPA. Discharges of water encountered during excavation or work in

wet areas may require a Construction Dewatering Discharge Permit. Project management is responsible for complying with any conditions outlined within these permits.

Because some utilities are location-dependent and potentially located within a floodplain, the scope of work of this alternative may have some impacts to the floodplains. Construction of utilities may result in alteration of the course or magnitude of floodwater. Utility repair and changes within floodplains may also have some impact. If changes to utility infrastructure is anticipated to impact the floodplain/floodway, Agency projects must adhere to EO 11988: Floodplain Management, which requires federal agencies to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of flood plains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. A hydrology and hydraulics report may be required to evaluate changes to stream hydraulics in detail and compliance with local ordinance will be required.

While this alternative is not expected to impact wetlands because actions are limited to existing ROWs, certain sites could result in some fill being placed in a wetland. This alternative would have little if any impact on increasing impervious surfaces, reduce groundwater recharge, and adversely affect water quality through the transmission of sediment, debris, oils, and hazardous substances into surface waters. During construction, the Agencies would mitigate these impacts by requiring the applicant to apply BMPs to reduce transport of sediment, debris, oils, concrete waste, and hazardous substances into wetlands or waterways.

The results of the analyses and consultation discussed above would be documented in a memorandum to this PEA or in a SEA.

### ***Alternative 3: Relocation***

This alternative would generate impacts similar to those described for Alternative 2.

### ***Alternative 4: Combination***

This alternative would generate impacts similar to those described for Alternative 2 and 3.

## **4.9 BIOLOGICAL RESOURCES**

Biological resources include native or naturalized plants and animals and the habitats (e.g., wetlands, forests, and grasslands) in which they exist. Protected and sensitive biological resources include federally listed (endangered or threatened), proposed, and candidate species designated by the United States Fish and Wildlife Service (USFWS). Sensitive habitats include those areas designated by the USFWS as critical habitat protected by the Endangered Species Act (ESA) and sensitive ecological areas as designated by state or federal rulings. Sensitive habitats also include wetlands, plant communities that are unusual or of limited distribution, and important seasonal use areas for wildlife (e.g., migration routes, breeding areas, crucial summer and winter habitats).

### 4.9.1 Affected Environment

#### *Vegetation*

Wyoming contains parts of six major eco-regions. The most prominent is the Southern Rockies, which occupies most of the state's central and western portions and the Great Plains-Palouse Dry Steppe in the eastern half of the state. Eco-regions include the Intermountain Semi-Desert and Desert, the Nevada-Utah Mountains and the Wyoming Plateau.

Many ecosystems in North America have evolved with fire as a natural and necessary contributor to habitat vitality and renewal. Many plant species in naturally fire-affected environments require fire to germinate. Natural wildland fuels and fuel patterns have been displaced or changed by the planting, cultivating, and production of crops and the grazing of domestic livestock.

**Table 4: Wyoming Ecosystems**

<b>Types of Ecosystems</b>
Douglas Fir Forest (Pseudotsuga)
Western Spruce-fir Forest (Picea-Abies)
Eastern Ponderosa Forest (Pinus)
Black Hills Pine Forest (Pinus)
Pine-Douglas Fir Forest (Pinus-Pseudotsuga)
Juniper-Pinyon Woodland (Juniperus-Pinus)
Mountain Mahogany-Oak Scrub (Cercocarpus-Quercus)
Saltbrush-Geasewood (Artiplex-Sarcobatus)
Alpine Meadows and Barren (Agrostis, Carex, Festuca, Poa)
Sagebrush Steppe (Artemisia-Agropyron)
Wheatgrass-Needlegrass Shrubsteppe (Agropyron-Stipa-Artemisia)
foothills Prairie (Agropyron-Festuca-Stipa)
Grama-Needlegrass-Wheatgrass (Bouteloua-Stipa-Agropyron)

<b>Types of Ecosystems</b>
Grama-Buffer Grass (Bouteloua-Buchloe)
Wheatgrass-Needlegrass (Agropyron Stipa)
Sandhills Prairie (Andropogon-Calamovilfa)

### **Wildlife**

Wyoming hosts about 750 species of fish, mammals, birds, reptiles, insects, and amphibians. Big game hunted in Wyoming includes black bear, deer, elk, pronghorn, moose, bighorn sheep, mountain goat, mountain lion and Turkey. Smaller game species hunted include sharp-tailed grouse, prairie chickens, sage grouse, mountain grouse, ptarmigan, and pheasants. Hunted waterfowl includes ducks, geese, and swans. Bobcat, otter and swift fox are trapped.

### **Protected Species**

There are 12 species listed as Endangered (E), Threatened (T), Candidate (C), or Proposed (P) (see Table 5) by the USFWS under ESA that historically occurred, occur, or may potentially occur within Wyoming. Twelve of these species have designated critical habitat in Wyoming.

7

**Table 5: Federally Listed Threatened, Endangered and Candidate Species in Wyoming**

#### **Listed species -- 12 listings**

##### **Animals -- 8 listings**

<b>Status</b>	<b>Species/Listing Name</b>
T	Bat, Northern long-eared Wherever found ( <a href="#"><i>Myotis septentrionalis</i></a> )
T	Bear, grizzly U.S.A., conterminous (lower 48) States, except where listed as an experimental population ( <a href="#"><i>Ursus arctos horribilis</i></a> )
T	Cuckoo, yellow-billed Western U.S. DPS ( <a href="#"><i>Coccyzus americanus</i></a> )
E	Dace, Kendall Warm Springs Wherever found ( <a href="#"><i>Rhinichthys osculus thermalis</i></a> )
E	Ferret, black-footed Wherever found, except where listed as an experimental population ( <a href="#"><i>Mustela nigripes</i></a> )
T	Lynx, Canada Contiguous U.S. DPS ( <a href="#"><i>Lynx canadensis</i></a> )
T	Mouse, Preble's meadow jumping wherever found ( <a href="#"><i>Zapus hudsonius preblei</i></a> )

<sup>7</sup> For U.S. Fish and Wildlife Service Endangered Species Information, Planning and Consultation System : <http://ecos.fws.gov/ipac/> or <http://www.fws.gov/ipac/>

<u>Status</u>	<b>Species/Listing Name</b>
E	Toad, Wyoming Wherever found ( <i>Bufo hemiophrys baxteri</i> )

#### Plants -- 4 listings

<u>Status</u>	<b>Species/Listing Name</b>
T	Butterfly plant, Colorado ( <i>Gaura neomexicana var. coloradensis</i> )
T	Ladies'-tresses, Ute ( <i>Spiranthes diluvialis</i> )
E	Penstemon, blowout ( <i>Penstemon haydenii</i> )
T	Yellowhead, desert ( <i>Yermo xanthocephalus</i> )

ENDANGERED (E) - Any species that is in danger of extinction throughout all or a significant portion of its range.

THREATENED (T) - Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

## 4.9.2 Environmental Consequences

### ***Alternative 1: No Action***

Under the No Action Alternative, no localized or regional effects to threatened or endangered species are expected. This alternative does not include any Federal action. Therefore, the Agencies would not be required to consult with USFWS to comply with the ESA, Migratory Bird Treaty Act (MBTA), Fish and Wildlife Coordination Act (FWCA), or state laws. Damaged utilities left in the stream may cause a flow impediment, which could in turn cause significant impacts to stream and floodplain hydraulics and function and negative impacts to fish habitat and passage.

### ***Alternative 2: Replacement***

The actions under this alternative may affect sensitive biological resources, wetlands, or natural waterways due to construction activities. A review must be conducted based on available information of the potential for species and critical habitat occurrence in the area. This alternative consists of performing work on utilities in existing alignments. Embankment work and in-water work may occur. This work may require a Senate Bill (SB) 40 permit from CPW for impacts to riparian areas. Alternative 2 may impact the federally-listed endangered, threatened, and proposed or candidate species identified in Table 3. As specific projects are identified, the impacts will be assessed and addressed as appropriate. The Agencies will consult with USFWS as necessary to ensure compliance with the ESA.

Migratory birds nest on many substrates (e.g., ground, shrubs, trees, utility boxes). Accordingly, should the proposed work occur during the breeding season (May 1<sup>st</sup> to August 15<sup>th</sup>), the Service recommends: the required cutting of trees or shrubs occur between August 16<sup>th</sup> and April 30<sup>th</sup> to remove potential nesting surfaces prior to project commencement; and the removal of swallow nests as they are built, but prior to egg laying, from the utility structures that are to be removed; and/or netting of the affected structures or implementation of other measures to prevent swallow nesting prior to the breeding season. In addition, some migratory birds are known to nest outside of the aforementioned primary nesting season period. For example, raptors can be expected to nest during February 1 through July 15. For projects near raptors it is recommended the CPW Raptor Guidelines be applied as necessary.<sup>8</sup> For implementation within 0.5 mile of occupied eagle nests, the National Bald Eagle Management Guidelines would be applied as necessary.<sup>9</sup>

This alternative will not disrupt the life cycle of indigenous fish species by preventing them from swimming upstream.

The Agencies will review the project and make a determination of effect. If an Agency determines that a project has the potential to affect sensitive biological resources, it will initiate the review process under the ESA, MBTA, or FWCA. The results of this consultation with USFWS would be documented in a memorandum to this PEA or in a SEA.

### ***Alternative 3: Relocation***

This alternative is expected to have effects similar to those discussed under Alternative 2 and will be treated the same.

### ***Alternative 4: Combination***

This alternative consists of performing work on existing utilities and building new utilities.

Alternative 4 is expected to have effects similar to those discussed under Alternative 2 and will be treated the same.

## **4.10 CULTURAL RESOURCES**

### **4.10.1 Affected Environment**

To preserve historical and archaeological sites in the United States of America, the National Historic Preservation Act (NHPA) passed in 1966. The Act created the National Register of Historic Places, the list of National Historic Landmarks, and the State Historic Preservation Offices (SHPO).

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<sup>8</sup> Wyoming State 2017 Wildlife Action Plan: <https://wgfd.wyo.gov/Habitat/Habitat-Plans/Wyoming-State-Wildlife-Action-Plan>

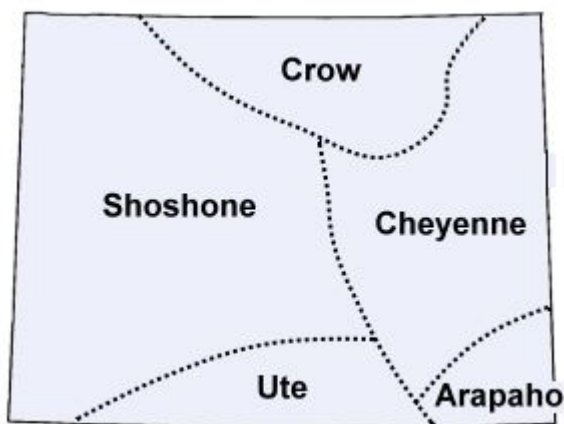
<sup>9</sup> U.S. Fish and Wildlife Service | National Bald Eagle Management Guidelines, <http://www.fws.gov/southdakotafieldoffice/NationalBaldEagleManagementGuidelines.pdf>



The National Register of Historic Places is the Nation's official list of cultural resources worthy of preservation and is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect our historic and archeological resources. Properties listed in the Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. To be eligible for listing, a property must meet one of four eligibility criteria and have sufficient integrity.

Wyoming has a rich cultural history. Native Americans have left petroglyphs, abandoned villages, and many other items from their life and travels throughout the state.

The historic Indians in Wyoming were nomadic tribes known as the Plains Indians. They were the Arapaho, Arikara, Bannock, Blackfeet, Cheyenne, Crow, Gros Ventre, Kiowa, Nez Perce, Sheep Eater, Sioux, Shoshone and Ute tribes.



Spanish explorers, trappers and hunters, and gold miners made their way through the state and settled in Wyoming. Westward expansion brought European settlers to the area, for mining, ranching, and farming. Wyoming has over 500 listings on the National Register.

#### **4.10.2 Environmental Consequences**

##### ***Alternative 1: No Action***

The No Action Alternative does not include construction, and thus no new impacts to historic resources would occur.

### ***Alternative 2: Replacement***

This alternative has the potential to affect historic or cultural resources. Destruction or alteration of any site, structure, or object of prehistoric or paleontological importance may occur during construction. Physical change could affect unique cultural values. There could be effects on existing religious or sacred uses of a site or area. Infrastructure may be of cultural significance or archeological resources may be present. For non-tribal lands, the Agencies will determine if a project meets any outlined programmatic allowances from Programmatic Agreements with the Wyoming SHPO. If so, the Agencies would consider the project to be in compliance with Section 106 of NHPA and no further review would occur. If a project does not fall within an allowance, the Agencies will make a determination of the effect and consult with the SHPO. Additional archaeological surveys of ground disturbing activities may be required depending on consultation with Tribal Historic Preservation Office (THPO) and SHPO.

### ***Alternative 3: Relocation***

Impacts are similar to those listed under Alternative 2 and will be treated the same.

### ***Alternative 4: Combination***

Impacts are similar to those listed under Alternative 2 and will be treated the same.

## **4.11 CUMULATIVE IMPACTS**

The CEQ regulations implementing the procedural provisions of NEPA defines “cumulative effects” as:

“the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or local) or person undertakes such other action”. 40 CFR 1508.7

Based on these regulations, if the alternative does not have direct or indirect effects, there can be no cumulative effects resulting from the project because there would be no impacts added to past, present, or reasonably foreseeable actions.

CEQ regulations also describe cumulative impacts as impacts that “can result from individually minor but collectively significant actions taking place over a period of time.” On a programmatic level and combined with other actions affecting the utilities and resource areas within Wyoming alternatives could lead to cumulative impacts depending on the scale (number of projects) or geography (localized area) in which the actions are performed.

### **4.11.1 Summary of Cumulative Impacts**

Individual projects proposed under this PEA are not anticipated to cause significant impacts, even when combined with other actions. Other than the “No Action Alternative”, project impacts that are implemented at an individual or cumulative scale, such as to produce significant

impacts generally can be reduced below the level of significance by mitigating for individual impacts using the mitigation measures as addressed in Section 5. The Utilities Checklist (Appendix A) will be used to define any significant individual or cumulative impacts requiring mitigation on a project specific basis. A Supplemental Project Specific Environmental Assessment (SEA) will be completed, for any projects that are anticipated to occur at a scale or localized area such that impacts cannot be addressed under Mitigation Measures listed in Section 5.

## SECTION FIVE | MITIGATION MEASURES

Project impacts at an individual or cumulative scale such that are significant impacts can generally be reduced through avoidance, minimization, or by mitigating for individual impacts using mitigation measures as described below. The Utilities Checklist (Appendix A) will be used to define any significant individual or cumulative impacts requiring mitigation on a project specific basis. If impact avoidance cannot be achieved, specific mitigation measures including agency consultation will be undertaken by the Agencies to reduce any potentially significant impacts to less than significant levels. Table 6 lists the specific mitigation measures the Agencies will use if necessary.

**Table 6: Mitigation Measures by Resource Area**

Resource Area	Mitigation Measure
Physical Resources, Water Resources	If projects extend outside of the previously disturbed footprint and wetland areas will be impacted, The Agencies will evaluate individual and cumulative impacts and implement avoidance, minimization and/or mitigation measures as necessary to reduce impacts below level of significance.
Physical Resources, Water Resources	For projects in which soil erosion potential is determined to be significant, a project erosion control plan to minimize soil loss, including the use of Best Management Practices, to isolate the construction site and minimize adverse effects of soil loss and sedimentation on soil and water resources will be implemented.
Physical Resources, Water Resources	To mitigate for impacts to floodplain, a hydrology and hydraulics study will be completed to ensure the flow of flood waters. The project must not serve as a dam or otherwise impede water movement thus aggravating flooding upstream of the roadway.
Physical Resources, Land Use	The Agencies will consult with US Fish and Wildlife Service and/or Natural Resources Conservation Service for any project which extends outside of the road right of way and has the potential to affect land use, including Fish and Wildlife Service easements, prime farmland, or farmland of state/local significance.
Safety and Occupational Health	To minimize any potential to occupation health and safety, construction workers and equipment operators are required to wear appropriate PPE and to be properly trained for the work being performed, including removal and disposal of asbestos and lead-based paint for demolition projects.
Safety and Occupational Health	All waste material associated with the project must be disposed of properly and not placed in identified floodway or wetland areas or in habitat for threatened or endangered species. All hazardous material resulting from demolition activities, including asbestos and lead paint will be disposed of in hazardous waste landfill.
Air Quality	To mitigate for fugitive dust during construction periodic watering of active construction areas, particularly in areas close to sensitive receptors (e.g. hospitals, senior citizen homes, and schools) will be implemented.
Noise	Construction noise levels will be minimized by ensuring that construction equipment is equipped with a recommended muffler in good working order. Impact to noise levels will be minimized by limiting construction activities that occur during early morning or late evening hours.

Resource Area	Mitigation Measure
Invasive Species	Ground disturbance will be minimized and disturbed areas will be re-vegetated using native plant species.
Biological Resources	The Agencies will consult with USFWS, who is the regulatory authority, on any actions that have the potential to affect biological resources including Threatened and Endangered species and will include measures to avoid or minimize potential impacts. Coordination will include measures to avoid or minimize potential impacts as grant conditions. This includes migratory birds and raptors. Projects may be subject to additional documentation through Wyoming CEQ Coordination.
Biological Resources	Fill material must not come from nor be deposited in threatened and/or endangered species habitat.
Biological Resources	The Agencies will coordinate with WY DNR concerning guidelines regarding impacts to State species of interest. Coordination may include measures to avoid or minimize potential impacts as grant conditions. This includes migratory birds and raptors.
Cultural Resources	Unless a project is covered under a programmatic agreement exemption all other ground disturbing projects must consult with the SHPO under Section 106 of the NHPA. The absence of cultural property documentation in the area does not mean they do not exist, but rather may reflect the absence of any previous cultural resource inventory in the area. If during the course of any ground disturbance related to this project, cultural materials are inadvertently discovered, the project would be immediately stopped and the SHPO/THPO and Agency notified.
Cultural Resources	To avoid impacts to cultural resources from material borrow source, borrow material source will be reviewed and approved by SHPO or THPO prior to use.
Cultural Resources	The Agencies will consult with the State/Tribal Historic Preservation Office on project specific activities for any project that has the potential to affect previously undisturbed areas or historic properties.

## SECTION SIX | SUMMARY OF IMPACTS

The following table summarizes the potential impacts of each alternative on the resource areas discussed in Section 4. The table is organized by the eight reaches identified during the SCMP process. Best construction practices are listed and the preliminary assessment of historical properties as well as the potential buyout candidates are summarized.

**Table 7: Summary of Impacts**

<b>Resource Area</b>	<b>Alternative 1:No Action</b>	<b>Alternative 2:Replacement</b>	<b>Alternative 3:Relocation/Realignment</b>	<b>Alternative 4:Combination</b>	<b>Permits and Conditions Required</b>
Physical Resources	Alternative 1 has potential to permanently disrupt utility service to communities. Loss in residential, commercial, agricultural, or recreational land use may occur. This could lead to vegetation reclaiming right-of-way's (ROW), public, private properties in the State of Wyoming.	Existing utilities would be expanded to accommodate best construction practices as well as the changes in topography. However, utility footprint is expected to remain within the previous ROW so no significant changes in land use are anticipated. If ROW acquisitions occur the Agencies will comply fully with federal and state requirements including the Uniform Relocation Assistance and Real Property Acquisition Policies act of 1970, as amended (Uniform Act).	Alternative 3 is similar to Alternative 2.. The Agencies will consult with US Fish and Wildlife Service and/or Natural Resources Conservation Service for any project which extends outside of the road right of way and has the potential to affect land use, including Fish and Wildlife Service easements, prime farmland, or farmland of state/local significance	Similar to alternative 2 and 3.	May need easements or permits from owner agency if new parcel boundaries/footprints extend into state or federal lands.
Transportation Facilities	This alternative may result in significant adverse impacts due to lack of access to community sustaining utilities.	Short term impacts would be expected during construction as temporary outages may be required. No significant adverse long term impacts are expected to the utility infrastructure form and function.	Short term impacts would occur during construction from possible outages. No significant long term impacts are expected to the utility infrastructure. Relocating utilities further from waterways may make the facilities be more resilient and much less likely to experience substantial damage from future events.	Similar to alternative 2 and 3.	N/A
Safety and Occupational Health	A No Action Alternative results in restricted power, sanitary or communications access for emergency, police and fire services causing the potential for significant delay. The No Action Alternative provides a significant adverse safety affect to localities in the state of Wyoming.	Alternative 2 would have no significant impact to public safety or occupational health. Utilities would be built to current codes and standards. Removal or repair of materials with painted surfaces or containing Asbestos may be required and construction workers are required to follow OSHA regulations to provide	Alternative 3 is similar to alternative 2 and would have no significant impacts to public safety or occupational health. The new relocated utility would be designed to handle the capacity of pre-event function.	Similar to alternative 2 and 3.	N/A

Resource Area	Alternative 1:No Action	Alternative 2:Replacement	Alternative 3:Relocation/Realignment	Alternative 4:Combination	Permits and Conditions Required
Safety and Occupational Health	Continued from above	appropriate Asbestos abatement and avoid release of lead from paint. Construction workers and equipment operators are required to wear appropriate personal protective equipment (PPE) and be properly trained for the work being performed. All solid or hazardous wastes that might be generated by the activities of entities replacing utilities must be removed and disposed of at a permitted facility or designated collection point (e.g., for solid waste, a utility or construction company's own dumpster). Standard construction traffic control measures will be used to protect workers, residents and the travelling public.	Continued from above	See above	N/A
Socioeconomic and Environmental Justice	Alternative 1 has potential to result in significant adverse impact to socioeconomics of a community if buildings and critical infrastructural elements such as utilities are not restored.	Potential short-term benefits through job creation in construction and increased expenditures in local economy. Small negative impacts from travel delays due to construction.	Generally the impacts to socioeconomics and environmental justice from this alternative would be similar to those described for Alternative 2 although there is the potential for original utility infrastructure to be abandoned.	Similar to alternative 2 and 3.	N/A
Air Quality	Possible increase in vehicle emissions if detour routes are longer than the routes they replaced.	Temporary increase in vehicle emissions, dust from construction, etc. during construction. No change in air quality after construction is complete.	Similar to alternative 2 and 3.	Similar to alternative 2 and 3.	N/A
Noise	Under this alternative, utilities would continue to be damaged due to the event. This would result in a natural shift in occupation density and transportation patterns. Transportation noise along other roadway segments within the County may increase under this alternative due to increasing traffic on alternate roadways. Noise in the immediate area would decrease as communities	Utility restoration is anticipated to carry a similar noise level to that which it had at pre-disaster damage levels. Noise from construction activities may have short term adverse effects on persons who live near the construction area.	No short term noise impacts would occur from construction activities under this alternative at the original location. Noise from construction activities may have short term adverse effects on persons who live near the new construction area.	Similar to alternative 2 and 3.	N/A

Resource Area	Alternative 1:No Action	Alternative 2:Replacement	Alternative 3:Relocation/Realignment	Alternative 4:Combination	Permits and Conditions Required
Noise	may be abandoned. The potential exists that overall noise levels in the immediate area may also decrease due to some migration of residents from the region.	Continued from above	See above	See above	N/A
Public Services and Utilities	This alternative does not include any Agency action. Alternative 1 does have the potential to affect public services and utilities because natural hazards would continue to damage utilities which would adversely impact the ability to provide service. Fire, emergency, law enforcement, and school services would be delayed as a result of continued inaccessibility of the route due to closed roads, bridges or disrupted utilities. Depending on the length of detour required or utility service unavailable these services could be significantly impacted. In addition, any utility repair crews may not be able to reach damaged utility lines, resulting in lengthy service outages.	During construction utility interruption and delays in fire, emergency, law enforcement and school services would continue, but these would be short term impacts.	Relocations could produce short term disruptions to customers. Fire, emergency, law enforcement, and school services could be temporarily impacted depending on the length and location of alternate routes.	Similar to alternative 2 and 3.	N/A
Water Resources	In the no action alternative, utilities are not repaired, leaving communities without services and vulnerable to future flood events. No work would occur in water, thus there would be no impact to water due to project work. Erosion and sedimentation may increase if banks are further damaged from being left unrepaired. Damaged utility infrastructure may cause a flow impediment, potentially causing significant impacts to stream and	This alternative may result in discharge into surface water may provide a temporary alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity. Construction of utilities may result in alteration of the course or magnitude of floodwater. Utility repair and changes within floodplains may also have some impact. If changes to utility infrastructure is anticipated to impact the floodplain/floodway, Agency projects must adhere to Executive Order 11988:	This alternative would generate impacts similar to those described for Alternative 2.	Similar to alternative 2 and 3.	Projects may require a hydrologic analysis. During construction the Agencies would apply Best Management Practices (BMPs) to reduce sediment and fill material from entering the water or being deposited in wetlands. Projects may be required to prepare a storm water pollution prevention plan (SWPPP), to obtain a Section 404 or other permit from the U. S. Army Corps of Engineers and a Section 401 Water Quality Certification permit from WY DEQ Water Quality Control Division or EPA. Discharges of water encountered during excavation or work in wet areas may require a Construction Dewatering



<b>Resource Area</b>	<b>Alternative 1:No Action</b>	<b>Alternative 2:Replacement</b>	<b>Alternative 3:Relocation/Realignment</b>	<b>Alternative 4:Combination</b>	<b>Permits and Conditions Required</b>
Water Resources	floodplain hydraulics and function.	Floodplain Management	See above	See above	Discharge Permit.
Biological Resources	No impacts to threatened or endangered species expected. Damaged structures left in the stream corridor could impede streamflow and impact fish habitat and passage.	Potential to impact biological resources. The Agencies will review projects and make determinations of affect.	Potential to impact biological resources. The Agencies will review projects and make determinations of affect.	Similar to alternative 2 and 3.	Possible consultation with USFWS to comply with the ESA, Migratory Bird Treaty Act (MBTA), Fish and Wildlife Coordination Act (FWCA), or state laws
Cultural Resources	No impacts expected.	Potential to impact cultural resources. Archaeological survey may be required depending on consultation with Tribal Historic Preservation Office (THPO) and State Historic Preservation Office (SHPO). No historic buildings identified in this reach.	Similar to alternative 2.	Similar to alternative 2 and 3.	Possible consultation with Tribal Historic Preservation Office (THPO) and State Historic Preservation Office (SHPO).

## SECTION SEVEN | PUBLIC INVOLVEMENT

### 7.1 INITIAL PUBLIC NOTICE

The following Initial Public Notice was published in the *Casper Star Tribune* May 18, 2017.

#### **PUBLIC NOTICE OF INTENT TO PREPARE A PROGRAMMATIC ENVIRONMENTAL ASSESSMENT (PEA)**

The Federal Emergency Management Agency (FEMA) is providing notice of its intent to prepare a Programmatic Environmental Assessment (PEA) to evaluate utility projects in the State of Wyoming. We provide this notice to advise other Federal and State agencies, Native American tribes, non-governmental organizations, and the public of our intention as well as to obtain suggestions and information on the scope of issues to consider during the PEA planning process. These actions are part of our effort to comply with the general provisions of the National Environmental Policy Act (NEPA); NEPA regulations; other Federal laws, regulations, and Executive Orders; and our policies for compliance with those laws and regulations including 44 C.F.R. Parts 9 and FEMA Directive 108-1 & Instruction 108-1-1..

Our PEA will focus on numerous utilities located in Wyoming that require repair, replacement, restoration, or relocation as a result of damages sustained during disaster events. A “utility” supplies a community with electricity, gas, water, or sewage services. In an effort to restore these utilities or mitigate from future events, FEMA (and other agencies) may provide funds for expansion, enlargement, and other upgrades along with replacement, relocation, or changes in materials. The purpose of the PEA is to provide an assessment of the expected environmental impacts associated with implementing these projects. More specifically, it will address the purpose and need of the proposed projects, project alternatives considered, affected environment, environmental consequences, and impact of mitigation measures. The PEA would not address site-specific impacts, which would be evaluated prior to project approval.

The projects would be performed within existing rights of way to the extent practicable. However, because disaster events may have disrupted original footprints there will be situations that warrant upgrading a site to meet existing codes and standards or to address conditions that have changed since the original construction. All Federally-funded projects will be completed in compliance with applicable Federal, tribal, state and local laws, regulations, Executive Orders, etc. Some specific items of work may include, but not be limited to:

- Placement of temporary crossings, utilities, staging areas, access, and safety features.
- Repair, replacement, and relocation of production, transmission, and treatment facilities in order to provide communities with utility services.

- Construction, excavation, trenching, and directional boring to allow repair, replacement, and relocation of utilities and ancillary facilities.
- Upsizing, encasing, armoring, and upgrading utilities to improve function and protect from future events.
- Repair and reconstruction of adjacent roadway and other connected infrastructure necessary to restore function.
- Operating equipment within waterways to allow repair, replacement, and relocation of utilities.

The comment period for the proposed PEA will remain open for one week following publication of this notice. After gathering public comments, FEMA will develop a draft PEA that will be available for public review and comment according to FEMA Directive 108-1 & Instruction 108-1-1.

You can obtain more detailed information about the proposed PEA from Steven Hardegen, FEMA Region VIII, Regional Environmental Officer, Denver, CO [steven.hardegen@fema.gov](mailto:steven.hardegen@fema.gov).

Comments should be made in writing to the FEMA point of contact listed above and post-marked within seven (7) days of publication of this notice.

## **7.2 PUBLIC NOTICE OF AVAILABILITY FOR DRAFT COMMENTARY**

The following Public Notice of availability was published in the *Casper Star Tribune* on May 27, 2017. For comments received see Appendix C.

### **PUBLIC NOTICE OF AVAILABILITY FOR COMMENT ON A PROGRAMMATIC ENVIRONMENTAL ASSESSMENT (PEA)**

The Federal Emergency Management Agency (FEMA) is providing notice of availability for comment on a Programmatic Environmental Assessment (PEA) to evaluate utility projects in the State of Wyoming. We provide this notice to invite other Federal and State agencies, Native American tribes, non-governmental organizations, and the public to provide commentary or suggestions on the scope of issues considered during the PEA planning process. These actions are part of our effort to comply with the general provisions of the National Environmental Policy Act (NEPA); NEPA regulations; other Federal laws, regulations, and Executive Orders; and our policies for compliance with those laws and regulations including 44 Code of Federal Regulations [CFR] Part 9 and FEMA Directive 108-1.

Our PEA focuses on numerous utilities located in Wyoming that require repair, replacement, restoration, or relocation as a result of damages sustained during disaster events. A “utility” supplies a community with electricity, gas, water, or sewage services. In an effort to restore these utilities or mitigate from future events, FEMA (and other agencies) may provide funds for expansion, enlargement, and other upgrades along with replacement, relocation, or changes in materials. The purpose of the PEA is to provide an assessment of the expected environmental impacts associated with implementing these projects. More specifically, addresses the purpose and need of the proposed projects, project alternatives considered, affected environment, environmental consequences, and impact of mitigation measures. The PEA does not address site-specific impacts, which will be evaluated prior to project approval.

The projects will be performed within existing rights of way to the extent practicable. However, because disaster events may have disrupted original footprints there will be situations that warrant upgrading a site to meet existing codes and standards or to address conditions that have changed since the original construction. All Federally-funded projects will be completed in compliance with applicable Federal, tribal, state and local laws, regulations, Executive Orders, etc. Some specific items of work may include, but not be limited to:

- Placement of temporary crossings, utilities, staging areas, access, and safety features.
- Repair, replacement, and relocation of production, transmission, and treatment facilities in order to provide communities with utility services.
- Construction, excavation, trenching, and directional boring to allow repair, replacement, and relocation of utilities and ancillary facilities.
- Upsizing, encasing, armoring, and upgrading utilities to improve function and protect from future events.
- Repair and reconstruction of adjacent roadway and other connected infrastructure necessary to restore function.
- Operating equipment within waterways to allow repair, replacement, and relocation of utilities.

The Utilities PEA can be found at: <https://www.fema.gov/media-library/assets/documents/131782> and on the <http://hls.wyo.gov/index.aspx>. Comments will be accepted from the affected public; local, state, and federal agencies; and other interested parties in order to consider and evaluate

environmental impacts of the proposed projects. The comment period for this PEA will remain open for two weeks following publication of this notice.

You can obtain more detailed information about the proposed PEA from Steven Hardegen, FEMA Region VIII, Regional Environmental Officer, P.O. Box 25267 Denver, CO 80225  
steven.hardegen@fema.gov.

Comments should be made in writing to the FEMA point of contact listed above and post-marked within fourteen (14) days of publication of this notice.

C

## SECTION EIGHT | REFERENCES

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## SECTION NINE | LIST OF PREPARERS

This PEA was prepared by:

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- Richard Myers, FEMA Dep. Regional Environmental Officer

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