



Improvement of Utility Systems in Cheyenne, WY

*Programmatic Environmental Assessment
Wyoming | January 2015*



FEMA

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ACRONYMS AND ABBREVIATIONS

BMP	Best Management Practice
BOPU	Board of Public Utilities
CDBG-DR	Community Development Block Grant – Disaster Recovery
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
DHS	Department of Homeland Security
EA	Environmental Assessment
EDA	Economic Development Administration
EO	Executive Order
EPA	Environmental Protection Agency
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	Department of Housing and Urban Development
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

SECTION ONE | INTRODUCTION

1.1 OVERVIEW

The Federal government, through multiple agencies and their programs, may fund a variety of actions to repair, replace, relocate upgrade, expand, redesign and install public utilities in the City of Cheyenne, Laramie County, Wyoming. A utility is defined here as an infrastructure system supplying a community with electricity, natural gas, water (potable and waste) or sewage (sanitary and storm) services. The Federal Emergency Management Agency (FEMA) has prepared this Programmatic Environmental Assessment (PEA) to identify Federal resources with the potential to fund projects in the City of Cheyenne and to analyze the potential environmental consequences associated with the proposed Federal action and the “No Action alternative in accordance with the National Environmental Policy Act (NEPA) (42 United States Code (U.S.C.) 55 parts 4321 et seq., 2000), the Council on Environmental Quality (CEQ) implementing regulations (40 Code of Federal Regulations (C.F.R.) 30 parts 1500 et seq., 2004) and 44 C.F.R. Emergency Management and Assistance Ch. I Part 10.

1.2 BACKGROUND

Aging infrastructure and population growth have limited the ability of some existing utility systems maintained and operated by the City of Cheyenne to function as designed. Inadequate utilities, e.g. potable and waste water treatment infrastructure, and storm drainage systems, have contributed to loss of function, property damage and health/safety concerns due to the failure of the utility systems to keep pace with increased needs of the rapidly growing city. In some locations the limited function poses of these systems poses a threat to public safety, improved property and infrastructure. Failure of utility 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, water and wastewater treatment, and sheltering and protection from the elements creating a potential threat to life, public health and safety.

The project area being evaluated under this PEA is confined to the city limits of Cheyenne. The City of Cheyenne Planning Services Department is responsible for city planning, construction and development services, transportation planning, engineering & historic preservation. There are several coordinated, comprehensive planning documents in place or under consideration by the City of Cheyenne. These documents all consider impacts to the human and natural environments, discussed alternatives and have included the opportunity for public comment.

1.3 PROGRAMMATIC PROCESS

In the spirit of Unified Federal Review as outlined in SRIA, coordination was conducted between FEMA and the US Economic Development Administration (EDA) in order to facilitate a comprehensive strategy to address recovery and mitigation efforts for the City of Cheyenne, Wyoming. Utility projects may be funded through a variety of federal sources including, but not limited to, grants provided by FEMA, EDA and other Federal agencies (the Agencies), which may use this document to demonstrate compliance with NEPA at their discretion and under their own authorities.

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 (EA) is required and can be grouped by type of action or location. FEMA proposes that certain groups of actions related to the relocation and/or installation of utility systems can be evaluated in a PEA for compliance with NEPA and its implementing regulations without the need to develop an individual EA for every action.

The interagency environmental analysis found that the project types identified in this PEA would not have a significant impact on the quality of the environment if noted mitigation measures are implemented. Compliance with all other federal, tribal, state and local laws, regulations, Executive Orders, etc. is required and would be evaluated on a project-specific basis. All entities using this PEA must complete the Utility Checklist (Appendix A) to document the project specific information and ensure that the project is consistent with the PEA. If the description of the site-specific project work and the levels of analysis are fully and accurately described in this PEA, then Agencies would take no further action other than what is necessary to support and document that conclusion.

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) would be prepared to address the specific action. The SEA would be tiered from this PEA, in accordance with 40 CFR Part 1508.28. Actions that are determined during the preparation of the SEA to require a more detailed or broader environmental review than covered in this document would be subject to project specific NEPA analysis and documentation.

Figure 1 **Area Map of Wyoming**

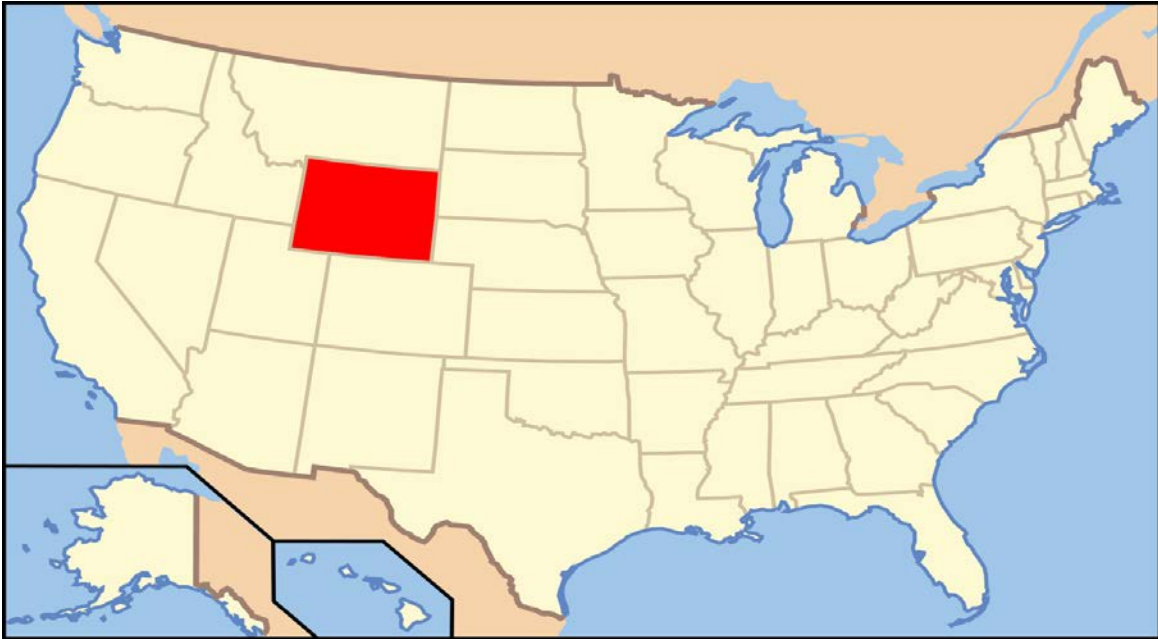
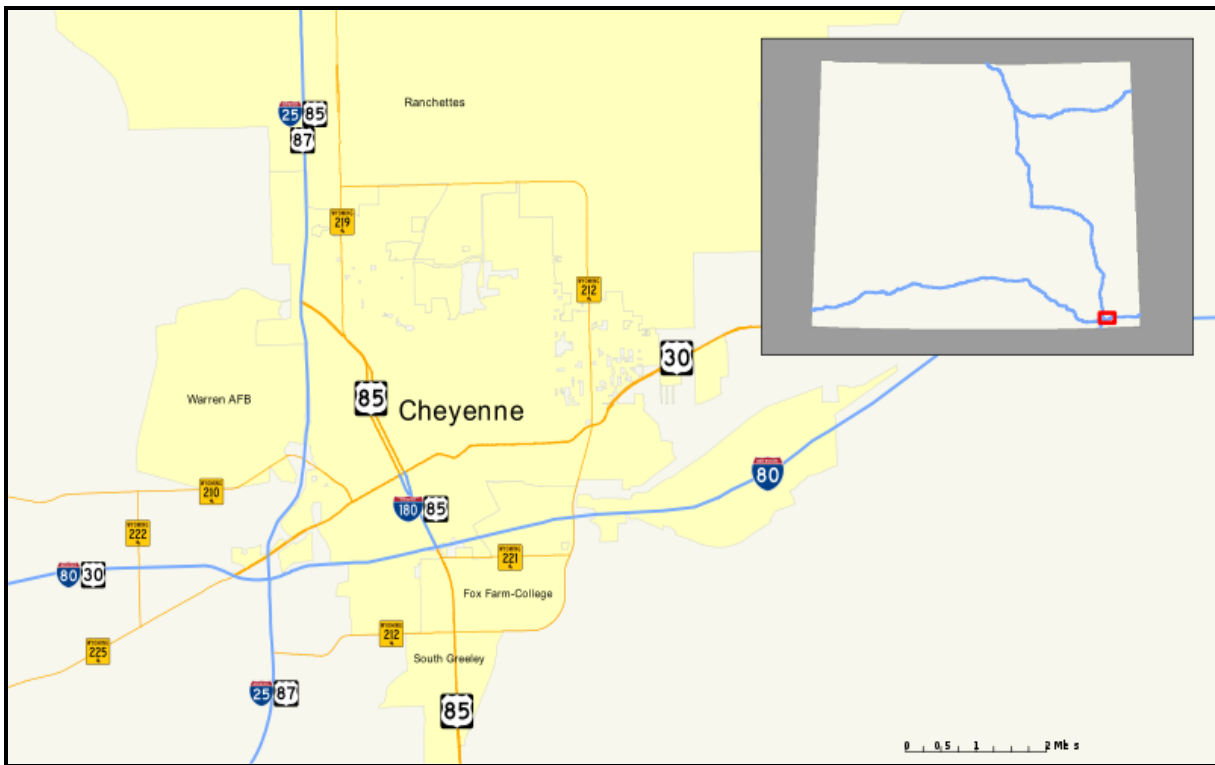


Figure 2 **Area Map of Cheyenne**



SECTION TWO | PURPOSE AND NEED

This PEA addresses potential projects where the installation and/or relocation of utilities would be undertaken by Agencies to improve the function of utility systems. 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.

Federal Agencies would use this PEA to determine the level of environmental analysis and documentation required under NEPA for permanent improvements to utility systems using any of the proposed alternatives. These agencies all have programs that share a similar goal of helping state, local, or tribal governments recover from disasters and mitigate future losses.

Aging infrastructure and population growth have limited the ability of some existing utility systems maintained and operated by the City of Cheyenne to function as designed. The need for the proposed projects is to install and/or relocate utilities in order to meet the goals of these programs, including:

- Providing utility systems with a safe, sustainable, and permanent function and capacity;
- Minimizing and mitigating future losses and impacts on the essential utilities; and
- Developing and constructing resilient facilities with minimal impacts to natural and historic resources.

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 action an Agency determines is necessary to develop the utility, and the individual characteristics of the specific site, there may be only one viable option to be implemented. Some specific items of work may include, but are not limited to:

- Placement of temporary crossings, utilities, staging areas, access, and safety features.
- Restoration, installation and relocation of production, transmission, and treatment facilities needed in order to provide and enhance 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.

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) would 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 relocation or installation of utility systems on a programmatic level. This alternative provides a benchmark against which other alternatives may be evaluated.

"No Action" means that no federal funds would be provided and, for the purpose of the environmental analysis, assumes the proposed action would not take place. The utility would remain in its existing condition and availability of services would not be restored. Under the No Action Alternative local governments would have to rely on savings, insurance, loans, or other forms of assistance to install or relocate utilities.

Alternative 2: Installation

This alternative includes installation of new utilities within existing utility or transportation corridors or ROW, and/or otherwise developed areas. They may be combined to repair, improve and/or relocate of some segments of the existing system. These improvements may be needed to restore or expand the design capacity of existing systems, and may include such items as detention and retention ponds. These projects may also include actions such as bank stabilization, grade control, etc. needed in order to mitigate hazards such as bank erosion and slope failures in a particular segment. Reconstruction of existing roadway infrastructure is considered to be part of the repair or restoration of the entire system. Applicable codes and standards would be followed for all design and construction. Compliance with all other federal, tribal, state and local laws, regulations, Executive Orders, etc. is required and would be evaluated on a project-specific basis.

Alternative 3: Relocation

This alternative applies to relocation of all or part of an existing utility to a new location within the existing system. Aging infrastructure and population growth have limited the ability of existing systems to function as designed. In some locations the current utility alignment poses a threat to public safety and the existing infrastructure. Utilities in these locations may need to be relocated to protect life safety and prevent or minimize damage during future disaster events. Relocation of the utility would occur within existing utility or transportation corridors or right-of-way (ROW) and/or otherwise developed areas, and may be combined with replacement, repair and/or restoration of some segments of the existing system. Reconstruction of existing roadway infrastructure is considered to be part of the repair or improvements to the entire system. Utility relocations would contain a beginning and end point that tie to the original segment or newly installed segments of the system. Segments that are replaced would be abandoned and/or removed. Applicable codes and standards would be followed for all design and construction. Compliance with all other federal, tribal, state and local laws, regulations, Executive Orders, etc. is required and would be evaluated on a project-specific basis.

Changes to materials and dimensions are included in this alternative, as are upgrades needed to meet current codes, standards, and upgrades warranted to address conditions that have changed since the original construction. These projects may also include actions such as bank stabilization, grade control, etc. needed in order to mitigate hazards such as bank erosion and slope failures in a particular segment, as part of the improvements to the entire system. Applicable codes and standards would be followed for all design and construction. Applicable codes and standards would be followed for all design and construction. Compliance with all other federal, tribal, state and local laws, regulations, Executive Orders, etc. is required and would be evaluated on a project-specific basis.

Alternative 4: Combination

Alternative 4 includes some combination of the No Action, Installation and/or Relocation of inadequate or damaged utilities. 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 for a particular segment. New utilities may be installed within the same system or existing utilities may be replaced, repaired or relocated to restore the function of the infrastructure and reduce the risk of damage in the future. Reconstruction of existing roadway infrastructure is considered to be part of the repair or improvement of the entire system. Applicable codes and standards would be followed for all design and construction. Compliance with all other federal, tribal, state and local laws, regulations, Executive Orders, etc. is required and would be evaluated on a project-specific basis.

3.3 ALTERNATIVES NOT CONSIDERED

Federal grant funding may be used repair or replace utilities in their existing location to their existing capacity, including minor mitigation upgrades. These types of projects typically fall into an Agency-specific Statutory or a Categorical Exclusion under NEPA and would be evaluated accordingly. No further review of these types of projects would be considered in this PEA. 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 would be fully evaluated to determine the appropriate level of NEPA review and documentation.

SECTION FOUR | AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

4.1 PHYSICAL RESOURCES

4.1.1 Affected Environment

Wyoming (Figure 1) is a great plateau broken by many mountain ranges within the High Plains physiographic province and Denver Basin: a geologic structural basin which spans eastern Colorado, western Nebraska and western Kansas. The western two thirds of the state are covered mostly with the mountain ranges, foothills and rangelands of the Eastern Rocky Mountains, while the eastern third of the state is high elevation prairie.

Cheyenne (Figure 2) is situated north and east of the intersection of Interstate 25 and Interstate 80 on Crow Creek, a tributary of the South Platte River. It is the capital and the most populous city in Wyoming and the seat of Laramie County. The Cheyenne Metropolitan Statistical Area includes all of Laramie County, but this PEA applies only to actions occurring within the city limits of Cheyenne. Since it was platted in 1867, development has occurred leading to predominantly residential, commercial, industrial and public land use. Cheyenne has been built-up into a heavily developed, urbanized area, crisscrossed by a network of utility corridors and transportation ROW. Downtown Cheyenne is the community's cultural, business, and historic heart with roughly \$70 million in public and private investment having occurred in the downtown district in recent years.

The City of Cheyenne, at an elevation of 6,062 above mean sea level, is characterized by gently rolling terrain typical of plains physiography interspersed with hills and ridges (Stevenson 2001). It is comprised of 24.63 square miles (sq. mi.) of which 24.5 sq. mi. is land and 0.11 sq. mi. is water. The climate is semi-arid with the heaviest snowfall in March and April and average temperatures ranging from a low of 18.0 ° Fahrenheit (F) to an average high of 83.4 F° (Wikipedia 2014). The project area is rimmed with upturned sedimentary rock, with the interior being filled with alluvial sediments. Soil, surface and underground water, oil, sand, gravel, and the native vegetation are the major natural resources.

4.1.2 Environmental Consequences

Alternative 1: No Action

Under the No Action alternative, no federal action would be completed. Alternative 1 has potential to permanently disrupt utility service resulting in the loss of the highest and best use of residential, commercial, industrial and public land.

Alternative 2: Installation

Under this alternative, new utility infrastructure would be installed where none currently exists. However, utility installation and any related road reconstruction would take place within the existing utility corridors and transportation right-of way in a heavily developed, urbanized area. New utilities could connect with existing systems or could function on a stand-alone basis. Existing utilities could be improved or expanded to accommodate the need for increased capacity or function.

The utility footprint is expected to remain within existing 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. If the footprint extends outside of the ROW, additional coordination and permitting may be required. For all ROW acquisitions, the Agencies would comply fully with federal and state requirements including the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act).

The floodplain designation of some parcels may change following installation or relocation of utilities due to improved drainage capacity. Coordination with the local Floodplain Manager would be needed to ensure compliance with local floodplain development requirements and National Flood Insurance Program (NFIP) regulations.

Alternative 3: Relocation

Alternative 3 would entail relocation of all or part of an existing utility to a new location within the existing system. Relocation would take place within existing utility or transportation corridors or right-of-way (ROW) and/or otherwise developed areas, and may be combined with replacement, repair and/or restoration of some segments of the existing system. Existing utilities could be improved or expanded to accommodate the need for increased capacity or function. The utility footprint is expected to remain within existing ROW so no significant changes in land use are anticipated. The environmental consequences of Alternative 3 would be similar to the consequences identified in Alternative 2.

Alternative 4: Combination

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

4.2 TRANSPORTATION

4.2.1 Affected Environment

Mobility in and around the Cheyenne metro area is critical for social, recreational and economic activities. Commuting is a part of daily life, and truck and rail transportation plays a vital role in

Wyoming's economy. Any impediment to the movement of people and freight hinders economic performance and growth.

There are two interstate highways in the vicinity of the City of Cheyenne. Interstate I-25 is located to the west of Cheyenne and runs north-south from New Mexico to Wyoming and I-25 is intersected by I-80 southwest of Cheyenne. Two US routes are located in Cheyenne: US Route 30 traverses east-west through the city and US Route 85 runs a north-south route through Cheyenne. There are six state highways in the vicinity of Cheyenne. The Union Pacific and BNSF railroads intersect in Cheyenne. The Cheyenne Regional Airport features daily service to Denver, Colorado. The City of Cheyenne maintains and repairs over 300 miles of streets and alleys.

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 actions to maintain or improve utilities would be provided by the State and/or local agencies. This alternative may result in significant adverse impacts due to transportation-related facilities that may be damaged or lose the ability to function as a result of utility failures. In addition, any utility repair crews may not be able to reach utility lines, resulting in lengthy service outages.

Alternative 2: Installation

Under this alternative, new utility infrastructure would be installed where none currently exist. Utility installation and any related road reconstruction would take place within the existing utility corridors and transportation ROW in a heavily developed, urbanized area. Short term impacts would be expected during construction as temporary closures or detours may be required. No significant adverse long term impacts are expected as a result of this alternative.

Alternative 3: Relocation

This alternative would generally maintain the existing utility network. Short term impacts would occur during construction from possible temporary closures or detours. No significant long term impacts are expected. Generally the impacts to utilities from this alternative would be similar to those described for Alternative 2.

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 Cheyenne are vulnerable to natural hazards, the most significant of which include flood, debris flows, wildfire; drought, and windstorm. Other hazards that could impact the project area 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 the State of Wyoming.

Alternative 2: Installation

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 would 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. Utilities would be built to current codes and standards. Generally the impacts resulting from this alternative would be similar to those described for Alternative 2.

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 City of Cheyenne is located in Laramie County, in the southeastern corner of the State of Wyoming. It is the capital and largest city in Wyoming and the county seat of Laramie County. Cheyenne is the northern end of the extensive and fast growing Front Range Urban Corridor. Cheyenne has experienced population growth since 1990 and according to U.S. Census data, the city grew by approximately 6-percent from 1990 to 2000, with population figures of 50,008 and 53,011, respectively. Additionally, the population grew by slightly more than 12 % from 2000 to 2010 to a total population of 59,466 (U.S. Census 2010).

Cheyenne's economy is based mainly on light manufacturing, agriculture, the military and government, tourism, services, and transportation. Cattle and sheep-production continue to be important in the region, yet the economy of Cheyenne has become diversified with a wide variety of manufacturing and industrial developments. Cheyenne's largest employer is the F. E. Warren U.S. Air Force Base, with approximately 4,200 military and civilian employees. The federal government has over 3,000 non-military employees in Cheyenne, and state government has nearly as many. The Laramie County School District and Cheyenne Regional Medical Center are also major employers.

Existing demographics for the City of Cheyenne, Laramie County and the state of Wyoming are shown in Table 1. The Cheyenne Metropolitan Statistical Area includes all of Laramie County, but this PEA applies only to actions occurring within the city limits of Cheyenne.

Table 1 Existing Conditions, Socioeconomics

Socioeconomic Data	City of Cheyenne	Laramie County	Wyoming
Total Population (2010)	59,466	91,738	563,626
% Minority Population	8.0%	7.1%	5.8%
Median Household Income (2007-11)	\$51,912	\$54,156	\$56,380
% Individuals Below Poverty Level	9.5%	9.4%	10.1%

The City of Cheyenne is representative of the characteristics of Laramie County. As shown in Table 1 (2010 US Census), both the City of Cheyenne and Laramie County have a slightly lower percentage of individuals living below the poverty level and a slightly greater minority population than the State of Wyoming as a whole.

4.4.2 Environmental Justice

Executive Order (EO) 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations,” dated February 1, 1994, requires that environmental justice be addressed (to the greatest extent practicable and permitted by law) in all federal planning and programming activities. The purpose of EO 12898 is to identify, address, and avoid disproportionately high and adverse human health or environmental effects of programs, policies, and activities on minority populations and low-income populations. If the proposed project requires a federal permit or receives federal funding it would be considered a federal project for the purpose of compliance with this Executive Order.

EO 12898 requires federal agencies to provide for meaningful public involvement by minority and low-income populations and conduct demographic analysis to determine if disproportionately high and adverse potential impacts from the proposed action are anticipated on environmental justice populations. “Disproportionate” is defined in two ways: the impact is “predominantly borne” by the minority or low-income population group, or the impact is “more severe” than that experienced by non-minority or non-low-income populations. The steps for defining environmental justice impacts include the following:

1. Identification of the location of low-income populations and/or minority populations in the project area;
2. Identification of the impacts of the project area upon the identified low-income populations and/or minority populations; and
3. Determination of whether the impacts are disproportionately high or adverse.

The first step in the environmental justice determination process is to determine whether any minority and/or low-income populations are present within the project area. For the purposes of environmental justice, a low-income population or minority population is defined as a population of people or households located in close geographic proximity meeting the racial or income criteria set forth in EO 12898. Information on population characteristics of the project area was obtained from 2010 Census data at the most practical level to characterize the population in the project area. This information was reviewed, and an assessment of the demographics (poverty levels and racial composition) was made. U.S. Census data is available in many different levels. This assessment used census tract data. The six census tracts (tract 8, tract 9, tract 13, tract 14.01, tract 14.02, and tract 98.01) surrounding and/or touching the boundary of the Cheyenne Regional Airport were used in this assessment even though the boundaries of the census tracts extended beyond the individuals directly affected by the proposed project. The information presented in Table 2 describes the population characteristics for the study area.

Table 2 Environmental Justice Study Area Census Data

	Total Population	Median Household Income	Percent of Families in Poverty	Percent Minority Population
State of Wyoming	563,626	\$56,380	6.5%	5.8%
Laramie County	91,738	\$54,156	6.8%	7.1%
Cheyenne	59,466	\$51,912	6.5%	8.0%
Census Tract 8	1,835	\$58,053	5.0%	6.3%
Census Tract 9	2,768	\$69,675	1.6%	4.2%
Census Tract 13	7,079	\$71,689	1.8%	5.4%
Census Tract 14.01	3,984	\$70,000	3.8%	5.9%
Census Tract 14.02	2,516	\$66,843	1.8%	5.9%
Census Tract 980801	0	N/A	N/A	N/A

According to the 2010 US Census data presented in the table above, the study area (six census tracts) has median household incomes above the median values for the City of Cheyenne, Laramie County, and state of Wyoming. Furthermore, the study area has lower population percentages of families in poverty when compared to city-wide, county, and state percentages and lower percentages of minority populations when compared to city and county percentages. Based on this information, no readily identifiable minority or low-income populations are known within the project study area.

4.4.3 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 utilities are not restored. Residents may be isolated from their homes and businesses, and there may be major, long-term impacts to populations due to service interruption.

Alternative 2: Installation

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, short-term effects to populations during construction periods due to service interruption, road detours, building construction, etc.

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. It is not anticipated that the amount of land required for utility installation would be 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.

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

Federal actions are required to conform to the Clean Air Act (CAA). The U.S. Environmental Protection Agency (EPA) has primary federal responsibility for implementation of the CAA. The CAA is implemented at the state government level by the Wyoming Department of Environmental Quality Air Quality Division (WDEQ/AQD). The City of Cheyenne has not set any air quality standards or regulations at the local level.

The CAA requires the EPA to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. The NAAQS are maximum concentrations above which adverse effects on human health may occur. The CAA established two types of national air quality standards. Primary standards set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings.

The CAA established NAAQS for six pollutants, termed "criteria pollutants". The six criteria pollutants are carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO₂), particulate matter (PM₁₀ and PM_{2.5}), ozone (O₃), and sulfur dioxide (SO₂). The time period over which air pollutant concentrations are averaged is referred to as the averaging time, and are given for various levels of these pollutants for the purpose of determining attainment with the NAAQS.

When an area does not meet the air quality standard for one of the criteria pollutants, it may be subject to the formal rule-making process which designates it as nonattainment. The CAA further classifies ozone, carbon monoxide, and some particulate matter nonattainment areas based on the magnitude of an area's problem. Nonattainment classifications may be used to specify what air pollution reduction measures an area must adopt, and when the area must reach attainment. The technical details underlying these classifications are discussed in 40 CFR 81. EPA air quality classifications include:

- Nonattainment – any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant.
- Attainment – any area [other than an area identified in clause (i)] that meets the national primary or secondary ambient air quality standard for the pollutant.
- Unclassifiable – any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant.
- Maintenance Areas – previous nonattainment areas.

Information from the EPA Greenbook website indicates the following for Laramie County, Wyoming: it is in attainment for sulfur dioxide; it is unclassifiable for PM₁₀; and, it is unclassifiable/attainment for carbon monoxide, ozones, nitrogen dioxide, lead and PM_{2.5}. An unclassifiable/attainment classification means that there are not enough monitoring records to be classified as attainment but attainment is assumed. There are no areas within Laramie County, Wyoming that are in nonattainment or indicated as maintenance areas for any of the six criteria pollutants listed above.

The Wyoming Air Quality Standards and Regulations indicate that the criteria pollutants shall be limited as may be necessary to prevent the NAAQS from being exceeded (WDEQ/AQD, 2010). Chapter 3, Section 1(f) states that sources are required to control fugitive dust emissions, which may include frequent watering and/or chemical stabilization or other means.

The CAA requires states to submit a State Implementation Plan (SIP) to the EPA that details how the state would address a particular air quality problem. Wyoming's SIP indicates that a construction permit is required for construction of any new facility or source of potential air pollution

4.5.2 Environmental Consequences

Alternative 1: No Action

Under the No Action alternative, no federal action would be completed. 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 and 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. The City will address complaints that may arise 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.

A land development permit may be required from Colorado Department of Public Health and Environment (CDPHE) Air Pollution Control Division. 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 not require one.

Alternative 3: Relocation

Generally the impacts to air quality from this alternative would be similar to those described for Alternative 2. 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 periodic watering of the demolition site.

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 designated as noise. Noise events that occur 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 continue to be functionally inadequate. This would result in a natural shift in occupation density and transportation patterns. Transportation noise along other roadway segments 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: Installation

Installation of new utilities 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. 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) would not be of a duration to be significant.

Alternative 3: Relocation

Noise from construction activities may have short term adverse effects on persons who live near the new construction area. Noise levels can be minimized by ensuring that construction equipment is equipped with a recommended muffler in good working order. Generally the noise impacts from this alternative would be similar to those described for Alternative 2.

Alternative 4: Combination

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

4.7 PUBLIC SERVICES AND UTILITIES

4.7.1 Affected Environment

A public utility is an organization that maintains the infrastructure for a public service (often also providing a service using that infrastructure). Public utilities are subject to forms of public control and regulation ranging from local community-based groups to state-wide government monopolies. The term utilities can also refer to the set of services provided by these organizations consumed by the public. Utility lines often cross or run along roads, either overhead or underground. Public services and utilities that could be impacted by the proposed actions considered in this PEA include:

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

4.7.2 Environmental Consequences

Alternative 1: No Action

This alternative does not include any Agency action. Alternative 1 has potential to result in significant adverse impact to the community if utilities are not restored or improved. Residents may be isolated from their homes and businesses, and there may be major, long-term impacts to populations due to service interruption. Fire, emergency, law enforcement, and school services would be delayed as a result of inadequate or disrupted utility service. Depending on the length or type of utility disruption, these services could be significantly impacted.

Alternative 2: Installation

During construction, interruption of utilities and delays in fire, emergency, law enforcement and school services would cause short term impacts. Once completed, public services would be restored and no long term, adverse impacts would occur under this alternative. Improved resiliency of utility systems would provide long-term benefits to the community.

Alternative 3: Relocation

Relocations could produce short term disruptions to utility customers. Fire, emergency, law enforcement, and school services could be temporarily impacted depending on the length of alternate routes and detours. Impacts to utilities under this alternative would be similar to those described in Alternative 2.

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 Alternatives 2 and 3.

4.8 WATER RESOURCES

4.8.1 Affected Environment

The project area is situated within the Crow Creek watershed located in Laramie and Albany counties in southeastern Wyoming (Figure 3-6). Crow Creek (water body ID #WYSP 10190009-002) consists of a diverse cross section of Class 2 perennial streams, municipal-use water reservoirs, and a number of intermittent streams. Dry Creek is a Class 2 perennial stream located to the north of the Airport (WDEQ/WQD 2001). The Airport lies within the lower section of Crow Creek which flows from Cheyenne to the Wyoming/Colorado border. The Crow Creek watershed is the most populated watershed within the State of Wyoming (Laramie County Conservation District 2004).

Crow Creek is a tributary to the South Platte River. The South Platte River Basin has a drainage area of about 24,300 sq. mi. and is located in parts of three states: Colorado (79 percent of the basin), Nebraska (15 percent of the basin), and Wyoming (6 percent of the basin) (Dennehy 1991). The South Platte River originates in the mountains of central Colorado at the Continental Divide and flows about 450 miles northeast across the Great Plains to its confluence with the North Platte River at North Platte, Nebraska. Altitude in the basin ranges from 14,286 feet at Mt. Lincoln on the Continental Divide to 2,750 feet at the confluence of the South Platte and North Platte Rivers. The basin includes two physiographic provinces – the Front Range Section of the Southern Rocky Mountain Province and the Colorado Piedmont Section of the Great Plains Province.

The southeastern corner of Wyoming, where Cheyenne is located, has a history of flood events with significant floods occurring in 1883, 1896, 1904, and 1929 and 1985. The most significant event was the flood of August 1985 resulting in 12 deaths and injuries to 70 people, with total damages exceeding \$60 million.

To reduce the risk of flooding, the City of Cheyenne, along with Laramie County, implemented a series of flood control projects. Four of these projects used resources from three different mitigation grant programs of the FEMA, as well as other sources. The primary mitigation program is the Dry Creek Flood Control Project, which diverts water in the segment of Dry Creek known as the Sheridan Reach. It is the largest flood control project in the City of Cheyenne which displaced and relocated 148 residences out of the floodplain of Dry Creek. Sheridan Street is northeast of the Airport directly north of Dell Range Boulevard.

Completed in 2009, the Dry Creek diversion included excavation and construction of five detention basins and the installation of about 1,950 linear feet of reinforced concrete drainage pipe measuring up to 10 feet in diameter (FEMA 2009). The drainage pipe combines with about 1,500 feet of open channel to form a link from the existing Carey Reservoir to the stormwater basins and then further to Dry Creek just downstream of the Sheridan Reach. Three detention ponds are located south of the Junior League Baseball Complex and Powers Field along Airport Road at the northeastern part of the Airport property.

The other two ponds are located north of Airport Parkway on the southeastern corner of the Airport property. The project is designed so that water is slowly released back into Dry Creek effectively reducing much of the floodwaters along the Sheridan Reach of Dry Creek. In addition, the EPA used funds authorized under Section 319 of the CWA for the construction of a wetland, which is downstream from the last basin. Designed to improve water quality, the small constructed wetland also provides additional storage capacity.

In all, the diversion project provides 368 acre feet of storage capacity measuring 7,271 feet in length and bypasses the 4,685-foot-long Sheridan Reach of Dry Creek. It diverts water that exceeds a five-year flood event (a flood that has a 20% annual chance of occurring in any year) away from the Sheridan Reach and is capable of providing storage during major storm events. It was designed to convey the bulk of the flow in a 100-year flood event, which has a 1% annual chance of occurring in any year.

The detention basins and drainage channels are all situated on land owned by the city, the Airport, or contained within street rights of way. In reducing flood risk, the diversion project also reduced the area of the regulatory 100-year floodplain. As the boundaries of the regulatory floodplain were adjusted, properties that had previously been within this floodplain no longer were at risk. In effect, the project took residential properties and land area out of the 100-year floodplain, both in the Sheridan Reach and further downstream.

Crow Creek traverses Cheyenne in an east-west direction and is classified as Class 2AB (drinking water and game fish are attainable uses). Class 2AB waters are those known to support game fish populations or spawning and nursery areas at least seasonally and all their perennial tributaries and adjacent wetlands and where a game fishery and drinking water use is otherwise attainable (WDEQ/WQD 2001). Unless it is shown otherwise, these waters are presumed to have sufficient water quality and quantity to support drinking water supplies and are protected for that use.

Impaired waters are those waters that do not meet state water quality standards as defined by Section 303(d) of the federal CWA. In 1998, Crow Creek was identified by the WDEQ as being impaired for fecal coliform bacteria, ammonia and cadmium. Because of these impairments, Crow Creek was included on the CWA, Section 303(d) list of impaired water bodies. In 2002, cadmium was removed from the list of impairments since it was no longer detected in Crow Creek. A Total Maximum Daily Load (TMDL) was completed in 2010 for Crow Creek. Crow Creek currently (as of 2012) does not support recreation use due to E. coli bacteria between Morrie Avenue and Roundtop Road. Crow Creek does not support cold water game fishery and aquatic life other than fish uses between Morrie Avenue and Happy Jack Road due to excess sediment. Ammonia and fecal coliform bacteria continue to be found at levels above the state standards.

Ammonia appears to be localized to the area below Cheyenne's two waste water treatment plants. If ammonia continues to be detected above acceptable levels after the facility upgrades, the district would increase monitoring efforts for ammonia. Fecal coliform bacteria levels in the urban area of Cheyenne consistently exceed state standards and are likely the result of stormwater runoff.

Wild and Scenic Rivers

Wyoming has two rivers classified under the wild and scenic river designation: Clarks Fork of the Yellowstone River and the Headwaters of the Snake River, both located in western Wyoming. Neither river would be affected by the proposed actions.

Floodplains

Floodplains are defined in Executive Order (EO) 11988, Floodplain Management, as “the lowland and relatively flat areas adjoining inland and coastal waters including flood prone areas of offshore islands, including a minimum, that area subject to a one percent or greater chance of flooding in any given year”, i.e., the area would be inundated by a 100-year flood. EO11988 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. FEMA publishes Flood Insurance Rate Maps (FIRM). These maps depict FEMA regulated floodplains and are available online at <https://msc.fema.gov/portal/>

Flooding can occur outside of those areas included on FIRM and may consist of shallow ponding or overbank flooding and flood depths may exceed two feet. The City of Cheyenne regulates additional Special Flood Hazard Areas within the city limits. Maps are available at <http://arcims.laramiecounty.com/floodplainmap/>

Cheyenne participates in the National Flood Insurance Program (NFIP). Under the 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” and includes both permanent and temporary actions such as stream crossings and conveyance structures (public and private), sediment removal, channel restoration or relocation, etc. These standards are intended to prevent loss of life and property, as well as economic and social hardships that result from flooding.

Wetlands

Wetlands are defined in Executive Order 11990 as “areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances, do support a prevalence of vegetation or aquatic life typically adapted for saturated soil conditions.” Wetlands provide flood control, recharge groundwater, stabilize stream flows, improve water quality, and provide habitat for wildlife. 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 order 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.

Wetlands are subject to regulation by several agencies at the local, regional, state and federal levels including: the USACE and the EPA at the federal level, and the WDEQ at the state level. The USACE has jurisdictional authority over all “waters of the United States,” as well as navigable waters of the U.S. Many water bodies and wetlands in the nation are waters of the U.S. and are subject to the USACE Section 404 regulatory authority. The CWA requires that impacts to wetlands be avoided, then minimized, and finally mitigated if no practicable alternative exists. There are wetlands within the city limits of Cheyenne, but there are not expected to be affected by the proposed actions.

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. Failure to address existing storm drainage inadequacies may exacerbate overland flooding, which can occur in any area and may consist of shallow ponding or overbank flooding and flood depths exceeding two feet. This type of flooding can cause local drainage problems such as backed up sewers and storm sewers designed to drain streets and ponding in certain areas. In some cases, yard ponding would cause or aggravate basement flooding. Flooded streets and yards can cause or aggravate both health and safety issues and disrupts traffic. In addition, erosion and sedimentation due to storm runoff may increase if infrastructure is left unrepaired causing adverse impacts to water quality.

Alternative 2: Installation

New utilities would be installed within the existing utility corridor or ROW. Fill material may be needed around utility infrastructure which could affect waters of the U.S. Discharge 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 and a Section 401 Water Quality Certification permit from CDPHE 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 Executive Order 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 would 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

The City of Cheyenne is a heavily developed urban ecosystem, with predominantly residential, commercial, industrial and public land use. A majority of the vegetation is found within the 1,966 acres of public park land, cemeteries and golf courses. Trees, shrubs and other ornamental plantings have also been established along city streets and parkways.

Wildlife

Cheyenne wildlife consists mainly of typical urban species of such as deer, rabbit, squirrel, prairie dog, ducks, geese, raccoon, coyote, etc.

Protected Species

There are 9 species listed as Endangered (E), Threatened (T), Candidate (C), or Proposed (P) (see Table 3) by the USFWS under ESA that historically occurred, occur or may potentially occur within Laramie County. One of these species, Colorado Butterfly plant has designated critical habitat in Laramie County.

There are 180 species of Greatest Conservation need identified by Wyoming Game and Fish Department (WGFD). The State Wildlife Action Plan (SWAP) is a comprehensive strategy to maintain the health and diversity of wildlife within the state, including reducing the need for future listings under the Endangered Species Act.

Table 3 Laramie County, WY Federally-listed Species

Common Name	Scientific Name	Federal Status	Habitat Requirements/Notes
Colorado Butterfly plant	<i>Gaura neomexicana</i> <i>var. coloradensis</i>	T	Found in moist areas of floodplains low depressions or along bends in wide, active, meandering stream channels.
Greater sage-grouse	<i>Centrocercus urophasianus</i>	C	Nests on the ground under sagebrush or grass patches. They live in elevations ranging from 4,000 to over 9,000 feet; but cannot survive in areas where sagebrush does not exist.
* Least tern	<i>Sterna antillarum</i>	E	Sparsely vegetated sand or gravel beaches and sand bars of the Missouri river system. *
*Pallid sturgeon	<i>Scaphirhynchus albus</i>	E	Floodplains, backwaters, chutes, sloughs, islands, sandbars, and main channel waters of the Missouri river system. *
*Piping Plover	<i>Charadrius melodus</i>	T	Sparsely vegetated sand or gravel beaches, sand bars, islands and drained river floodplains *
Preble's meadow jumping mouse	<i>Zapus hudsonius preblei</i>	T	Riparian habitat of shrubs and trees such as willows and cottonwoods with adjacent, relatively undisturbed grassland communities, and water source
Ute ladies'-tresses	<i>Spiranthes diluvialis</i>	T	Seasonally flooded river terraces, alluvial banks, point bars, floodplains, or ox-bows; irrigation ditches, excavated gravel pits, reservoirs, and other human-modified wetlands to 7000 ft.

Common Name	Scientific Name	Federal Status	Habitat Requirements/Notes
Western Prairie Fringed Orchid	Platanthera praeclara	T	Found most often on unplowed, calcareous prairies and sedge meadows.
Whooping crane	Grus americana	E	Wetland and other habitats, including coastal marshes and estuaries, inland marshes, lakes, ponds, wet meadows, and agricultural fields.

*Water depletions in the North Platte, South Platte and Laramie River Basins may affect the species and/or critical habitat associated with the Platte River in Nebraska.

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.

PROPOSED (P) - Any species of that is proposed in the Federal Register to be listed under section 4 of the Act.

CANDIDATE (C) - Those taxa for which the Service has sufficient information on biological status and threats to propose to list them as threatened or endangered. We encourage their consideration in environmental planning and partnerships, however, none of the substantive or procedural provisions of the Act apply to candidate species

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 streams may cause a flow impediment, potentially causing significant adverse impacts to fish habitat and passage.

Alternative 2: Installation

The actions under this alternative may have the potential to affect sensitive biological resources, wetlands or natural waterways due to construction activities; a review of available information on the potential for species and critical habitat occurrence in the area would be conducted. This alternative consists of performing work on utilities in existing alignments within existing utility or transportation corridors or ROW, and/or otherwise developed areas. Embankment work and in-water work may occur. The Agencies would review the project and make a determination of affect. If an Agency determines that a project has the potential to affect sensitive biological resources it would initiate the review process under Section 7 of 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.

Because migratory birds nest on many substrates (e.g., ground, shrubs, trees, utility boxes), should the proposed work occur during the breeding season (May 1st to August 15th), the USFWS recommends: the required cutting of trees or shrubs occur between August 16th and April 30th to remove potential nesting surfaces prior to project commencement; 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 to prevent swallow nesting prior to the breeding season.

If the project sites occur within 0.5 mile of occupied eagle nests, implementation of the National Bald Eagle Management Guidelines would be applied as necessary.

Alternative 3: Relocation

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

Alternative 4: Combination

This alternative consists of performing work on existing utilities and building new utilities. The actions under this alternative are not expected to affect sensitive biological resources.

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) was established in 1966. The act created the National Register of Historic Places, the list of National Historic Landmarks, and the State Historic Preservation Offices (SHPO).

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.

The City of Cheyenne had its beginning in 1867, when the Union Pacific Railroad came through on its way to the west coast. The town site was first surveyed by General Grenville Dodge and was named for the Indian tribe that roamed the area. On August 8, 1867, the first charter for the government of the City of Cheyenne was established. At the time, Cheyenne was situated in the Dakota Territory and had a population of approximately 600 people. Over fifty different locations in Cheyenne are listed on the National Register of Historical Places, including seven historic districts.

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: Installation

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 would determine if a project meets any outlined programmatic allowances from Programmatic Agreements with the Wyoming State Historic Preservation Office (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 would make a determination of affect 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.

Alternative 4: Combination

Impacts are similar to those listed under Alternative 2.

4.11 CUMULATIVE IMPACTS

The CEQ regulations (40 CFR 1500-1508) 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.” 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 Cheyenne, 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) would be used to define any significant individual or cumulative impacts requiring mitigation on a project specific basis. A Supplemental Project Specific Environmental Assessment (SEA) would 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 (Section 5).

SECTION FIVE | MITIGATION MEASURES

Project impacts that are implemented at an individual or cumulative scale such as to produce significant impacts can generally be reduced below the level of significance through avoidance, minimization, or by mitigating for individual impacts using mitigation measures as described below. The Utilities Checklist (Appendix A) would 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 would be undertaken by The Agencies to reduce any potentially significant impacts to less than significant levels. Table 4 lists the specific mitigation measures the Agencies would use if necessary.

Table 1 Mitigation Measures by Resource Area

Resource Area	
Physical Resources, Water Resources	If projects extend outside of the previously disturbed road footprint and wetland areas would be impacted, The Agencies would 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 would be implemented.
Physical Resources, Water Resources	To mitigate for impacts to floodplain, a hydrology and hydraulics study may 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.
Physical Resources, Land Use	The Agencies would 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 would 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) would be implemented.
Noise	Construction noise levels would be minimized by ensuring that construction equipment is equipped with a recommended muffler in good working order. Impact to noise levels would be minimized by limiting construction activities that occur during early morning or late evening hours.

Resource Area	Mitigation Measure
Invasive Species	Ground disturbance would be minimized and disturbed areas would be re-vegetated using native plant species.
Biological Resources	The Agencies would consult with USFWS on any project-specific actions that have the potential to affect Threatened and Endangered species and would include measures to avoid or minimize potential impacts as grant conditions (Preble's Mouse Specific, See Appendix A) the potential to affect biological resources, including Threatened and Endangered Species.
Biological Resources	The agencies would coordinate with Wyoming Game and Fish regarding potential impacts to State species of interest (including migratory birds and raptors) and would include measures to avoid or minimize potential impacts as grant conditions.
Cultural Resources	The Agencies would 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.
Cultural Resources	To avoid impacts to cultural resources from material borrow source, borrow material source would be reviewed and approved by SHPO or THPO prior to use.
Cultural Resources	The absence of cultural properties 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.

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 and potential buyout candidates are summarized.

Table 2: Summary of Impacts

Resource Area	Alternative 1: No Action	Alternative 2: Installation	Alternative 3: Relocation	Alternative 4: Combination	Permits and Conditions Required
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.	Utilities would be installed using 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 would 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 may impact the endangered, threatened, and proposed or candidate species identified in 4. However, as specific projects are identified, the impacts would be assessed and addressed as appropriate. The Agencies would consult with USFWS as necessary on individual projects within project areas.	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 s may make the facilities be more resilient and less likely to experience substantial damage from future events.	Similar to alternative 2 and 3.	State and local construction permits.
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 City of Cheyenne.	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)	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.	State and local construction, demolition and disposal permits.

Resource Area	Alternative 1: No Action	Alternative 2: Installation	Alternative 3: Relocation	Alternative 4: Combination	Permits and Conditions Required
		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 would be used to protect workers, residents and the travelling public.			
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. Minor 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.	
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.	
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 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.	Utility installation 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.	
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,	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 of	Similar to alternative 2 and 3.	

Resource Area	Alternative 1: No Action	Alternative 2: Installation	Alternative 3: Relocation	Alternative 4: Combination	Permits and Conditions Required
	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.		alternate routes.		
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 floodplain hydraulics and function.	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: Floodplain Management	This alternative would generate impacts similar to those described for Alternative 2.	Similar to alternative 2 and 3.	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. Discharges of water encountered during excavation or work in wet areas may require a Construction Dewatering 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 would review projects and make determinations of affect.	Potential to impact biological resources. The Agencies would 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

Public Notice of Intent was published in the *Wyoming Tribune Eagle* on December 11, 2014:

PUBLIC NOTICE OF INTENT TO PREPARE A PROGRAMMATIC ENVIRONMENTAL ASSESSMENT (PEA) FOR THE RESTORATION OF UTILITY SYSTEMS IN CHEYENNE WYOMING

The Federal Emergency Management Agency (FEMA), in coordination with the US Economic Development Administration (EDA), is providing notice of its intent to prepare a Programmatic Environmental Assessment (PEA) to evaluate utility projects in the City of Cheyenne, Wyoming (City). 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 in accordance with the general provisions of the National Environmental Policy Act (NEPA); NEPA regulations; other applicable Federal laws, regulations, and Executive Orders; and policies for compliance with those laws and regulations. In accordance with the Sandy Recovery Improvement Act, other Federal agencies may use this document to demonstrate compliance with NEPA at their discretion and under their own authorities.

The PEA will focus on projects proposed by the City that involve the restoration, installation and/or relocation of utilities needed to ensure systems function as designed and to mitigate the potential for impacts to public health and safety, and improved property related to future system inadequacies. A “utility” supplies a community with electricity, gas, water, or sewage (storm and sanitary) services. In an effort to restore these utilities or mitigate future events, FEMA and other federal 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 utility corridors and rights-of-way to the extent practicable. 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 are not limited to:

- Placement of temporary crossings, utilities, staging areas, access, and safety features.
- Restoration, installation and relocation of production, transmission, and treatment facilities needed in order to provide and enhance 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.

The comment period for the proposed PEA will remain open for five (5) days following publication of this notice. Comments should be made in writing to the point of contact listed below. After gathering public comments, FEMA will develop a draft PEA that will be available for public review and comment.

You can obtain more detailed information about the proposed PEA from Steven E. Hardegen, Regional Environmental Officer, FEMA Region VIII, Denver, Colorado, at steven.hardegen@fema.dhs.gov

7.2 PUBLIC NOTICE OF AVAILABILITY FOR REVIEW AND COMMENT

Public Notice of Availability was published in the *Wyoming Tribune Eagle* on December 26, 2014

PUBLIC NOTICE OF AVAILABILITY FOR REVIEW AND COMMENT OF A PROGRAMMATIC ENVIRONMENTAL ASSESSMENT (PEA) FOR THE IMPROVEMENT OF UTILITY SYSTEMS IN CHEYENNE WY

The Federal Emergency Management Agency (FEMA), in coordination with the US Economic Development Administration (EDA), announces the availability of a Programmatic Environmental Assessment (PEA) to evaluate utility projects in the City of Cheyenne, Wyoming (City). 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 in accordance with the general provisions of the National Environmental Policy Act (NEPA); NEPA regulations; other applicable Federal laws, regulations, and Executive Orders; and policies for compliance with those laws and regulations. In accordance with the Sandy Recovery Improvement Act, other Federal agencies may use this document to demonstrate compliance with NEPA at their discretion and under their own authorities.

The PEA will focus on projects proposed by the City that involve the restoration, installation and/or relocation of utilities needed to ensure systems function as designed and to mitigate the potential for impacts to public health and safety, and improved property related to future system inadequacies. A “utility” supplies a community with electricity, gas, water, or sewage (storm and sanitary) services. In an effort to restore these utilities or mitigate future events, FEMA and other federal 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 utility corridors and rights-of-way to the extent practicable. 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 are not limited to:

- Placement of temporary crossings, utilities, staging areas, access, and safety features.
- Restoration, installation and relocation of production, transmission, and treatment facilities needed in order to provide and enhance 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.

The draft PEA will be available for review at the Cheyenne City Hall, 2101 O’Neil Ave. Cheyenne, WY 82001 and Online at <http://wy-cheyenne.civicplus.com/index.aspx>

The comment period for the proposed PEA will remain open for fifteen (15) days following publication of this notice. Requests for additional information and comments should be made in writing to the point of contact listed below.

Steven Hardegen, Regional Environmental Officer, FEMA Region VIII, Denver, CO, steven.hardegen@fema.dhs.gov

7.3 PUBLIC COMMENTS

No comments were received on the draft PEA during the public review period.

SECTION EIGHT | REFERENCES

City of Cheyenne official website. Public offices, officials, planning documents and community information www.cheyennecity.org Accessed 10 November 2014

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SECTION NINE | LIST OF PREPARERS

This PEA was prepared by:

EDA, Denver, CO Regional Office

- Jennifer Benz – Regional Environmental Officer

FEMA Region VIII, Denver, CO

- Jeffrey Fullmer –Environmental Protection Specialist
- Richard Myers – Deputy Regional Environmental Officer
- Steven E. Hardegen –Regional Environmental Officer

APPENDIX A – UTILITIES CHECKLIST

Utility Improvements in Cheyenne Wyoming	Date:	Project Code:
Assessment under the Programmatic Environmental Assessment (PEA) for Improvements to Utility Systems in Cheyenne WY and Finding of No Significant Impact (FONSI)		
Disaster Description and Date:		
Project Name and Location:		
Project Description:		
Comments/Notes:		

I. PEA Alternative Used (Check all that apply)

- Alternative 1 – No Alternative
- Alternative 2 - Installation
- Alternative 3 – Relocation
- Alternative 4 – Combination

II. Evaluation

ENVIRONMENTAL IMPACT ASSESSMENT:				
Document impacts to human, socio economic, or natural environment for environmental setting or circumstances.				
Setting/Resource/Circumstance	Are Impacts Consistent with Descriptions in PEA? (Yes/No)	Are There Additional Impacts? (Yes/No)	Date Reviewed	Are Site Specific Study Documents Attached? (Yes/No)
Geology, Soils and Land Use				
Transportation Facilities				
Safety and Occupational Health				
Socioeconomics and Environmental Justice				
Air Quality				
Noise				
Public Services and Utilities				
Water Resources				
Biological Resources				
Cultural Resources				
REGULATORY CHANGES:				
Document changes to laws, regulations, and/or guidelines since signature of PEA FONSI:				
IMPACTS ASSESSMENT:				

APPENDIX A – UTILITIES CHECKLIST

For items checked as having additional impacts: assess the affected natural and socio-economic environment, impacts and new issues/concerns which may now exist:

MITIGATION:

List specific mitigation measures for each resource impacted (both impacts from PEA or additional impacts):

III. Public/Agency Involvement (if any)

Document any public meetings, notices, & websites, and/or document agency coordination. For each provide dates, and coordination:

IV. Permits

List required permits and status of permit:

V. Attachments Listed

List maps, studies, background data, permits, etc.

APPENDIX A – UTILITIES CHECKLIST

VI. Conclusion and Recommendation

- The project is consistent with the alternatives and impacts as described in the PEA.
- The project generally is consistent with the alternatives and impacts as described in the PEA, but includes some minor impacts not described in the PEA which are documented in this checklist.
- The project requires a Supplemental Environmental Assessment because (1) creates impacts not described in the PEA; (2) creates impacts greater in magnitude, extent, or duration than those described in the PEA; or (3) requires additional mitigation measures that are not described in the PEA to keep impacts below significant levels.

Applicant or Utility Agency Signature

Date

Federal Emergency Management Agency or Funding Agency

Date

APPENDIX B - FINDING OF NO SIGNIFICANT IMPACT

FINDING OF NO SIGNIFICANT IMPACT

PROGRAMMATIC ENVIRONMENTAL ASSESSMENT FOR THE IMPROVEMENT OF UTILITY SYSTEMS IN CHEYENNE WYOMING

The Federal Emergency Management Agency (FEMA), in coordination with the US Economic Development Administration (EDA), have completed a Programmatic Environmental Assessment (PEA) in accordance with the National Environmental Policy Act (NEPA), National Historic Preservation Act (NHPA) and tribal considerations, Endangered Species Act (ESA); Executive Orders (EO) addressing Floodplains (EO 11988), Wetlands (EO 11990), and Environmental Justice (EO 12898); and Federal agency implementation procedures. Opportunity for public comment was provided and no substantive comments have been received.

BACKGROUND

The PEA is intended to address City that involve the restoration, installation and/or relocation of utilities needed to ensure systems function as designed and to mitigate the potential for impacts to public health and safety, and improved property related to future system inadequacies, and is incorporated by reference. The majority of the proposed project funding will be provided by EDA or FEMA, but some funding may be provided by other federal, state and local sources. This analysis is programmatic in nature and does not address site-specific impacts, which would be evaluated on a project-specific basis prior to approval. Appropriate agency consultation and necessary documentation will be required to ensure compliance with applicable federal, tribal, state and local laws, regulations, EO, etc.

Some specific items of work may include, but are not limited to:

- Placement of temporary crossings, utilities, staging areas, access, and safety features.
- Restoration, installation and relocation of production, transmission, and treatment facilities needed in order to provide and enhance 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.

MITIGATION MEASURES

Project impacts that are implemented at an individual or cumulative scale such as to produce significant impacts can generally be reduced below the level of significance through avoidance, minimization, or by mitigating for individual impacts using mitigation measures as described below. A Utility Improvement Checklist will be used to define any significant individual or cumulative impacts requiring mitigation on a project-specific basis. If impact avoidance cannot be achieved, project specific mitigation measures will be undertaken by the Agencies to reduce any potentially significant impacts to less than significant levels.

1. 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.

APPENDIX B - FINDING OF NO SIGNIFICANT IMPACT

2. If during the course of any ground disturbance related to this project, cultural materials are discovered, the project would be immediately stopped and the SHPO/THPO and the relevant Agency notified.
3. To avoid impacts to cultural resources at material borrow sites, the borrow material must be from existing permitted sites or the site must be reviewed and approved by SHPO or THPO prior to use.
4. If projects extend outside of the previously disturbed road 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.
5. The Agencies will implement avoidance measures per consultation with the US Fish and Wildlife Service for any utility improvement projects that have the potential to affect biological resources, including Threatened and Endangered Species or migratory bird species.
6. 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.
7. The Agencies will coordinate with state resource and regulatory agencies, as appropriate on measures to reduce impacts to game species, fish, birds, etc. of state concern.
8. If projects have the potential to affect or be affected by a floodplain, appropriate hydrology and hydraulics analysis will be completed to ensure the impacts are minimized. The project must not serve as a dam or otherwise modify conveyance in a way that will aggravate flooding upstream or downstream of the project area.
9. 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.
10. Construction noise levels will be minimized by ensuring that construction equipment is equipped with a recommended muffler in good working order or implementation of other appropriate measures. Impact to noise levels could be minimized by limiting construction activities that occur during early morning or late evening hours.
11. 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.
12. 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 material resulting from demolition activities, including asbestos and lead paint will be disposed of in a landfill permitted for the specific type of waste.
13. To minimize any potential hazards to occupational 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.

APPENDIX B - FINDING OF NO SIGNIFICANT IMPACT

14. To minimize the impact to emergency services the Agencies will coordinate with the emergency service providers to determine the best strategy to alleviate any delays or disruptions of service.

FINDINGS

Based upon the information contained in the referenced Final PEA completed in accordance with the National Environmental Policy Act (NEPA), National Historic Preservation Act (NHPA) and tribal considerations, Endangered Species Act (ESA); Executive Orders (EO) addressing Floodplains (EO 11988), Wetlands (EO 11990), and Environmental Justice (EO 12898); and Federal agency implementation procedures, it is found that the Action Alternative(s), with the prescribed mitigation measures and stipulations, would have no significant adverse impact on the human environment. As a result of this **Finding of No Significant Impact (FONSI)**, an Environmental Impact Statement will not be prepared.

APPROVAL

SIGNED
Steven E. Hardegen
FEMA Region VIII
Environmental Officer

1/20/2015
Date

SIGNED
Jennifer Benz
EDA Colorado Division
Environmental Officer

1/20/2015
Date