

Section 531 Southern and Eastern Kentucky Environmental
Infrastructure Program

Environmental Assessment
Draft Finding of No Significant Impact

ROXANA WATER LINE EXTENSION FOR FEDERAL PRISON
PROJECT, LETCHER COUNTY, KENTUCKY



United States Army Corps of Engineers
Louisville District
June 2018



SECTION 531
ROXANA WATER LINE EXTENSION FOR FEDERAL PRISON
PROJECT, LETCHER COUNTY, KENTUCKY
TABLE OF CONTENTS

1.0	Project Description	1
	1.1 Project Background and Authorization	1
	1.2 Purpose and Need	1
	1.2.1 Federal Prison Camp Project	1
	1.2.2 Section 531 Project	1
	1.3 Location	2
2.0	Proposed Actions and Alternatives	5
	3.1 Proposed Action Alternative	5
	3.2 No Action Alternative	5
3.0	Environmental Setting and Consequences	5
	3.1 Land Use	6
	3.2 Climate	7
	3.3 Terrestrial Habitat	7
	3.4 Aquatic Habitat/Water Quality	8
	3.5 Floodplains	8
	3.6 Prime and Unique Farmland	9
	3.7 Wetlands	9
	3.8 Wild and Scenic Rivers	10
	3.9 Hazardous, Toxic, and Radioactive Wastes	10
	3.10 Cultural Resources	10
	3.11 Threatened and Endangered Species	11
	3.12 Air Quality	12
	3.13 Noise	13
	3.14 Socioeconomic Conditions	15
	3.15 Aesthetics	15
	3.16 Transportation and Traffic	16
	3.17 Health and Safety	16
	3.18 Cumulative Effects	17
4.0	Status of Environmental Compliance	18
5.0	Required Coordination	19
	5.1 Agencies Contacted	19
	5.2 Public Review and Comments	19



6.0	Conclusion	19
7.0	References	20

List of Figures

Figure 1	General Location Map of Letcher County, Kentucky	2
Figure 2	Topographic Map – Proposed Total Federal Prison Camp Project Water Line Extensions	3
Figure 3	Aerial View – Section 531 Portion of the Total Project	4

List of Tables

Table 1	Permissible Non-Department of Defense Noise Exposures	14
Table 2	Status of Environmental Compliance	18

List of Appendices

Appendix A	List of Permitted Facilities in the Project Area	
Appendix B	Map of Wetland Survey for Roxana, Kentucky	
Appendix C	Map of White Nose Syndrome Infected Hibernacula with the Northern Long Eared Bat Range	
Appendix D	Map of Northern Long Eared Bat Hibernacula and Roost by County	
Appendix E	Agency Coordination	
Appendix F	Photographic Record from Site Visit	
Appendix G	Finding of No Significant Impact	



1. PROJECT DESCRIPTION

1.1 Project Background and Authorization

The proposed project is a partnership agreement between Letcher County Water and Sewer District and United States Army Corps of Engineers (USACE) established under the authority of Section 531 of the Water Resources Development Act (WRDA) of 1996 (Public Law No. 104-303), as amended, which provides authority for the USACE to establish a program to provide environmental assistance to Non-Federal interests in southern and eastern Kentucky. This law provides design and construction assistance for water related environmental infrastructure projects to Non-Federal interests in southern and eastern Kentucky, including projects for wastewater treatment and related facilities, water supply, water storage, water treatment, water distribution facilities, and surface water resource protection and development.

1.2 Purpose and Need

1.2.1 *Federal Prison Camp Project*

The Federal Bureau of Prisons, part of the U.S. Department of Justice, has proposed to construct a Federal Prison Camp (FPC) near the community of Roxana in Letcher County, Kentucky. Public water is not currently available for the Roxana community, however, the proposed FPC project would extend potable water service to Roxana to support the prison facility. In addition to providing water to the pending FPC, the proposed water line extensions will also provide first time access to public water to approximately 100 households in the Roxana community. The FPC project will interconnect the areas of Premium and Blackey, Kentucky, and will lay the foundation from which potable water can be extended to the approximately 650 residential households of King's Creek under future projects. As a result of the prison project, a small decentralized waste water treatment facility will be constructed in Roxana to provide a safe and effective alternative to the use of current failing septic systems in the communities of Blackey, Premium, and Roxana. Figure 2 shows the total waterline extensions proposed to support the FPC project.

1.2.2 *Section 531 Project*

In accordance with the partnership agreement between the Letcher County Water and Sewer District and USACE, the USACE has developed an Environmental Assessment (EA) to analyze potential impacts to environmental resources for only the section of the FPC project that is receiving USACE funding and to determine whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI). This section consists of approximately 2.3 miles of linear eight-inch water line, beginning at the tie-in point with the town of Premium (Photo 1) to the bridge over the North Fork Kentucky River, where KY 160 rejoins KY 588 (Photo 6 & Figure 3). The water line will be constructed in the right of way for KY 160.



This EA is prepared pursuant to National Environmental Policy Act, Council on Environmental Quality (CEQ) Regulations (40 CFR 1500-1508), and Corps of Engineers Regulations (ER 200-2-2) Policy and Procedures for Implementing NEPA (33 CFR, 230). This EA was prepared to describe the existing conditions and evaluate the potential impacts associated with the proposed action and alternatives.

1.3 Location

Roxana is an unincorporated community located in Letcher County, Kentucky (Figure 1). According to the Appalachian Regional Commission, Letcher County is one of thirty-eight distressed counties in Kentucky. The FPC will be located in the vicinity of Kentucky Highway 588 and Kentucky Highway 160 in Letcher County. Figure 2 shows the proposed FPC project water line extensions, and Figure 3 shows the portion of that waterline that would be part of the Section 531 project and that is considered the project area for this EA.

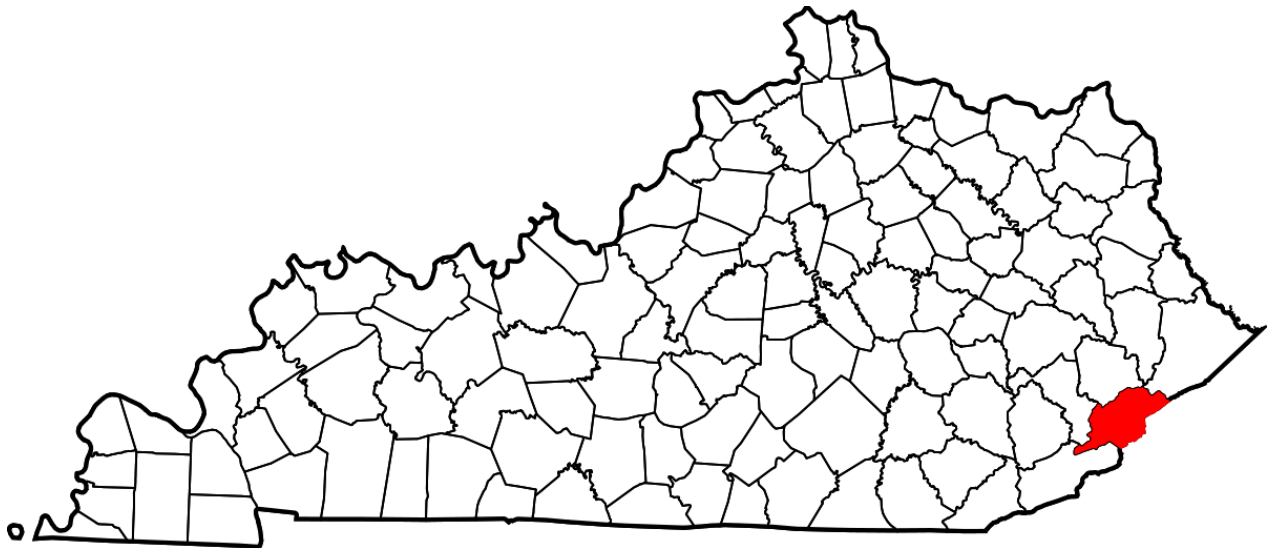


Figure 1: General location map of Letcher County, Kentucky

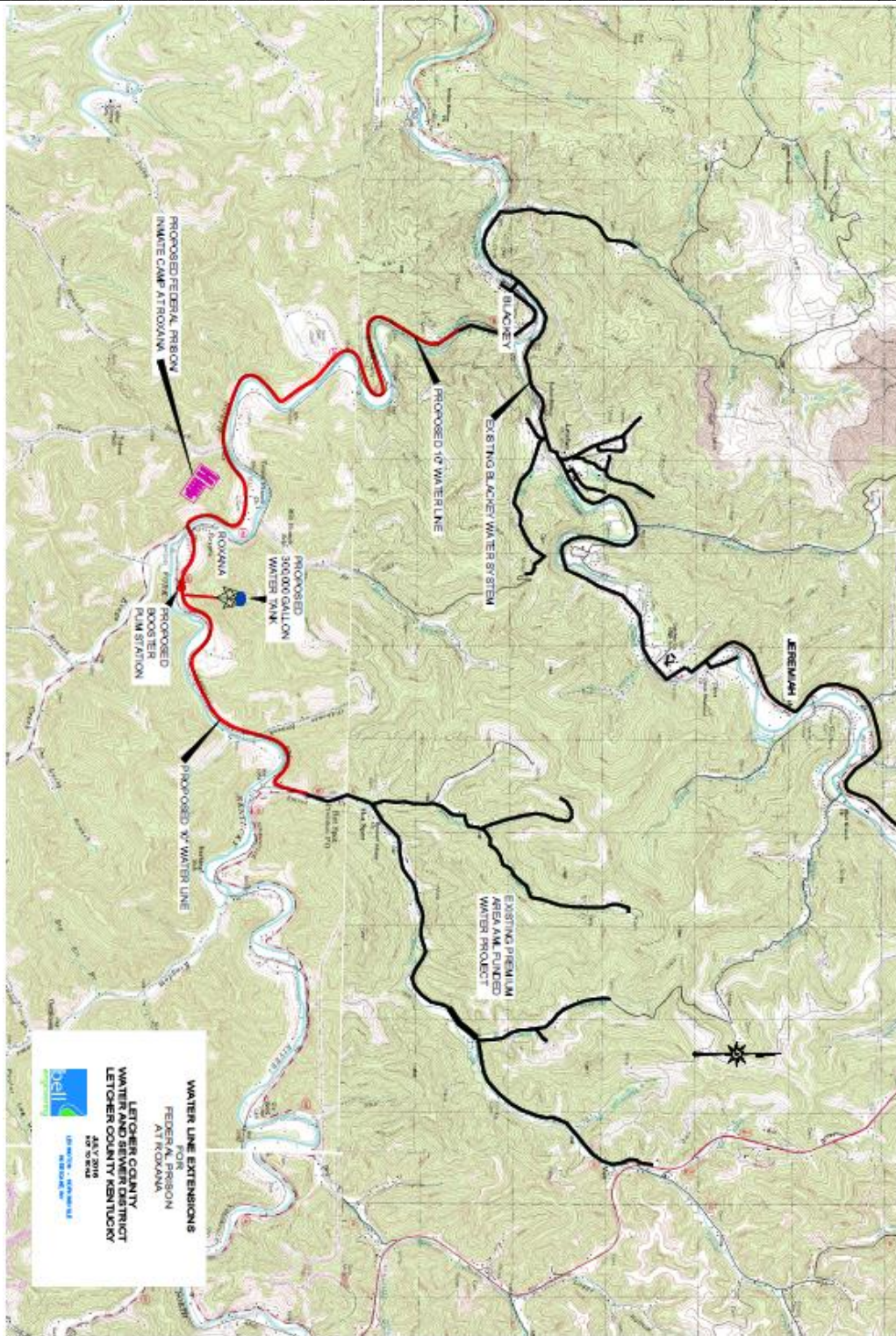


Figure 2: Topographic Map – Proposed Total Federal Prison Camp Project Water Line Extensions



Environmental Assessment
Roxana Water Line Extension for Federal Prison Project



Figure 3: Aerial View – Section 531 Portion of the Total Project



2.0 **PROPOSED ACTIONS AND ALTERNATIVES**

2.1 **Proposed Action Alternative (PPA)**

The PAA would construct approximately 2.3 miles of eight inch water transmission main along HWY 160 from approximately the Premium Baptist Church to the bridge over the North Fork Kentucky River that leads to the intersection of HWY 588 and 160. This water line will be installed to support the proposed construction and operation of the 800-acre FPC facility in Roxana. Secondary to the construction of the proposed FPC, the PAA would provide potable water to many houses in the area and result in health benefits to the community.

Best Management Practices (BMPs) would be used throughout the project to prevent soil erosion and limit vegetation removal and sedimentation to decrease impacts in riparian zones. After construction, road right-of-ways will be restored to preexisting conditions.

2.2 **No Action Alternative (NAA)**

Under the NAA, the water lines to support the community of Roxana and the proposed FPC would not be installed. This would prevent potential future projects to extend potable water to the nearly 650 residential households along King's Creek.

3.0 **ENVIRONMENTAL SETTING AND CONSEQUENCES**

The National Environmental Policy Act and the Council on Environmental Quality's NEPA Implementing Regulations require that an Environmental Assessment identify the likely environmental effects of a proposed project and that the agency determine whether those impacts may be significant. The determination of whether an impact significantly affects the quality of the human environment must consider the context of an action and the intensity of the impacts (40 CFR 1508.27).

The term context refers to the affected environment in which the proposed action would take place and is based on the specific location of the proposed action, taking into account the entire affected region, the affected interests, and the locality. The term intensity refers to the magnitude of change that would result if the proposed action were implemented.

Determining whether an effect significantly affects the quality of the human environment also requires an examination of the relationship between context and intensity. In general, the more sensitive the context (i.e., the specific resource in the proposed action's affected area), the less intense an impact needs to be in order for the action to be considered significant. Conversely, the less intense of an impact, the less scrutiny even sensitive resources need because of the overt inability of an action to effect change to the physical environment. The consideration of context and intensity also must account for the indirect and cumulative effects from a proposed action.



This section describes the existing environmental conditions in the project area (affected environment) providing a baseline for measuring expected changes that would result from implementation of the scope of work for the project.

This section presents the adverse and beneficial environmental effects (direct and indirect) of the Proposed Action Alternative (PAA) and the No Action Alternative (NAA). The section is organized by resource topic, with the effects of alternatives discussed under each resource topic. Impacts are quantified whenever possible. Qualitative descriptions of impacts are explained by accompanying text where used.

Qualitative definitions/descriptions of impacts as used in this section of the EA include:

- Minor – noticeable impacts to the resource in the project area, but the resource is still mostly functional,
- Moderate – the resource is impaired, so that it cannot function normally,
- Major – the resource is severely impaired so that it is no longer functional in the project

Duration:

- Short term – temporary effects caused by the construction and/or implementation of a selected alternative, and
- Long term – caused by an alternative after the action has been completed and/or after and is in full and complete operation is in full and complete operation.

3.1 Land Use

3.1.1 Existing Conditions

Land use in the vicinity of the PAA is predominately deciduous forest with smaller portions of mixed forest, evergreen forest, and grasslands/herbaceous areas. Along KY 160/588 where water lines will be constructed, land use is low intensity residential development, open space, grass land, and barren land (EPA_1).

3.1.2 Environmental Consequence

3.1.2.1 No Action

No impacts to land use would be expected as a result of implementing the NAA.

3.1.2.2 Proposed Action

All construction activities will take place along the existing road easements. As a result, the water lines would be installed in previously disturbed areas would not cause changes to the land use.



3.2 Climate

3.2.1 Existing Condition

Executive Order (E.O.) 13653 requires Federal actions to address climate change. According to databases held by the National Weather Service the average mean temperature for Knott County is 55.6 degrees Fahrenheit. Yearly normal amount of precipitation is 41 inches. The area experiences seasonal weather patterns and climactic conditions typical of the Southeast Regions of the United States. Summers are usually characterized by warm to hot weather with periods of high humidity. Winters are typically mild. Fall is the driest season while spring is typically the wettest (NOAA).

3.2.2 Environmental Consequence

3.2.2.1 No Action

There are no impacts expected with respect to climate as a result of the NAA.

3.2.2.2 Proposed Action

The PAA would not involve any activity that would be expected to affect the environment in regard to climate change.

3.3 Terrestrial Habitat

3.3.1 Existing Condition

Letcher County is located in the Eastern Kentucky Coal Field physiographic zone. The overall project area may be classified as a part of the lower Breathitt Formation of the Cumberland Plateau. The sedimentary rock in this region was deposited in the Pennsylvanian age and consists primarily of shale, siltstone, sandstone, coal, and conglomerate. This region is characterized by steep, rugged mountains dissected by V-shaped valleys. Most development occurs along the relatively level stream terraces while the mountainsides are characterized by typical Eastern deciduous second growth forests species (predominantly tulip poplar, white and chestnut oak, red and sugar maple, beech and sycamore). Soils in the project area consist Grigsby sandy loam, Allegheny loam, Itmann sandy loam, Urban land-Udorthents, and Cloverlick-Kimper-Highsplint complexes (EPA_1).

3.3.2 Environmental Consequence

3.3.2.1 No Action

As the selection of the NAA would entail no changes to the project area, there would be no impacts to terrestrial habitat anticipated as part of the NAA.



3.3.2.2 Proposed Action

The PAA would be constructed on previously disturbed areas and HWY 160/588 road right-of-ways. Therefore, potential impacts to vegetation would be minimal and temporary. There would be no clearing or grubbing associated with the construction of this project.

Best Management Practices to mitigate soil erosion and vegetation removal would be utilized during construction. Areas would be returned to pre-construction conditions upon completion of construction activities. Only short-term impacts during construction are anticipated to occur.

3.4 **Aquatic Habitat/Water Quality**

3.4.1 *Existing Condition*

Letcher County is located within the Upper Cumberland Watershed. North Fork Kentucky River in Letcher County along the PAA footprint adjacent to HWY 160/588 is not listed on Section 303(d) list of impaired waters. Species composition is typical of warm water aquatic habitat in the region (EPA_1).

3.4.2 *Environmental Consequence*

3.4.2.1 No Action

Under the NAA, aquatic habitat or water quality impacts would not be expected.

3.4.2.2 Proposed Action

Implementation of the PAA would not likely result in significant impacts to the aquatic habitat or water quality within the project area. Prior to construction, Kentucky Department for Environmental Protection (KYDEP) Division of Water (DOW) shall be contacted and appropriate permits will be acquired for the installation of the water line. Construction components of this project will not begin until written approval from DOW is received by Bell Engineering, Inc.

3.5 **Floodplains**

Executive Order 11988 requires Federal agencies to consider the potential effects of their proposed actions to floodplains. The 100-year flood plain of the North Fork Kentucky River does not encompass the right of way for KY 160/588 where the water lines will be constructed (FEMA). Permits will not need to be acquired from the Kentucky Division of Water to construct in Zone A (100-year flood plain).

Therefore, no impacts to floodplains are anticipated to occur from the PAA or NAA.



3.6 Prime and Unique Farmland

3.6.1 Existing Condition

The Farmland Protection Policy Act (FPPA) requires Federal agencies to minimize the conversion of prime and unique farmland to non-agricultural uses. The project area follows existing road right-of-ways and previously disturbed areas. Based upon review of the project, the Natural Resource Conservation Service (NRCS) determined that the HWY 160/588 road right-of-way is considered non-agricultural.

3.6.2 Environmental Consequence

3.6.2.1 No Action

There are no impacts to Prime and Unique Farmland anticipated as part of the NAA.

3.6.2.2 Proposed Action

Based upon the NRCS determination, the PAA would have no impact on Prime or Unique, Statewide, or Locally important farmland.

3.7 Wetlands

3.7.1 Existing Conditions

National Wetland Inventory Maps (NWI) were reviewed for the proposed project area and a site reconnaissance was conducted to determine validity of NWI Maps. NWI maps indicated that there was a wetland located within the project area (USFWS_1). A freshwater forested/shrub wetland totaling 0.64 acres is located east of Roxana along HWY 588/160 (Appendix B).

3.7.2 Environmental Consequence

3.7.2.1 No Action

Under the NAA there would be impacts expected.

3.7.2.2 Proposed Action

Under the PAA, no impact to the wetland from installation of the water line would be anticipated. The water line would be installed along the opposite side of the road from the identified wetland, and construction BMPs will be implemented to ensure the wetlands are not impacted by stormwater runoff, accidental spills, or other potential stressors.



3.8 Wild and Scenic Rivers

No designated State Wild or Scenic Rivers are present within the Project Area (EPA_1). Therefore, no impacts to these resources are anticipated as part of the PAA or NAA.

3.9 Hazardous, Toxic, and Radioactive Waste (HTRW)

A Phase I HTRW Environmental Site Assessment was conducted by the Corps of Engineers to identify environmental conditions and to identify the potential presence of HTRW contamination located in the project's construction work limits. This investigation included a Federal and state environmental database search, site reconnaissance, review of historical aerial and topographic mapping and interviews. The investigation was performed in accordance with ASTM E-1527-13 Standards.

This assessment has identified no potential areas of HTRW concern (EPA_2). An interview conducted with the General Manager of the Letcher County Water and Sewer District about the historic and present risk of HTRW in the project area did not reveal any potential risks to the environment. The Corps staff determined the Phase 1 HTRW showed no evidence of recognized environmental conditions with the property and no further HTRW action is required. Therefore, no impacts to HTRW are anticipated with the PAA or NAA. See Appendix A for a list of permitted facilities within the project area. The Old House Branch Slurry Impoundment is a permitted and active coal slurry impoundment adjacent to the project area. The KY Division of Mine Permits permit number is 8678052, and is held by Enterprise Mining Company, LLC.

3.10 Cultural Resources

Section 106 of the National Historic Preservation Act (NHPA) requires Federal agencies to take into account the effects federal undertakings will have on districts, sites, buildings, structures, or objects listed in or eligible for inclusion in the National Register of Historic Places (NRHP). Consultation about the project with the Kentucky Heritage Council is in progress. Tribal consultation with the Eastern Shawnee, Absentee-Shawnee Tribe of Oklahoma, the Shawnee Tribe of Oklahoma, the Cherokee Nation, the United Keetoowah Band of Cherokee, the Eastern Band of Cherokee Indians is in progress. A number of steps were taken in an effort to identify any cultural resources within the area of the proposed water line extension for the Federal Prison Facility at Roxana, Kentucky located along Highway 160. These include a background check of the NRHP, Louisville District Geographic Information System (GIS), the Kentucky Office of State Archaeology (OSA) records, and previous cultural resource survey reports that have occurred near the vicinity of the project area. The purpose of the search was to identify and locate any cultural resources or historic properties that could be potentially impacted by the proposed undertaking. The records review of the OSA on June 22, 2018 found no known prehistoric or historic sites in the immediate project area. There are three archaeological sites (15Lr20, 15Lr73,



and 15Lr74) located within a two kilometer radius of the of the proposed water line project but will not be impacted by the current project. The records review of the NRHP database conducted on June 25, 2018 also found no evidence within the project area of recorded archaeological sites or historical structures listed on, or eligible for the listing on the NRHP.

An onsite cultural resources assessment was conducted on June 27, 2018 in the area of the proposed water line extension. The proposed project location is along existing right of way of HWY-160, drainage ditches, landscaped residential yards, and sloping terrain. Three shovel tests were excavated at the south end of the project area on the north side of KY-160 to determine the soil profile. Soils consisted of highly disturbed Udorthents-Urban land association located within the highway right of way extending to a depth of 30 cm below ground surface. The shovel tests were negative for cultural material. The soils in the project area are from the Udorthents-Urban land associations. This is a very channery silt loam located on terrain with zero to 15 percent slopes. These soils are derived from loamy skeletal mine spoil or earthy fill derived from interbedded sedimentary rock (United States Department of Agriculture, Soil Conservation Service 2018).

Based on the site visit, the cultural resources records on file at the Louisville District, a search of the NRHP database, a search of the OSA records, the sloped rocky terrain noted for most of the project area, past disturbances noted along the proposed route of the water line extension including drainage ditches, and past disturbances found throughout the existing right of way of HWY-160, the Corps has determined that the proposed sewer project has no potential to cause effects to historic properties or cultural resources. Therefore, in accordance with 36 CFR Part 800.3(a)(1) the Louisville District has no further obligations under Section 106 and cultural resource work is complete.

3.11 Threatened and Endangered Species

3.11.1 Existing Condition

The Endangered Species Act of 1973 requires Federal agencies to consider the effects of actions on Federally listed endangered, threatened, and/or candidate species. The USFWS Information for Planning and Consultation was reviewed for this project area. The project area has the potential to have suitable habitat for the following endangered species: Indiana bat (*Myotis sodalis*) and gray bat (*Myotis grisescens*). Threatened species with suitable habitat in the area include: Kentucky arrow darter (*Etheostoma spilotum*), Big Sandy crayfish (*Cambarus callainus*), and Northern long-eared bat (*Myotis septentrionalis*) (USFWS_2). The USFWS will be contacted regarding rare, threatened and endangered species. The Corps anticipates the USFWS will concur that the PAA will not result in significant impacts to any federally listed endangered or threatened species.

In the project area, the Commonwealth of Kentucky Department of Fish & Wildlife Diversity website identifies 25 state-threatened or endangered species that may be present: brook lamprey, American coot, bald eagle, Blackburnian warbler, blackside dace, blue-winged teal, common raven, double-crested cormorant, eastern hellbender, eastern red damsel, eastern small-footed



myotis, elusive clubtail, golden-winged warbler, gray myotis, Indiana bat, Kentucky arrow darter, long-tailed shrew, mountain midget crayfish, northern metalmark, northern myotis, northern pine snake, peregrine falcon, sculpted glyph, wehrle's salamander, and zebra clubtail (KYFW).

The Northern long-eared bat was listed as a threatened species in 2015 due to declines associated with a lethal fungal infection known as white-nose syndrome (Appendix C). Letcher County is listed as having confirmed white nose syndrome infected caves used for winter hibernation, known as hibernacula. Letcher County is listed as an area containing multiple known hibernacula, while Roxana is specifically within quad R54 that contains a hibernaculum (Appendix D).

Northern long-eared bats, as well as the Indiana bat, spend the daylight hours taking refuge behind the loose bark, in cavities, or crevices of both live and dead trees. These areas, known as roosts, are also the chosen location for raising the young of the year, or pups. For this reason, no trees that have been identified as a maternity roost tree, or any trees greater than 3 inches at chest height within 150 feet of any known occupied maternity roost trees, may be removed from the project area during June 1 through July 31.

3.11.2 *Environmental Consequence*

3.11.2.1 No Action

There would likely be no effect to threatened and endangered species.

3.11.2.2 Proposed Action

No Federally listed species are expected to be encountered during project construction. It is highly unlikely that the disturbed habitat of the existing road right-of-way would harbor any sensitive species. The Corps has preliminarily determined the PAA may affect, but is not likely to adversely affect the Indiana bat, gray bat, Kentucky arrow darter, Big Sandy crayfish, and Northern long-eared bat. Per the Fish and Wildlife Coordination Act, this EA has been provided to the USFWS for review, with a final determination forthcoming.

Any trees that would need to be cleared under the PAA would require an inspection for suitable roosting habitat prior to signing of a FONSI. If construction of the water lines would result in Incidental Take of Indiana bat and NLEB a Habitat Conservation Plan must accompany the application for permits from the USFWS.

3.12 Air Quality

3.12.1 *Existing Condition*

The Clean Air Act (CAA) allows the U.S. Environmental Protection Agency (USEPA) to set air quality standards for pollutants considered harmful to public health and welfare. The National Ambient Air Quality Standards (NAAQS) set limits to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly. These standards have been



established for six criteria pollutants including Carbon monoxide (CO), Lead (Pb), Nitrogen dioxide (NO₂), Ozone (O₃), Particulate matter (PM₁₀ and PM_{2.5}), and Sulfur dioxide (SO₂), and each state is required to develop implementation plans for each pollutant. Areas are generally in “attainment” of the standards for the pollutants listed above or in “nonattainment”. Nonattainment areas are required by the CAA to comply with the NAAQS standards through the evaluation and development of a maintenance plan. The USEPA makes a conformity determination to assure that the actions within the maintenance plan conform to the respective state’s implementation plan for each nonattainment pollutant.

According to the EPA Green Book, Nonattainment/Maintenance Area Status for Each County by Year for All Criteria Pollutants, Letcher County is classified as in “attainment” for NAAQS pollutants.

3.12.2 *Environmental Consequence*

3.12.2.1 No Action

The NAA would not generate construction related air emissions.

3.12.2.2 Proposed Action

The operation of the PAA would not result in significant impacts to air quality; however, construction of the PAA would have the potential to cause localized and temporary, nuisance air quality impacts. Potential sources of these impacts include emissions from heavy equipment operation which include diesel fuel fumes and exhaust. The PAA would not require around the clock construction; therefore, equipment downtime would allow for dispersion of the nuisance fumes generated during operation. The proposed action is therefore exempt from making a conformity determination, since estimated emissions from construction equipment would be far below the de minimis standards of 100 tons/year, which are the minimum threshold for which a conformity determination must be performed.

3.13 **Noise**

3.13.1 *Existing Condition*

Noise in the project area is characterized by that of a typical rural road with light traffic. Noise is measured as Day Night average noise levels (DNL) in “A-weighted” decibels that the human ear is most sensitive to (dBA). There are no Federal standards for allowable noise levels. According to the Department of Housing and Urban Development Guidelines, DNLs below 65 dBA are normally acceptable levels of exterior noise in residential areas. The Federal Aviation Administration (FAA) denotes a DNL above 65 dBA as the level of significant noise impact. Several other agencies, including the Federal Energy Regulatory Commission, use a DNL criterion of 55 dBA as the threshold for defining noise impacts in suburban and rural residential areas. The Corps Safety and Health Requirements Manual provides criteria for temporary permissible noise exposure levels (see Table 1), for consideration of hearing protection or the need to administer sound reduction controls.



Duration/day (hours)	Noise level (dBA)
8	90
6	92
4	95
3	97
2	100
1.2	102
1	105

3.13.2 *Environmental Consequence*

3.13.2.1 No Action

There would be no change in noise with the NAA.

3.13.2.2 Proposed Action

Noise associated with the PAA would be limited to that generated during construction. The noise associated with construction would be short in duration and would only occur during daylight hours. Construction noise would be similar to that of farm equipment and other small machinery used in the local area. A backhoe, end loader, road grader and/or vibratory roller are examples of equipment that is likely to be used during construction. Each emits noise levels around 85 dBA at 45 feet. Construction equipment would be operated during daylight hours; therefore a reasonable exposure time of two hours would be expected during the time residents may be home during the day. Peak outdoor noise levels ranging from 78-90 dBA would occur during the time in which equipment is directly in front of or in proximity to homes and businesses (within 25-100 feet). A maximum noise exposure of approximately 98 dBA, for one hour could occur if equipment were within 10 feet of homes and business. The noise projections do not account for screening objects, such as trees, outbuildings or other objects that muffle and reduce the noise being emitted. The outdoor construction noise would be further muffled while residents are inside their homes. While the construction noise generated would be considered unacceptable according to HUD and FAA standards, these limited exposures and time intervals are still within allowable Corps safety levels. Further, they are similar to typical neighborhood noise generated by gas powered lawnmowers in the local area, which could range from 90-95 dBA at three feet and 70-75 dBA at 100 feet. Residents being exposed to these noise levels would occur if and/or when residents are home and outdoors.

Due to daytime construction and the short and limited duration of elevated noise levels associated with the PAA, impacts from the noise to local residences would be temporary and minor. There would be no change in noise with the NAA.



3.14 Socioeconomic Conditions

3.14.1 Existing Condition

Under Executive Order 12898 “Federal Action to Address Environmental Justice in Minority Populations and Low Income Populations,” Federal agencies are directed to identify, address, and avoid disproportionately high and adverse human health or environmental effects on minority and low income populations.

According to the U.S. Department of Labor, Bureau of Statistics, Letcher County had an unemployment rate of 6.3% as of December 2017 compared to 4.4% for the state of Kentucky. The Bureau of Census shows that the median household income as of 2015 was \$30,333 with an average of 2.44 persons per household. Population trends for the area show a steady decline. Minority population for the project area is in the 3rd percentile for the United States.

3.14.2 Environmental Consequence

3.14.2.1 No Action

No impacts to minority or low income populations are anticipated to occur from the NAA.

3.14.2.2 Proposed Action

The PAA is meant to improve the socioeconomic conditions by providing potable water to the community of Roxana and set up future projects for providing infrastructure for the residents of King’s Creek. New customers of the Letcher County Water and Sewer District would be expected to pay the standard monthly water rate of \$27.50 minimum bill for the first 2,000 gallons of water and \$7.50 per 1,000 gallons of water used thereafter. The new customers will also pay a tap fee and meter cost if they choose to be connected to the new water lines. Service to the water lines under the PAA is optional. No homes or buildings would be negatively impacted by the proposed project; therefore, the PAA meets the directive of EO 12898 by avoiding any disproportionately high adverse human health or environmental effects on minority or low income populations.

3.15 Aesthetics

3.15.1 Existing Conditions

The project area is rural, primarily consisting of residential properties surrounded by forested hillsides.

3.15.2 Environmental Consequence

3.15.2.1 No Action

The NAA would not significantly impact local aesthetics.



3.15.2.2 Proposed Action

Temporary disturbance of the local aesthetics would be anticipated during construction of the water lines; however after construction, the excavated sites would be restored to original conditions. Therefore, the PAA is not expected to have impact on the local aesthetics.

3.16 Transportation and Traffic

3.16.1 *Existing Condition*

The proposed sewer rehabilitation project would follow HWY 160/588 from Premium towards Roxana (Photo 3). Kentucky State HWY 160/588 connects the towns of Gordon, Linefork, Kings Creek, Roxana, Premium, Van, and Blackey. A CSX Encroachment Permit will be obtained by Bell Engineering to account for the railroad that is parallel to the construction alignment (Photo 4).

3.16.2 *Environmental Consequence*

3.16.2.1 No Action

No impacts to transportation and traffic are anticipated to occur from the NAA.

3.16.2.2 Proposed Action

Construction of the PAA in and along existing road rights-of-way would involve some delays and potential detours in the normal traffic flow. Construction on and near road surfaces would be in compliance with Kentucky Transportation Cabinet (KYTC) guidelines. All appropriate KYTC guidelines for traffic control would be implemented and emergency access would be maintained. Encroachment permits will be obtained from the KYTC by Bell Engineering, Inc. There would be no new traffic patterns as the result of the PAA and as such, no long term impact would occur.

3.17 Health and Safety

3.17.1 *Existing Condition*

Data show that the percentage of adults considered to be in “less than good health” to be 38%, as compared to the state average of 23%. Letcher County adults tended to have a higher prevalence of asthma, diabetes, hypertension, cancer deaths, heart disease, strokes, and infectious disease than state averages (KY Health Facts).

3.17.2 *Environmental Consequence*

3.17.2.1 No Action

Under the NAA, the communities of Roxana and King’s Creek will continue to be without publicly accessible drinking water.



3.17.2.2 Proposed Action

The PAA has been designed provide safe drinking water and eliminate the dependency on localized sources of groundwater, which can often carry harmful pathogens. By implementing the PAA, these communities will receive a direct health benefit from clean drinking water infrastructure. Therefore, the PAA is anticipated to have a long term beneficial impact on health and safety for the residents in the project area.

3.18 Cumulative Effects

The Corps must consider the cumulative effects of the proposed project on the environment as stipulated in the NEPA. Cumulative effects are "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 Non-Federal) or person undertakes such actions". Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR Part 1508.7 Council on Environmental Quality [CEQ] Regulations).

The cumulative effects analysis is based on the potential effects of the proposed project when added to similar impacts from other projects in the region. An inherent part of the cumulative effects analysis is the uncertainty surrounding actions that have not yet been fully developed. The CEQ regulations provide for the inclusion of uncertainties in the analysis and states that "when an agency is evaluating reasonably foreseeable significant adverse effects on the human environment...and there is incomplete or unavailable information, the agency shall always make clear that such information is lacking" (40 CFR 1502.22).

The section 531 Southern and Eastern Kentucky Environmental Infrastructure Program is designed to improve the water resources of communities by eliminating straight pipe sewers, failing septic tanks, updating sewer line infrastructure, and providing clean drinking water. However, the various alternatives that lead into construction and implementation of these projects must be evaluated for their immediate impact on the environment under the NEPA. Under this evaluation, the Planned Alternative Action (PAA) and No Alternative Action (NAA) are compared to decide whether the Federal Action will lead into the signing of a Finding of No Significant Impact (FONSI) or an Environmental Impact Statement (EIS). From the results of this Environmental Assessment, it is the recommendation of the U.S. Army Corps of Engineers to sign a FONSI.

Temporal and geographical limits for this project must be established in order to frame the analysis. These limits can vary by the resources that are affected. The construction of the sewer collection lines would have temporary and insignificant negative impacts on the environment. Resources which would show long term beneficial effects from the project would be health, safety, and water quality. The temporal limits for assessment of this impact would initiate in 1972 with the passage of the Clean Water Act and end 50 years after completion of this project. The geographical extent would be broadened to consider effects beyond the PAA.



The availability of Federal funds through programs, such as the 531 Program, to assist communities with installation and construction of water-related environmental infrastructure and resource protection and development projects in Kentucky is an additional benefit to the area. The significance of this action on health and safety would be positive. Given the current program is in place for the foreseeable future and the overall beneficial effect from implementation of the PAA, there is expected to be a positive, though small, cumulative effect on health and safety based on past, present, and reasonably foreseeable actions.

4.0 STATUS OF ENVIRONMENTAL COMPLIANCE

The PAA is in full compliance with all local, State, and Federal statutes as well as Executive Orders. Compliance is documented below in Table 2. Prior to construction, KYDEP DOW shall be contacted and construction of the wastewater components of this project shall not begin until written approval is received from DOW and all applicable permits such as a National Pollutant Discharge Elimination System Permit are obtained.

Table 2 – Environmental Compliance Status			
Statute/Executive Order	Full	Partial	N/A
National Environmental Policy Act (considered partial until the FONSI is signed)		X	
Fish and Wildlife Coordination Act	X		
Endangered Species Act	X		
Clean Water Act	X		
Wild and Scenic Rivers Act	X		
Clean Air Act	X		
National Historic Preservation Act	X		
Archeological Resources Protection Act	X		
Comprehensive, Environmental Response, Compensation and Liability Act	X		
Resource Conservation and Recovery Act	X		
Toxic Substances Control Act	X		
Quiet Communities Act	X		
Farmland Protection Act	X		
Executive Order 11988 Floodplain Management	X		
Executive Order 11990 Protection of Wetlands	X		
Executive Order 12898 Environmental Justice in Minority Populations and Low-Income Populations	X		



5.0 REQUIRED COORDINATION

5.1 Agencies Contacted

Direct coordination with the Federal Emergency Management Agency, National Resources Conservation Service, U.S. Fish and Wildlife Service, U.S. Department of HUD, Kentucky Department for Environmental Protection, the Kentucky Heritage Council, the Eastern Shawnee, Absentee-Shawnee Tribe of Oklahoma, the Shawnee Tribe of Oklahoma, the Cherokee Nation, the United Keetoowah Band of Cherokee, the Eastern Band of Cherokee Indians, and the Kentucky Department of Fish and Wildlife Resources was completed prior to publication of the EA. Agency correspondence is included in Appendix E.

5.2 Public Review and Comments

This EA and unsigned FONSI will be made available for public review and comment for a period of 30 days, as required under NEPA. A copy will be circulated to the local community and local, state and Federal government agencies for a 30-day review/comment period. A copy will be made available at....

6.0 CONCLUSION

The proposed FPC facility will necessitate water infrastructure to be in place prior to construction. The PAA, as described in this EA will be funded through the Section 531 Program and will include only a portion of the total FPC project. The footprint for the PAA will be along KY HWY 160 from approximately the Premium Baptist Church to the bridge that crosses the North Fork Kentucky River in Roxana. This water line extension will provide access to potable water to the community of Roxana and provide the infrastructure for the proposed FPC to be constructed.

The habitat areas potentially affected by the proposed action will be all previously disturbed, highway right of way, or asphalt. Resources to be considered in the EA include impacts to the cliff band, waterbody crossing, waterbody buffer zones, and floodplain construction activities. Bell Engineering, Inc. will be required to apply for Federal, State, and local permits before the start of construction; and incorporate all appropriate BMPs for construction activities and related sediment and erosion control.

In summary, no adverse impacts have been identified as a result of implementation of the PAA. Long term health benefits to the community of Roxana would be captured from the availability of clean drinking water. Best Management Practices would be implemented during construction to minimize impacts to the residents and the environment. Therefore, the PAA would not be expected to have significant impacts on the human environment and the preparation of an EIS is not required. An unsigned FONSI is located in Appendix H.



7.0 REFERENCES

Environmental Protection Agency (EPA_1), 2018. “NEPAssist.”

<https://nepassisttool.epa.gov/nepassist/nepamap.aspx?wherestr=roxana%2C+kentucky>

Environmental Protection Agency (EPA_2), 2018. “List of EPA-Regulated Facilities in Envirofacts.”

<https://oaspub.epa.gov/enviro/enviroFACTS.quickstart?ve=13,37.109067,-82.949980&pSearch=Roxana,%20Kentucky&miny=37.08846405438913&minx=-82.98439810607765&maxy=37.12967034058028&maxx=-82.91556189391952>

Federal Emergency Management Agency (FEMA), 2018. “FEMA Flood Map Service Center.”

<https://msc.fema.gov/portal>

Kentucky Fish and Wildlife Resources (KYFW), 2018. “Species Information.”

<http://app.fw.ky.gov/speciesinfo/speciesinfo.asp>

Kentucky Geologic Society (KGS), 2018. “The Eastern Kentucky Coal Field.”

<https://www.uky.edu/KGS/geoky/regioneastern.htm>

Kentucky Health Facts (KY Health Facts), 2018. “Data by Location: Letcher County.”

<http://www.kentuckyhealthfacts.org/data/location/show.aspx?loc=67>

National Oceanic Atmospheric Agency (NOAA), 2018. “NOAA Online Weather Data.”

<https://w2.weather.gov/climate/xmacis.php?wfo=abr>

U.S. Fish and Wildlife Society (USFWS_1), 2018. “Wetlands Mapper.”

<https://www.fws.gov/wetlands/data/mapper.htm>

U.S. Fish and Wildlife Society (USFWS_2), 2018. “IPaC: Information for Planning and Consultation.”

Listed Species Count by Year, ecos.fws.gov/ipac/location/index



APPENDIX A.

List of Permitted Facilities in the Project Area

1. AMD Site 20 and 20b
1729-1989 Kentucky 160
Premium, KY 41845
2. Sapphire Coal Company
JCT of KY 160 and Johnson Branch Rd.
Hot Spot, KY 41858
3. AMD Site 24
Kentucky 160
Blackey, KY 41804
4. Profitts Grocery
Kentucky 160
Premium, KY 41845
5. Enterprise Mining Company LLC
JCT of KY 160 and KY 80
Roxana, KY 41822
6. 59860 Roxana BP
KY 160 South
Roxana, KY 41848
7. Enterprise Mining Co LLC – Sapphire Coal Co
3772 HWY 588
Roxana, KY 41858



APPENDIX B.

Map of Wetland Survey for Roxana, Kentucky



Roxana Wetland Survey



May 4, 2018

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

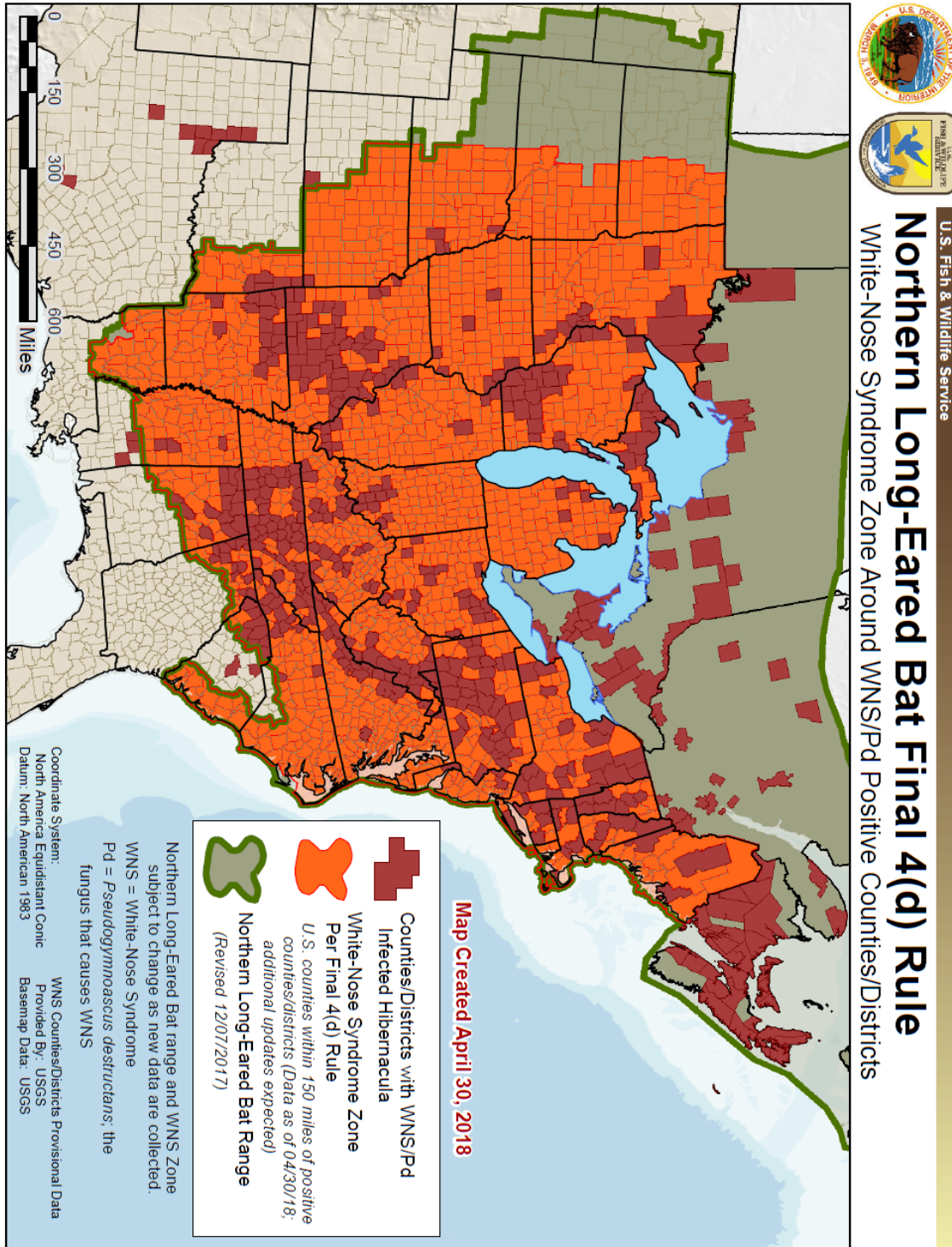
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper



APPENDIX C.

Map of White Nose Syndrome Infected Hibernacula with the Northern Long Eared Bat Range



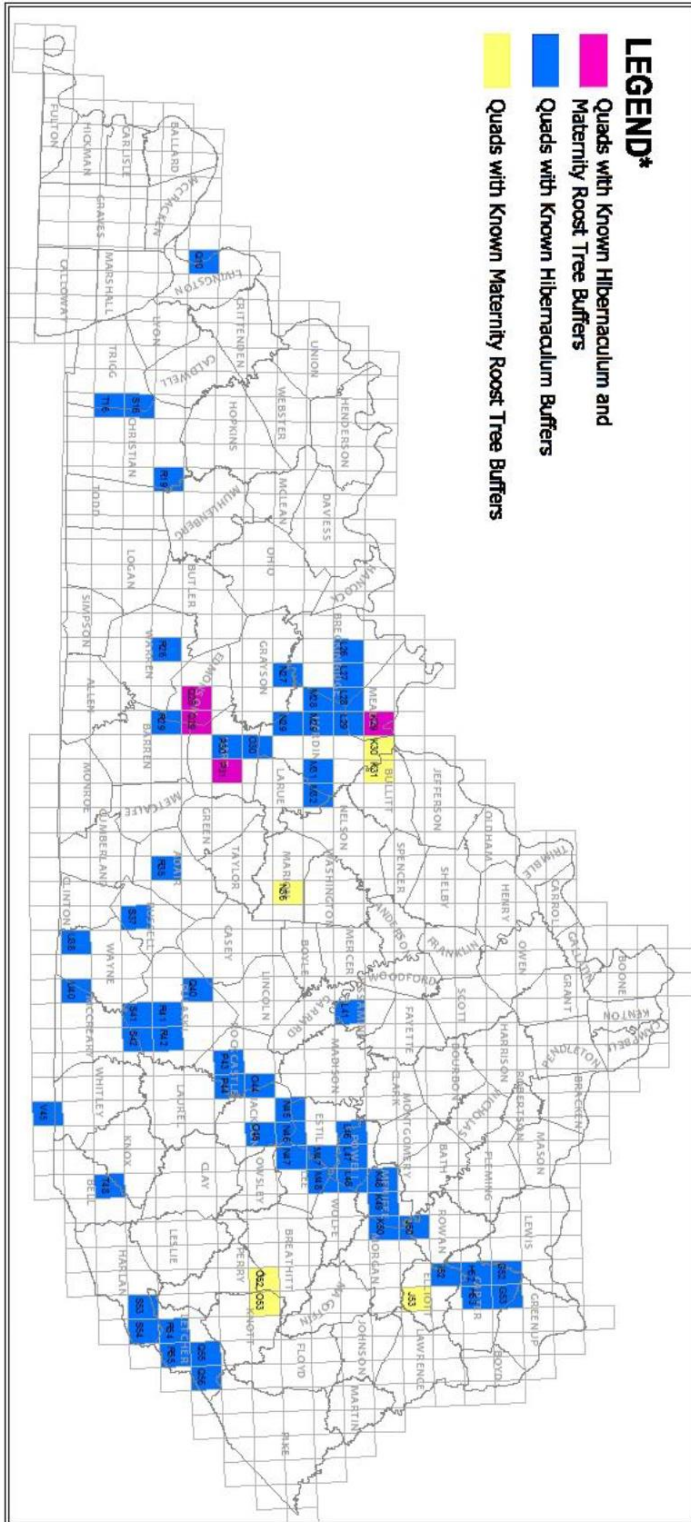


APPENDIX D.

Map of Northern Long Eared Bat Hibernacula and Roost by County



U.S. Fish & Wildlife Service
Map of Quadrangles Containing Known Northern Long-eared Bat Hibernacula &/or Maternity Roost Trees (November 2016)



- LEGEND***
- Quads with Known Maternity Roost Tree Buffers
 - Quads with Known Hibernaculum Buffers
 - Quads with Known Hibernaculum and Maternity Roost Tree Buffers

NOTE: This map is based on species occurrence information and is subject to change as new data become available. Please contact our office at 502/695-0488 to ensure you are working with the most current version.
*For an explanation of terms, please refer to the final 4(d) rule for the northern long-eared bat.

The USFWS makes no warranty for use of this map and cannot be held liable for actions or decisions based on map content. This map was produced as an appendix to the Conservation Strategy for Forest-Dwelling Bats in the Commonwealth of Kentucky and should only be used in the context of this Strategy.





APPENDIX F

U.S. ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT

Roxana, Kentucky (WRDA Section 531) Site Visit
15 May 2018

PHOTOGRAPHIC RECORD



Photo: 1

Site: Roxana, KY

Date: 15 May 2018

Direction of View: West

Description: Premium Baptist Church serves as a landmark for the northern boundary where the water line will tie into the existing infrastructure in Premium.

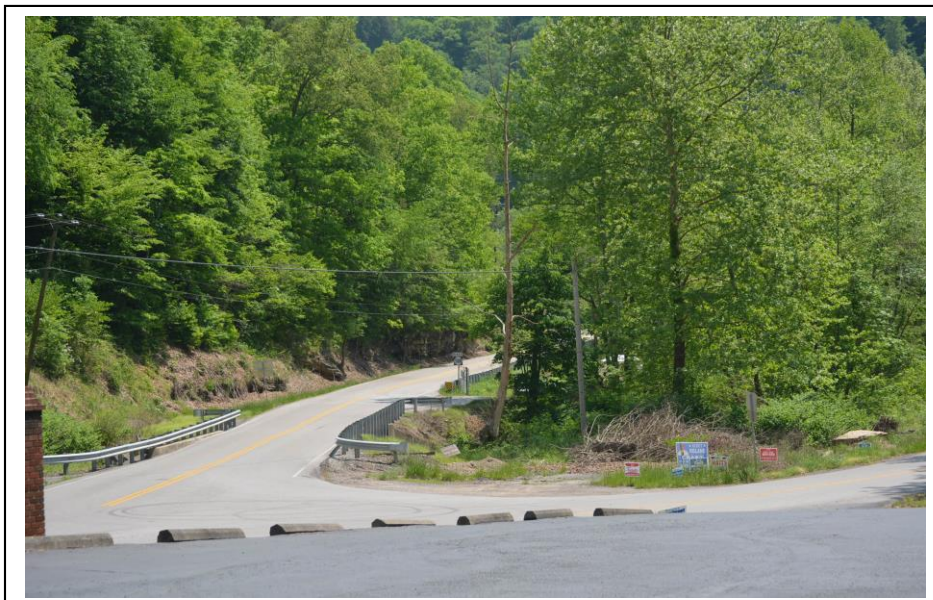


Photo: 2

Site: Roxana, KY

Date: 15 May 2018

Direction of View: South

Description: Fork of KY 160 and 588 is where the water line will tie into the existing Premium line.



**U.S. ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT**

**Roxana, Kentucky (WRDA Section 531) Site Visit
15 May 2018**

PHOTOGRAPHIC RECORD



Photo: 3

Site: Roxana, KY

Date: 15 May 2018

Direction of View: South

Description: The proposed water line will follow KY 160 on the right of way shown.



Photo: 4

Site: Roxana, KY

Date: 15 May 2018

Direction of View: South

Description: CSX railroad parallels KY 160. Encroachment permits will need to be acquired by Bell Engineering.



**U.S. ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT**

**Roxana, Kentucky (WRDA Section 531) Site Visit
15 May 2018**

PHOTOGRAPHIC RECORD

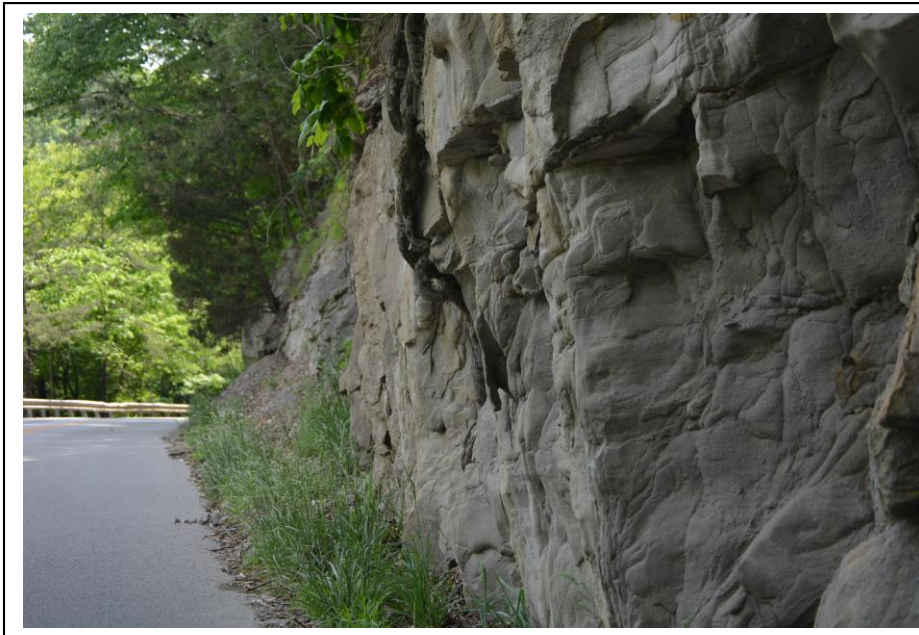


Photo: 5

Site: Roxana, KY

Date: 15 May 2018

Direction of View: South

Description: The water line will at times be in very close to the limestone cliff bands that parallel KY 160. Blasting permits may need to be acquired.

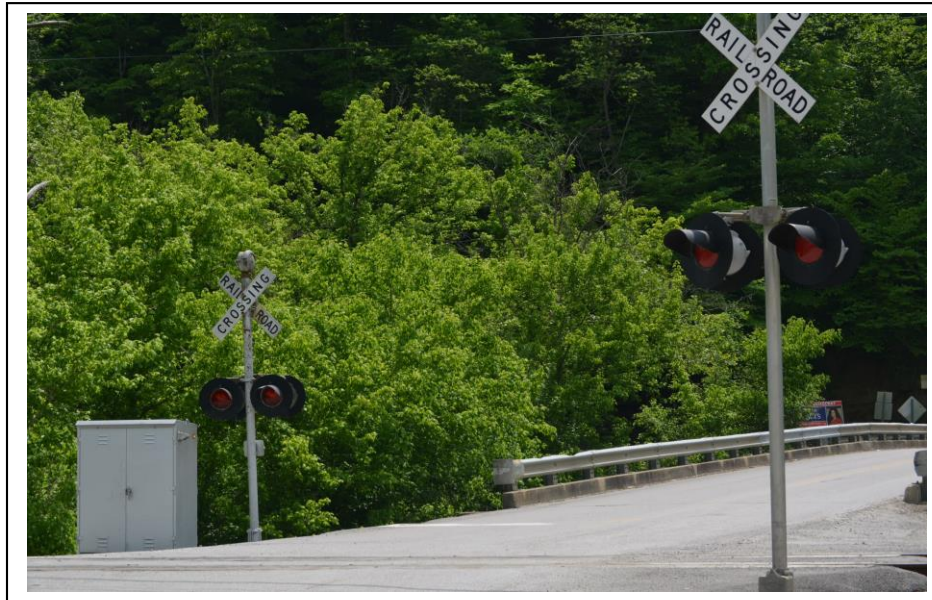


Photo: 6

Site: Roxana, KY

Date: 15 May 2018

Direction of View: South

Description: This marks the southern end of the USACE project footprint. This bridge crosses the North Fork Kentucky River.



APPENDIX G.

FINDING OF NO SIGNIFICANT IMPACT

**Section 531 Environmental Infrastructure
Roxana Water Line Extension for Federal Prison Project
Letcher County, Kentucky**

1. The Federal Bureau of Prisons, part of the U.S. Department of Justice, has proposed to construct a Federal Prison Camp (FPC) near the community of Roxana in Letcher County, Kentucky. Public water is not currently available for the Roxana community, however, the proposed FPC project would extend potable water service to Roxana to support the prison facility. This document serves as a guide for coordination of project development and management of all land and water resources.
2. An Environmental Assessment (EA) has been prepared following the National Environmental Policy Act (NEPA), Council for Environmental Quality (CEQ) Regulations implementing NEPA (40 CFR, 1500-1508) and Corps of Engineers Regulations ER 200-2-2 *Policy and Procedures for Implementing NEPA* (33 CFR, 230). This EA was prepared to describe existing conditions and evaluate potential impacts associated with the proposed action and alternatives. Alternatives evaluated include the following:
 - Alternative 1 – No Action. There would be no installation of water lines to extend from the community of Premium, Kentucky to Roxana in support of the FPC project. This would prevent potential future projects to extend potable water to the nearly 650 residential households along King’s Creek; and
 - Alternative 2 – Full implementation of the Proposed Action. The project would construct approximately 2.3 miles of eight inch water transmission main along HWY 160 from approximately the Premium Baptist Church to the bridge over the North Fork Kentucky River that leads to the intersection of HWY 588 and 160. This water line will be installed to support the proposed construction and operation of the 800-acre FPC facility in Roxana. Secondary to the construction of the proposed FPC, the PAA would provide potable water to many houses in the area and result in health benefits to the community.
3. This EA does not reveal significant impacts resulting from the proposed action. No negative impacts are anticipated to water quality, aquatic or terrestrial resources, cultural resources, socioeconomics, land use, climate, floodplains, air quality, noise, or aesthetics.
4. On XX August 2018, this EA began circulating to local, state, and Federal government agencies with jurisdiction by law or special expertise and the public for a 30-day review/comment period. Comments will be included in the EA.



5. Pursuant to the Fish and Wildlife Coordination Act of 1958 and the Endangered Species Act of 1973, as amended, coordination with the USFWS, KY Department of Fish and Wildlife, is conducted through scoping and EA review. The U.S. Army Corps of Engineers determined that the proposed action will have no effect on federally listed species or their designated critical habitat. The USFWS concurred with the Corps' determination of no effect.
6. Section 106 of the National Historic Preservation Act of 1966 requires each Federal agency take into account the effects of its undertakings on historic properties included in or eligible for listing in the National Register of Historic Places. The U.S. Army Corps of Engineers determined that no historic properties would be adversely affected by the proposed action. In a letter dated August XX, 2018, the Kentucky State Historic Preservation Officer concurred with the District's determination. Proposals for specific actions would still be reviewed on an individual basis and coordinated with the Kentucky State Historic Preservation Officer.
7. The preferred alternative has no potential implications under Executive Order (EO) 11988 (Floodplain Management), EO 11990 (Protection of Wetlands), EO 12898 (Environmental Justice), and the Clean Air Act Conformity Rule. Potential impacts would be evaluated on a case by case basis regarding proposed action activities in accordance with the Proposed Action. Impacts would be avoided or minimized and mitigated where necessary.
8. I have reviewed the comments and EA in light of the general public interest, and have determined that the work would not constitute a major Federal action significantly affecting the quality of the human environment within the meaning of NEPA as amended. Accordingly, I have concluded that an Environmental Impact Statement concerning the water line extension for the proposed Federal Prison Camp is not required.

Date

Antoinette R. Gant
Colonel, U.S. Army
District Commander