



**US Army Corps  
of Engineers**

**Nashville District**



*Cumberland River - US Army Corps of Engineers photo*

**Environmental Assessment  
Section 531 Project  
Sewer Line Replacement and Pump Station Rehabilitations  
Cities of Harlan and Loyall, and the Rio Vista Community  
Harlan County, Kentucky**

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## **Acronyms**

APE – Area of Potential Affect

dB – decibels

BMP's – Best Management Practices

CEQ – Council on Environmental Quality

CFR – Code of Federal Regulations

CWA – Clean Water Act

DAQ – Kentucky Division of Air Quality

EA – Environmental Assessment

EIS – Environmental Impact Statement

EPA – Environmental Protection Agency

ER – Engineer Regulation

ESA – Endangered Species Act

ESA – Environmental Site Assessment

FPPA – Farmland Protection Policy Act

FONSI – Finding of No Significant Impact

HTRW – Hazardous, Toxic or Radioactive Waste

HWTP – Harlan Wastewater Treatment Plant

KDFWR – Kentucky Department of Fish and Wildlife Resources

KDOW – Kentucky Division of Water

KIA – Kentucky Infrastructure Authority

KPDES – Kentucky Pollutant Discharge Elimination System

LCA – Local Cooperation Agreement

NAAQS – National Ambient Air Quality Standards

NEPA – National Environmental Policy Act

NHPA – National Historic Preservation Act

NRHP – National Register of Historic Places

NWI – National Wetland Inventory

PVC – polyvinyl chloride

USACE – U.S. Army Corps of Engineers, Nashville District

USCB – U.S. Census Bureau

USFWS – U.S. Fish and Wildlife Service

## Summary

The City of Harlan, Harlan County, Kentucky, is the Project Sponsor. The City of Harlan proposes to rehabilitate a portion of the existing public sewer collection system for residents in Rio Vista, Loyall, and Harlan Kentucky (Figure 1). The proposed project is to replace approximately 2,000 linear feet (ft) of an aging and obsolete 16-inch ductile iron force main pipeline with a 16-inch polyvinyl chloride (PVC) force main pipeline in the exact same location. The project includes rehabilitation of Pump Stations 1, 2, and 3, and placing pump station 3 within a small building. The project would maintain the status quo, i.e., the same sewer collection system capacity. The Kentucky Division of Water (KDOW), Water Infrastructure Branch approval letter (Appendix A) states that nothing is changing hydraulically. The sewer line is being replaced in the same location, and none of the pumps in the pump stations are being replaced. KDOW considers this project maintenance work in nature. The project is described in the City of Harlan's application (SX21095007) to the Kentucky Infrastructure Authority (KIA), Water Resources Information System (KIA 2014).

Information for this Environmental Assessment (EA) was collected from federal, state, and local agencies and databases. Areas of concern including aquatic and terrestrial ecosystems, wetlands, socioeconomics, Hazardous, Toxic, and Radioactive Waste (HTRW), endangered species, and cultural resources were evaluated for potential adverse effects for the No Action and Preferred Action Alternatives.

## SECTION 1 – PROJECT DESCRIPTION

### 1.1 Project Background

The Cumberland River Loyall Diversion Channel was completed in the late 1990's. A sewage collection system of iron ductile sewer lines was installed in the City of Loyall and Rio Vista community during this time period. The Harlan Wastewater Treatment Plant (HWTP) became operational in 1999. The plant discharges into the Cumberland River near Cumberland River Mile 690. The HWTP provides sanitary treatment service to the communities of Rio Vista, Loyall, Baxter, and Harlan, Kentucky.

Approximately 2,000 linear feet of the above existing 16-inch force main ductile iron piping and electrical panels in the pump station have deteriorated due to buildup of sewer gases in the pipe and pump station system over the years. Replacement with 16-inch PCV piping and pump station rehabilitation is a proactive measure to insure that system failure is less likely to occur (KIA 2014). Pipe replacement and pump station rehabilitation work would be done in the existing locations (Figure 2).

This proposed project is a cooperative agreement between the City of Harlan, Kentucky and the USACE, under a program established by authority of Section 531 of the Water Resources Development Act (WRDA) of 1996 (PL104-33). Funding for the project under this authority shall be shared 75% Federal (USACE) and 25% Non-Federal (State and Local Government). The proposed project is located in Kentucky's 5<sup>th</sup>

Congressional District. The area is represented by Kentucky Senate District 29 and House District 84.

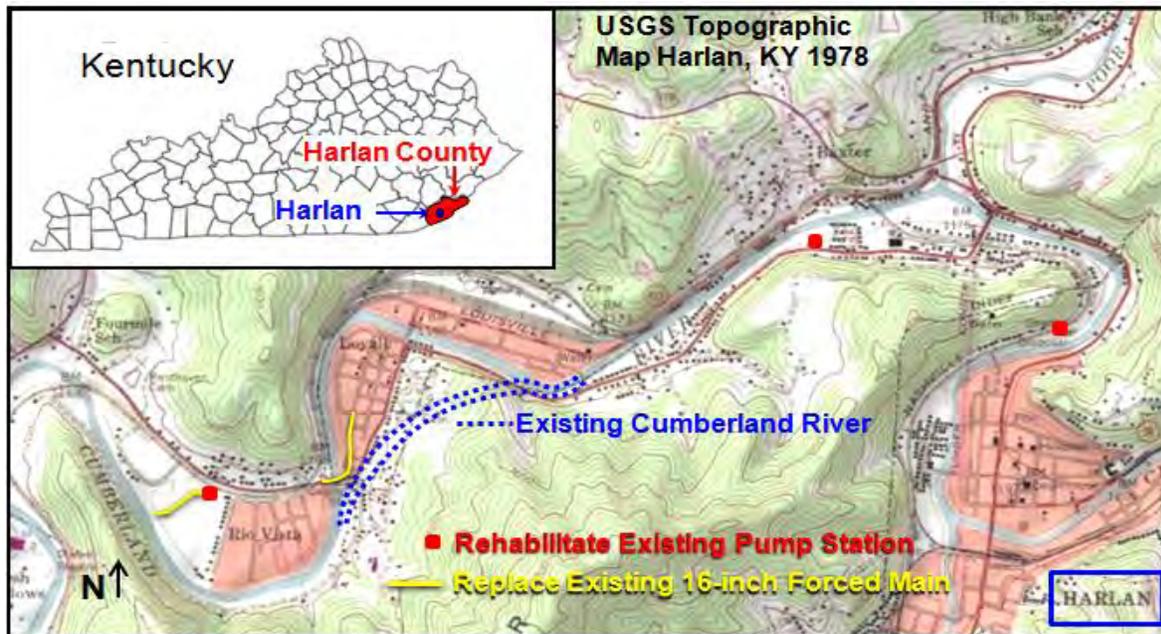


Figure 1. Project Vicinity Map, Harlan, Kentucky

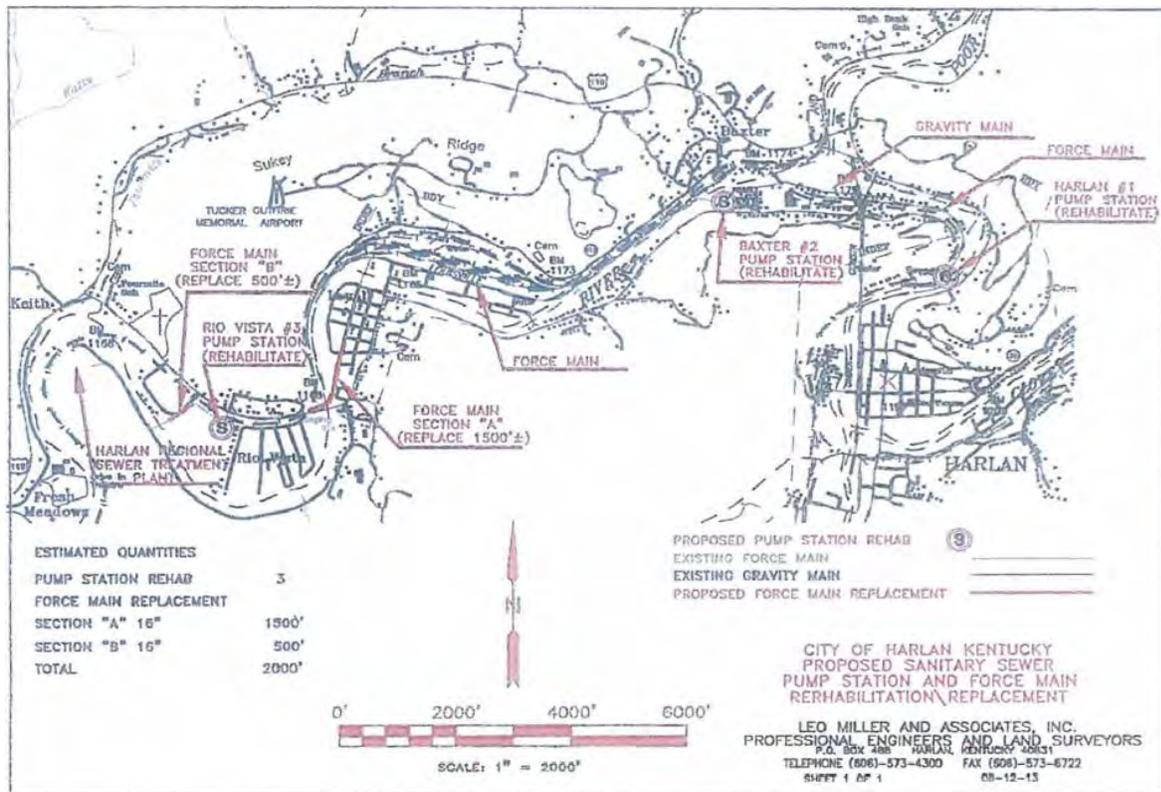


Figure 2. Project Plan Showing Force Main and Pump Station Locations.

## 1.2 Project Authority

Section 531 of WRDA of 1996 provides authority for the Secretary of the Army to establish a program to provide environmental assistance to non-Federal interests in 29 counties in the 5<sup>th</sup> Congressional District in eastern and southern Kentucky. Section 531 provides assistance in design and construction of water-related environmental infrastructure in Kentucky. Projects include wastewater treatment and related facilities, water supply and related facilities, and surface water resource protection and development.

Pursuant to Section 102 of the National Environmental Policy Act (NEPA) of 1969, as implemented by the regulations promulgated by the President's Council on Environmental Quality (40 Code of Federal Regulations (CFR) Parts 1500-1508), and the USACE implementing regulation, Engineer Regulation 200-2-2, 1988, an Environmental Assessment (EA) for the project was prepared with the assistance of Leo Miller and Associates, Inc. on behalf of the City of Harlan. This EA analyzes the potential environmental impacts of the project, and determines whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

## 1.3 Statement of Purpose and Need

The purpose of this project is to minimize the risk of sewer line ruptures and pump station failures. The project is needed to ensure that the existing sewer collection system is reliable and leak-free. The iron ductile pipe and three pump stations have deteriorated due to age and accumulated sewer gases that have corroded the iron infrastructure. Replacement with a PVC line and non-corrodible materials would address the sewer gases as these materials would not corrode. The goal of the project is to protect the human and natural environments. One object is to prevent raw sewage spills in the residential areas in the Cities of Loyall and Harland and the community of Rio Vista. Untreated raw sewage promotes the spread of diseases caused by waterborne bacteria and viruses. A second objective is to prevent raw spills from entering the adjacent Cumberland River. Raw sewage depletes the dissolved oxygen in rivers, and seriously affects or even eliminates aquatic life.

## 1.4 Prior NEPA Documentation

No previous NEPA documentation has been completed for this line replacement and pump station rehabilitation work.

## SECTION 2 – PROPOSED ALTERNATIVES

### 2.1 No Action Alternative

The No Action Alternative is evaluated in detail because it serves to establish a baseline or “without project conditions” that complies with NEPA which mandates that the “No Action” alternative be considered. The “No Action” Alternative would deny Federal funding for sewer collection improvements under the Section 531 program. No timely sewer line replacement or pump station rehabilitation would be done. The lack of funding would likely delay or cancel the project. The ductile iron piping and pump

stations would continue to deteriorate and increase the risk of pipe and pump station failures. A sewer spill would endanger public health, the ground surface, and groundwater for potentially days.

## 2.2 Preferred Action Alternative

The City of Harlan and its consulting engineer have determined that a 2,000-ft section of iron ductile piping requires replacement, and 3 pump stations require rehabilitation due to age, and metal corrosion caused by years of accumulating sewer gases. According to Salvato (1982) hydrogen sulfide sewer gas forms as a natural byproduct of anaerobic bacteria processes; and the sulfur is in turn converted to sulfuric acid that attacks metal and concrete pipes. PVC pipes are resistant to sulfuric acid and do not corrode (Salvato, 1982). The PVC force main collection pipe would replace a section of the iron piping in the same location in order to maintain alignment of a 3-mile (mi) long main collection line.

Pipe installation would follow a work sequence. Residents would be notified of the scheduled work in their neighborhood. Erosion control measures would be installed. The line would be trenched and the soil cover would be side cast adjacent to the trench for reuse. A typical trench is approximately 3-ft wide and 4-ft deep. Depth varies depending on lay of the land and fall in the pipe; however a minimum soil cover depth over the pipe is 2-ft, which is well below the freeze line.

The sewer line section being replaced is a main sewer transmission line between pump stations. There are no lateral lines coming off the main sewer transmission line to directly serve customers. Approximately 300-ft of line can be replaced in a day and connected to the existing sewer line within a few hours. During the short time period required to splice in new sections of sewer line, the pump stations would be taken off-line. The pump stations contain holding tanks that would be sufficient to store any inflow during this short off-line time. The new sewer line section would be tested, covered with the same excavated soil, and stabilized with seed and straw. No disruptions to customers would be expected.

Pump station rehabilitation is confined to the equipment within each pump station. Piping, fixtures and tubing would be replaced with updated components composed of non-corrosive materials. Outdated electronics and electrical wiring would be replaced. None of the pumps are being replaced therefore there is no change to the existing hydraulic capacity. Pump station 3 would be enclosed within a small building. The entire project is estimated to cost approximately \$500,000. The location of the existing sewer line, replacement pipe sections, and the pump station locations are shown in Figures 2, 3 and 4.



Figure 3. Force Main Replacement and Pump Station 3.



Figure 4. Pump Stations 1, 2 and 3.

### 2.3 Eliminated Alternative

**New Sewer Line and Pump Stations:** This alternative would abandon the existing sewer line and pump stations and install new lines and new pump stations in new locations. The 2,000-ft of iron ductile replacement line is a section in an existing 3-mi long main transmission line that connects to the regional sewer treatment plant. Moving 2,000-ft of a main transmission pipe line section to a new location would require moving the

entire 3-mi transmission line and excavating a new 3-mi trench in order to maintain correct alignment with the rest of the collection system. New materials, new ground disturbance new alignment through the levee, and a new sewer line crossing in the Cumberland River to the regional waste water plant would cost millions. One new pump station alone would cost approximately \$400,000; and three pump stations are required to operate the transmission system. Given the new and extensive impacts to land and water resources; and given the prohibitive construction cost, this alternative was dismissed from detailed consideration.

## SECTION 3 – ENVIRONMENTAL SETTING AND CONSEQUENCES

### 3.1 Location/Land Use

Existing Condition: Harlan County is located in southeastern Kentucky (Figure 5) on the border with Virginia in the Eastern Coal Field physiographic region. The City of Harlan is located in the Cumberland Mountain Thrust Block Ecoregion 69e (Woods et. al. 2002) and shown in Figure 5. The area is characterized by mountainous terrain, high, steep ridges, hills, coves, narrow valleys, and rapid surface runoff. Elevations in Harlan County range from 980 to 4,139 feet above sea level (Woods et. al. 2002). Pine Mountain runs along the county line from the northeast to the southwest. Martins Fork and Clover Fork converge in the City of Harlan to form the Cumberland River. Land cover consists of forests, extensive coal mines, and pasture. The land use adjacent the project consists of urban and residential areas that are mowed.

No Action and Preferred Action Alternatives: No alternative would affect the existing land cover and use.

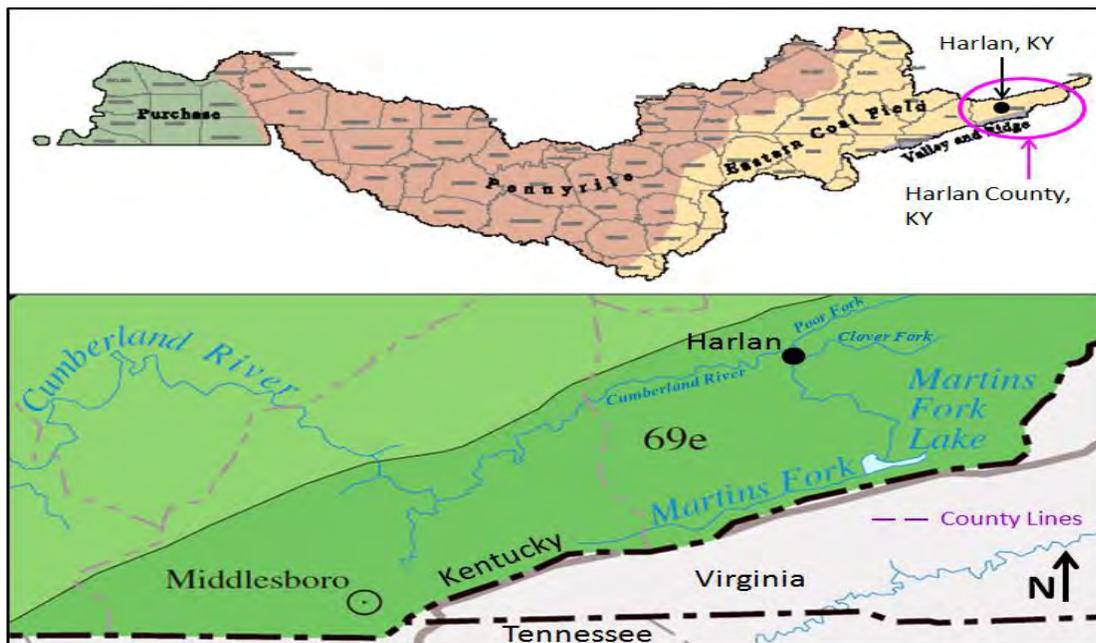


Figure 5. Eastern Coal Fields, Ecoregion 69e, and Harlan, Kentucky Locations.

### 3.2 Soils

Existing Condition: The project area is underlain by flat-lying, Pennsylvanian sandstone, shale, siltstone, conglomerate, and coal (Woods et. al. 2002). According to the National Resources Conservation Service (NRCS) Web Soil Survey (2014) the replacement pipe line is located in non-hydric (non-wetland) Shelbiana loam and Udorthents soils.

No Action Alternative: No soil would be disturbed under the No Action Alternative. However, collection system failures and sewage spills would contaminate the ground water and surface.

Preferred Action Alternative: Under the Preferred Action Alternative, the soils would be minimally disturbed. The force main replacement and pump stations are located in previously disturbed areas when the collection system was initially constructed. Insignificant soil loss from disturbance or indirectly via wind and/or storm water would be addressed by implementing construction Best Management Practices (BMP's). An erosion and sedimentation control plan would be implemented by using silt fences, coir rolls, straw wattles, re-vegetation, and maintaining soil stockpiles during construction to prevent erosion and off-site sediment loss. Construction laydown areas for materials and equipment would be stored within the fenced areas surrounding pump stations. Upon completion of the force main replacements, and pump station rehabilitations, seeding and stabilization of affected areas would be completed. Impacts would be minor, localized, and of short duration.

### 3.3 Climate

Existing Condition: The Upper Cumberland River Basin has a temperate moist climate with moderate temperatures. The average January minimum temperature is 20 degrees Fahrenheit (<sup>o</sup>F), and the average maximum is 47 <sup>o</sup>F. The average July minimum temperature is 62 <sup>o</sup>F, and the average maximum is 89 <sup>o</sup>F (Woods et. al. 2002). The average growing season is about 170 days. Annual precipitation ranges between 45 and 55+ inches (Woods et. al. 2002).

No Action and Preferred Action Alternatives: No alternative would affect the weather. The sewage collection system is a closed underground system that is protected from seasonal weather changes by its depth that may vary two ft or deeper.

### 3.4 Floodplain

Existing Condition: Executive Order (EO) 11988 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. In accomplishing this objective, "each agency shall provide leadership and shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by floodplains in carrying out its responsibilities" for the following actions:

- acquiring, managing, and disposing of federal lands and facilities;

- providing federally-undertaken, financed, or assisted construction and improvements;
- conducting federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulation, and licensing activities.

The order considers if the proposed action is in the base floodplain, which is the area that has a one percent or greater chance of flooding in any given year. The Federal Emergency Management Agency (FEMA) flood maps were used to identify the base floodplain (Figures 6 and 7). According to these maps, the proposed sewer line replacements and pump station 3 are located in areas of reduced flood risk due to levee protection. Line replacement would not affect existing flood levels. Internal ponding in Rio Vista occurs in an open field where no residences exist. The force main is buried and would not affect minor and temporary ponding. Pump stations 1 and 2 are located in the 100 year base floodplain (Figure 7). The sewer line is buried and the pump stations are of insufficient size to pose any obstruction to flood flows. There would be minimal and short term impacts to the floodplain. Construction and operation will occur within the 100-year floodplain; therefore a Kentucky Floodplain Construction Permit is required.

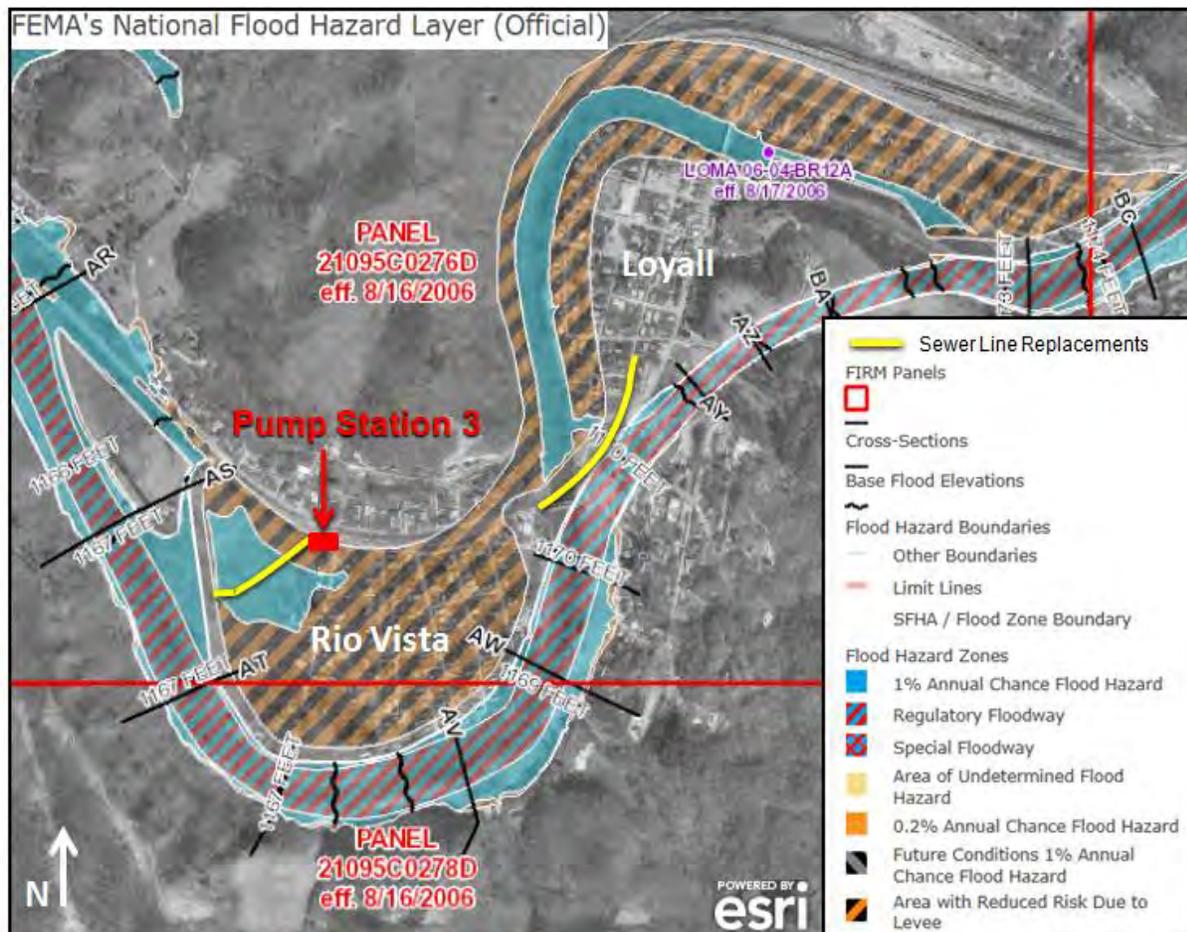


Figure 6. FEMA Flood Map, Sewer Line Replacement, and Pump Station 3.

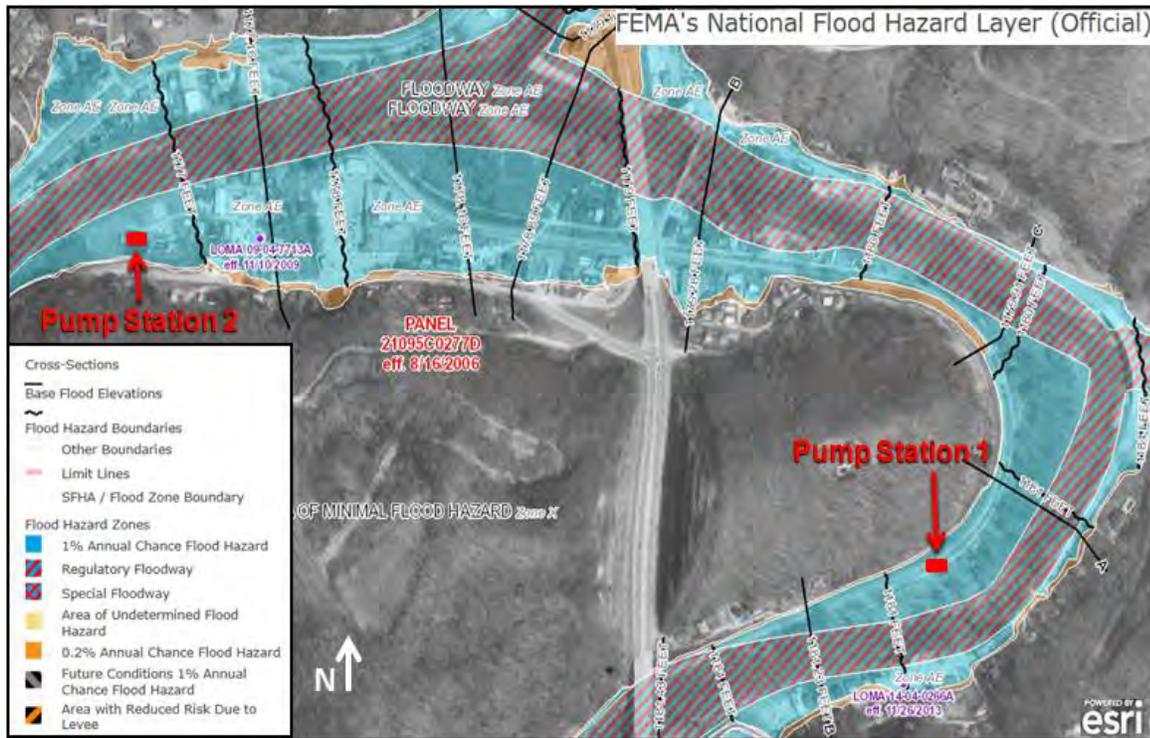


Figure 7. FEMA Flood Map and Pump Stations 1 and 2.

**No Action Alternative:** The No Action Alternative would not replace the existing force main line or rehabilitate the existing pump stations (1, 2, and 3). The floodplain would continue to be at risk for sewage line ruptures and pump station fails that could spill raw sewage on to the floodplain and potentially into the Cumberland River.

**Preferred Action Alternative:** The Preferred Action Alternative would have minimal and short term impacts to the floodplain during the time of active site preparation and construction activities. Appropriate BMP's would minimize potential harm within the floodplain. The risk of sewer line ruptures and pump station failures would be reduced. Via letter dated June 24, 2014, the Kentucky Division of Water (KDOW), Water Infrastructure Branch, has approved force main line replacement and pump station rehabilitations citing that the structures are located in the exact locations and that nothing is changing hydraulically (Appendix A).

### 3.5 Vegetation and Wildlife

**Existing Condition:** Existing vegetation in the project area consists of mowed lawns and bush-hogged fields. No trees would be removed for this project. Wildlife consists of animals tolerant of urban conditions such as American robins (*Turdus migratorius*), American crows (*Corvus brachyrhynchos*), blue jays (*Cyanocitta cristata*), northern cardinals (*Cardinalis cardinalis*), Virginia opossum (*Didelphis virginiana*), striped skunks (*Mephitis mephitis*), raccoons (*Procyon lotor*), eastern cottontail (*Sylvilagus floridanus*), and white-tailed deer (*Odocoileus virginianus*).

**No Action Alternative:** The No Action Alternative would not disturb the existing lawns and fields or urban wildlife. However, a sewer line rupture or pump station failure would expose wildlife to raw sewage that could damage their habitat or food sources.

**Preferred Action Alternative:** The Preferred Action Alternative would disturb lawns, mowed areas, and bush-hogged fields. All disturbed ground cover would be stabilized and seeded on project completion. Urban wildlife would be temporarily disturbed but would be expected to return to the area on project completion.

### 3.6 Water Quality

**Existing Condition:** The Clean Water Act (CWA), as amended in 1977, established the basic framework for regulating discharge of pollutants into the waters of the United States. The project is located in the Upper Cumberland River Watershed identified as Hydrologic Unit Code 05130101. Martins Fork and Clover Fork converge in the City of Harlan to form the Cumberland River. According to the 2012 Kentucky 305(b) map and 303(d) List (Figure 8), the river segment, between Cumberland River Mile (CRM) 683.6 and CRM 688.9, does not support primary contact recreation (swimming) due to the presence of fecal coliform bacteria which is public health concern. Pump stations 1 and 2 are located adjacent the Cumberland River within this river segment (Figure 1).

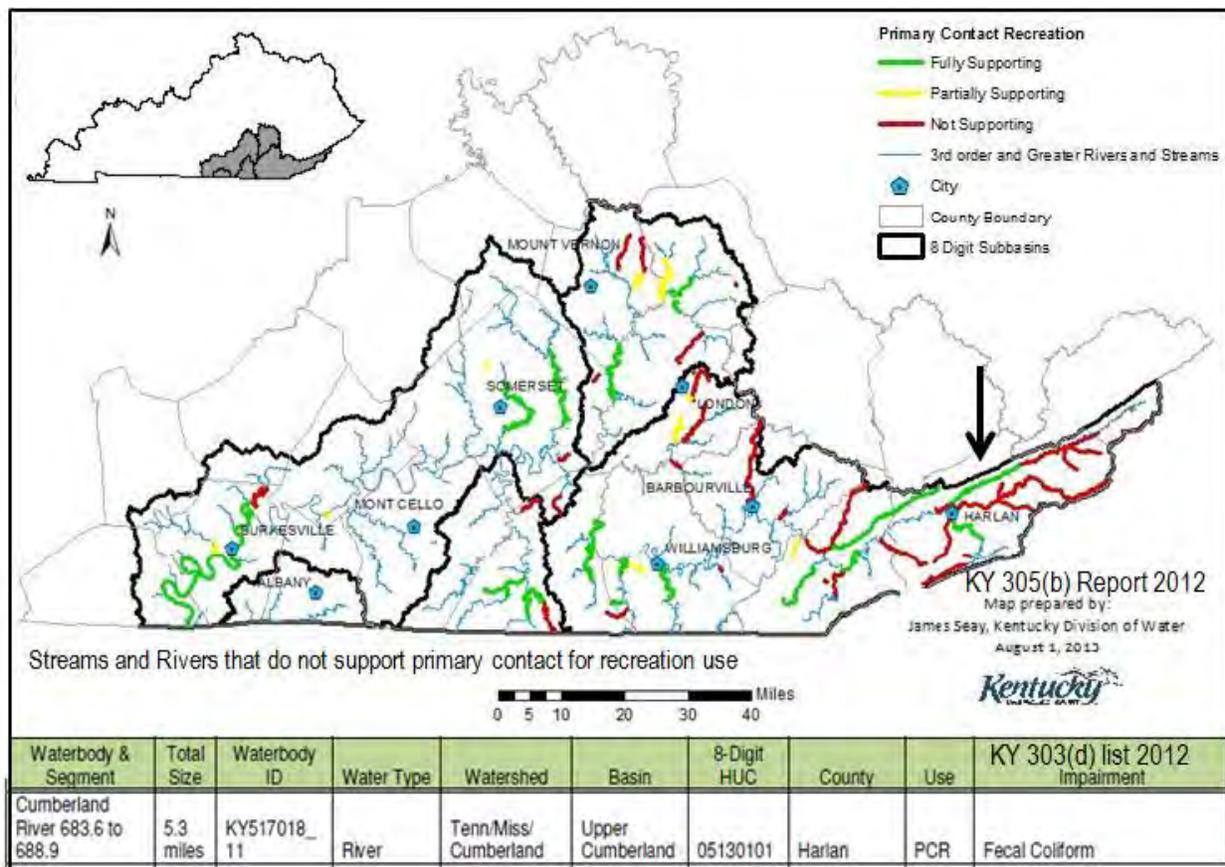


Figure 8. River and Stream Assessments around Harlan, Kentucky.

No Action Alternative: The No Action Alternative would not replace the iron ductile force main with reliable PVC force main piping. Three pump stations would not be rehabilitated. This action increases the risk of sewer collection system failure.

Preferred Action Alternative: The Preferred Action Alternative would replace sections of the force main and rehabilitate three pump stations as a proactive measure to minimize the risk of sewer collection system failure. Minimal, temporary impacts to the ground surface and storm water runoff during construction would be managed by construction BMP's including, but not limited to, erosion and sediment control plans and proper grading procedures. Work would be confined to roads, lawns, road-right-of-ways, and open fields. There are no stream crossings. No long term negative impacts to surface ground or water resources are anticipated as a result of the project. The Preferred Action Alternative is protective of human health and safety, and the terrestrial and water resources of the Upper Cumberland River Watershed. Maintaining reliable pump stations reduces the risk that a failed pump station would spill sewage into the Cumberland River and thereby increase fecal coliform bacteria contamination in the river. This work is considered routine maintenance that is performed to maintain the original line, grade, hydraulic capacity and original purpose of the site (sewer collection and transportation system). The force main line replacement and pump station rehabilitations would disturb less than 1 acre of ground and therefore would not require a Kentucky Pollutant Discharge Elimination System (KPDES) Construction Stormwater Permit.

### **3.7 Wetlands**

Existing Condition: EO 11990, Protection of Wetlands, requires federal agencies to evaluate and minimize impact to wetlands. The goal of the policy is to ensure that there is no net loss of wetlands. A review of U. S. Fish and Wildlife Service (USFWS) National Wetland Inventory information indicated there are no wetlands present where the force main line replacement and pump station rehabilitations are located. This infrastructure is located in upland locations.

No Action and Preferred Action Alternatives: No alternative would affect wetlands.

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

Existing Condition: No designated State Wild and Scenic Rivers are present within the project area. There are no State Special Use Waters in the project area.

No Action and Preferred Action Alternatives: No alternative would affect these resources.

### **3.9 Federally and State Listed Species**

Existing Condition: A review of the USFWS website for listed species in Harlan County, Kentucky identified six federally listed species (Table 1). Three listed species are bats and three listed species are fish. A review of KDFWR website listed nine state species (Table 2). These species were found on the USGS Harlan, Kentucky topographic map that includes to the project area. The state list includes the same federally listed bats in addition to three other mammals. Two state birds and one crayfish are also listed.

Table 1. Federally Listed Species in Harlan County, Kentucky

 <b>U.S. Fish &amp; Wildlife Service</b> Kentucky Ecological Services Field Office		330 W. Broadway, Room 265 Frankfort, KY 40601 Phone: 502-695-0468 Fax: 502-695-1024			
Endangered, Threatened, Proposed & Candidate Species in HARLAN County, Kentucky					
Group	Species	Common name	Legal* Status	Known** Potential	Special Comments
Mammals	<i>Myotis grisescens</i>	gray bat	E	K	
	<i>Myotis sodalis</i>	Indiana bat	E	K	
	<i>Myotis septentrionalis</i>	Northern long-eared bat	P	K	
Fishes	<i>Phoxinus cumberlandensis</i>	blackside dace	T	K	Within Harlan County, blackside dace are known to occur within HUCs 0513010101, 0513010102, 0513010103.
	<i>Etheostoma sagitta</i>	Cumberland arrow darter	C	K	Within Harlan County, Cumberland arrow darter are known to occur within HUCs 0513010101, 0513010102, 0513010103.
	<i>Etheostoma spilotum</i>	Kentucky arrow darter	C	K	Within Harlan County, Kentucky arrow darter are known to occur within HUC 0510020202.

NOTES:  
 \* Key to notations: E = Endangered, T = Threatened, P = Proposed, C = Candidate, CH = Critical Habitat  
 \*\*Key to notations: K = Known occurrence record within the county, P = Potential for the species to occur within the county based upon historic range, proximity to known occurrence records, biological, and physiographic characteristics.  
 FWS 2013 SPP LIST Final Revised (1): HARLAN Updated November, 2013

Table 2. State Listed Species within the Harlan USGS Topographic Map.

Kentucky Department of Fish & Wildlife Resources: Wildlife Action Plan – State Listed Species				
Group	Scientific Name	Common Name	State Status	Habitat and Observations
Mammal	<i>Clethrionomys gapperimaurus</i>	Kentucky Red-backed Vole	S	Prefers cool, mesic deciduous, coniferous, or mixed forests with large amounts of ground cover; also uses second-growth areas. One observation was reported on 1996.
	<i>Sorex cinereus</i>	Cinereus Shrew	S	Not found in areas with little or no vegetation. Prefers thick leaf litter in damp forests. Nests in shallow burrows or in logs and stumps. One observation reported in 1996.
	<i>Myotis leibii</i>	Eastern Small-footed Myotis	T	Associated with hilly and mountainous terrain near/in deciduous or evergreen forest. Roost primarily in rocky habitat. Seven observations reported in 1999.
	<i>Myotis septentrionalis</i>	Northern Myotis	E	This bat generally is associated with old-growth forests and relies on intact interior forest habitat. A total of twenty-seven observations were reported in 1999, and 2008.
	<i>Myotis sodalis</i>	Indiana Bat	E	Tend to use standing snag/hollow tree and trees with a high percentage of exfoliating bark. One observation was reported on 1999.
	<i>Ursus americanus</i>	American Black Bear	S	Prefer mixed deciduous-coniferous forests with a thick understory. A total of sixteen observations were reported in 2003, 2005, 2006, 2007 and 2008.
Birds	<i>Setophaga fusca</i>	Blackburnian Warbler	T	Occurs in the deciduous forests of Black Mountain. Most numerous in mature forests. One observation was reported on May 31, 2013.
	<i>Vermivora chrysoptera</i>	Golden-winged Warbler	T	Occurs in early successional habitats with a predominance of shrubs or small trees. A total of seven observations were reported in 2009, 2010, and 2014.
Crayfish	<i>Cambarus buntingi</i>	Longclaw Crayfish	S	Inhabits medium to large creeks with clean cobble substrate where it is found under large slab boulders. A total of two observations were reported in 1999, and 2000.

E – State Endangered      T – State Threatened      S – State Special Concern

No Action and Preferred Action Alternatives: No alternative would affect federally or state listed species as they are not likely to be present due to the lack of their specific habitat in the work footprint. Work is confined to urban areas where existing sewer lines are located under paved streets, mowed lawns, mowed road right-of-ways, and where sewer lines and pump stations are located in open fields that are maintained by mowing. No trees or shrubs are located in the project footprint; therefore no bat or bird species would be affected. The project footprint does not cross water ways or wetlands; therefore no listed fish or crayfish would be affected.

### **3.10 Hazardous, Toxic, or Radioactive Waste**

Existing Conditions: Wastewater collection facilities generally do not generate hazardous wastes during operational processes. The construction, operation, and replacement of wastewater collection lines do not require the purchase, use, storage, or generation of hazardous wastes for daily operational processes. A Hazardous, Toxic or Radioactive Waste (HTRW) Phase Ia Environmental Site Assessment (ESA) was prepared by USACE personnel qualified in HTRW procedures for lands used within the proposed contractor work limits. HTRW includes any material listed as a "hazardous substance" under the Comprehensive Environmental Response, Compensation and Liability Act. The purpose of this Phase Ia ESA was to obtain and evaluate data about the environmental condition, or potential for a recognizable environmental condition (REC) which could pose a liability to the government as a result of acquisition, easement or cost share. A Phase Ia is an abbreviated Phase I ESA that fulfills many components of the regulation 40 CFR 312 Standards and Practices for All Appropriate Inquiries.

A Phase Ia ESA was completed on December 31, 2014, for a strip of land where approximately 2,000 linear feet of a 16 - inch iron ductile force main pipeline would be replaced with a 16 – inch PVC force main pipeline (Figure 3). Site visit, environmental records review, environmental lien/covenant search, and owner proxy interview did not identify any RECs at the proposed project area. Based on the findings, there is low probability of a REC at the proposed project area, and no further ESA is recommended for this site.

No Action and Preferred Alternatives: No alternative would affect HTRW.

### **3.11 Cultural Resources**

Existing Condition: Prehistoric and historic period archaeological sites exist along the banks and floodplains of the Cumberland River and document activities by Native Americans and early European-American descendants that lived in Harlan County, Kentucky. There are six historic districts and two historic properties listed on the National Register of Historic Places (NRHP) in Harlan County. Several archaeological sites occur within the project area but most are not eligible for listing in the NRHP. Only one historic property is eligible for listing in the NRHP but is situated well outside the boundaries of the Area of Potential Effect (APE). No historic properties listed or eligible for listing in the NRHP would be affected by this proposed undertaking.

The primary requirements for the consideration of cultural resources stem from Section 106 of the National Historic Preservation Act of 1966 (NHPA) as implemented by regulations at 36 CFR 800. The Harlan County Sewer Upgrade Project is an undertaking of USACE; therefore, the effects of its implementation on historic properties must be considered. Historic properties are properties, including archeological sites and standing structures that have been determined eligible for or are listed on the NRHP. A letter detailing the level of effort to identify historic properties in addition to previous cultural resource investigations within the project area has been submitted to the Kentucky Heritage Council for their review and concurrence on December 15, 2014. Consultation with Federally recognized Native American tribes was initiated via a letter dated December 23, 2014. USACE made a determination of "no effects to historic properties". Please reference Appendix C for correspondence with the Native American tribes and the SHPO.

No Action Alternative: Under the No Action Alternative, no historic properties, listed or eligible for listing would be affected.

Preferred Action Alternative The Preferred Action Alternative would also have no effects to historic properties. The APE has been previously disturbed from the original installation and construction of the existing sewer line and associated pump stations. Based on previous cultural resource investigations in the project area no historic properties were identified within the APE. Rehabilitation to the existing pump stations would not cause significant alterations to the structures that would inherently introduce new visual elements to the landscape and cause potential visual effects to historic properties. Consequently, there are no visual effects to historic structures, buildings, objects, or landscapes. Therefore, there are no historic properties present in the APE, and no impacts to historic properties would occur from the Preferred Action Alternative.

### **3.12 Air Quality**

Existing Condition: Under the Clean Air Act, the U.S. Environmental Protection Agency (EPA) establishes primary and secondary air quality standards. Primary air quality standards protect the public health, including the health of "sensitive populations, such as people with asthma, children, and older adults." Secondary air quality standards protect public welfare by promoting ecosystems health, preventing decreased visibility, and damage to crops and buildings. EPA has set national ambient air quality standards (NAAQS) for six of the following criteria pollutants; ozone (O<sub>3</sub>), particulate matter (PM 2.5 and 10), nitrogen dioxide (NO<sub>2</sub>), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), and lead (Pb).

The Kentucky Division of Air Quality (DAQ) - Ambient Air Quality 2014 Annual Report was reviewed to determine if Harlan County has any air quality problems based on the DAQ data. No problems with any of the parameters monitored by the DAQ were observed in Harlan County. Harlan County is classified as in attainment, meaning criteria for air pollutants do not exceed the NAAQS.

No Action Alternative: No impacts to the existing air quality would occur as no work would be done under this alternative.

Preferred Action Alternative: The Preferred Action Alternative would have temporary, localized, and negligible impacts on air quality from vehicle and equipment exhaust and from fugitive windborne dust. These effects would be minimized by ensuring vehicle and equipment exhaust systems are in good repair. Dust could be controlled with daily road sweeping or water spraying. On project completion, air quality would return to ambient conditions.

### **3.13 Noise**

Existing Condition: Major contributors of outdoor noise come from transportation (railroads and highways) construction, and human and animal sources. The daily noise exposure of people depends on how much time they spend in different outdoor locations and on the noise levels in these places. Noise levels are not a single "peak" level. Instead, they represent averages of sound measured in decibels (dB) over short (8 hours or 24 hours), and long (years) periods of time. A 24-hour exposure level of 70 dB is considered the level that would prevent any measurable hearing loss over a lifetime. Occasional higher noise levels (greater than 70 dB) in a 24-hour period occurs, however, this is not considered problematic so long as a sufficient amount of relative quiet is experienced for the remaining period of time. Generally 55 dB is identified for outdoor areas where human activity takes place (EPA 2014).

Existing sources of ambient noise comes from CSX Railroad, Highway 840, and residential traffic on Mapother Street. About 500 linear feet of sewer replacement line would be installed parallel and under Mapother Street (Figure 2). The Loyall neighborhood is sandwiched between CSX Railroad and Highway 840. Approximately 1000 linear feet of sewer replacement line exits at the end of Mapother Street and parallels Highway 840 (Figure 2). Approximately 500 linear feet of sewer replacement line exits pump station 3 and runs through an open field to terminate at the top of the flood levee (Figure 2). Pump stations 1, 2, and 3, are located in open field areas (Figure 3).

No Action Alternative: Under the No Action Alternative, sewer lines would not be replaced and pump stations would not be rehabilitated. The proposed project would not contribute to additional noise. However, during sewer line or pump station failures, background noise would increase from vehicles and construction equipment used to make repairs. Noise would abate when repairs are completed.

Preferred Action Alternative: Under the Preferred Action Alternative, additional noise levels from construction equipment operations would be short-term and localized, and would be confined to weekdays during daylight hours. Additional noise levels would be negligible compared to existing noise levels within the proposed project area.

### **3.14 Socioeconomics**

Existing Condition: According to the Kentucky Home Town Locator, (2014) the Rio Vista community is located within the City of Loyall. U.S. Census Bureau (USCB) data was reviewed to identify the major industries in the Cities of Harlan and Loyall. Coal mining was once the dominant industry. The current dominant industries for both cities were

education services, health care, and social assistance. For Harlan, the second important group of industries were in agriculture, forestry, fishing and hunting, and mining, followed by a third group comprised of arts, entertainment, recreation, accommodation and food services. For Loyall, the second important industry was in retail trade, followed by a third group of industries comprised of agriculture, forestry, fishing and hunting, and mining.

Table 3. Socioeconomic Statistics

Parameter*	Loyall**	Harlan	Harlan County	Kentucky
Population Estimate	1,461	1,725	29,012	4,361,333
Unemployment Rate	10.1% <sup>†</sup>	8.2%	10.0%	9.8%
Median Household Income	\$23,409	\$30,257	\$25,906	\$43,036
Percent Minorities	3.0%	8.2%	4.2%	12.2%
Percent Below Poverty in past 12 Months	38.4%	27.8%	31.3%	18.8%
Percent under 18 years old	22.4%	20.7%	22.8%	23.4%

\* Source: U.S. Census Bureau FactFinder – 2009-2013 5-Year American Community Survey

\*\* Source: 2014 Kentucky Home Town Locator: Rio Vista is located within the City of Loyall

<sup>†</sup> Source: 2014 Homefacts

A review of Table 1 revealed the following information. The Harlan unemployment rate was lower; and the Loyall unemployment rate was slightly higher than the county and state rates. Median income for both Harlan and Loyall was higher than the county, but lower than the state median income. Harlan, Loyall, and Harlan County have a lower percentage of minorities than the state percent. Harlan, Loyall, and Harlan County have higher rates of unemployment than the state.

**EO 12898:– Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations:** EO 12898 requires Federal agencies to identify and address any disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations. As defined by the document, “Environmental Justice, Guidance under the National Environmental Policy Act” (CEQ, 1997), a minority population exists where the percentage of minorities in an affected area either exceeds 50% or is significantly greater than in the general population. A review of Table 1 shows that the Cities of Harlan and Loyall, and Harlan County do not have minority populations that exceed 50% of the general population.

The poverty rate for Harlan (27.8), Loyal (38.4), and Harlan County (31.3) were higher than the poverty rate for Kentucky (18.8%). Low-income populations are identified using the USCB’s statistical poverty threshold. The USCB defines a “poverty area” as a Census tract with 20% or more of its residents below the poverty threshold. As shown in Table 1, the Cities of Harlan and Loyall, and Harlan County have 20% or more of their

residents that are higher than the poverty threshold (20%) and therefore can be defined as “poverty areas”.

*EO 13045 – Protection of Children from Environmental Health Risks and Safety Risks:* EO 13045 requires federal agencies to identify and assess health risks and safety risks that may disproportionately affect children. As with EO 12898, federal agencies determine impacts to children as part of the NEPA compliance process. Agencies must ensure that its policies, programs, activities, and standards address disproportionate risks to children that results from environmental health risks or safety risks.

No Action Alternative: The No Action Alternative would leave children and residents of all income levels equally vulnerable to sewer collection system failures.

Preferred Action Alternative: Under the Preferred Action Alternative the costs for the force main sewer line replacements and pump stations rehabilitations would be borne equally by all utility ratepayers in the Cities of Loyall and Harlan and the Rio Vista community. With the assistance the Harlan County Fiscal Court, a funding package has been developed which would minimize the amount of debt for the proposed sewer collection system improvements. However, the cost of operation would be borne by the customers of the system. The Preferred Action Alternative is designed to be affordable and alleviate the need for a significant utility rate increase for the residents of these impoverished communities. The reduced risk of collection system failure should have an equally positive effect on living conditions for all residents, including those of minority and low income, and the health and safety of children.

### **3.15 Prime Farmland Protection Policy Act**

Existing Condition: The Farmland Protection Policy Act (FPPA) of 1981 directs federal agencies to evaluate impact to prime farmland. The FPPA requires federal agencies to complete Form AD 1006, “Farmland Conversion Impact Rating” for impacting prime farmland areas larger than a 10-acre threshold. Pump Station 3 and a portion of the force main replacement are located in an approximate 10-acre open field that is classified as prime farmland according to the U.S Department of Agriculture, Natural Resources Conservation Service website (2014). The existing sewer line and pump station 3 are located in approximately 0.1 acre of the field.

No Action Alternative: No additional disturbance to prime farmland would occur under this alternative. The ground has been previously disturbed during installation of the existing sewer line and pump stations. A sewer line and pump station 3 failure would spill raw sewage and contaminate the ground including prime farmland.

Preferred Action Alternative: The Preferred Action Alternative would disturb approximately 0.1 acre of prime farmland that has been previously disturbed at this location. Line replacement and pump station 3 maintenance would reduce the risk of failure and raw sewer spills. Less than 10 acres would be disturbed therefore a Form AD 1006 is not required.

### 3.16 Traffic

Existing Condition: Traffic patterns within the proposed project area are located along Kentucky Highway 840 and secondary roadways and driveways (Figures 2 and 3). Construction laydown areas for materials and equipment would be stored within the fenced areas surrounding pump stations.

No Action Alternative: No impacts and no work would occur under this alternative.

Preferred Action Alternative: Traffic impacts resulting under the Preferred Action Alternative would be minimal, short-term and limited. Any potential impacts would be coordinated with Kentucky Transportation Cabinet officials to further minimize disruption to traffic flow, and to address completion of work along road right-of-ways. During construction, the contractor would furnish, erect and maintain barricades, warning signs, flaggers and pilot cars in such a manner that all local and through traffic would be adequately accommodated. Emergency vehicle access would be maintained.

### 3.17 Cumulative Effects

USACE must consider the cumulative effects of the 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 CEQ Regulations). 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 temporal limits for assessment of this impact would initiate with the founding of Harlan County and end in 2030 or fifteen years after completion of this project. The geographical extent covers the Cumberland River between CRM 683.6 and CRM 694.2 (headwaters of the Cumberland River in the City of Harlan). The City of Loyall, including the Rio Vista community, and the City of Harlan, are located within this river segment. The important resources are water quality/human health and safety, recreation, fish and aquatic life, and the floodplain. Without the project (No Action Alternative) the risk of a sewer line rupture and pump station failures increases. Raw sewage spills would negatively impact these resources. With the project (Preferred Action Alternative) the sewer line and pump stations would be properly maintained to reduce the risk of raw sewerage spills, which would protect these resources.

Past and Present Actions: Harlan County was established in 1819 (Wikipedia 2015). The area had been sparsely populated and defined by subsistence farming. Since the mid 1800’s coal mining has been a driving force in the growth and development as people poured into Harland County for work. With growth came a greater access to material goods, doctors and schools (Lexington Herald-Leader 2015). With the increased population came a need for sanitary sewer collection and transmission and construction of a wastewater plant. The State of Kentucky issued the original permit for a Harlan/Loyal sewerage treatment plant in 1974 (USEPA 2015). A new regional

wastewater plant (Harlan Wastewater Plant) was completed in July 1999 and serves the Cities of Harlan, Loyal, and the Rio Vista community. The proposed project main line replacement and pump stations proposed for rehabilitation currently transport sewage to the regional wastewater plant (CVVADD 2000).

Past and present impacts on water quality, recreation, and human health and safety within this area have been and continue to be primarily development driven in the form of the following stressors: construction, roads, urban development and effluents from the human community. Replacement of a section of the main sewer line and rehabilitation of the pump stations aim to maintain the following goals: attainment of water quality standards, support water uses for fish and aquatic life and recreation; and protect human health and safety. The availability of Federal funds through the 531 Program to assist communities with wastewater infrastructure maintains the status quo. Improvements to meet these goals are a benefit to the natural and human environments.

Reasonably Foreseeable Future Actions: These same stressors on water quality are anticipated to continue, and possibly increase into the reasonably foreseeable future. As cities and communities continue to grow, the need for a reliable sewer collection and treatment system would be expected to increase. The No Action Alternative would inhibit growth and the lack of maintenance would leave the public and the environment vulnerable to sewer line and pump station failures resulting in raw sewerage spills. This project, in conjunction with other similar wastewater treatment projects in the watershed identified on the KIA website (<http://kygeonet.ky.gov/kia/cw/index.html>), would lead to improved water quality in the Cumberland River and its tributaries. It is reasonable to assume that as the sewer system is maintained and becomes more reliable, more residents would be connected and the system at some point would likely expand.

Water Quality/Human Health and Safety: The No Action Alternative would delay needed maintenance and increase the risk of sewer line and pump station failures. Raw sewage spills into the Cumberland River would be a violation of water quality standards. Exposure to raw sewage and associated pathogens would lower the standard of living and reduce public health and safety. The significance of this proposed project on meeting water quality standards would be positive. It would maintain the standard of living for the residents in the Cities of Loyal and Harlan and the Rio Vista Community. The health and safety of the general public would be maintained. Cumulative water quality benefits would be realized locally and downstream within the Upper Cumberland River Watershed.

Recreation: Currently recreational use is impaired for primary contact (swimming) due to the presence of fecal coliform in the Cumberland River. The No Action Alternative would delay maintenance and increase the risk of sewer pipe ruptures and pump station failures. Two pump stations are adjacent the Cumberland River. A pump station fail would spill sewer waste into the Cumberland River and degrade water quality. Maintaining the sewage infrastructure under the Preferred Action Alternative would reduce the risk of sewage spills and would be protect the existing water quality in the

Cumberland River. Recreational activities would be expected to improve over time as environmental conditions improve within the Cumberland River Watershed.

Fish and Aquatic Life: Sewage contains nutrients that stimulate over production of algae. When algae die, decomposition uses up the dissolved oxygen in the water. Anoxic conditions stress and kill fish and aquatic life. Under the No Action Alternative, the sewer line replacement and pump station rehabilitation work would be delayed for potentially a prolonged period of time. A sewer collection system failure would release raw sewage into the Cumberland River. The increased nutrient waste would likely increase algal blooms and die-offs resulting in reduced dissolved oxygen in the water. Low dissolved oxygen is detrimental to aquatic life. Implementing the Preferred Action Alternative would sustain a reliable sewage collection system that would reduce the risk of sewage spills into the Cumberland River and other surface waters. Maintaining a reliable sewage infrastructure would be protective of the aquatic habitat.

Floodplain: Under the No Action Alternative, maintenance of the sewer collection and transmission system would be delayed. A sewer line rupture or pump station failure would release raw sewage onto the floodplain and contaminate the ground surface. Residents and businesses may consider relocating if they do not have a reliable sewer service. Business relocations would remove jobs out of the urban areas. Reduced employment opportunities and loss of city tax revenues would negatively impact the local economy. Replacing the existing force main pipe sections and rehabilitating three pump stations would, by necessity, impact the floodplain. However, these structures already exist and floodplain disturbance would be confined to the location of the existing structures. Impacts would be temporary and negligible on the environment during the period of construction. Reducing the risk of sewage spills on the floodplain would be protective of the terrestrial environment.

**SECTION 4 – STATUS OF ENVIRONMENTAL COMPLIANCE**

Based on the information provided above, full compliance with all local, state, and federal statutes and EO’s would be met prior to project implementation.

Table 4. Environmental Compliance

Statute/Executive Order	Full
National Environmental Policy Act	X
Fish and Wildlife Coordination Act	X
Endangered Species Act	X
Clean Water Act	X
Clean Air Act	X
National Historic Preservation Act	X
Comprehensive, Environmental Response, Compensation, and Liability Act	X
Farmland Protection Policy Act	X
EO 11988 Floodplain Management	X
EO 11990 Protection of Wetlands	X
EO 13045 Protection of Children from Environmental Health Risks and Safety Risks	X
EO 12898 Environmental Justice in Minority Populations and Low-Income Populations	X

## SECTION 5 – PUBLIC AND AGENCY COORDINATION

NEPA is a Federal law that requires Federal agencies to consider the potential environmental impacts of their proposed project and to ask for comments from interested groups about the work plan before any action is taken. Through the NEPA process, a scoping letter about the proposed project was sent on December 10, 2014 to governmental agencies and officials, Indian Tribes, the public, private individuals, and other interested parties. The scoping letter was also posted on the USACE Nashville District website at <http://www.lrn.usace.army.mil/Media/PublicNotices.aspx>. The letter stated the need for action and provided general information on the scope of work and the area of water and land resources that would potentially be affected by the No Action and Preferred Action alternatives. The purpose of the scoping letter is to provide general project information and to identify environmental concerns by requesting comments on alternatives and a list of environmental resources. Scoping comments received were used to help prepare this draft EA. Comments regarding environmental issues were addressed in the course of the NEPA process and are noted in the draft EA. On February 5, 2015, a Notice of Availability for the draft EA and unsigned FONSI was posted on the Nashville District website and circulated to public and agencies for a 30-day review. Great consideration was given to all comments. USACE responses are found below in Sections 5.1 and 5.2. Appendix A contains a letter from the Kentucky Water Infrastructure Branch, and Appendix B contains the scoping letter, NOA, addresses, and responses.

### 5.1 Correspondence, Scoping Letter and Responses

The Kentucky Water Infrastructure Branch approval letter dated June 24, 2014 (Appendix A) states that nothing is changing hydraulically. The sewer line is being replaced in the same location, and none of the pumps in the pump stations are being replaced and considers this project maintenance work in nature.

*USACE Response: Concur.*

The USFWS responded by letter dated January 5, 2015 (Appendix B) and anticipates that there would be no significant adverse impacts to wetlands or federally listed endangered or threatened species from this proposal.

*USACE Response: Concur.*

The United Keetoowah Band of Cherokee responded by email on January 6, 2015 stating no objection to the proposed project, but in the event remains or artifacts or other items of cultural significance are inadvertently discovered, construction is to cease and requested to be contacted.

*USACE Response: Concur.*

The Kentucky SHPO responded by letter dated January 12, 2015, and concurred with USACE's "no effect determination".

*USACE Response: Concur.*

## 5.2 Notice of Availability and Responses

### SECTION 6 – PERMITS REQUIRED

In accordance with applicable local, state, and federal regulations, the applicant would be responsible for acquiring any necessary permits prior to commencing construction at the proposed project site. All necessary permits and coordination with governing agencies would be the responsibility of the engineer and/or contractor selected for site construction. All construction permits would be maintained and posted at the construction site.

### SECTION 7 – CONCLUSIONS

The City of Harlan has applied for Section 531 funding for wastewater collection system improvements that consists of replacing approximately 2,000 linear feet of force main and rehabilitating three pump stations. The existing infrastructure is aged and obsolete. This existing condition increases the risk of system failures and the potential for raw sewage spills that would pose a safety and health hazard to the public and contaminate land and water resources. The proposed work would ensure a reliable wastewater collection system and reduce the risk of system failures. The combined efforts of the local community, the City of Harlan, the Commonwealth of Kentucky, and the USACE would improve the quality of life for residents in the Cities of Loyall and Harlan by ensuring reliable infrastructure that would protect the public, land, and water resources.

Potential short-term and temporary negative impacts on the human environment could include elevated noise and traffic realignments. No disruptions to sewer service are expected, however, the local utility is equipped to respond as they would for any emergency disruptions. These impacts are negligible when compared to the positive impact the project would have on protecting the health and safety of the local community and their natural environment. The project was designed to address deficiencies in the sewer collection and transmission system and accommodate the expected 15-year needs. This project would not expand the sewer service area, nor increase the sewer system capacity. The improvements to the system are associated with the need to address maintenance and increase the reliability of the sewer collection and transmission system.

No significant adverse impacts have been identified. No significant resources such as threatened or endangered species or their habitat, water quality, forests, wetlands, or air quality would be adversely affected by the project. Line replacement and pump station rehabilitations would take place in existing and previously disturbed force main and

pump stations locations. There would be no new ground disturbance. The contractor would be required to re-grade and revegetate excavated sites to original conditions. Short-term impacts associated with construction would be localized and minor with the use of construction BMP's. USACE would verify during the pre-construction meeting that the City of Harlan or their contractor has obtained coverage under all applicable federal, state, and local permits related to this project.

### **SECTION 8.0 – LIST OF INFORMATION PROVIDERS AND PREPARERS**

The following people and agencies were consulted or involved in preparation of this EA.

Honorable Daniel E. Howard  
Mayor, City of Harlan  
218 South Main Street  
P.O. Box 783  
Harlan, KY 40831

Honorable Joseph A. Grieshop  
County Judge/Executive  
P.O. Box 956  
Harlan, KY 40831

Timothy Schwendeman, Assistant Director  
Cumberland Valley Area Development District  
342 Old Whitley Road  
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Leo Miller & Associates, Inc.  
114 North Second Street  
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Harlan, KY 40831

USACE – Nashville District  
P.O. Box 1070  
Nashville, TN 37202-1070

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David Bishop, Project Manager  
Tim Higgs, Chief, Environmental Section  
Lannae Long, Environmental Engineer  
Cathy Keith, Real Estate Representative  
Linda Ingram, Construction Representative

Joy Broach, Biologist  
Jordan McIntyre, Archaeologist  
Mary Lewis, Biologist  
Kathryn Firsching, Attorney

USACE – Pittsburg District  
1000 Liberty Avenue  
Pittsburgh, PA 15222-4186

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Bruce Kish, Environmental Protection Specialist

## SECTION 9 – REFERENCES

City of Harlan, Kentucky

2014 *Sanitary Sewer Pump Station and Force Main Rehabilitation*. Prepared by Leo Miller & Associates, Inc., 114 North Second Street, P.O. Box 488, Harlan, Kentucky 40831

Council for Environmental Quality

1996 *Draft Guidance for Addressing Environmental Justice under NEPA*. 1996.

Cumberland Valley Area Development District

2000 Strategic Water Resource Development Plan, Summary of Wastewater Treatment Systems

Federal Emergency Management Agency

2014 Floodplain Maps Website:

<http://fema.maps.arcgis.com/home/webmap/viewer.html?webmap=cbe088e7c8704464aa0fc34eb99e7f30>

Home Facts

2014 Website: <http://www.homefacts.com/unemployment/Kentucky/Harlan-County/Loyall.html>

Kentucky Department of Fish & Wildlife Resources

2015 Kentucky Department of Fish & Wildlife Resources website:  
<http://app.fw.ky.gov/speciesinfo/quadList.asp?strGroup=1>

Kentucky Division of Air

2014 *Kentucky Division for Air Quality, 2014 Annual Report*

Kentucky Division of Water

2000 *Cumberland River Basin and Four Rivers Region Status Report*

Kentucky Energy and Environment Cabinet, Division of Water

2013 *Final, 2012 Integrated Report to Congress on the Condition of Water Resources in Kentucky*. Volume II, 303(d) List of Surface Waters.

Kentucky Energy and Environment Cabinet, Division of Water

2013a *Integrated Report to Congress on the Condition of Water Resources in Kentucky, 2012*. Volume I, 305(b) Assessment Results with Emphasis on the Salt River – Licking River Basin Management Unit and the Upper Cumberland River – 4 Rivers Basin Management Unit.

Kentucky Home Town Locator

2014 KY Home Town Locator Website:

<http://kentucky.hometownlocator.com/maps/boundary-map,mode,place,geoid,2148288.cfm>

Kentucky Infrastructure Authority

2014 Water Resource Information System Internet Mapping Website:

<http://kygeonet.ky.gov/kia/cw/>

Lexington Herald-Leader

2015 100 years of coal mining in Harland County. Website:

<http://www.kentucky.com/2011/08/21/1852406/100-years-of-coal-in-harlan-county.html>

NatureServe Explorer

2015 NatureServe website: <http://explorer.natureserve.org/>

Salvato, Joseph A., P.E.

1982 *Environmental Engineering and Sanitation*. Third Edition. John Wiley & Sons Publication. 1163 pp

U.S. Census Bureau

2014 State and County Quick Facts Website: [www.quickfacts.census.gov](http://www.quickfacts.census.gov)

U.S. Department of Agriculture, Natural Resources Conservation Service

2014 Soil Survey website: <http://websoilsurvey.nrcs.usda.gov>

U.S. Environmental Protection Agency

2015 Permit Compliance System (PCS) and Integrated Compliance Information System (ICIS) databases in Envirofacts Website:

<http://www.epa.gov/enviro/facts/pcs-icis/search.html>

U.S. Environmental Protection Agency

2014 Noise Information Website: <http://www2.epa.gov/aboutepa/epa-identifies-noise-levels-affecting-health-and-welfare>

U.S. Fish and Wildlife Service

2013 Listed species listed by Kentucky County, website:

[http://www.fws.gov/frankfort/pdf/KY\\_te\\_list\\_by\\_county.pdf](http://www.fws.gov/frankfort/pdf/KY_te_list_by_county.pdf)

U.S. Fish and Wildlife Service

2014 National Wetlands Inventory website:

<http://www.fws.gov/Wetlands/Data/Mapper.html>

U.S. Geological Survey

1978 Harlan, Kentucky 7.5-minute Topographic Quadrangle Map.

U.S. Department of Housing and Urban Development

2014 Noise Abatement and Control Website:

<https://www.hudexchange.info/environmental-review/noise-abatement-and-control>

Wikipedia

2015 Harlan County. Website: [http://en.wikipedia.org/wiki/Harlan,\\_Kentucky](http://en.wikipedia.org/wiki/Harlan,_Kentucky)

Woods, A.J., Omernik, J.M., Martin, W.H., Pond, G.J., Andrews, W.M., Call, S.M, Comstock, J.A., and Taylor, D.D.

2002 *Ecoregions of Kentucky* (color poster with map, descriptive text, summary tables, and photographs): Reston, VA., U.S. Geological Survey (map scale 1:1,000,000).

**Appendix A**

**Kentucky Water Infrastructure Branch  
Approval Letter**



STEVEN L. BESHEAR  
GOVERNOR

LEONARD K. PETERS  
SECRETARY

**ENERGY AND ENVIRONMENT CABINET**

DEPARTMENT FOR ENVIRONMENTAL PROTECTION  
DIVISION OF WATER  
200 FAIR OAKS LANE, 4TH FLOOR  
FRANKFORT, KENTUCKY 40601  
[www.kentucky.gov](http://www.kentucky.gov)

June 24, 2014

Mr. Leo Miller  
Leo Miller and Associates  
P.O. Box 488  
Harlan, KY 40831

Re: Lift Station Rehabilitation and Line Replacement  
Harlan County, Kentucky  
Harlan WWTP  
Activity ID #: 1725  
Receiving Treatment Plant KPDES #: KY0026093

Dear Mr. Miller:

This letter is in response to your correspondence dated June 18, 2014. Because none of the pumps are being replaced and the 16" force main is being replaced with 16" PVC in the exact location as the Ductile Iron Pipe is currently, the Division of Water, Water Infrastructure Branch, would have nothing to comment on with respect to design. These facilities were constructed under permit originally and nothing is changing hydraulically. The Division of Water concurs this project is maintenance in nature and a new construction permit is not needed.

If we can be of any further assistance or should you wish to discuss this correspondence, please do not hesitate to contact me at 502-564-3410 extension 4825.

Sincerely,

A handwritten signature in cursive script that reads "Greg Goode".

Greg Goode, P.E.  
Environmental Engineering Consultant  
Water Infrastructure Branch  
Division of Water

Enclosures

c: Harlan County Health Department  
City of Harlan

## **Appendix B**

### **Scoping Letter, Notice of Availability, Addresses, and Responses**

REPLY TO  
ATTENTION OF

Department of the Army  
NASHVILLE DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 1070  
NASHVILLE TN 37202-1070

December 10, 2014

Project Planning Branch

To All Interested Parties:

The U.S. Army Corps of Engineers, Nashville District (USACE) is initiating Scoping under the National Environmental Policy Act (NEPA) for an Environmental Assessment (EA) for the City of Harlan, Section 531 Project, in Harlan County, Kentucky. The City of Harlan proposes to replace a portion of the existing public sanitary sewer system for residents in the communities of Rio Vista and Loyall, Kentucky. The proposed project is to replace approximately 2,000 linear feet of a 16-inch ductile iron force main pipeline with a 16-inch polyvinyl chloride (PVC) force main pipeline in the exact same location. Project and pipeline location are shown in Figure 1.

Section 531 of the 1996 Water Resources Development Act authorizes a program whereby USACE can provide design and construction assistance for water related environmental infrastructure projects in eastern Kentucky. These projects must address wastewater, water supply and surface water resource and related problems. All projects are cost shared with 75% Federal (Corps) funds and 25% non-Federal (Sponsor) funds. The Sponsor for this project is the City of Harlan. The ductile iron force main piping was installed in the late 1990's.

This EA is prepared pursuant to the NEPA, Council on Environmental Quality Regulations (40 CFR 1500-1508), and Corps of Engineers implementing regulation, ER 200-2-2, 1988. The following alternatives are considered in this EA: No Action and Proposed Action. The No Action alternative would involve denying funding under the Section 531 program and no replacement of the iron piping. The No Action Alternative is not recommended since it would allow for an unsafe and hazardous condition to the environment and public health. This section of force main is at risk of leaking and the release of untreated sewage would contaminate ground water and surface conditions in a residential area.

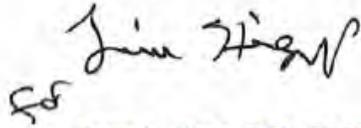
There is no new ground disturbance. The new PVC pipeline would replace the iron pipeline in the same place. The existing ground cover over the existing pipeline is mowed grass or paved road. No trees would be removed. Environmental effects associated with the proposed alternative are minor. We encourage comments not only about the immediate project area, but also of plans or proposals for any other development that may impact or influence the project or surrounding watershed.

This letter also serves to initiate public involvement requirements of Section 106 of the National Historic Preservation Act of 1966, as amended. Section 106, implemented by regulations at 36 Code of Federal Regulations 800, requires the Corps to consider the effects of its undertakings on historic properties. Appropriate architectural and archaeological investigations would be conducted if deemed necessary within areas affected by the proposed activity. Results would be coordinated with the Kentucky State Historic Preservation Officer, Tribal Nations, and other consulting parties.

2

Please submit any comments regarding environmental and cultural resource concerns no later than January 20, 2015 to ensure evaluation and inclusion in the EA. Responses should be emailed to: [CorpsLRNPlanningPublicCom@usace.army.mil](mailto:CorpsLRNPlanningPublicCom@usace.army.mil); or mailed to the address listed above. If you have any questions, please contact Ms. Joy Broach, Aquatic Biologist, at (615) 736-7956. Your participation is greatly appreciated.

Sincerely,

Handwritten signature of Russ L. Rote in black ink. The signature is cursive and includes the initials 'SR' to the left of the name.

Russ L. Rote, P.E., PMP, CFM  
Chief, Project Planning Branch

Enclosure

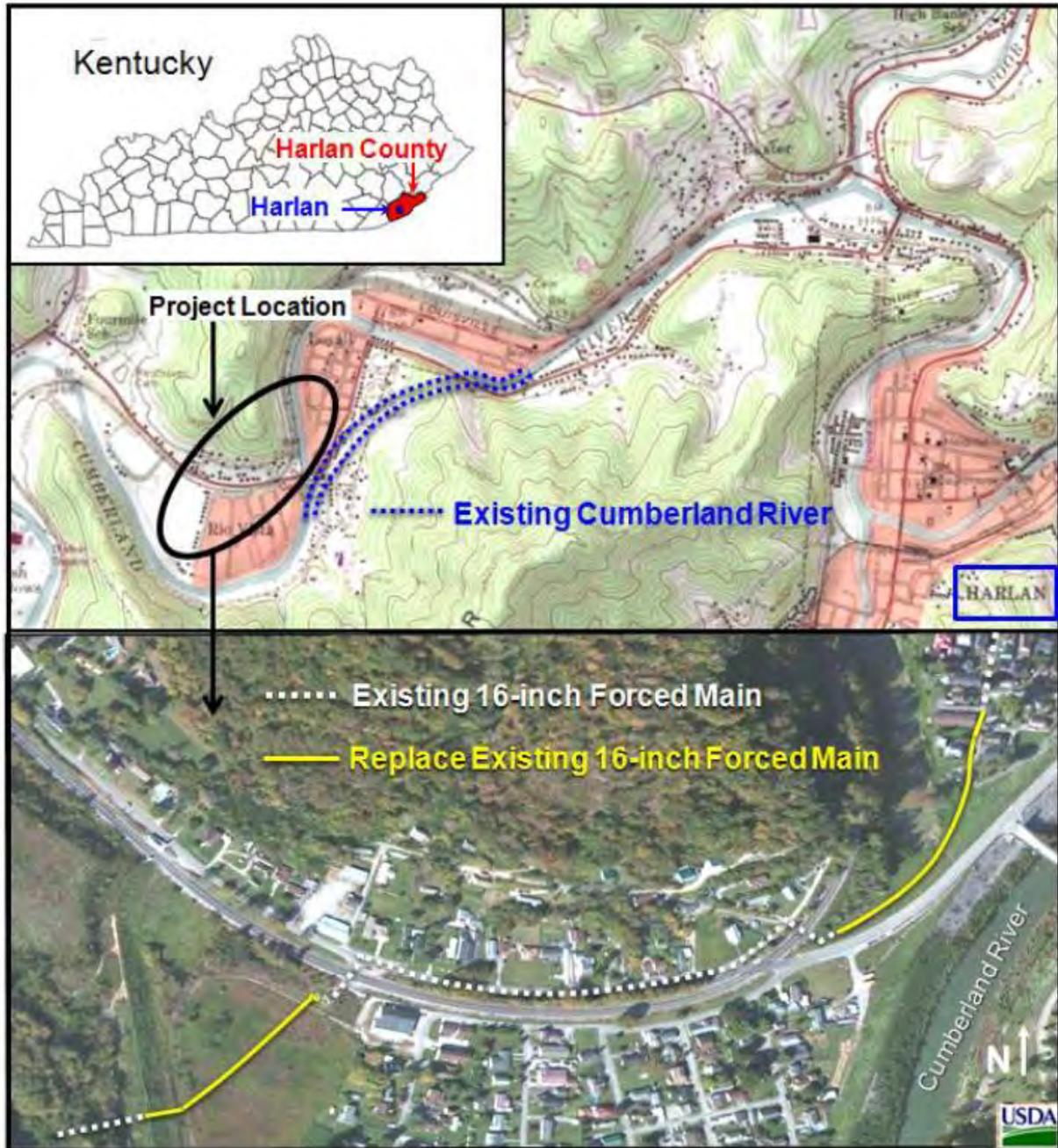


Figure 1. Harlan, Kentucky and Project Location Map.

Otis Lewis, Manager  
Harlan Municipal Water Works  
203 River Street  
Harlan, KY 40831

Earl Hall, Manager  
Black Mountain Utility District  
609 Four Mile Road  
Baxter, KY 40806

Harlan County Chamber of  
Commerce  
115 N. Cumberland Ave.  
P.O. Box 268  
Harlan, KY 40831

Flood Plain Coordinator  
P.O. Box 956  
Harlan, KY 40831

Lonnie T. Saylor, Harlan County  
PRIDE Program  
117 South 3rd St.  
Harlan, KY 40831

Judge Executives Office  
210 East Central Street  
Suite 111  
Harlan, KY 40831

The Harlan Daily Enterprise  
1548 Hwy 421 South  
P.O. Drawer E  
Harlan, KY 40831

Harlan Community TV  
124 S. First St.  
P.O. Box 592  
Harlan, KY 40831-0592

Ms. Jill Bertelson  
Department for Environmental  
Protection  
Division of Water  
14 Reilly Road  
Frankfort, KY 40601

Mr. David Morgan  
Kentucky Heritage Council  
300 Washington Street  
Frankfort, KY 40601

Lee Andrews, Field Supervisor  
U.S. Fish and Wildlife Service  
Kentucky Ecological Service Field Office  
330 West Broadway, Room 265  
Frankfort, KY 40601

Mike Hardin, Assistant Director  
Kentucky Dept. of Fish and Wildlife  
Resources  
#1 Sportsman's Lane  
Frankfort, KY 40601

Honorable Mayor Daniel E. Howard  
City of Harlan  
218 South Main Street  
Box 783  
Harlan, KY 40831

Honorable Mayor Clarence Longworth  
306 Carter Avenue  
Loyall, Kentucky 40855

Harlan Countians for a Healthier  
Community  
P.O. Box 389  
Baxter, KY 40806

Harlan Public Library      PLEASE  
POST  
103 N. Third St.  
Harlan, KY 40831

David McGill  
Harlan County EM Director  
210 East Central Street  
Harlan KY 40831

Mr. Jason Hunt, P.E.  
Kenvirons  
452 Versailles Road  
Frankfort, KY 40601

Keith Blair  
Division of Water  
875 South Main Street  
London, KY 40741-9008

Tammy Turley, Chief  
USACE Regulatory Branch  
3701 Bell Road  
Nashville, TN 37214

David Robinson, Resource Manager  
Martins Fork Lake  
5965 Highway 987  
Smith, KY 40831-5415

Honorable Fritz Steele  
Kentucky Representative, House  
District 84  
176 Woodland Avenue  
Hazard, KY 41701

Honorable Harold "Hal" Rogers  
US Representative, Kentucky  
48 South Kentucky Highway 15  
Hazard, KY 41701

Honorable Mitch McConnell  
US Senator, Kentucky  
601 West Broadway  
Room 630  
Louisville, KY 40202

Harlan County Health Department  
1520 Hwy 421 S.  
Harlan, KY 40831

Cumberland Valley Area Development  
District  
PO Box 1740  
London, KY 40743

Honorable Johnny Ray Turner  
Kentucky Senator, Senate District 29  
849 Crestwood Drive  
Prestonsburg, KY 41653

Honorable Rand Paul  
US Senator, Kentucky  
771 Corporate Drive  
Suite 105  
Lexington, KY 40503

Environmental Task Force  
402 East Clover Street  
Harlan, KY 40831



REPLY TO  
ATTENTION OF

Department of the Army  
NASHVILLE DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 1070  
NASHVILLE TN 37202-1070

Jess  
2015-B-0141  
RECEIVED  
DEC 17 2014

December 10, 2014 No significant adverse impacts to wetlands or federally listed endangered or threatened species are anticipated from this proposal.

*Vigil du Ande* 1/5/15  
Field Supervisor Date  
U. S. Fish and Wildlife Service  
Frankfort, KY 40601

Project Planning Branch

To All Interested Parties:

The U.S. Army Corps of Engineers, Nashville District (USACE) is initiating Scoping under the National Environmental Policy Act (NEPA) for an Environmental Assessment (EA) for the City of Harlan, Section 531 Project, in Harlan County, Kentucky. The City of Harlan proposes to replace a portion of the existing public sanitary sewer system for residents in the communities of Rio Vista and Loyall, Kentucky. The proposed project is to replace approximately 2,000 linear feet of a 16-inch ductile iron force main pipeline with a 16-inch polyvinyl chloride (PVC) force main pipeline in the exact same location. Project and pipeline location are shown in Figure 1.

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This EA is prepared pursuant to the NEPA, Council on Environmental Quality Regulations (40 CFR 1500-1508), and Corps of Engineers implementing regulation, ER 200-2-2, 1988. The following alternatives are considered in this EA. No Action and Proposed Action. The No Action alternative would involve denying funding under the Section 531 program and no replacement of the iron piping. The No Action Alternative is not recommended since it would allow for an unsafe and hazardous condition to the environment and public health. This section of force main is at risk of leaking and the release of untreated sewage would contaminate ground water and surface conditions in a residential area.

There is no new ground disturbance. The new PVC pipeline would replace the iron pipeline in the same place. The existing ground cover over the existing pipeline is mowed grass or paved road. No trees would be removed. Environmental effects associated with the proposed alternative are minor. We encourage comments not only about the immediate project area, but also of plans or proposals for any other development that may impact or influence the project or surrounding watershed.

This letter also serves to initiate public involvement requirements of Section 106 of the National Historic Preservation Act of 1966, as amended. Section 106, implemented by regulations at 36 Code of Federal Regulations 800, requires the Corps to consider the effects of its undertakings on historic properties. Appropriate architectural and archaeological investigations would be conducted if deemed necessary within areas affected by the proposed activity. Results would be coordinated with the Kentucky State Historic Preservation Officer, Tribal Nations, and other consulting parties.



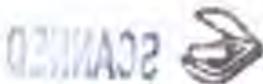
Please submit any comments regarding environmental and cultural resource concerns no later than **January 20, 2015** to ensure evaluation and inclusion in the EA. Responses should be emailed to: [CorpsLRNPlanningPublicCom@usace.army.mil](mailto:CorpsLRNPlanningPublicCom@usace.army.mil); or mailed to the address listed above. If you have any questions, please contact Ms. Joy Broach, Aquatic Biologist, at (615) 736-7956. Your participation is greatly appreciated.

Sincerely,

*for Jim Hign*

Russ L. Rote, P.E., PMP, CFM  
Chief, Project Planning Branch

Enclosure



## **Appendix C**

### **Section 106 – National Historic Preservation Act of 1966 Coordination**

Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA), and its implementing regulations at 36 CFR 800 require consideration of cultural resources prior to a federal undertaking and requires consultation with the State Historic Preservation Officer (SHPO), Federally recognized tribes with a connection to the project location and other consulting parties defined at §800.3. The NHPA only affords protection to sites, buildings structures, or objects listed in or determined eligible for listing in the National Register of Historic Places (NRHP). In addition, under the Archaeological Resources Protection Act and section 110 of the NHPA, the USACE has responsibilities to protect and preserve significant archaeological sites. Archival research for this project involved consulting the NRHP, and eliciting information from previous archaeological survey reports. Table 1 summarizes the parties consulted, the mechanisms for consultation, and responses to the consultation. The Section 106 consultation has lead to a “no effects to historic properties” determination for the proposed project.

Table 5. Summary of Section 106 of NHPA Consultation

Consulting Party	Initiation date	Initiation mechanism	No Effect letter sent	Concurrence to No Effect determination
Kentucky State Historic Preservation Officer	15 Dec. 2014	1,2	15 DEC 2014	12 JAN 2014
Absentee-Shawnee Tribe of Indians of Oklahoma	23 DEC 2014	2	23 DEC 2014	NR
Cherokee Nation	23 DEC 2014	2	23 DEC 2014	NR
Chickasaw Nation	23 DEC 2014	2	23 DEC 2014	NR
Eastern Band of Cherokee Indians	23 DEC 2014	2	23 DEC 2014	NR
Eastern Shawnee Tribe of Oklahoma	23 DEC 2014	2	23 DEC 2014	NR
Shawnee Tribe	23 DEC 2014	2	23 DEC 2014	NR
United Keetoowah Band of Cherokee	23 DEC 2014	2	23 DEC 2014	6 JAN 2014

1-Notified of project in NEPA scoping notices.

2-Section 106 initiation letter sent

\*Response date reflects the end of the 30 day comment period. No Response (NR) implies concurrence with the USACE finding of “no historic properties affected” as per 36 CFR 800.4(d).

In a letter to the Kentucky SHPO dated December 15, 2014, USACE made a determination of "no effects to historic properties". The Kentucky SHPO concurred with USACE's "no effect determination" in a letter response dated January 12, 2015. Consultation with Federally recognized American Indian Tribes was initiated 23 December 2014.

United Keetoowah Band of Cherokee Indians, Oklahoma – provided response dated January 6, 2015, stating no objection to the proposed project, but in the event remains or artifacts or other items of cultural significance are inadvertently discovered, construction is to cease and request to contact them telephonically or by letter

USACE did not receive a response from the following tribes; Absentee-Shawnee Tribe of Indians of Oklahoma, Cherokee Nation, Chickasaw Nation, Eastern Band of Cherokee Indians, Eastern Shawnee Tribe of Oklahoma, and the Shawnee Tribe. In reference to 36 CFR 800.4(d)(1)(i) no response from the remaining tribes after 30 days, implies concurrence with USACE's original findings and fulfills consultation requirements under Section 106 of the National Historic Preservation Act. This action is in compliance with the National Historic Preservation Act.



DEPARTMENT OF THE ARMY  
NASHVILLE DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 1070  
NASHVILLE, TENNESSEE 37202-1070

IN REPLY REFER TO

Project Planning Branch

**DEC 15 2004**

Mr. Craig Potts  
State Historic Preservation Officer  
Kentucky Heritage Council  
300 Washington Street  
Frankfort, Kentucky 40601

Dear Mr. Potts:

The U.S. Army Corps of Engineers (USACE), Nashville District has entered a partnership agreement with the City of Harlan, Harlan County, Kentucky under a Section 531 Southern and Eastern Kentucky Environmental Improvement Program to help subsidize the city's proposed plan to update portions of their existing sewer system. USACE would contribute approximately 75% of the proposed project's costs which would include design, construction, real estate, relocations and administrative costs. USACE defines funding this project as an undertaking with the potential to cause effects on historic properties and requests to initiate consultation under Section 106 of the National Historic Preservation Act. Enclosure 1 depicts a topographic map of the proposed project area on a portion of the Harlan, KY U.S.G.S. topographic quadrangle (7.5' series).

The project location is situated approximately 2.2 miles west of Harlan, Kentucky. The proposed project would involve replacing two sections (A and B) of an existing force main sewer line measuring a total of 2,000 linear feet. Section A, would measure approximately 1,500 linear feet and would run along Kentucky route 840 and Mapother Street. Section B would measure approximately 500 linear feet and would begin from a pump station adjacent to Kentucky route 840 and run southwest through a field to the top of a levee. Construction activities would involve excavating and removing the existing duct iron sewer line and replacing it with 16 inch diameter PVC piping. The trenches would then be refilled, leveled and re-vegetated or paved. The old sewer line would be transported and disposed of at a nearby land fill.

The city also plans to rehabilitate three existing pump stations associated with the sewer line by replacing electrical panels, weathered piping or valves, interior sump pumps any other component requiring replacement. However, more extensive rehabilitation activities are proposed for pump station # 3 which is located in the western portion of the project area. Rehabilitation would include expanding the current concrete pad and enclosing the exterior frame of the

generator shed which presently only consists of a simple skeletal frame. The concrete pad would measure approximately 23 ft in length and 19 feet in width and would be constructed over an existing gravel base foundation. The existing structural frame would then be enclosed and walled off with a low angle pitched roof. The structure would measure approximately 19 feet in length and 13 feet in width. Enclosure 2 includes engineering plans for all proposed rehabilitation work associated with the sewer pump stations.

USACE defines the physical area of potential effects (APE) as the footprint of the proposed project which would include portions of the existing sewer line that would be replaced and the three pump stations. Since the proposed sewer lines would be buried, USACE believes there would be no visual elements introduced to the viewshed. USACE also believes the rehabilitation of the three pump stations would not introduce new visual elements to the viewshed since the rehabilitation activities would not greatly alter the overall appearance of the pump stations. Therefore the nature of this undertaking precludes visual effects to historic properties. Enclosure 3 presents aerial maps of the APE.

A search of USACE site files and cultural resource site reports indicates that three cultural resources surveys were conducted throughout the project area between 1985 -1993 in association with a USACE funded Section 202 Civil Works flood reduction project for the City of Harlan, Kentucky. The surveys were conducted by Barcon Inc., and Duvall and Associates Inc., and involved both Phase I and Phase II level evaluation of archaeological resources. Only one archaeological site, falls within the boundaries of the current APE.

Duvall and Associates identify as an agricultural practices and no significant intact cultural deposits were identified below the plowzone. Duvall and Associates recommended that was ineligible for listing in the National Register of Historic Places (NRHP). In a letter addressed to USACE dated 7 January 1994, the Kentucky Heritage Council (KHC) concurred that among other archaeological sites in the vicinity, as reported in Duvall and Associates 1993 archaeological survey report, were not eligible for listing in the NRHP. Consequently was extensively disturbed during the construction of a levee associated with the Section 202 Civil Works flood reduction project. Based on these conditions USACE maintains that is ineligible for listing in the NRHP. Enclosure 4 presents references to previous cultural resources investigations in the project area and a copy of KHC's 1994 correspondence.



STEVEN L. BESHEAR  
GOVERNOR

**TOURISM, ARTS AND HERITAGE CABINET  
KENTUCKY HERITAGE COUNCIL**

BOB STEWART  
SECRETARY

THE STATE HISTORIC PRESERVATION OFFICE  
300 WASHINGTON STREET  
FRANKFORT, KENTUCKY 40501  
PHONE (502) 564-7005  
FAX (502) 564-5820  
[www.heritage.ky.gov](http://www.heritage.ky.gov)

CRAIG A. POTTS  
EXECUTIVE DIRECTOR AND  
STATE HISTORIC PRESERVATION OFFICER

January 12, 2015

Mr. Russ L. Rote  
Chief, Project Planning Branch  
Nashville District, Corps of Engineers  
P.O. Box 1070  
Nashville, TN 37202-1070

Re: **City of Harlan, Kentucky Sewer Line Replacement Project**

Dear Mr. Rote:

Thank you for your letter concerning the above referenced proposed permit area. The proposed project entails replacement of existing sewage lines and the rehab of three existing pump stations. The US Army Corps of Engineers considered potential effects to cultural or historic properties as a result of this project and made a determination of No Historic Properties Affected. We concur with this determination.

Should the project plans change, or should additional information become available regarding cultural resources or citizens' concerns regarding impacts to cultural resources, please submit that information to our office as additional consultation may be warranted. Should you have any questions, feel free to contact Nick Laracuente of my staff at 502-564-7005, extension 122.

Sincerely,

Craig A. Potts,  
Executive Director and  
State Historic Preservation Officer

CP:atl KHC # 43219

- 3 -

USACE also believes the footprints of the existing pump stations have also been extensively disturbed from their original construction and the presence of intact cultural deposits would be extremely low. Rehabilitation to the pump stations #1 and #2 would be confined to the interior of the structures as indicated by engineering plans. Pump station #3 would have additional work which would involve an extension of the existing concrete pad and the enclosing of the existing structural frame of the generator shed. Enclosure 5 presents a photo of pump station #3 where pre-existing ground disturbances are apparent.

Based on these conditions, USACE recommends no further investigations and seeks your comments to proceed with approving this undertaking. USACE requests a review of the proposed project and finding of "no historic properties affected." Please contact Jordan C. McIntyre at (615) 736-7837 or [jordan.c.mcintyre@usace.army.mil](mailto:jordan.c.mcintyre@usace.army.mil) if you require additional information.

Sincerely,

Russ L. Rote, P.E., PMP, CFM  
Chief, Project Planning Branch

Enclosures



KentuckyUnbridledSpirit.com

An Equal Opportunity Employer M/F/D

McIntyre, Jordan C.LRN

From: [REDACTED] - UKB THPO  
Sent: Tuesday, January 06, 2015 3:57 PM  
To: McIntyre, Jordan C.LRN  
Cc: [REDACTED]  
Subject: [EXTERNAL] RE: City of Harlan, KY proposed sewer line replacement (UNCLASSIFIED)

The United Keetoowah Band of Cherokee Indians in Oklahoma has reviewed your project under Section 106 of the NHPA, and at this time, have no comments or objections. However, if any human remains are inadvertently discovered, please cease all work and contact us immediately.

In addition, the UKB reserves the right to submit further comment or to re-enter consultation at any time deemed necessary.

Thank you,

[REDACTED]  
ACTING THPO  
United Keetoowah Band of Cherokee Indians in Oklahoma

[REDACTED]

This email and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this email in error please notify the system manager. This message contains confidential information and is intended only for the individual named. If you are not the named addressee you should not disseminate, distribute or copy this e-mail. Please notify the sender immediately by e-mail if you have received this e-mail by mistake and delete this e-mail from your system. If you are not the intended recipient you are notified that disclosing, copying, distributing or taking any action in reliance on the contents of this information is strictly prohibited.

Please FOLLOW our historic preservation page and LIKE us on FACEBOOK  
<https://www.facebook.com/pages/United-Keetoowah-Band-of-Cherokee-Indians-in-Oklahoma-Historic-Preservation/199767846834858>

For Reference of Record: January 27, 2015

On December 23, 2014, the U.S. Army Corps of Engineers (USACE) sent correspondence to the following tribes: United Keetoowah Band of Cherokee Indians, Absentee-Shawnee Tribe of Indians of Oklahoma, Cherokee Nation, Chickasaw Nation, Eastern Band of Cherokee Indians, Eastern Shawnee Tribe of Oklahoma and the Shawnee Tribe. The correspondence addressed the proposed sewer line improvements near Harlan County, Kentucky as part of Section 531 Civil Works project. USACE made the determination the project would have no effects to historic properties. USACE only received a response from the United Keetoowah Band of Cherokee Indians in Oklahoma concurrent with USACE's determination. In reference to 36 CFR 800.4(g)(1)(ii) no response from the remaining tribes after 30 days implies concurrence with USACE's original findings and fulfills consultation requirements under Section 106 of the National Historic Preservation Act. This action is in compliance with the National Historic Preservation Act.

MCINTYRE, JORDAN  
N.C. 241690403  
Jordan C. McIntyre  
Archaeologist



DEPARTMENT OF THE ARMY  
NASHVILLE OFFICE, CORPS OF ENGINEERS  
P.O. BOX 1079  
NASHVILLE, TENNESSEE 37262-1079

01/01/13 (Rev. 10)

Project Planning Branch

DEC 23 2014

Governor George Blanchard  
Absentee Shawnee Tribe of Indians of Oklahoma

Dear Governor Blanchard:

The U.S. Army Corps of Engineers (USACE), Nashville District has entered a partnership agreement with the City of Harlan, Harlan County, Kentucky under a Section 531 Southern and Eastern Kentucky Environmental Improvement Program to help subsidize the city's proposed plan to update portions of their existing sewer system. USACE defines approving this project as an undertaking with the potential to cause effects on historic properties and requests to initiate consultation under Section 106 of the National Historic Preservation Act.

The project location is situated approximately 2.2 miles west of Harlan, Kentucky. The proposed project would involve replacing two sections of an existing force main sewer line measuring 2,000 linear feet. Construction activities would involve excavating and removing the existing sewer line and replacing it with 16-inch diameter PVC piping. The old sewer line would be transported and disposed of at a nearby land fill. The city also plans to rehabilitate three existing pump stations by replacing electrical panels, weathered piping or valves, motor pump pumps and other worn out components. However, more extensive rehabilitation activities are proposed for pump station # 3 which is located in the western portion of the project area. Rehabilitation would include expanding the current concrete pad and enclosing the exterior frame of the generator shed which presently only consists of a simple skeletal frame.

USACE defines the area of potential effects (APE) as the footprint of the proposed project undertaking. Since the proposed sewer lines would be buried, USACE believes there would be no visual elements introduced to the view shed. USACE also believes the rehabilitation of the three pump stations would not introduce new visual elements to the viewshed since the rehabilitation activities would not greatly alter the overall appearance of the pump stations. Therefore the nature of this undertaking precludes visual effects to historic properties.

A search of USACE site files and cultural resource site reports indicates that three cultural resources surveys were conducted throughout the project area between 1985 - 1993 in association with a USACE funded Section 202 Civil

works flood reduction project for the City of Harlan, Kentucky. The surveys were conducted by Barzon Inc., and Duval and Associates Inc., and involved both Phase I and Phase II level evaluation of archaeological resources. Only one archaeological site, [redacted] falls within the boundaries of the current APE.

DuVal and Associates identify [redacted] as an [redacted] period occupation. The site was apparently disturbed from decades of agricultural practices and no significant intact cultural deposits were identified below the plowzone. Duval and Associates recommended that [redacted] was ineligible for listing in the National Register of Historic Places (NRHP) and was later affirmed by the Kentucky Heritage Council in letter dated 7 January 1004. Consequently [redacted] was extensively disturbed during the construction of a levee associated with the Section 202 Civil Works flood reduction project. Based on these conditions USACE maintains that [redacted] is ineligible for listing in the NRHP.

USACE also believes the footprints of the existing pump stations have also been extensively disturbed from their original construction and the presence of intact cultural deposits would be extremely low. Rehabilitation to the pump stations #1 and #2 would be confined to the interior of the structures as indicated by engineering plans. Pump station #3 would have additional work which would involve an extension of the existing concrete pad and the enclosing of the existing structural frame of the generator shed. Based on these conditions, USACE recommends no further investigations and seeks your comments to proceed with approving this undertaking.

A copy of this letter, supporting documentation including project maps with APE is being forwarded to your historic staff. Please provide us with your comments regarding a finding of "no historic properties affected" and any recommendations. If you require additional information please contact Jordan C. McIntyre at (615) 734-7837 or [jordan.c.mcintyre@usace.army.mil](mailto:jordan.c.mcintyre@usace.army.mil) if you require additional information.

Sincerely,

Russ L. Role, P.E., PMP, CFM  
Chief, Project Planning Branch



DEPARTMENT OF THE ARMY  
 NASHVILLE DISTRICT, CORPS OF ENGINEERS  
 P.O. BOX 4078  
 NASHVILLE, TENNESSEE 37244-1770

DEC 23 2014

Project Planning Branch

Ms. Robin DuShane  
 Tribal Historic Preservation Officer  
 Eastern Shawnee Tribe of Oklahoma

Dear Ms. DuShane:

The U.S. Army Corps of Engineers (USACE) Nashville District has entered a partnership agreement with the City of Harlan, Harlan County, Kentucky under a Section 531 Southern and Eastern Kentucky Environmental Improvement Program to help subsidize the city's proposed plan to update portions of their existing sewer system. USACE defines approving this project as an undertaking with the potential to cause effects on historic properties and requests to initiate consultation under Section 106 of the National Historic Preservation Act.

The project location is situated approximately 2.2 miles west of Harlan, Kentucky. The proposed project would involve replacing two sections of an existing force main sewer line measuring 2,000 linear feet. Construction activities would involve excavating and removing the existing sewer line and replacing it with 16 inch diameter PVC piping. The old sewer line would be transported and disposed of at a nearby land fill. The city also plans to rehabilitate three existing pump stations by replacing electrical panels, weathered piping or valves, interior sump pumps and other worn out components. However, more extensive rehabilitation activities are proposed for pump station #3 which is located in the western portion of the project area. Rehabilitation would include expanding the current concrete pad and enclosing the exterior frame of the generator shed which presently only consists of a simple skeletal frame.

USACE defines the area of potential effects (APE) as the footprint of the proposed project undertaking. Since the proposed sewer lines would be buried, USACE believes there would be no visual elements introduced to the view shed. USACE also believes the rehabilitation of the three pump stations would not introduce new visual elements to the viewshed since the rehabilitation activities would not greatly alter the overall appearance of the pump stations. Therefore, the nature of this undertaking precludes visual effects to historic properties.

A search of USACE site files and cultural resources site reports indicates that three cultural resources surveys were conducted throughout the project area

between 1985 - 1993 in association with a USACE (under Section 202 Civil Works flood reduction project for the City of Harlan, Kentucky. The surveys were conducted by Barcon Inc., and DuVal and Associates Inc. and involved both Phase I and Phase II level evaluation of archaeological resources. Only one archaeological site, [redacted] falls within the boundaries of the current APE.

DuVal and Associates identify [redacted] as an [redacted] period occupation. The site was apparently disturbed from decades of agricultural practices and no significant intact cultural deposits were identified below the plowzone. DuVal and Associates recommended that [redacted] was ineligible for listing in the National Register of Historic Places (NRHP) and was later affirmed by the Kentucky Heritage Council in letter dated 7 January 1994. Consequently, [redacted] was extensively disturbed during the construction of a levee associated with the Section 202 Civil Works flood reduction project. Based on these conditions, USACE maintains that [redacted] is ineligible for listing in the NRHP.

USACE also believes the footprints of the existing pump stations have also been extensively disturbed from their original construction and the presence of intact cultural deposits would be extremely low. Rehabilitation to the pump stations #1 and #2 would be confined to the interior of the structures as indicated by engineering plans. Pump station #3 would have additional work which would involve an extension of the existing concrete pad and the enclosing of the existing structural frame of the generator shed. Based on these conditions, USACE recommends no further investigations and seeks your comments to proceed with approving this undertaking.

A copy of this letter, supporting documentation including project maps with APE is being forwarded to your historic staff. Please provide us with your comments regarding a finding of "no historic properties affected" and any recommendations. If you require additional information please contact Jordan C. McIntyre at (615) 736-7837 or [jordan.c.mcintyre@usace.army.mil](mailto:jordan.c.mcintyre@usace.army.mil) if you require additional information.

Sincerely,

Russ L. Rose, P.E., PMF, CFM  
 Chief, Project Planning Branch



DEPARTMENT OF THE ARMY  
NASHVILLE DISTRICT, CORPS OF ENGINEERS  
P. O. BOX 1870  
NASHVILLE, TENNESSEE 37203 1370

DD FORM 1380 (2-79)

DEC 23 2011

Project Planning Branch

Chairperson Ron Sparkman  
Shawnee Tribe

Dear Chairperson Sparkman:

The U.S. Army Corps of Engineers (USACE), Nashville District has entered a partnership agreement with the City of Harlan, Harlan County, Kentucky under a Section 531 Southern and Eastern Kentucky Environmental Improvement Program to help subsidize the city's proposed plan to update portions of their existing sewer system. USACE defines approving this project as an undertaking with the potential to cause effects on historic properties and requests to initiate consultation under Section 108 of the National Historic Preservation Act.

The project location is situated approximately 2.2 miles west of Harlan, Kentucky. The proposed project would involve replacing two sections of an existing force main sewer line measuring 2,000 linear feet. Construction activities would involve excavating and removing the existing sewer line and replacing it with 16 inch diameter PVC piping. The old sewer line would be transported and disposed of at a nearby land fill. The city also plans to rehabilitate three existing pump stations by replacing electrical panels, weathered piping or valves, interior sump pumps and other worn out components. However, more extensive rehabilitation activities are proposed for pump station #3 which is located in the western portion of the project area. Rehabilitation would include expanding the current concrete pad and enclosing the exterior frame of the generator shed which presently only consists of a simple skeletal frame.

USACE defines the area of potential effects (APE) as the footprint of the proposed project undertaking. Since the proposed sewer lines would be buried, USACE believes there would be no visual elements introduced to the view shed. USACE also believes the rehabilitation of the three pump stations would not introduce new visual elements to the viewshed since the rehabilitation activities would not greatly alter the overall appearance of the pump stations. Therefore the nature of this undertaking precludes visual effects to historic properties.

A search of USACE site files and cultural resource site reports indicates that three cultural resources surveys were conducted throughout the project area between 1985 - 1993 in association with a USACE funded Section 202 Civil

Works flood reduction project for the City of Harlan, Kentucky. The surveys were conducted by Garzon Inc., and Duvall and Associates Inc., and involved both Phase I and Phase II evaluation of archaeological resources. Only one archaeological site falls within the boundaries of the current APE.

Duvall and Associates identify [redacted] as an [redacted] period occupation. The site was apparently disturbed from decades of agricultural practices and no significant intact cultural deposits were identified below the plowzone. Duvall and Associates recommended that [redacted] was ineligible for listing in the National Register of Historic Places (NRHP) and was later affirmed by the Kentucky Heritage Council in letter dated 7 January 1994. Consequently [redacted] was extensively disturbed during the construction of a levee associated with the Section 202 Civil Works flood reduction project. Based on these conditions USACE maintains that [redacted] is ineligible for listing in the NRHP.

USACE also believes the footprints of the existing pump stations have also been extensively disturbed from their original construction and the presence of intact cultural deposits would be extremely low. Rehabilitation to the pump stations #1 and #2 would be confined to the interior of the structures as indicated by engineering plans. Pump station #3 would have additional work which would involve an extension of the existing concrete pad and the enclosing of the existing structural frame of the generator shed. Based on these conditions, USACE recommends no further investigations and seeks your comments to proceed with approving this undertaking.

A copy of this letter, supporting documentation including project maps with APE is being forwarded to your historic staff. Please provide us with your comments regarding a finding of "no historic properties affected" and any recommendations. If you require additional information please contact Jordan C. McIntyre at (615) 736-7837 or jordan.c.mcintyre@usace.army.mil. If you require additional information.

Sincerely,

Russ L. Rose, P. E., RMP, CFM  
Chief, Project Planning Branch



DEPARTMENT OF THE ARMY  
NASHVILLE DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 1070  
NASHVILLE, TENNESSEE 37203-1070

WHERE TO:

Project Planning Branch

DEC 23 2014

Ms. LaDonna Brown  
Chickasaw Nation

Dear Ms. Brown:

The U.S. Army Corps of Engineers (USACE), Nashville District has entered a partnership agreement with the City of Harlan, Harlan County, Kentucky under a Section 531 Southern and Eastern Kentucky Environmental Improvement Program to help subsidize the city's proposed plan to update portions of their existing sewer system. USACE defines approving this project as an undertaking with the potential to cause effects on historic properties and requests to initiate consultation under Section 106 of the National Historic Preservation Act.

The project location is situated approximately 2.2 miles west of Harlan, Kentucky. The proposed project would involve replacing two sections of an existing force main sewer line measuring 2,000 linear feet. Construction activities would involve excavating and removing the existing sewer lines and replacing it with 16 inch diameter PVC piping. The old sewer line would be transported and disposed of at a nearby land fill. The city also plans to rehabilitate three existing pump stations by replacing electrical panels, weathered piping or valves, interior sump pumps and other worn out components. However, more extensive rehabilitation activities are proposed for pump station #3 which is located in the western portion of the project area. Rehabilitation would include expanding the current concrete pad and enclosing the exterior frame of the generator shed which presently only consists of a simple skeletal frame.

USACE defines the area of potential effects (APE) as the footprint of the proposed project undertaking. Since the proposed sewer lines would be buried, USACE believes there would be no visual elements introduced to the view shed. USACE also believes the rehabilitation of the three pump stations would not introduce new visual elements to the viewshed since the rehabilitation activities would not greatly alter the overall appearance of the pump stations. Therefore the nature of this undertaking precludes visual effects to historic properties.

A search of USACE site files and cultural resource site reports indicates that three cultural resources surveys were conducted throughout the project area between 1985 -1993 in association with a USACE funded Section 202 Civil

Works flood reduction project for the City of Harlan, Kentucky. The surveys were conducted by Barcon Inc., and Duvall and Associates Inc., and involved both Phase I and Phase II level evaluation of archaeological resources. Only one archaeological site, [redacted] falls within the boundaries of the current APE.

Duvall and Associates identify [redacted] as an Early Archaic to [redacted] agricultural practices and no significant intact cultural deposits were identified below the plowzone. Duvall and Associates recommended that [redacted] was ineligible for listing in the National Register of Historic Places (NRHP) and was later affirmed by the Kentucky Heritage Council in letter dated 7 January 1994. Consequently [redacted] was extensively disturbed during the construction of a levee associated with the Section 202 Civil Works flood reduction project. Based on these conditions USACE maintains that [redacted] is ineligible for listing in the NRHP.

USACE also believes the footprints of the existing pump stations have also been extensively disturbed from their original construction and the presence of intact cultural deposits would be extremely low. Rehabilitation to the pump stations #1 and #2 would be confined to the interior of the structures as indicated by engineering plans. Pump station #3 would have additional work which would involve an extension of the existing concrete pad and the enclosing of the existing structural frame of the generator shed. Based on these conditions, USACE recommends no further investigations and seeks your comments to proceed with approving this undertaking.

A copy of this letter, supporting documentation including project maps with APE is being forwarded to your historic staff. Please provide us with your comments regarding a finding of "no historic properties affected" and a written recommendation. If you require additional information please contact Jordan C. McIntyre at (615) 736-7837 or [jordan.c.mcintyre@usace.army.mil](mailto:jordan.c.mcintyre@usace.army.mil) if you require additional information.

Sincerely,

Russ L. Royle, P.E., PMP, CFM  
Chief, Project Planning Branch



DEC 23 2014

Project Planning Branch

Principal Chief Chad Smith  
Crocketts Nation

Dear Principal Chief Chad Smith:

The U.S. Army Corps of Engineers (USACE) Nashville District has entered a partnership agreement with the City of Harlan, Harlan County, Kentucky under a Section 531 Southern and Eastern Kentucky Environmental Improvement Program to help subsidize the city's proposed plan to update portions of their existing sewer system. USACE defines approving this project as an undertaking with the potential to cause effects on historic properties and requests to initiate consultation under Section 106 of the National Historic Preservation Act.

The project location is situated approximately 2.2 miles west of Harlan, Kentucky. The proposed project would involve replacing two sections of an existing force main sewer line measuring 2,000 linear feet. Construction activities would involve excavating and removing the existing sewer line and replacing it with 16 inch diameter PVC piping. The old sewer line would be transported and disposed of at a nearby land fill. The city also plans to rehabilitate three existing pump stations by replacing electrical panels, weathered piping or valves, interior sump pumps and other worn out components. However, more extensive rehabilitation activities are proposed for pump station # 3 which is located in the western portion of the project area. Rehabilitation would include expanding the current concrete pad and enclosing the exterior frame of the generator shed which presently only consists of a simple skeletal frame.

USACE defines the area of potential effects (APE) as the footprint of the proposed project undertaking. Since the proposed sewer lines would be buried, USACE believes there would be no visual elements introduced to the view shed. USACE also believes the rehabilitation of the three pump stations would not introduce new visual elements to the viewshed since the rehabilitation activities would not greatly alter the overall appearance of the pump stations. Therefore the nature of the undertaking produces visual effects to historic properties.

A search of USACE site files and cultural resources site reports indicates that three cultural resources surveys were conducted throughout the project area between 1985 -1983 in association with a USACE funded Section 202 Civil

Works flood reduction project for the City of Harlan, Kentucky. The surveys were conducted by Baroon Inc., and Duval and Associates Inc. and involved both Phase I and Phase II level evaluations of archaeological resources. Only one archaeological site falls within the boundaries of the current APE.

DuVall and Associates identify [redacted] as an period occupation. The site was apparently disturbed from decades of agricultural practices and no significant intact cultural deposits were identified below the plowzone. Duval and Associates recommended that [redacted] was ineligible for listing in the National Register of Historic Places (NRHP) and was later affirmed by the Kentucky Heritage Council in letter dated 7 January 1994. Consequently, [redacted] was extensively disturbed during the construction of a levee associated with the Section 202 Civil Works flood reduction project. Based on these conditions USACE maintains that [redacted] is ineligible for listing in the NRHP.

USACE also believes the footprints of the existing pump stations have also been extensively disturbed from their original construction and the presence of intact cultural deposits would be extremely low. Rehabilitation to the pump stations #1 and #2 would be confined to the interior of the structures as indicated by engineering plans. Pump station #3 would have additional work which would involve an extension of the existing concrete pad and the enclosing of the existing structural frame of the generator shed. Based on these conditions, USACE recommends no further investigations and seeks your comments to proceed with approving this undertaking.

A copy of this letter, supporting documentation including project maps with APE is being forwarded to your historic staff. Please provide us with your comments regarding a finding of "no historic properties affected" and any recommendations. If you require additional information please contact Jordan C. McIntyre at (615) 726-7837 or [jordan.c.mcintyre@usace.army.mil](mailto:jordan.c.mcintyre@usace.army.mil) if you require additional information.

Sincerely,

Russ L. Kohn, P.E., PMP, CFM  
Chief, Project Planning Branch



DEPARTMENT OF THE ARMY  
NASHVILLE DISTRICT CORPS OF ENGINEERS  
P.O. BOX 1070  
NASHVILLE, TENNESSEE 37203-1070

18 JULY 41-18 M

DEC 23 2014

Project Planning Branch

Principal Chief Mitchell Hicks  
Eastern Band of Cherokee Indians  
Qualla Boundary

[Redacted]

Dear Chief Hicks:

The U.S. Army Corps of Engineers (USACE), Nashville District has entered a partnership agreement with the City of Harlan, Harlan County, Kentucky under a Section 531 Southern and Eastern Kentucky Environmental Improvement Program to help subsidize the city's proposed plan to update portions of their existing sewer system. USACE defines approving this project as an undertaking with the potential to cause effects on historic properties and requests to initiate consultation under Section 105 of the National Historic Preservation Act.

The project location is situated approximately 2.2 miles west of Harlan, Kentucky. The proposed project would involve replacing two sections of an existing force main sewer line measuring 2,000 linear feet. Construction activities would involve excavating and removing the existing sewer line and replacing it with 16 inch diameter PVC piping. The old sewer line would be transported and disposed of at a nearby land fill. The city also plans to rehabilitate three existing pump stations by replacing electrical panels, weathered piping or valves, interior sump pumps and other worn out components. However, more extensive rehabilitation activities are proposed for pump station # 3 which is located in the western portion of the project area. Rehabilitation would include expanding the current concrete pad and enclosing the exterior frame of the generator shed which presently only consists of a simple skeletal frame.

USACE defines the area of potential effects (APE) as the footprint of the proposed project undertaking. Since the proposed sewer lines would be buried, USACE believes there would be no visual elements introduced to the view shed. USACE also believes the rehabilitation of the three pump stations would not introduce new visual elements to the viewshed since the rehabilitation activities would not greatly alter the overall appearance of the pump stations. Therefore the nature of this undertaking precludes visual effects to historic properties.

A search of USACE site files and cultural resource site reports indicates that three cultural resources surveys were conducted throughout the project area

between 1985 -1993 in association with a USACE funded Section 202 Civil Works flood reduction project for the City of Harlan, Kentucky. The surveys were conducted by Barton Inc., and Duvall and Associates Inc., and involved both Phase I and Phase II level evaluation of archaeological resources. Only one archaeological site [Redacted] falls within the boundaries of the current APE.

Duvall and Associates identify [Redacted] as an [Redacted] period occupation. The site was apparently disturbed from decades of agricultural practices and no significant intact cultural deposits were identified below the plowzone. Duvall and Associates recommended that [Redacted] was ineligible for listing in the National Register of Historic Places (NRHP) and was later affirmed by the Kentucky Heritage Council in letter dated 7 January 1994. Consequently [Redacted] was extensively disturbed during the construction of a levee associated with the Section 202 Civil Works flood reduction project. Based on these conditions USACE maintains that [Redacted] is ineligible for listing in the NRHP.

USACE also believes the footprints of the existing pump stations have also been extensively disturbed from their original construction and the presence of intact cultural deposits would be extremely low. Rehabilitation to the pump stations #1 and # 2 would be confined to the interior of the structures as indicated by engineering plans. Pump station #3 would have additional work which would involve an extension of the existing concrete pad and the enclosing of the existing structural frame of the generator shed. Based on these conditions, USACE recommends no further investigations and seeks your comments to proceed with approving this undertaking.

A copy of this letter, supporting documentation including project maps with APE is being forwarded to your historic staff. Please provide us with your comments regarding a finding of "no historic properties affected" and any recommendations. If you require additional information please contact Jordan C. McIntyre at (615) 736-7837 or [jordan.c.mcintyre@usace.army.mil](mailto:jordan.c.mcintyre@usace.army.mil). If you require additional information

Sincerely,

Russ L. Rola, P.E., PMP, CFM  
Chief, Project Planning Branch



DEPARTMENT OF THE ARMY  
NASHVILLE DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 1076  
NASHVILLE, TENNESSEE 37202-1076

DA FORM 7-100 (10-1-97)

Project Planning Branch

DEC 23 2010

Chief George Wickliffe  
United Keetoowah Band of Cherokee Indians

Dear Chief George Wickliffe:

The U.S. Army Corps of Engineers (USACE), Nashville District has entered a partnership agreement with the City of Harlan, Harlan County, Kentucky under a Section 531 South arm and Eastern Kentucky Environmental Improvement Program to help subsidize the city's proposed plan to update portions of their existing sewer system. USACE defines approving this project as an undertaking with the potential to cause effects on historic properties and requests to initiate consultation under Section 106 of the National Historic Preservation Act.

The project location is situated approximately 2.2 miles west of Harlan, Kentucky. The proposed project would involve replacing two sections of an existing four man sewer line measuring 2,000 linear feet. Construction activities would involve excavating and removing the existing sewer line and replacing it with 16 inch diameter PVC piping. The old sewer line would be transported and disposed of at a nearby land fill. The city also plans to rehabilitate three existing pump stations by replacing electrical panels, weathered piping or valves, interior sump pumps and other worn out components. However, more extensive rehabilitation activities are proposed for pump station # 3 which is located in the western portion of the project area. Rehabilitation would include expanding the current concrete pad and enclosing the exterior frame of the generator shed which presently only consists of a simple skeletal frame.

USACE defines the area of potential effects (APE) as the footprint of the proposed project undertaking. Since the proposed sewer lines would be buried, USACE believes there would be no visual elements introduced to the view shed. USACE also believes the rehabilitation of the three pump stations would not introduce new visual elements to the viewshed since the rehabilitation activities would not greatly alter the overall appearance of the pump stations. Therefore the nature of this undertaking precludes visual effects to historic properties.

A search of USACE site files and cultural resource site reports indicates that three cultural resource surveys were conducted throughout the project area between 1985 -1993 in association with a USACE funded Section 202 Civil

Works flood reduction project for the City of Harlan, Kentucky. The surveys were conducted by Barcon Inc. and Duval and Associates Inc. and involved both Phase I and Phase II level evaluation of archaeological resources. Only one archaeological site falls within the boundaries of the current APE.

DuVal and Associates identify [redacted] as an Early Archaic to Early Woodland period occupation. The site was apparently disturbed from decades of agricultural practices and no significant intact cultural deposits were identified below the plowzone. Duval and Associates recommended that [redacted] was ineligible for listing in the National Register of Historic Places (NRHP) and was later affirmed by the Kentucky Heritage Council in letter dated 7 January 1994. Consequently [redacted] was extensively disturbed during the construction of a levee associated with the Station 202 Civil Works flood reduction project. Based on these conditions USACE maintains that [redacted] is ineligible for listing in the NRHP.

USACE also believes the footprints of the existing pump stations have also been extensively disturbed from their original construction and the presence of intact cultural deposits would be extremely low. Rehabilitation to the pump stations # 1 and # 2 would be confined to the interior of the structures as indicated by engineering plans. Pump station #3 would have additional work which would involve an extension of the existing concrete pad and the enclosing of the existing structural frame of the generator shed. Based on these conditions, USACE recommends no further investigations and seeks your comments to proceed with approving this undertaking.

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Sincerely

Russ L. Rotz, P.E., PMP, CFM  
Chief, Project Planning Branch