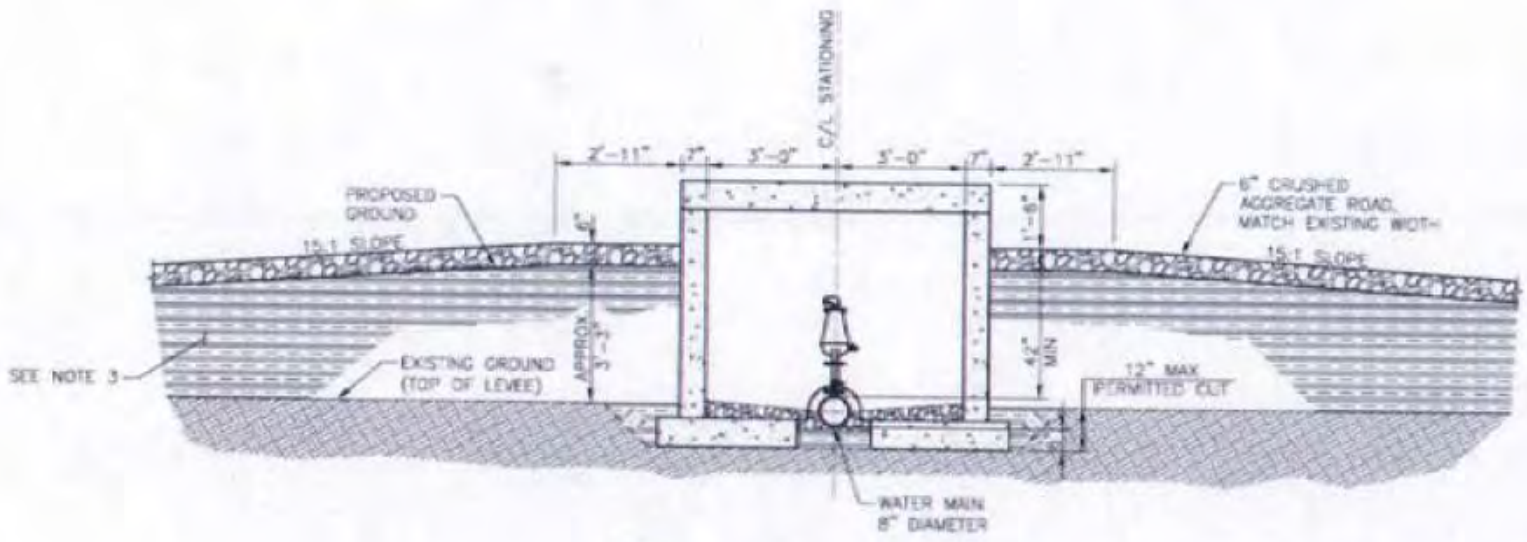
US Army Corps
of Engineers ®
Kansas City District

33 USC SECTION 408 EVALUATION
Environmental Assessment and Finding of No Significant Impact



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FOR MANHOLE FOOTING, SEE COMBINATION AIR AND VACUUM VALVE ASSEMBLY 1/02C505.

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Construction of a Water Transmission Line Crossing Missouri River Levee System (MRLS) Units L400 and L408

Platte County, Missouri

August 2015

DEPARTMENT OF THE ARMY
KANSAS CITY DISTRICT, CORPS OF ENGINEERS
700 FEDERAL BUILNG
KANSAS CITY, MISSOURI 64106-2896

Reply to
Attention of:

FINDING OF NO SIGNIFICANT IMPACT

33 USC Section 408
Environmental Assessment

Construction of a Water Transmission Line Crossing
Missouri River Levee System (MRLS) Units L400 and L408

Project Summary

The Consolidated Public Water Supply District No. 1 of Platte County, c/o Bobby Kincaid, President and HDR Inc., c/o Mr. Scott Fleming, P.E. (Requestors) are requesting permission from the U.S. Army Corps of Engineers (Corps) in accordance with the requirements of 33 USC 408 (Section 408) to modify the Missouri River Levee System Units L400 and L408 by constructing a water transmission line crossing.

As described in the attached Section 408 Environmental Assessment the Corps has evaluated the Proposed Modification to meet compliance requirements of the National Environmental Policy Act and other pertinent laws and regulations. In addition, as required by Section 408, the Corps has evaluated the Proposed Modification to determine if it would be injurious to the public interest or affect the Corps project's ability to meet its authorized purpose.

Alternatives

In accordance with the requirements outlined in EC 1165-2-216, dated July 31, 2014, the Corps has evaluated the "No Action" Alternative (Alternative 1) and the Requestors' Proposed Modification (Alternative 2 – Construction of a Water Transmission Line Crossing).

Proposed Modification

The Proposed Modification – Alternative 2 – Construction of a Water Transmission Line Crossing would involve the construction of a new 8-inch diameter water main crossing with two associated air release manholes on the MRLS L400 and L408 levee units. Each levee unit would be crossed by placing the water main up and over the existing levee in a maximum 12" deep cut, placing the pipe on compacted clay bedding in this excavation, and then filling over the pipe with 42" of compacted engineered fill to provide frost cover. The levee crossing would include raising the levee road and the construction of two air release manholes. Disturbed areas on riverward levee slope and crest road would be restored with rock and landward levee slope would be covered with earthen material and reseeded to grass.

The proposed project would involve the modification of MRLS Units L400 and L408. MRLS L400 is owned, operated and maintained by the Waldron Levee District and MRLS L408 is owned, operated and maintained by the Farley-Beverly Drainage District. These are both Federal units that participate in the Corps' P.L. 84-99 Levee Rehabilitation and Inspection Program. The proposed modification would occur on the levees just upstream of the Missouri Highway 45 bridge crossing of the Platte River, just south of the City of Farley, Platte County, Missouri.

Summary of Environmental Impacts

The Proposed Modification considered by the Corps is confined to the immediate right-of-way of the MRLS L400 and L408 levee units and the area immediately adjacent to the right-of-way. The levee crest and slopes were highly disturbed during original project construction and is within the area the Levee District maintains by mowing on a routine basis or on the rock crest roadway. The area immediately adjacent to the right-of-way is in agricultural row crop production subject to routine tillage or within the narrow band of riparian timber along the Platte River. There would be no clearing of riparian timber. As such the environmental effects of the Proposed Modification are primarily minor and short term construction related. There would be minor noise and dust impacts associated with project construction and these would result in minor disturbance impacts to area wildlife and recreational users of the Platte River. In addition there would be minor short term adverse construction related impacts to water quality which would be avoided/minimized through the implementation of Best Management Practices. There would be no impacts to species listed or proposed for listing under the Endangered Species Act or their Critical Habitat. There would be no impacts to any sites currently listed or proposed for listing on the National Register of Historic Places. Upon completion of construction the area would return to the existing condition, with the Proposed Modification providing an improved water supply to the City of Farley, with no associated long term adverse project impacts.

The overall project, which includes construction of approximately 26,000 linear feet of water main improvements and extends beyond the requested modification of the Corps' project, has been approved for funding through the State Revolving Fund (Project No. DW291335-01). The Missouri Department of Natural Resources - Missouri Public Drinking Water Program staff has prepared an Environmental Assessment and approved a Finding of No Significant Impact, dated May 22, 2015, for the overall project.

Summary of Engineering Impacts

There would be a very minimal temporary short-term construction related increased chance of flood damage associated with constructing the water transmission line crossings. This risk has been avoided/ minimized to the greatest extent practicable by the development of an interim flood fight plan and timing of the work. This minimal short-term construction related risk is greatly outweighed by the long-term water supply benefits of the Proposed Modification. As such, the Proposed Modification would not affect the Corps project's ability to meet its authorized purpose.

Public Availability

A Notice of Availability for the DRAFT Finding of No Significant Impact was posted on the Kansas City District website for 15 days beginning on August 7, 2015 and ending on August 21, 2015.

Conclusion

In conclusion, after evaluating the anticipated environmental, economic, and social effects as described in the Environmental Assessment, I have determined that the Proposed Modification – Alternative 2 Construction of a Water Transmission Line Crossing on the Missouri River Levee System (MRLS) Units L400 and L408 does not constitute a major Federal action that would significantly affect the quality of the human environment; and therefore, preparation of an Environmental Impact Statement is not required. In addition, in accordance with requirements outlined in 33 USC Section 408, I have determined that the Proposed Modification would not be injurious to the public interest nor would it affect the Corps project's ability to meet its authorized purpose.

DRAFT – TO BE SIGNED BY THE COMMANDER AFTER 15-DAY AVAILABILITY PERIOD IF APPROPRIATE

Date: _____

_____
ANDREW D. SEXTON, Colonel
U.S. Army Corps of Engineers
Commanding

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33 USC Section 408 Evaluation
Environmental Assessment

Construction of a Water Transmission Line Crossing
Missouri River Levee System (MRLS) Units L400 and L408

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Chapter 1 – Introduction

1.1 Purpose of Report and Scope

The Consolidated Public Water Supply District No. 1 of Platte County, c/o Bobby Kincaid, President and HDR Inc., c/o Mr. Scott Fleming, P.E. (Requestors) are requesting permission from the U.S. Army Corps of Engineers (Corps) in accordance with the requirements of 33 USC 408 (Section 408) to modify the Missouri River Levee System Units L400 and L408 by constructing a water transmission line crossing.

This 33 USC Section 408 Environmental Assessment evaluates the environmental effects of the proposed modification of two Federal levees, Missouri River Levee System (MRLS) Units L400 and L408.

The water transmission main project has been approved for funding through the State Revolving Fund (Project No. DW291335-01). The Missouri Department of Natural Resources (MDNR) - Missouri Public Drinking Water Program staff has prepared an Environmental Assessment (EA) and approved a Finding of No Significant Impact (FONSI), dated May 22, 2015, for the overall project. MDNR provided approval for the project in their letter dated July 21, 2015. These documents are included in Appendix A.

1.2 Federal Project History and Authorization

The Proposed Modification would involve work on two Corps' levee projects:

MRLS Unit L400 is a Federal project authorized by Section 9 of the Flood Control Act approved 22 June 1936, Public Law 738, 74th Congress, 2d Session as modified and extended by Section 10 of the Flood Control Act approved 22 December 1944, Public Law 534, 78th Congress, Second Session. The estimated original cost of the project was $1,100,000.00. Construction was started on October 21, 1955 and completed April 10, 1957.

MRLS Unit L408 is a Federal project authorized by Section 9 of the Flood Control Act approved 22 June 1936, Public Law 738, 74th Congress, 2d Session as modified and extended by Section 10 of the Flood Control Act approved 22 December 1944, Public Law 534, 78th Congress, Second Session. The estimated original cost of the project was $9,695,000. Construction was started June 12, 1970 and completed in August of 1972.

1.3 Federal Project Description and Location

The Proposed Modification would involve work on two Corps' levee projects:

MRLS Unit L400 is an agricultural flood control works with urban/developed areas. It is a hydraulically independent unit and serves as a primary line of protection. The unit averages 12-20 feet above the natural ground surface with a 10-foot-wide crown and 1 on 3 slopes both landward and riverward. The level of protection is 100 year flood event plus 2 feet of freeboard.

The approximately 38,830 linear feet of earthen levee protects approximately 3,820 acres, of which approximately 3,570 acres are agricultural. In addition it also protects a small portion of the town of Waldron, 15 houses, 6 barns, 12 outbuildings, 6 grain bins, a municipal airport with a 2900 foot runway and 6 hangers, 4 pivot irrigation systems as well as all associated utility lines and pipes. It also protects approximately 5 miles of paved roads, 4.3 miles of gravel roads, several miles of unsurfaced farm to market roads and approximately 4.4 miles of railroad right of way. MRLS Unit L400 is sponsored, owned, operated and maintained by the Waldron Levee District, Mr. Loyd Horn, President. MRLS Unit L400 begins at the bluff on the left bank of the Platte River (Missouri River mile 384.8) and extends along the left bank of the Missouri River to river mile 391.2 (1960 adjusted), then up the right bank of Ellis branch, near the town of Farley, Platte County, Missouri.

MRLS Unit L408 is an agricultural flood control works with urban/developed areas. It is a hydraulically independent unit and serves as a primary line of protection. The unit averages 11.4 feet above the landside natural ground surface with a 10-foot-wide crown and 1 on 3 slopes both landward and riverward. The level of protection is 100-year flood event plus 3 feet of freeboard. The MRLS Unit L408 consists of approximately 54,433 linear feet of earthen levee that protects approximately 9,825 acres, of which approximately 7,725 acres are agricultural. In addition to the agricultural land, it protects a small portion of the town of Farley, a minimum of 76 homes, 44 barns, 86 outbuildings, 39 grain bins, 9 irrigation systems, 1 grain elevator and 17 business buildings as well as the associated utility systems, lines and pipes. It also protects approximately 10.6 miles of paved roads, approximately 16 miles of gravel surfaced roads, several miles of unsurfaced farm to market roads and approximately 7.1 miles of railroad right of way. MRLS Unit L408 is sponsored, owned, operated and maintained by the Farley-Beverly Drainage District, Mr. Gary Oberdiek, President. MRLS Unit L408 is located on the left bank of the Missouri River between river miles 391.2 and 401.35 (1960 adjusted), near the town of Farley, Platte County, Missouri.

Chapter 2 – Proposed Modification

2.1 Proposed Modification Description

The Requestor proposes to modify the existing Federal projects by constructing a new 8-inch diameter water main crossing with two associated air release manholes on the MRLS L400 and L408 levee units. Each levee unit would be crossed by placing the water main up and over the existing levee in a maximum 12" deep cut, placing the pipe on compacted clay bedding in this excavation, and then filling over the pipe with 42" of compacted engineered fill to provide frost cover. Levee crossing would include raising the levee road and the construction of two air release manholes. Disturbed areas on riverward levee slope and crest road would be restored with rock and landward levee slope would be covered with earthen material and reseeded to grass.

2.2 Location of the Proposed Modification

The Proposed Modification is located on Missouri River Levee System (MRLS) Unit L408, Station 169+21.00, on the right descending bank of the Platte River and on MRLS Unit L400, Station 184+20.00, on the left descending bank of the Platte River, both in Section 34, Township 52 North, Range 35 West, near the town of Farley, Platte County, Missouri.

2.3 Purpose of the Proposed Modification

The Farley area is currently supplied by a single 5-mile long 4-inch water main along Highway 45, connecting the City of Farley to the previously decommissioned water treatment plant south of Farley. Customers at higher elevations in the district report low water pressures during periods of high usage. With the existing system, the District is unable to serve any additional customers without further reducing the water pressure, especially during periods of high usage. Construction of the 8-inch water main will alleviate water pressure problems associated with the existing 4-inch main and allow the district to serve additional customers.

Chapter 3 – Alternatives

3.1 Introduction

In accordance with the requirements outlined in EC 1165-2-216, dated July 31, 2014, the Corps has evaluated the "No Action" Alternative (Alternative 1) and the Requestors' Proposed Modification (Alternative 2 – Construction of a Water Transmission Line Crossing).

3.2 Alternatives

Alternative 1 - "No Action"

Alternative 1 –The "No Action" Alternative would involve no modification of the Federal levee units. The "No Action" Alternative considers the existing condition at the site.

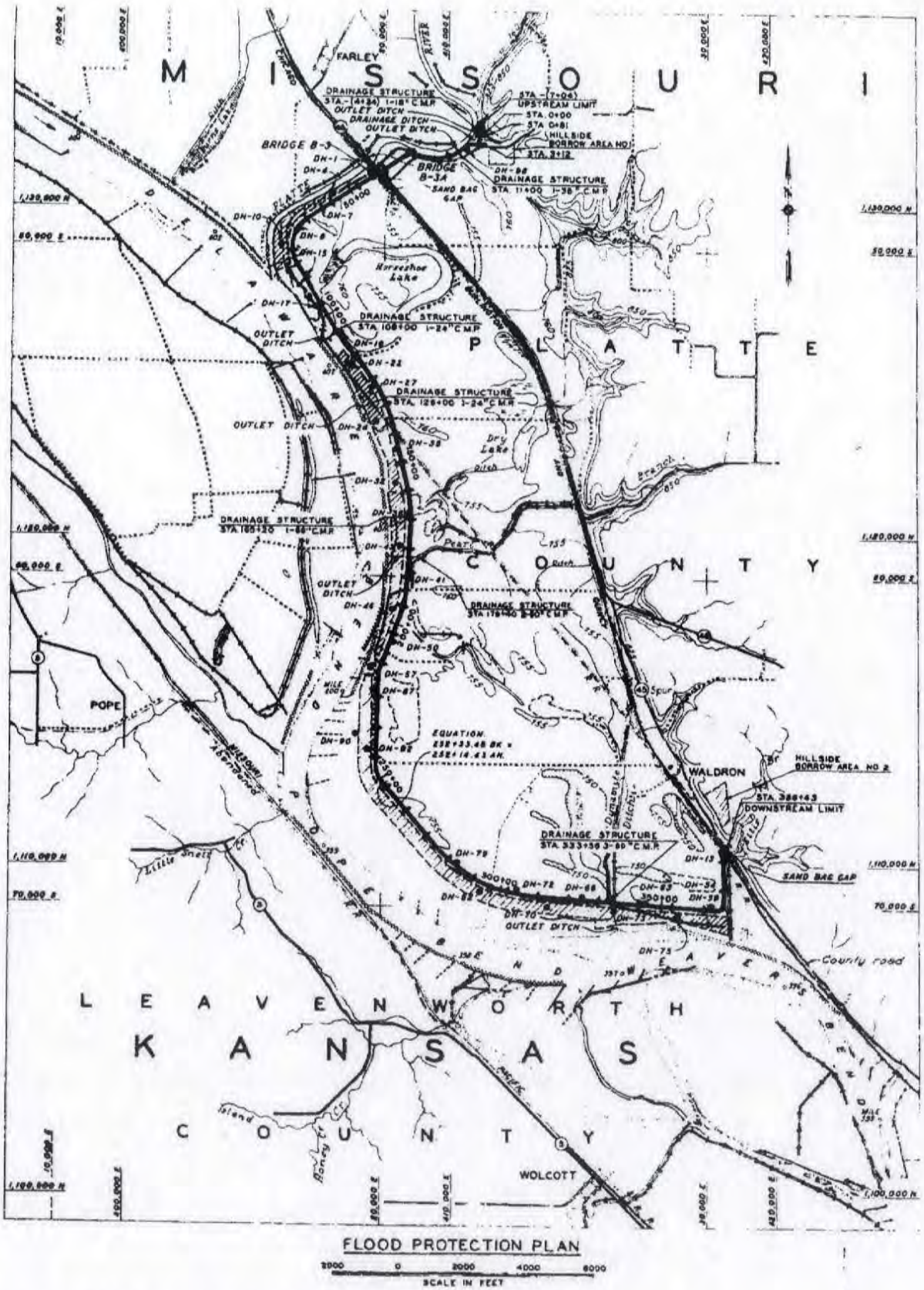

Figure 1. FEDERAL PROJECT MAP – MRLS Unit L400

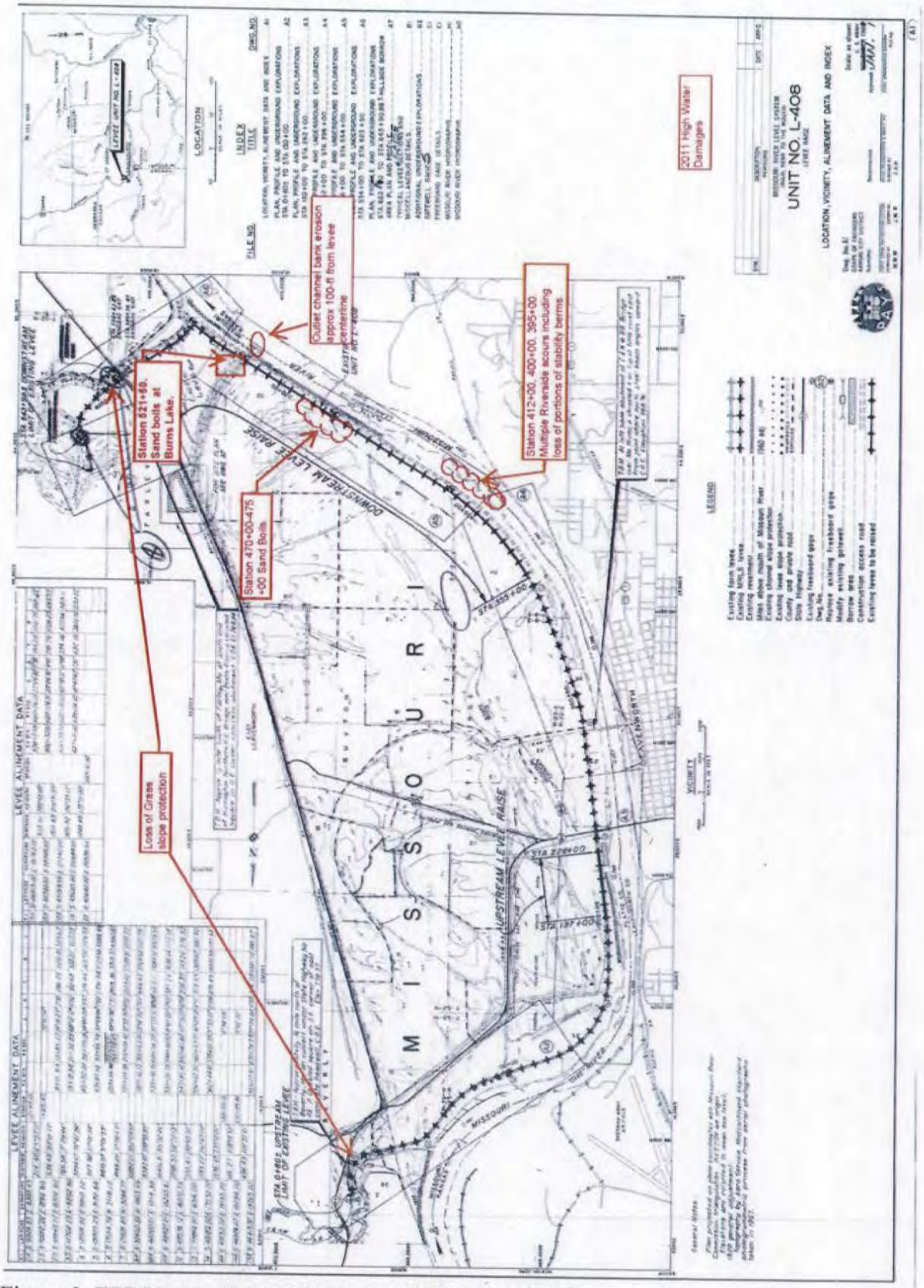

Figure 2. FEDERAL PROJECT MAP – MRLS Unit L408

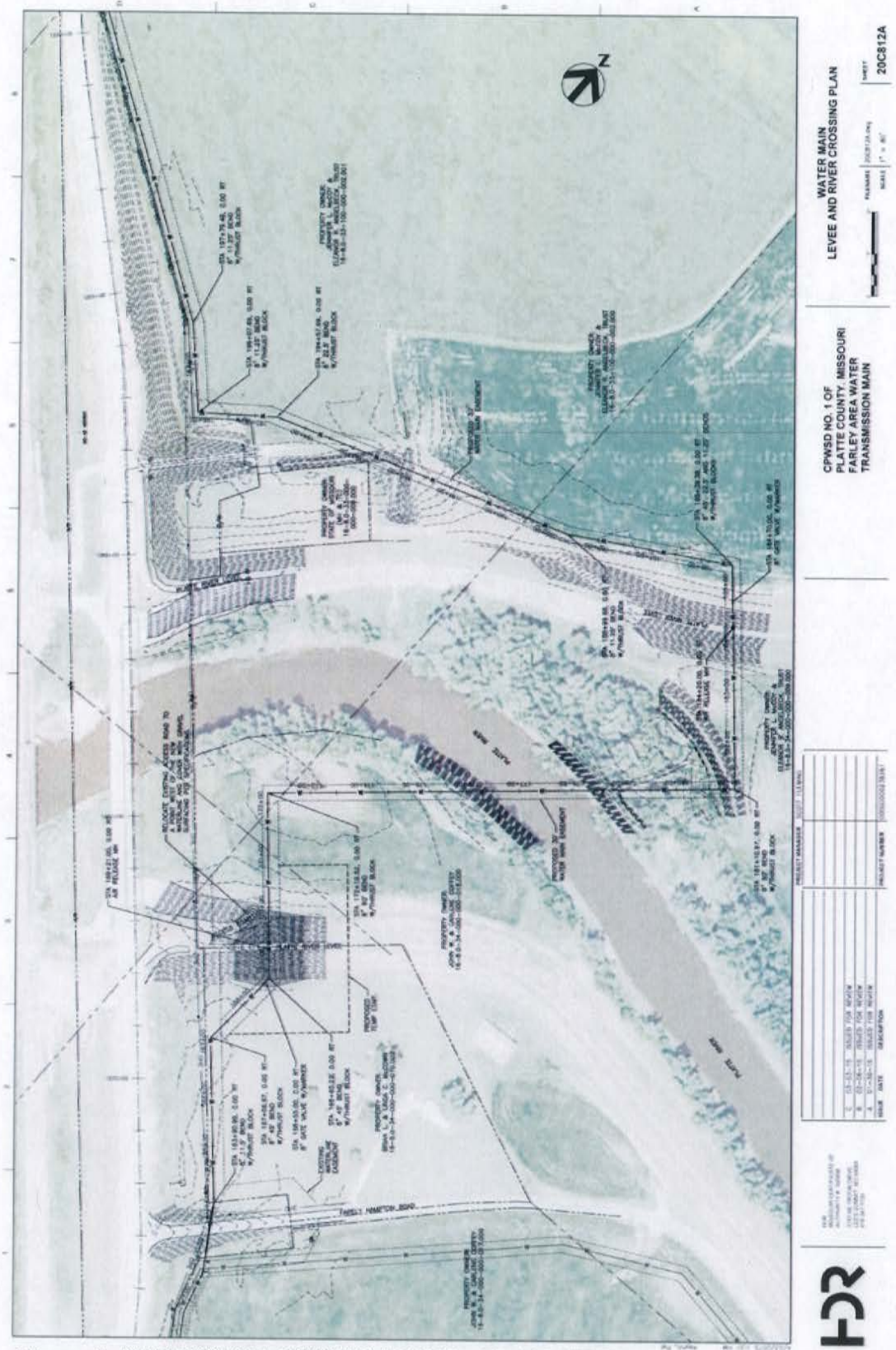

Figure 3. PROPOSED MODIFICATION – PLAN VIEW

Alternative 2 – Proposed Modification (Construction of a Water Transmission Line Crossing)

Alternative 2 – Proposed Modification (Construction of a Water Transmission Line Crossing) would involve the construction of a new 8-inch diameter water main crossing with two associated air release manholes on the MRLS L400 and L408 levee units. Each levee unit would be crossed by placing the water main up and over the existing levee in a maximum 12" deep cut, placing the pipe on compacted clay bedding in this excavation, and then filling over the pipe with 42" of compacted engineered fill to provide frost cover. Levee crossing would include raising the levee road and the construction of two air release manholes. Disturbed areas on riverward levee slope and crest road would be restored with rock and landward levee slope would be covered with earthen material and reseeded to grass.

The proposed project would involve the modification of MRLS Units L400 and L408. MRLS L400 sets on the left descending bank of the Platte River and is owned, operated and maintained by the Waldron Levee District. MRLS L408 sets on the right descending bank of the Platte River and is owned, operated and maintained by the Farley-Beverly Drainage District. These are both Federal units that participate in the Corps' P.L. 84-88 Levee Rehabilitation and Inspection Program. The proposed modification would occur on the levees just upstream of the Missouri Highway 45 bridge crossing of the Platte River, just south of the City of Farley, Platte County, Missouri.

This Alternative is described as Action Alternative No. 3B in the MDNR EA (Appendix A-MDNR Documents).

Chapter 4 – Affected Environment

4.1 Introduction

This chapter presents the affected environment for the Alternative 2 – Proposed Modification (Construction of a Water Transmission Line Crossing). The affected environment is the baseline against which potential beneficial and adverse impacts caused by the action are evaluated. The existing conditions described in this chapter for the MRLS Units L400 and L408 are based on the current state of the site. .

EC 1165-2-216 provides the following guidance for the scope of analysis for the NEPA and environmental evaluation for Section 408 reviews.

iv. USACE has jurisdiction under Section 408 only over the specific activities or portions of activities that have the potential to alter a USACE project. Therefore, if a proposed alteration is part of a larger project (and/or its associated features) that extends beyond the USACE project boundaries, the district should determine what portions or features of the larger project USACE has sufficient control and responsibility over to warrant their inclusion in the USACE environmental review. The scope of analysis for the NEPA and environmental compliance evaluations for the Section 408 review should be limited to the area of the alteration and those adjacent areas that are directly or indirectly affected by the alteration. For example, a pipeline

can extend for many miles on either side of the USACE project boundary. In this example, the scope of analysis would likely be limited to the effects of the pipeline within the USACE project boundary, but would not address those portions of the pipeline beyond the USACE project boundary. In contrast, a proposal to alter a levee system might require USACE to examine that proposal's potential effects on the reliability of the levee system to provide flood risk reduction to the area behind the levee system itself. As a general rule, if there are features of a larger project occurring outside of the USACE project boundaries that are so intimately connected to the features of the larger project altering a USACE project that they cannot be meaningfully distinguished (e.g., a setback levee that is located outside of the original project boundary of the levee being replaced), the USACE Section 408 NEPA document should be broad enough to address all those effects. Generally, elements of the larger project that are not intimately connected to the features that would alter the USACE project (e.g., concessions being constructed off USACE property by the same entity requesting permission to construct boat access to a USACE reservoir) should not be included in the USACE environmental review.

For this Proposed Modification the area within the Federal levee project right-of-ways and immediately adjacent to those areas are within the scope of this evaluation of the affected environment. There are no actions outside the Federal project right-of-ways and the area immediately adjacent to them that are intimately connected to the Proposed Modification.

4.1.1 Aquatic Habitat

Aquatic habitat includes the Platte River located just riverward of and between the two Federal levee systems. The MDC Missouri Watershed Inventory and Assessment for the Platte River notes that, "*The Platte River is a low-gradient, eighth-order river located in southwest Iowa and northwest Missouri. The Platte River originates in Union County, Iowa and flows southward for about 200 miles where it meets with the Missouri River near the town of Farley, Missouri. The watershed contains 2,419 square miles with 786 square miles (32.5%) in Iowa and 1,633 square miles (67.5%) in Missouri and lies within the Dissected Till Plains physiographic region. The average annual discharge for the Platte River at Sharps Station (98% of the drainage basin) is 1,925 cubic feet per second.*"[1] The lower 59 miles of the Platte River from Agency, Missouri to the Confluence with the Missouri River near Farley, Missouri are unchannelized. This includes the area of the Proposed Modification near Farley. While this reach of river is unchannelized, the river is prevented from meandering on the floodplain and confined between the two Federal levee systems. In addition, only a narrow remnant of the wooded riparian corridor exists riverward of the Federal levees. The river in this area is highly turbid, has a silt/sand/clay bottom with numerous snags and woody debris.

4.1.2 Terrestrial Habitat

The Proposed Modification would occur on levee slopes that are covered with fescue grass and mowed on a regular basis. In addition, the crown of the levee includes a gravel road bed. The area immediately adjacent to the projects right-of-way is in agricultural row crop production.

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[1] Missouri Department of Conservation, Missouri Watershed Inventory and Assessment - Platte River, http://mdc.mo.gov/your-property/greener-communities/missouri-watershed-inventory-and-assessment/platte-river, accessed July 22, 2015

These areas do not include any native vegetation, are frequently subject to mowing or tillage and provide very little habitat benefit to wildlife. There is a narrow band of riparian timber along both banks of the Platte River. This area provides wildlife habitat and is also and travel corridor for wildlife.

4.1.3 Fish and Wildlife

Fish and wildlife resources in the project area are typical of those common species found on the Missouri River floodplain in Northwest Missouri.

Common mammal species in the project area include beaver (*Castor canaden*sis), coyote (*Canis latrans*), eastern cottontail rabbit (*Sylvilagus floridanus*), mink (*Mustela vison*), muskrat (*Ondatra zibethicus*), opossum (*Didelphis virginiana*), red fox (*Vulpes vulpes*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and white-tailed deer (*Odocoileus virginianus*). Common bird species in the project area include the snow goose (*Chen caerulescens*), mallard (*Anas platyrhynchos*), great blue heron (*Ardea herodias*), red-winged blackbird (*Agelaius phoeniceus*), American tree sparrow (*Spizella arborea*), common grackle (*Quiscalus quiscula*), and mourning dove (*Zenaida macroura*). The narrow band of riparian habitat and the river itself provide habitat for common reptiles and amphibians. Fisheries resources in the project area include blue, channel and flathead catfish along with common carp, buffalo, freshwater drum and the invasive Asian carp.

The U.S. Fish and Wildlife Service, Environmental Conservation Online System, list the following threatened and endangered species that are known to occur within Platte County, Missouri.

Group	**Name**	**Status**
Birds	Piping Plover (*Charadrius melodus*)	Threatened
	Least tern (*Sterna antillarum*)	Endangered
	Red knot (*Calidris canutus rufa*)	Threatened
Fishes	Pallid sturgeon (*Scaphirhynchus albus*)	Endangered
Mammals	Indiana bat (*Myotis sodalis*)	Endangered
	Gray bat (*Myotis grisescens*)	Endangered
	Northern Long-Eared Bat (*Myotis septentrionalis*)	Threatened

Table 1 - Threatened and endangered species that are known to occur within Platte County, MO.

4.1.4 Flood Risk Management

The existing flood risk management systems (MRLS Units L400 and L408) are described in detail in Section 1.3 Federal Project Description and Location above.

4.1.5 Land Use

The primary land use adjacent to the project area is agricultural row crop production. Within the project right-of-way the land use consists of two Federal earthen levee systems used for flood risk management. The area riverward of the levee systems includes a narrow band of native woody vegetation and the Platte River. This area is used by fish and wildlife resources, fishermen, hunters, and boaters. The area is rural.

4.1.6 Recreation / Aesthetics

The Platte River in the immediate project area is used by fishermen and boaters. Access to this segment of the lower river is good with several boat ramps nearby and the close proximity to the major urban areas in Kansas and Missouri make this a popular destination for area fishermen. Aesthetically the project area is fairly developed with the levee systems, railroad and Highway 45 bridge crossings nearby. The highway and railroad produce considerable noise and non-natural visual intrusion.

4.1.7 Water Supply

As described above in Section 2.3, the Farley area is currently supplied by a single 5-mile long 4-inch water main along Highway 45, connecting the City of Farley to the previously decommissioned water treatment plant south of Farley. Customers at higher elevations in the district report low water pressures during periods of high usage. With the existing system, the District is unable to serve any additional customers without further reducing the water pressure, especially during periods of high usage.

4.1.8 Cultural Resources

The Requestor has completed a cultural resource field survey of the proposed project alignment to include areas immediately adjacent to, and within the right of way of the two Federal levee projects. This report is included in Appendix A – MDNR Documents. The area within the Federal project right-of-ways has been heavily disturbed during the construction of these projects. No sites potentially eligible or listed on the National Register of Historic Places were identified within the Federal levee right-of-ways or immediately adjacent to those areas.

Chapter 5 – Environmental Consequences

5.1 Introduction

The impacts of each alternative were evaluated to determine any potential impacts to the human environment. The "No Action" Alternative considers the existing condition at the site. For each of the resource categories, except Water Supply, the "No Action" Alternative results in no impacts because there would not be any construction or modification of the Federal levees.

5.1.1 Aquatic Habitat

Alternative 2 - Proposed Modification

While the Proposed Modification involves trenching over the two levee systems it will involve directional drilling under the Platte River. As Best Management Practices will be followed the Proposed Modification would have little, if any, adverse impact to aquatic habitat. These impacts would be considered minor short-term and construction related. No long-term adverse impacts to aquatic habitat were identified.

5.1.2 Terrestrial Habitat

Alternative 2 - Proposed Modification

As the Proposed Modification would involve the construction and backfill of a narrow trench on levee slopes that are covered with fescue grass and mowed on a regular basis and the gravel levee crown road minimal disturbance of terrestrial habitat would occur. As this area contains no native vegetation it would be considered low value terrestrial habitat. This disturbance of terrestrial habitat would be considered a minor short-term construction related impact and terrestrial habitat would return to its original condition upon construction completion. No long-term adverse impacts to terrestrial habitat were identified.

5.1.3 Fish and Wildlife

Alternative 2 - Proposed Modification

As the Proposed Modification would occur on levee slopes that are covered with fescue grass and mowed on a regular basis and the gravel levee crown road, the primary impact to wildlife would be disturbance during the actual construction activity. Wildlife would be expected to relocate to nearby areas during the construction activity. Directional drilling under the riparian corridor would avoid impacts to wildlife habitat as there would be no clearing of riparian timber. Since the project would involve directional drilling under the Platte River and include Best Management Practices for land disturbance on the adjacent banks, impacts to fisheries resources would be considered a minor short-term and construction related. As discussed below in Section 5.5 the project would have no impact on any Federally listed threatened or endangered species and there is no designated critical habitat in the project area. This disturbance would be

considered a minor short-term construction related impact and terrestrial habitat would be returned to its original condition upon construction completion. No long-term adverse impacts to fish and wildlife resources were identified. Additional discussion of Endangered Species Act compliance is included in Section 5.5 Compliance with Environmental Quality Statutes below.

5.1.4 Flood Risk Management

Alternative 2 - Proposed Modification

Through the 33 USC Section 408 review the Corps has evaluated the effects of Alternative 2 – Proposed Modification on the existing flood risk management systems described in Section 1.3 Federal Project Description and Location above. The Corps has determined that Alternative 2-Proposed Modification would not limit the ability of the project to function as authorized and would not compromise or change any additional authorized project conditions, purposes, or outputs. A technical assessment of the submittal was conducted by a geologist, geotechnical engineer and structural engineer. The submittal was found to be technically adequate and in accordance with appropriate design standards. The proposed alteration poses minimal engineering impacts to the existing levee units. Short term construction related engineering impacts include minor increase in risk as the embankment is opened to put the waterline in place. This excavation could create a weakened area where high velocity flood flows could attack the embankment eroding it and creating a potential path for embankment failure. This risk is adequately mitigated by the development of a flood fight plan for use during construction. Long-term construction related impacts include a minor increase in risk as the waterline represents another penetration of the levee embankment. If not properly designed and installed penetrations could provide a seepage pathway or create an area of the levee that may be more susceptible to damage by flood flows. This risk has been adequately mitigated by requiring design components and construction methods outlined in the pertinent Corps Engineering Manuals that address pipeline crossings of levees. As such, the proposed alteration will not affect the Corps project's ability to meet its authorized purpose.

5.1.5 Land Use

Alternative 2 - Proposed Modification

The Proposed Modification would result in no adverse land use impacts to the existing levee systems. The area where the Proposed Modification would occur would still serve as a Federal levee system and provide the existing level of flood risk management. Areas outside the project right of way would be temporarily disturbed during the construction activity. This would be a minor short-term construction related impact to agricultural row crop production if completed during the growing season. If construction is completed outside of the normal growing season the project would have no impact on this land use. If during the growing season this would result in a minor short-term construction related adverse impact to agricultural land use immediately adjacent to the project right-of-way.

5.1.6 Recreation / Aesthetics

Alternative 2 - Proposed Modification

The Proposed Modification would have some minor short-term adverse impacts on individuals fishing/boating on the Platte River during the construction activity. These impacts are minor short-term construction related and would cease once construction was complete. Fishermen would likely just relocate a short distance from the actual construction site to avoid these

impacts. As the area is fairly developed with the existing levees, railroad and Highway 45 bridge crossings nearby, visual intrusion, dust and noise impacts of the actual construction activity would be considered a minor short-term construction related impact on recreation / aesthetics.

5.1.7 Water Supply

Alternative 1 – "No Action" Alternative

Not constructing the Proposed Modification would not meet the project purpose as described in Section 2.3 above. Not constructing the 8-inch water main would not alleviate water pressure problems associated with the existing 4-inch main and would not allow the water supply district to serve additional customers.

Alternative 2 - Proposed Modification

5.1.8 Cultural Resources

Alternative 2 - Proposed Modification

As no sites potentially eligible or listed on the National Register of Historic Places were identified within the Federal levee right-of-ways or immediately adjacent to those areas, the Proposed Modification would not impact any site eligible or listed on the National Register of Historic Places. Additional discussion of cultural resource compliance is included in Section 5.5 Compliance with Environmental Quality Statutes below.

5.2 Cumulative Impacts

No cumulative impacts were identified.

5.3 Probable Adverse Environmental Impacts Which Cannot Be Avoided

Adverse environmental effects which cannot be avoided include noise disturbance, recreation disturbance, clearing of vegetation, dust, and disturbance of fish and wildlife resources during construction. These impacts would all be considered minor, short-term and construction related. No long-term adverse impacts were identified.

5.4 Irreversible and Irretrievable Commitment of Resources

Irreversible and irretrievable resource commitments due to construction and operation of the Alternative 2 – Proposed Modification would include the loss of some Federal funds, labor, energy, and construction materials used to plan, design, construct, and monitor the project.

5.5 Compliance with Environmental Quality Statutes and Executive Orders

This Section contains a summary of the statutory and regulatory environmental compliance requirements and status of the major Federal and state permits and clearances that would be required for the approval and implementation process for the Proposed Modification.

Clean Air Act, as amended. No aspect of the Proposed Modification, either short- or long-term, has been identified that would result in violations to air quality standards. The environment will not be exposed to contaminants in such quantities and of such duration as to be injurious to human, plant, or animal life, or property, or which unreasonably interferes with the comfortable enjoyment of life, or property, or the conduct of business.

Clean Water Act (Sections 404, 401 and 402) as amended. The Proposed Modification may require the placement of fill material in a water of the United States and therefore may require authorization from the Corps under Section 404 of the Clean Water Act. The Requestor has been informed of that potential requirement in a letter date October 30, 2014. That letter is included in Appendix A – MDNR Documents. That review would occur subsequent to and independent of the Section 408 review. If Section 404 authorization is required the Requestor would also need to secure a Section 401 Water Quality Certification from the Missouri Department of Natural Resources (MDNR). Regardless of the Section 404 requirement the Requestor would need to secure and Section 402 National Pollutant Discharge Elimination System (NPDES) Permit from MDNR prior to construction.

Endangered Species Act of 1973, as amended. The Proposed Modification would not impact any species listed or proposed for listing under this Act. There is no designated Critical Habitat in the project area. The U.S. Fish and Wildlife Service in an email to Mr. Scott Fleming, P.E. (Requestors) dated October 16, 2014, concurred with this determination. That email is included in Appendix A – MDNR Documents. The project would have no impact on any Federally listed threatened or endangered species and there is no designated critical habitat in the project area.

Fish and Wildlife Coordination Act. This project has been coordinated with the USFWS. The Notice of Availability for the DRAFT Finding of No Significant Impact has been posted on the Corps-Kansas City District web page for a 15-day availability period.

Floodplain Management (Executive Order 11988). The Proposed Modification occurs in the narrow band riverward of the levee systems that are within the base floodplain. Each build alternative considered would require crossing the Platte River and the narrow band riverward of the Federal levees that is within the base floodplain. The vast majority of the water supply

district lies in upland areas and areas within the Federal levee units that are outside the base floodplain. The Proposed Modification does not involve the construction of any buildings or structures that could be damaged by flooding or restrict conveyance or increase flood heights. As such the Proposed Modification will not result in any adverse impacts associated with the occupancy and modification of the base floodplain. While the primary purpose of the Proposed Modification is to supply existing customers it will allow servicing of additional customers. As the majority of the water supply district lies outside the base floodplain and there are only narrow bands of base flood plain remaining riverward of the existing levee systems the Proposed Modification would not result in direct and indirect support of development or growth (construction of structures and/or facilities, habitable or otherwise) in the base floodplain.

National Environmental Policy Act of 1969, as amended. The compilation, public review, and responses to the Notice of Availability of this Section 408 Environmental Assessment, included in Appendix B - Notice of Availability with Comments and Responses, fulfill compliance with NEPA.

National Historic Preservation Act of 1966. This undertaking is in full compliance with the National Historic Preservation Act of 1966, as amended and its implementing regulations, 36 CFR Part 800. Agency coordination with the Missouri State Historic Preservation Office (SHPO) was conducted by the Requestor. The SHPO reviewed the proposed project activities. In an agency letter dated October 14, 2014, the SHPO indicated that there was moderate to high potential to encounter archaeological sites near and within the project area. Based on this assessment SHPO recommended that an archaeological survey, with deep soil testing, be conducted for the project. In response the Requestor provided the SHPO with a report entitled Cultural Resource Investigations, Phase I Survey, CPWSD No. 1 Waterline Project, Platte County, Missouri, dated December 2014. Based on their review of that report, the SHPO in a letter dated December 29, 2014, that Site 23PL13 may be eligible for inclusion in the National Register of Historic Places and provided that site was avoided there would be no adverse effect. The Requestor subsequently modified the alignment to avoid that site. Correspondence on this issue is included in Appendix A – MDNR Documents. As 23PL13 is located outside the Federal levee project right-of-way and not located immediately adjacent to those areas it was determined to be outside the scope of the Corps Section 408 evaluation. The NWK District Archeologist has reviewed the survey report and SHPO letters and concurs that the Proposed Modification will have no effect on historic properties as defined in 36 CFR 800. Therefore, the Proposed Modification is in full compliance with the requirements of the National Historic Preservation Act.

Protection of Wetlands (Executive Order 11990). The Proposed Modification would not impact any wetlands and is therefore in full compliance with Executive Order 11990.

Environmental Justice (Executive Order 12898). This order directs Federal agencies to incorporate environmental justice in their decision making process. Federal agencies are directed to identify and address as appropriate any adverse environmental inequities resulting from their programs, policies, and activities on minority or low income populations. Within the intent and spirit of Executive Order 12898, no minority or low income populations would be negatively impacted or displaced by the Proposed Modification.

The project is in full compliance statutory and regulatory environmental compliance requirements and is currently contingent upon finalization of this Section 408/NEPA review and potentially issuance by the Corps of a Section 404 authorization and authorization under Sections 401 and 402 of the Clean Water Act by MDNR.

5.6 Short-Term Versus Long-Term Productivity

Construction activities would temporarily disrupt fish, wildlife and human use of the immediate project area. This disturbance of terrestrial habitat would be considered a minor short-term construction related impact and terrestrial habitat would return to its original condition upon construction completion. The long-term health and productivity of the fish and wildlife resources in the project area would not be adversely affected by the Proposed Modification. Short-term human use impacts would be greatly offset by the long-term water supply benefits of the Proposed Modification.

5.7 Relationship of the Proposed Project to Other Planning Efforts

The proposed project is not in conflict with any other planning efforts currently covering the project area.

5.8 Mitigation

No long term adverse impacts were identified and upon completion of construction levee systems would return to their existing condition but with the Proposed Modification providing improved water supply capability for the Platte County Public Water Supply District No. 1 customers. There would be short-term minor adverse construction related impacts from disturbance of fish, wildlife and recreational users in the immediate project area. Best management practices would be utilized during construction to prevent any avoidable impacts to the aquatic ecosystem. No additional mitigation efforts are warranted or proposed.

Chapter 6 – Conclusion

6.1 Conclusions and Recommendation

Based on information contained in this 33 USC Section 408 Environmental Assessment, which included a review of comments received in response to the Notice of Availability, a preliminary determination has been made that the Proposed Modification would not be injurious to the public interest nor would it affect the Corps project's ability to meet its authorized purpose. In addition, the Proposed Modification would not significantly adversely affect the human environment. The Section 408 Environmental Assessment and Finding of No Significant Impact have been forwarded to the District Commander with the staff recommendation for approval.

6.2 Preparers

This 33 USC Section 408 Environmental Assessment was prepared by:

Scott P. Mensing, P.E., Project Manager, Civil Works Section, U.S. Army Corps of Engineers – Kansas City District

David R. Hoover, Biologist, Environmental Resources Section, Planning Branch, U.S. Army Corps of Engineers – Kansas City District

6.3 References

Missouri Department of Conservation, Missouri Watershed Inventory and Assessment - Platte River, http://mdc.mo.gov/your-property/greener-communities/missouri-watershed-inventory-and-assessment/platte-river, accessed July 22, 2015.

MDNR, Water Protection Program – Finding of No Significant Impact/Environmental Assessment, May 22, 2015

USACE, Engineering Circular (EC) 1165-2-216, dated July 31, 2014

USFWS, Environmental Online Conservation System, http://ecos.fws.gov/tess_public/reports/species-by-current-range-county?fips=29165, accessed July 23, 2015

US Army Corps
of Engineers ®
Kansas City District

APPENDIX A

MDNR Documents

August 2015

STATE OF MISSOURI
Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director
DEPARTMENT OF NATURAL RESOURCES
www.dnr.mo.gov

May 22, 2015

WATER PROTECTION PROGRAM
FINDING OF NO SIGNIFICANT IMPACT/ENVIRONMENTAL ASSESSMENT

TO: ALL INTERESTED GOVERNMENT AGENCIES AND PUBLIC GROUPS

In accordance with procedures for environmental review found at 10 CSR 60-13.030, a review has been performed on the proposed action below:

Project Identification: Water Line Improvements

Loan Applicant: Platte County Public Water Supply District No. 1

Project No: DW291335-01 County: Platte State: Missouri

District: Platte County Public Water Supply District No. 1

Estimated Project Amount: $1,800,000

Potential State Revolving Fund Amount: $1,800,000

COMMUNITY DESCRIPTION:

Location: Platte County Public Water Supply District (PWSD) No. 1 encompasses approximately 24 square miles and is located north and east of the Missouri River; northwest of Kansas City, MO; east of Leavenworth, KS, and south of Platte City, MO.

Population, Present and Projected, and Design Year: The district currently serves approximately 1,545 connections, with an average daily water demand of 357,343 gallons per day (gpd) and a maximum day demand of approximately 821,889 gpd. Twenty-year growth forecasts approximately 1,923 connections, with an average daily water demand of 440,387 gpd and a maximum day demand of approximately 1,012,889 gpd for peak daily demand.

Current Methods of Water Supply, Storage, and Distribution: The supply to the district is treated and filtered water from the city of Kansas City. The transmission main from Kansas City delivers water to the district's east water tower (Martin tower). The distribution system consists of approximately 55.25 miles of mains ranging in size from 2 to 16 inches in diameter. The distribution system also includes two water storage tanks and one standpipe totaling 764,000 gallons of storage.

Recycled Paper

PROJECT DESCRIPTION:

Distribution Improvements: The project includes the addition of approximately 20,147 linear feet of eight-inch diameter water main to serve the area of Farley. This work will include the placement of the eight-inch water main, site grading, connections to existing water mains, and all the necessary appurtenances to complete the project and have a usable system. The Farley Standpipe will be disconnected from the existing system as part of the project.

Purpose and Need: The purpose and need of the project is make the necessary improvements to enable the district to maintain water pressure above the Department of Natural Resources minimum requirements and provide an adequate water supply for future demand in the Farley Area.

Design Factors: Work will be performed in road frontage, easements, right-of-ways, and through personal property. Construction activity will consist of boring, trenching, digging, and movement of machinery over the surface. The design standards used in this project were based on the "Design Guide for Community Public Water Supplies", effective December 2013.

The total construction cost for the proposed improvements, including engineering and administrative costs is estimated to be $1,800,000.

ALTERNATIVES CONSIDERED:

- No Action: **Not Selected** – This action alternative would require the district to continue to operate and maintain the existing distribution system to provide water service to its customers. This alternative would result in continued low water pressures during high water demands and inability to meet future water demands. The no action alternative would more likely lead to water quality violations and an increased hazard to human health.

- Action Alternative No. 1, Replacement of the existing Farley Standpipe with a higher water tower: **Not Selected** – This alternative includes the replacement of the Farley Standpipe with a new water tower with a higher operating level which will increase the water pressure in the area in all mains north of the Farley Pump Station. This design may result in instances that reduce the pressure below 0 psi on the suction site of the Farley Pump Station. Therefore, this alternative is not viable without also selecting alternatives 3A or 3B to improve water pressures above the minimum requirements. This alternative is not the least cost effective solution.

- Action Alternative No. 2, Boost outlet pressure of the pressure reducing valve at the District's decommissioned water plant: **Not Selected** – This alternative would bypass the existing Farley water pump station and remove the Farley Standpipe from service. This would allow the Farley area to be served directly by the Pierce water tower. This alternative is not viable without also selecting alternatives 3A or 3B to improve water pressures above the minimum regulatory requirements; therefore this alternative it is not the least cost effective solution.

- Action Alternative No. 3A, Replace/upsize 4-inch water line serving Farley (Route A): **Not Selected** – This Alternative would parallel or replace the existing four-inch water main serving Farley with a larger water main and the Farley Standpipe would be taken out of service. The route of the larger water main would parallel that of the existing four-inch water main and cross under the Platte River upstream of the levees. The pressure reducing valve located at the district's decommissioned water treatment plant at Highway 45 near Waldron, MO, would be bypassed to serve Farley, but would remain in service only to reduce pressure to the Waldron area. Pressure reducing valves would also be needed for customers whose water pressure increases to above 100 psi. This alternative includes approximately 4,000 feet of additional eight-inch water main compared to Action Alternative No. 3B. The route passes through one previously recorded archeology site in the project proposed alignment. This alternative is not the environmentally preferred nor the least cost effective solution.

- Action Alternative No. 3B, Replace/upsize 4-inch water line serving Farley (Route B): **Selected** – This Alternative would replace or upsize the four-inch water mains with an eight-inch water main. The route of the larger main is to run parallel to the existing water main, then crosses over the levees and under the Platte River near the Route 45 Bridge. The pressure reducing valve would need to be bypassed to serve the new main to the Farley Area. This alternative will bypass the Farley Pump Station and remove the existing Farley Standpipe from service.

- Action Alternative No. 4, Purchase water from Platte County PWSD No. 4: **Not Selected** – This Alternative would build a connection to Platte County PWSD No. 4 at the north end of North Farley Road. This alternative would provide water to the north end of North Farley Road. This alternative also includes a new 150,000 gallon water tower to provide the 20 year average daily water demand. This alternative is not the least cost effective solution.

REASONS FOR SELECTION OF PROPOSED ALTERNATIVE:

Action Alternative No. 3B was chosen to be the most feasible and cost effective solution to provide adequate water pressure to meet the minimum regulatory requirements and provide needed capacity for future demand. This alternative was also selected over Action Alternative No. 3A since it avoids a previously identified archaeology site and eliminates the need for an additional 4,000 feet of eight-inch water main.

ENVIRONMENTAL IMPACT SUMMARY:

1. Primary Impacts:

    a. Construction: Noise from construction equipment, blowing dust, and temporary surface disruption will occur during construction. However, these impacts are expected to be minor and temporary in nature. Erosion control measures are part of the project specifications. Boring will be used to minimize construction impacts at the Platte River crossing.

b. Environmental: Environmental impacts are expected to be temporary in nature including potential erosion from excavation and directional boring.

c. Financial: The current average monthly residential user charge for drinking water is $50.50 per 5,000 gallons. The proposed project is expected to increase the district's average monthly residential user charge for drinking water to $53.00 per 5,000 gallons.

2. Secondary:

a. Population Impacts: This project is to serve the current residents of the district. No relocation of people or structures is anticipated.

b. Land Use and Trends: The project is located within the boundary limits of Platte County PWSD No. 1. No significant change in land use trends is expected to result from this project. No development of sensitive areas is anticipated.

c. Environmental: No significant secondary environmental impacts are expected as a result of this project.

3. Mitigation Measures Necessary to Eliminate Adverse Environmental Effects: Noise, dust, and erosion associated with construction will be minimized by the implementation of specified Best Management Practices and good construction practices. Restoration of disturbed areas will be undertaken after construction is complete. Any debris such as construction waste, trees or brush, will be disposed of properly.

The Columbia, MO office of U.S. Fish and Wildlife Service should be contacted prior to any trees being removed by the project due to the potential for the presence of the Indiana Bat.

In accordance with the requirements found at 33 USC Section 408 the United States Army Corps of Engineers (USACE) - Kansas City District is currently conducting a review of the proposed project to insure that it does not impair the usefulness of the USACE project and is not injurious to the public interest. That review is restricted to those impacts that would be expected to occur within the right-of-way of Missouri River Levee System Units L400 and L408. Permission from the USACE-Kansas City District will be required prior to initiation of construction.

Stream management guidelines, *Recommendations for Construction Projects Affecting Missouri Streams and Rivers*, developed by the Department of Conservation should be followed to minimize the sedimentation while trenching the new water line.

4. Irreversible and Irretrievable Commitment of Resources: Fuel, chemicals, and some construction materials will be irretrievably committed to the project. Future funds will be committed to service the debt associated with this project and for the operation and maintenance of the water system.

PUBLIC PARTICIPATION:

1. Public Involvement: The district conducted public meetings and a hearing on the scope of improvements, the engineering alternatives, and environmental impacts of the project on April 27, 2015 at the district office in Waldron, MO. Notice of the meeting appeared on March 25, 2015 in the Landmark, a weekly newspaper published in Platte County.

2. Public Opposition or Opinions: No adverse comments on the proposed project were received.

COORDINATION AND DOCUMENTATION WITH OTHER AGENCIES AND SPECIAL INTEREST GROUPS:

1. Facility Plan: Addendum No. 1 of the Facility Plan Water Supply Improvements dated November 2014 and Environmental Assessment for Farley Area Water Transmission Main dated January 2015, prepared by HDR Engineering, Inc., Environmental Review documents received October, 2014 to December 2014, and the Cultural Resource Investigations Phase I Survey dated December 2014, prepared by Environmental Research Center of Missouri, Inc.

2. Federal: X U.S.F.W.S. X Corps of Engineers

3. State:

   a. Missouri DNR – State Historic Preservation Office
   b. Missouri DNR – Division of State Parks
   c. Missouri DNR – Missouri Geological Survey
   d. Missouri Department of Conservation
   e. Missouri Office of Administration – Federal Assistance Clearinghouse

4. Consulting Engineer: HDR Engineers, Inc.
   3741 NE Troon Drive
   Lee's Summit, MO 64063

Positive Environmental Effects to be Realized from the Proposed Project: The construction and replacement of water mains is expected to provide the district with adequate water supply while maintaining minimum pressures which improves water quality. Improved water quality benefits human health.

Reasons for Concluding There will be No Significant Impacts: The proposed project will have a positive impact on water quality and reliability. With the recommended mitigation measures, no significant adverse impacts on rare or endangered species, flood plains, wetlands, recreational areas, cultural/archaeological sites, or air quality are expected to occur. Population densities and land use trends will not be significantly affected. Where minor impacts will occur, appropriate mitigation measures are planned.

This action is taken on the basis of a careful review of the facility plan on file in the office of the Department of Natural Resources, Water Protection Program, 1101 Riverside Drive, Jefferson City, MO 65101. These are available for public review upon request between 8:00 a.m. to 5:00 p.m., Monday through Friday. This agency will not take any administrative action on this project for at least 30 calendar days from the date of this document. Persons wishing to comment on the above environmental decision may submit comments to Mr. Phillip M. Akin of the Missouri Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, MO 65102-0176, during this period. Thank you.

Sincerely,

WATER PROTECTION PROGRAM

Eric W. Crawford, Director
Financial Assistance Center

Phillip M. Akin
Project Manager

EWC:pac

5/22/15
Date

Attachments

DISTRIBUTION

Department of Conservation
P.O. Box 180
Jefferson City, MO 65102

Conservation Federation of Missouri
728 West Main Street
Jefferson City, MO 65101

Environmental Protection Agency
c/o Ms. Tanya Nix – WWPD/SRFB
11201 Renner Blvd.
Lenexa, KS 66219 (Copy Emailed)

Missouri Department of Natural Resources
Missouri Geological Survey
Environmental Geology Section
P.O. Box 250
Rolla, MO 65402-0250

Missouri Department of Natural Resources
Division of State Parks
State Historic Preservation Office
P.O. Box 176
Jefferson City, MO 65102

U.S. Fish and Wildlife Service
Ecological Services
101 Park DeVille Drive, Suite A
Columbia, MO 65203-0057

National Park Service
Midwest Region
Planning and Compliance Office
Environmental Coordinator
601 Riverfront Drive
Omaha, NE 68102-4226

USDA Rural Development
601 Business Loop 70 West
235 Parkade Center
Columbia, MO 65203

Gilmore and Bell, P.C.
c/o Mr. Christopher D. Ahrens
2405 Grant Blvd., Suite 1100
Kansas City, MO 64108-2521

SRF File DW291335-01

Platte County PWSD No. 1
c/o Mr. Bob Kincaid, President
18205 NW 45 Highway
Waldron, MO 64092

HDR Engineers, Inc.
c/o Mr. Scott Fleming, P.E.
3741 N.E. Troon Drive
Lee's Summit, MO 64063

Missouri Department of Natural Resources
Kansas City Regional Office
500 NE Colbern Road
Lee's Summit, MO 64086-4710

The Landmark
252 Main Street
P.O. Box 410
Platte City, MO 64079

Environmental Protection Agency
Office of Federal Activities
Ariel Rios (2252A)
1200 Pennsylvania Avenue, N.W.
Washington, DC 20004

Council of Environmental Quality
722 Jackson Place, N.W.
Washington, DC 20503

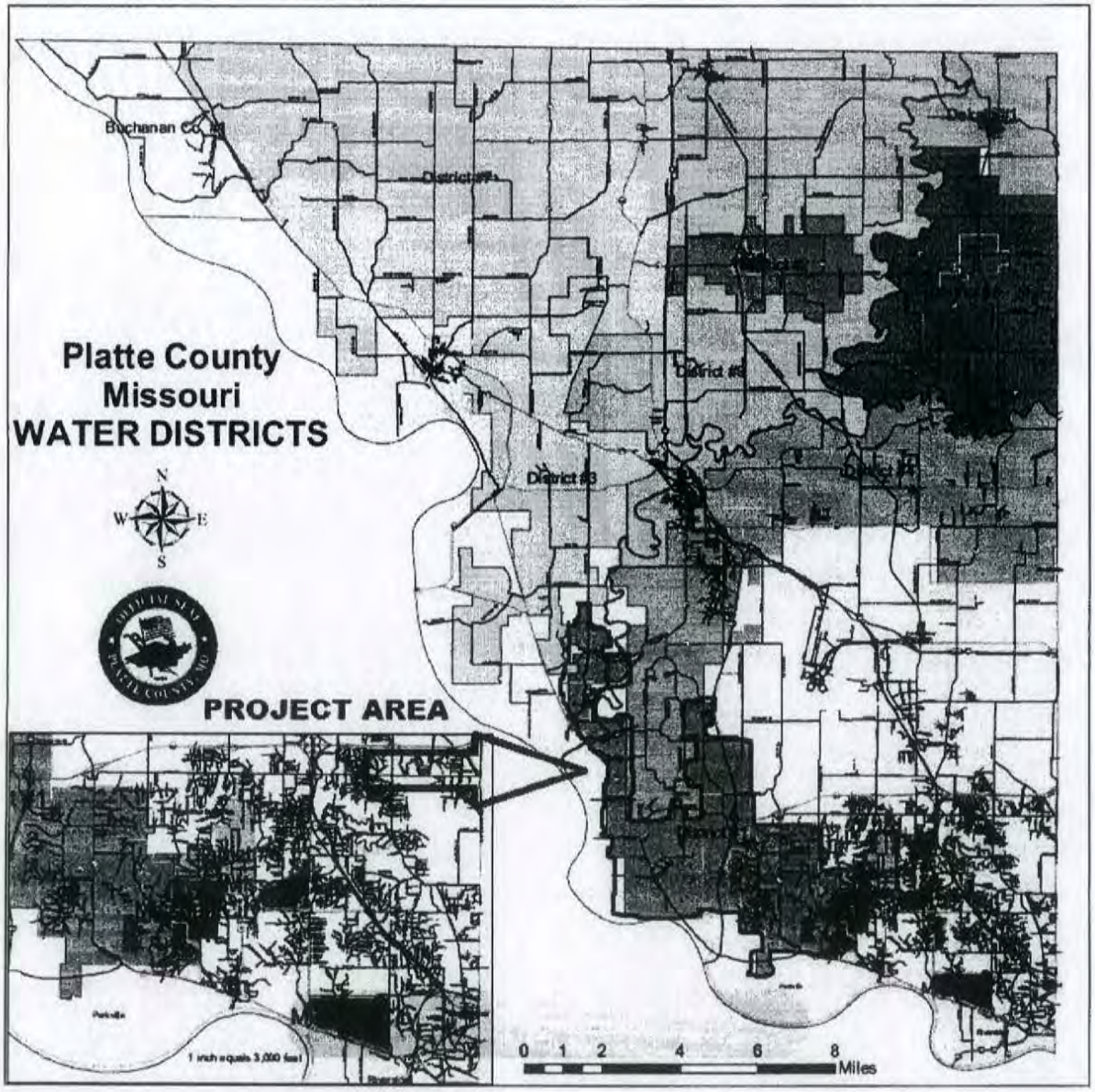
U.S. Army Corps of Engineers
Kansas City District
700 Federal Building
601 E. 12th Street
Kansas City, MO 64106-2896

Mid-America Regional Council
600 Broadway, Suite 200
Kansas City, MO 64105

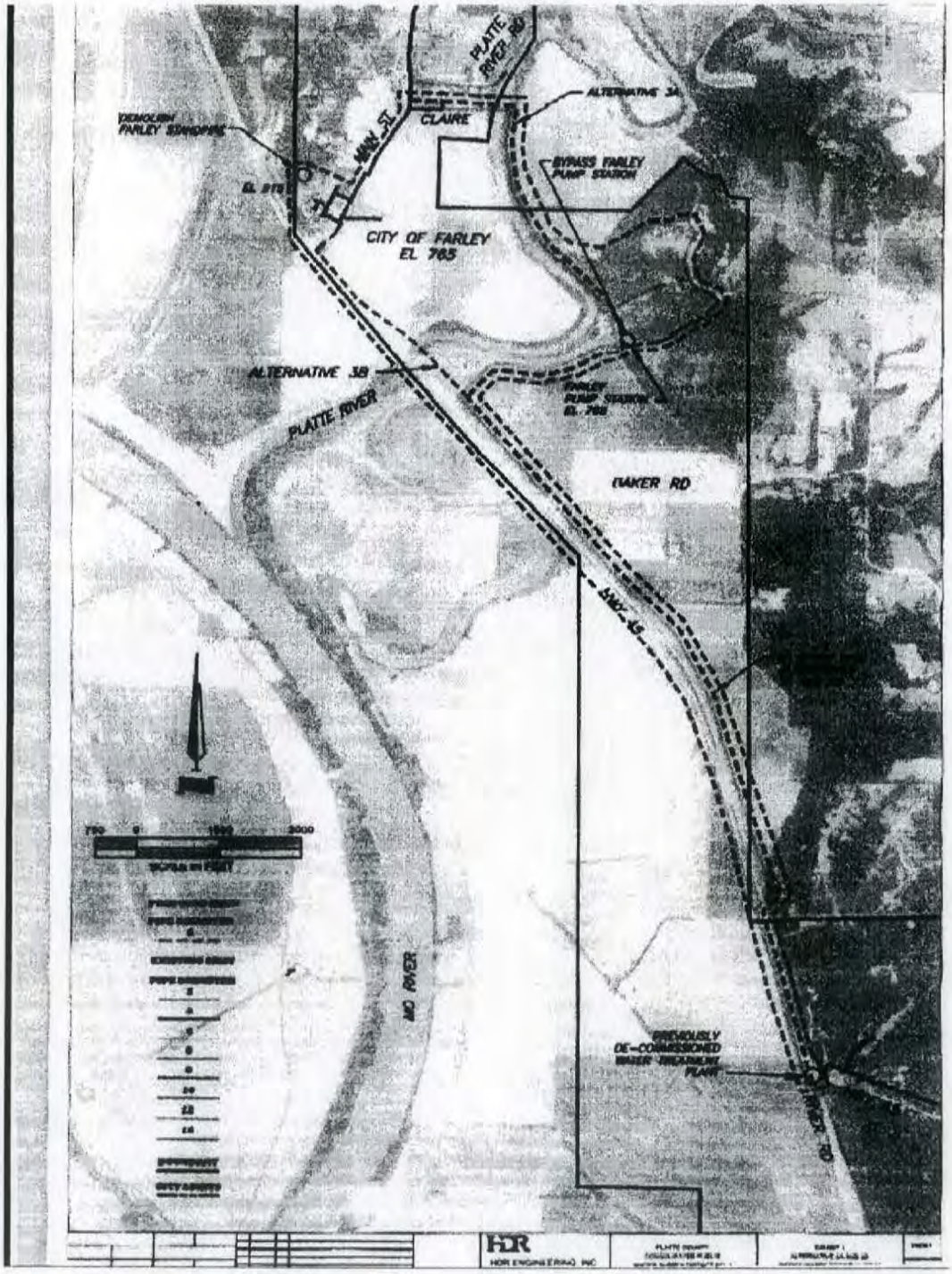
Lewis, Rice and Fingersh
c/o Mr. David Brown
500 North Broadway, Suite 2000
St. Louis, MO 63102

State of Missouri
Platte County PWSD #1

Project Area Map



Project Boundary Map



HDR

CONSOLIDATED PUBLIC WATER SUPPLY DISTRICT
NO. 1 OF PLATTE COUNTY

ENVIRONMENTAL ASSESSMENT FOR FARLEY AREA WATER TRANSMISSION MAIN

JANUARY 2015

MDNR REVIEW NO. DW-291335-01

FOR PWS ID #MO1024479

HDR PROJECT NUMBER: 236261

CPWSD No. 1 of Platte County
Mr. Bob Kincaid, President
18205 NW 45 Highway
Waldron, MO 64092
816 891 3457

HDR, Inc.
Mr. Scott Fleming, P.E.
3741 NE Troon Dr.
Lee's Summit, MO 64064
816 347 1100

Consolidated Public Water Supply District No. 1 of Platte County, Missouri
Environmental Assessment
For Farley Area Water Transmission Main

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Exhibit 2, CPWSD NO. 1 Platte County System Map, USGS

1.0 PURPOSE

The purpose of this document is to provide an assessment of environmental considerations relative to the design and construction of a water supply transmission main by Consolidated Public Water Supply District No. 1 of Platte County (District). This project is being considered for funding through the State Revolving Fund.

Missouri Public Drinking Water Program staff will use this assessment and the supporting planning and project documents to determine whether a detailed Environmental Impact Statement, consistent with the National Environmental Policy Act, is necessary. If the staff determines an impact statement is necessary, this assessment will be utilized as a source of information in preparation of that document. If the staff determines an impact statement is not necessary, this assessment will be used as supporting data in preparing the environmental impact appraisal and negative declaration.

An important purpose of the environmental review process is to encourage public participation during planning and decision making in evaluating the impact on the environment as a result of this project. Where a question regarding the adverse impact of the project arises, comments are solicited from the involved local agencies or interested groups. These agencies include the U.S. Fish and Wildlife Service, the Missouri Geological Survey, the State Historic Preservation Office, the Division of State Parks, the U.S. Army Corps of Engineers, the Federal Assistance Clearinghouse at the Office of Administration and the Missouri Department of Conservation.

Two public meetings and one public hearing will be scheduled to specifically address the project outlined in the facility plan and provide opportunity for public comment on the project's merits.

2.0 EXISTING ENVIRONMENT WITHOUT PROJECT

2.1 LOCATION AND AREA

The project includes construction of approximately 26,000 linear feet of water main improvements. The improvements will be made along the Highway 45 and near the City of Farley, MO. The proposed improvements are shown on Exhibits 1 and 2 titled "CPWSD No. 1 Platte County System Map".

Exhibit 1 shows locations of the proposed water main improvements, which will connect the southwest region and the northwest region of the District in Platte County, Missouri. A majority of the pipe work will be in right of way or private easement near existing roads.

2.2 POPULATION

The District serves 1,545 water service connections representing a current population of approximately 5,700 people. The water service connections in the year 2035 are estimated to be 1,923, representing approximately 7,115 people.

2.3 LAND USE

The proposed service area is primarily inhabited. The land on which the improvements will be made is currently used by the existing water main system.

2.4 GEOLOGICAL

The proposed water main improvements will be situated along Highway 45, west of Kansas City International Airport, with elevations ranging from approximately 750 to 780 feet above sea level. The soil lies within the flood plain for the Missouri River. The project area resides on Haynie, Waldron, and Bremer series overlay soils. Haynie soils, according to the USDA Official Soil Series Descriptions (OSD), consist of "very deep, moderately well drained soils on flood plains" and are formed in calcareous alluvium. Waldron series soils, also according to the USDA OSD, consist of "very deep, somewhat poorly drained soils formed in recent, stratified clayey and loam alluvial sediments" with slow to moderate permeability and are located on floodplains along major streams. Bremer series soils, according to the USDA OSD, consist of "very deep, poorly drained soils formed in alluvium. These soils are on stream terraces and floodplains." Also, since this project does not include construction of water containing earthen impoundments, it goes not require a geohydrologic collapse potential evaluation, according to the Missouri Department of Natural Resources, Missouri Geological Survey.

2.5 CLIMATIC ELEMENTS

According to the National Climatic Data Center of the National Weather Service, the temperatures in the Kansas City area has a mean of 54 degrees Fahrenheit with 30 days above 90 degrees on average each year and 27 days below freezing. The normal precipitation each year is 38-inches and the average wind speed is 10 miles per hour.

2.6 BOTANICAL AND ZOOLOGICAL ELEMENTS

From inquiries made of local residents. field observations, contact with the Missouri Department of Conservation, and United States Department of Fish and Wildlife, it has been determined that the project will not significantly effect any known environmental factors such as wetlands, flood plains, waterways, State or Federally-funded parks, unique plant or animal communities, or air quality factors that would be significantly affected by the improvements discussed in this report.

In the "Wildlife Habitat" section of Soil Survey of Platte County, Missouri, Soil Conservation Service, US Department of Agriculture, 1985, reports "(wildlife) game species (in this area) favor an openland habitat in an agricultural area". Due to expansion from Kansas City, little of the original prairie remains and has been converted to cropland and home sites.

Some species of the native animal life include bobwhite quail, deer, turkey, squirrel, raccoon, muskrat, coyote, opossum, beaver, and mink. Most lakes and ponds contain fish such as largemouth bass, channel catfish and blue gill. As a whole, the various wildlife habitats throughout the county include grain and seed crops, grasses, legumes, wild herbaceous plants, hardwood trees, coniferous plants, wetland plants, and shallow water areas. The project site consists of mainly grain and seed crops, with a small amount of trees and brush.

There are no known threatened or endangered species of wildlife that will be harmed or displaced by this project.

2.7 HISTORICAL/ARCHAEOLOGICAL/CULTURAL ELEMENTS

The work of this project will follow existing roads and will be located on property that is currently farmed or disturbed by human activity. According to the Missouri Department of Natural Resources, State Historic Preservation Office (SHPO), there was a moderate to high potential for the presence of archaeological sites near or within the project area. The SHPO requested a survey with deep testing as deemed appropriate be conducted, which has been conducted. The SHPO has reviewed the findings of this report and have approved the project. The following paragraph will be incorporated into the project specifications: "If, during the course of construction, evidence of deposits of historical or archaeological interest is found, the Contractor shall cease operations affecting the find and shall notify the District officials who shall notify the Regional Office of the Environmental Protection Agency and the Director, Missouri Station Park Board, Jefferson City, Missouri. No further disturbance of the deposits shall ensue until the Contractor has been notified that he may proceed. The District will issue a notice to proceed only after the State Official has surveyed the find, and made a determination of value and effect, and submitted such determination to the Environmental Protection Agency and the District. Compensation to the Contractor, if any, for lost time or changes in construction, to avoid the find, shall be determined in accordance with changed conditions or change order provisions of the specifications."

2.8 WATER SUPPLY SYSTEM

The Farley area is currently supplied by a single 5-mile long 4-inch water main along Highway 45, connecting the City of Farley to the previously decommissioned water treatment plant south of Farley. Customers at higher elevations in the area have reported low water pressures during periods of high usage. With the existing system, the District is unable to serve any additional customers without further reducing the water pressure, especially during periods of high usage.

3.0 FUTURE ENVIRONMENT WITHOUT PROJECT

3.1 FUTURE ENVIRONMENT, GROWTH, AND HEALTH HAZARDS

The District continues to serve an ever increasing number of customers, in addition to receiving inquiries from potential developers for providing water to prospective residential and commercial properties within the district. The District's current maximum day water needs cannot be met by the existing water mains, which are undersized for both the current needs and the projected future needs of the District.

A replacement of the water main systems and decommissioning of the Farley Standpipe and Farley Pump Station was determined to be the best immediate solution by the Facility Plan. These systems are undersized, with some areas of the District having water pressures less than the MDNR recommended pressure levels, as shown by the hydraulic analysis done in the Facility Plan.

Because the existing water treatment facilities adhere to State Regulations and meet the requirements of publicly operated water treatment plants, this project will not significantly improve or diminish the health of the public in the District.

The project will not have significant adverse impacts on rare or endangered species, floodplains, wetlands, recreational areas, cultural/archaeological sites, or air quality.

4.0 DOCUMENTATION

Sources of information used to describe the existing environment and to assess future environmental effects were from field observations and those listed below:

1. Threatened or Endangered Wildlife, U.S. Department of Interior, Bureau of Sport Fisheries and Wildlife
2. Missouri Department of Conservation
3. Missouri Department of Natural Resources, Division of State Parks
4. Missouri Department of Natural Resources, Missouri State Historic Preservation Office
5. Missouri Department of Natural Resources, Environmental Geology Section
6. Missouri Federal Assistance Clearinghouse
7. U.S. Army Corps of Engineers
8. United States Department of Agriculture Natural Resources Conservation Service, Web Soil Survey
9. United States Department of Agriculture Natural Resources Conservation Service, Official Soil Series Descriptions (OSDs)
10. Soil Survey of Platte County, Missouri, Soil Conservation Service, US Department of Agriculture, 1985

5.0 HIGH PRIORITY REPLACEMENTS

5.1 PRIORITY 1

The first priority is to replace or parallel the 4-inch water mains along Highway 45 and the Platte River, from the previously decommissioned Water Treatment Plant to the existing 6-inch water mains located in the City of Farley, which continue further north.

The existing 4-inch pipes along Highway 45 and the Platte River shall be removed or paralleled by new 8-inch water mains. This new main will follow one of two alternatives. Alternative A will install the new water mains adjacent to the existing 4-inch water mains around the Platte River, connecting to the existing 6-inch water mains near Claire Road, North of Farley, MO. Alternative B will install the new water mains in one of the following two ways: by attaching it to the Highway 45 Bridge to cross the river, or by crossing through the levee and under the Platte River east of the Highway 45 Bridge. Both of these routes will then connect to the existing 6-inch water main on the southwest side of Farley, MO.

6.0 EVALUATION OF ALTERNATIVES

6.1 WATER SUPPLY ALTERNATIVES

The following water supply alternatives were considered:
Alternative I, Replacement of the Existing Farley Standpipe With a Higher Water Tower
Alternative 2, Boost Outlet Pressure of the Pressure Reducing Valve at the District's Decommissioned Water Plant
Alternative 3A, Replace/Upsize 4-inch Water Line Serving Farley (Route A)
Alternative 3B, Replace/Upsize 4-inch Water Line Serving Farley (Route B)
Alternative 4, Purchase Water From Platte County PWSD #4 With a Connection at the North End of the District's Existing Main on North Farley Road

6.2 EVALUATION OF EACH WATER SUPPLY ALTERNATIVE

Alternative 1 required the District to replace the Farley Standpipe with a new, higher water tower. This alternative was deemed to not be viable without replacing the conveyance system as well, since the pressure on the suction side of the Farley Pump Station would be below the MDNR minimum of 35 psi.

Alternative 2 required the District to boost outlet pressure at the pressure reducing valve at the decommissioned water treatment plant. Alternative 2 was considered not a viable alternative due to the hydraulic model showing that the water pressure requirements were not acceptable without increasing the capacity of the water mains.

Alternative 3A required the District to replace or upsize the 4-inch water mains with an 8-inch water main, running parallel to the existing water main, while

removing the Farley Standpipe and Pump Station from service. The estimated 20 year lifecycle cost for Alternative 3A was $1.538 million.

Alternative 3B required the District to replace or upsize the 4-inch water mains with an 8-inch water main, running parallel to the existing water main, but crossing the Platte River via the Highway 45 Bridge or levee, while removing the Farley Standpipe and Pump Station from service. The estimated 20 year lifecycle cost for Alternative 3A was $1.392 million.

Alternative 4 required the District to purchase water from Platte County PWSD #4 and build a connection at the North end of North Farley Road. This alternative was not recommended without also constructing a water tower in case of any issues with PWSD #4's ability to provide uninterrupted water to the Farley Area. The estimated 20 year lifecycle cost for Alternative 4 was $2.668 million.

The selected alternative and least expensive alternative, is Alternative 3B, a replacement or upsizing of the 4-inch water line serving Farley, MO.

7.0 ENVIRONMENTAL EFFECTS OF THE PROPOSED ACTION

7.1 PRIMARY AND SECONDARY IMPACTS OF THE PROJECT

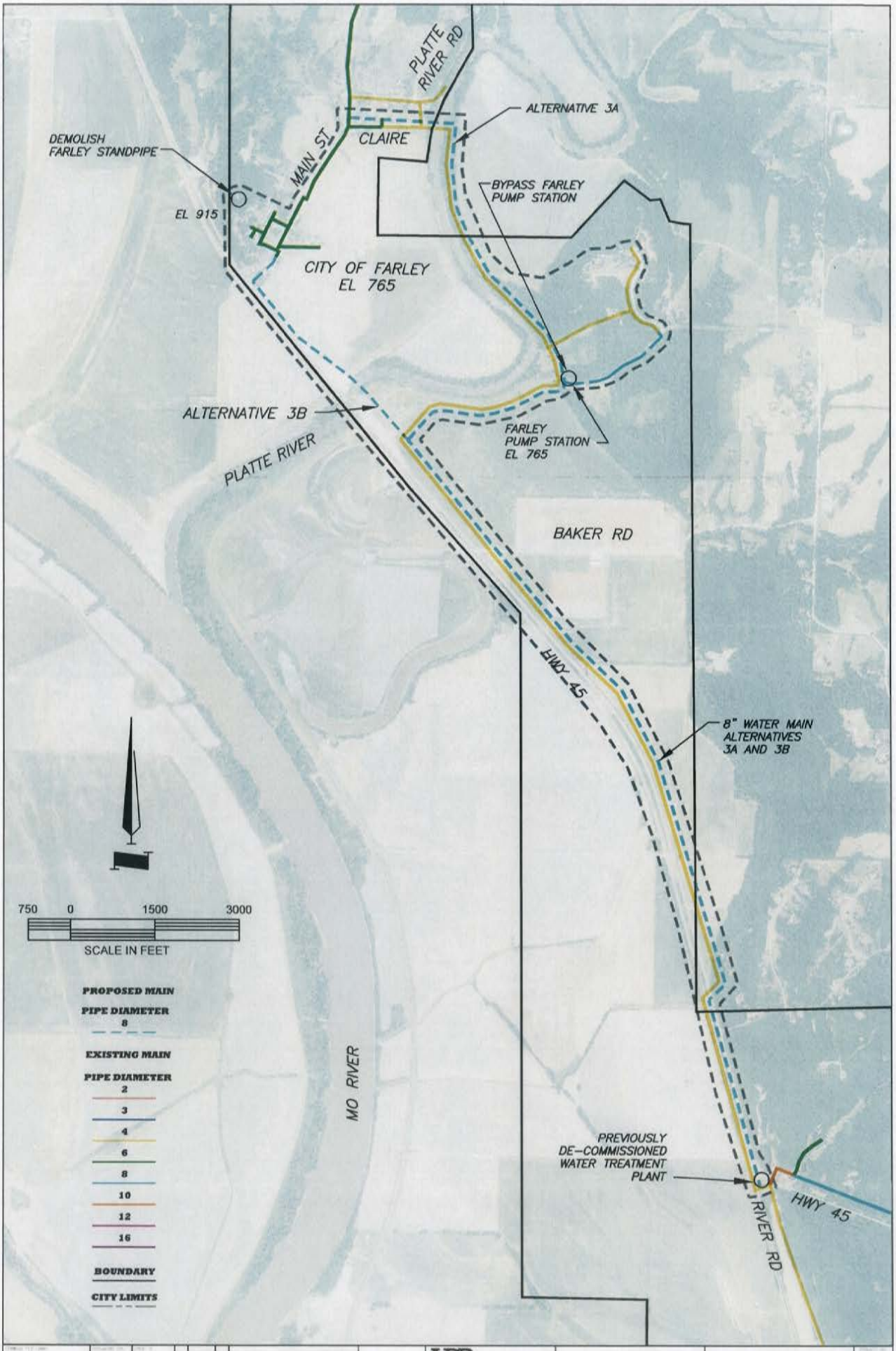
a. The purpose of this project is to provide adequate water transmission for the District's customers.
b. Wildlife habitat, although disturbed temporarily during construction, will essentially be unchanged.
c. Fuels and other forms of energy will be utilized during construction.
d. Construction materials will be installed on the project and remain permanently. Electricity will be consumed by the pumping processes.
e. Pollution of groundwater will not result from the proposed project.
f. No adverse change in the value of adjacent property at the site is anticipated.
g. The project is not expected to adversely affect the recreational potential of the area.
h. No relocation of people or existing structures will be required.
i. Temporary environmental effects will result during construction. Noise from construction equipment will exist. Although control measures will be exercised, blowing dust will occur on windy days. Any debris, such as trees, roots and fencing, will be removed from the site for proper disposal. Burning will be permitted only in conformance with local, state and federal regulations.
j. Land required for the new facilities will be permanently lost to agricultural production or open prairie. Land where pipe will be buried can be returned to agricultural production or open prairie.

7.2 COMMITMENTS OF RESOURCES

The elements which are included in the construction of water supply, treatment and transmission facilities can be classified as irreversible or irretrievable commitments of resources.

7.3 RELATIONSHIP BETWEEN LOCAL SHORT-TERM USE OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The disturbance of the area around the pipe line during construction will be for a short period of time. Most of the work should be completed with in a year. Areas, which must be disturbed during construction, will be returned to their existing uses. The positive impact to the customers of the District will be long term. The project will provide a source of water transmission that will meet their current and future water demands and minimizes environmental impact, energy consumption, and financial cost that would have been required if no improvements were made.



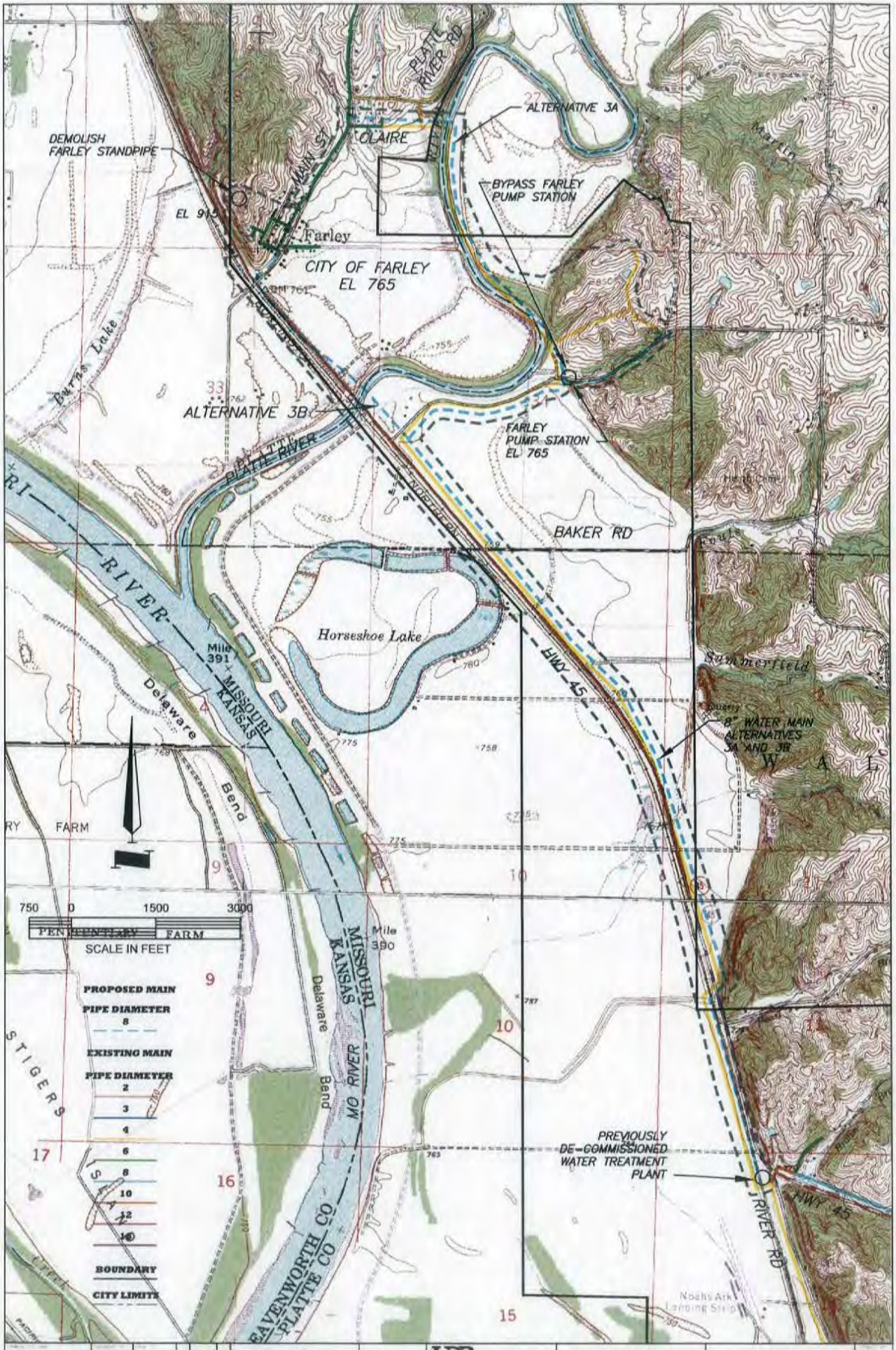
HDR ENGINEERING, INC.
3781 N.E. TROON DRIVE
LEE'S SUMMIT, MO 64064
816-347-1100 • FAX 816-347-1197

PLATTE COUNTY
CONSOLIDATED PUBLIC
WATER SUPPLY DISTRICT NO. 1

EXHIBIT 1
ALTERNATIVE 3A AND 3B
PIERCE WATER TOWER SUPPLY

236261

1



HDR

HDR ENGINEERING, INC.
3741 N.E. TRUMAN DRIVE
LEE'S SUMMIT, MO 64064
816-347-1100 • FAX 816-347-1197

PLATTE COUNTY
CONSOLIDATED PUBLIC
WATER SUPPLY DISTRICT NO. 1

EXHIBIT 2
ALTERNATIVE 3A AND 3B
PIERCE WATER TOWER SUPPLY

236291

2

From: Hundley, Joshua <joshua_hundley@fws.gov>
Sent: Thursday, November 13, 2014 2:38 PM
To: Graham, Tyler
Subject: Fwd: CPWSD No. 1 Platte County Water Distribution Improvements

---------- Forwarded message ----------
From: **Hundley, Joshua** <joshua_hundley@fws.gov>
Date: Thu, Oct 16, 2014 at 12:50 PM
Subject: CPWSD No. 1 Platte County Water Distribution Improvements
To: Scott.Fleming@hdrinc.com
Cc: Amy Salveter <amy_salveter@fws.gov>

Mr. Fleming,

I reviewed the information provided in your September 30, 2014 letter regarding the proposed CPWSD No. 1 Platte County Water Distribution Improvements (MDNR# DW291335-01, HDR# 236261) in Platte County, Missouri. Our data indicate that Federally listed species, proposed species, candidate species, and designated and proposed critical habitat are not likely to be impacted by the proposed project action. With respect to wetlands and other important fish and wildlife habitat, it appears that the proposed action will not significantly impact these resources. If project plans change or portions of the proposed project were not evaluated, it is our recommendation that the changes be submitted for our review.

Thank you for your interest in the conservation of threatened and endangered species.

Josh Hundley
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
Missouri Ecological Services Field Office
101 Park DeVille Drive, Suite A
Columbia, MO 65203-0057
573-234-2132 ext 176 (office)

DEPARTMENT OF THE ARMY
KANSAS CITY DISTRICT, CORPS OF ENGINEERS
635 FEDERAL BUILDING
601 E 12TH STREET
KANSAS CITY MO 64106-2824

REPLY TO
ATTENTION OF

October 30, 2014

Regulatory Branch
NWK-2014-01234

Mr. Scott Fleming P.E.
HDR Engineering, Inc.
3741 Northeast Troon Drive
Lee's Summit, Missouri 64064-1988

Dear Mr. Fleming:

This is in reply to your request for a letter of clearance submitted on behalf of Consolidated Public Water Supply District Number 1 of Platte County, Missouri. It was received on October 3, 2014. The proposed work concerns the replacement of 26,000 linear feet of existing water main. The project is located in Section 33, Township 52 north, Range 35 west, in Platte County, Missouri.

The Corps of Engineers has jurisdiction over all waters of the United States. Discharges of dredged or fill material in waters of the United States, including wetlands, require prior authorization from the Corps under Section 404 of the Clean Water Act (Title 33 United States Code Section1344). The implementing regulation for this Act is found at Title 33 Code of Federal Regulations Parts 320-332.

Should the proposed improvements require the discharge of dredged or fill material in any waters of the United States, including wetlands, a Department of the Army (DA) permit may be required. However, if the proposed improvements do not require the discharge of dredged or fill material in any waters of the United States, including wetlands, a DA permit will not be required.

Federal regulations require that a DA permit be issued by the Corps of Engineers prior to the initiation of any construction on the portion of a proposed activity which is within the Corps' regulatory jurisdiction.

Enclosed is a copy of our brochure entitled "Activities Requiring Permits." Also enclosed is a permit application with instructions for completing the permit application should you determine that the activity is within the Corps' regulatory jurisdiction.

We are interested in your thoughts and opinions concerning your experience with the Kansas City District, Corps of Engineers Regulatory Program. Please feel free to complete our Customer Service Survey form on our website at: http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey. You may also call and request a paper copy of the survey which you may complete and return to us by mail or fax.

If you have any questions concerning this matter, please feel free to contact Mr. Justin Hughes at (816) 389-3211 or via email at justin.w.hughes@usace.army.mil. Please reference Regulatory File No. 2014-01234 in all comments and/or inquiries relating to this project.

Enclosures

OCT 30 2014
HDR

Activities Requiring Permits

Contractors	Builders	Planners
Excavators	Engineers	Homeowners
Consultants	Landowners	Farmers

The Corps of Engineers is charged with the responsibility for protecting the public interest in waters of the United States. This is accomplished through a Department of the Army permit program. Under this program, most activities involving work in waters of the United States, including wetlands, require authorization from the Corps of Engineers. Individuals, companies, corporations, Federal and State agencies, and local governments planning construction activities in a stream, river, lake or wetland should contact the Kansas City District, U.S. Army Corps of Engineers, **BEFORE ANY WORK IS BEGUN**.

Why?

Because your proposed work may be subject to one or both of the following Federal Acts:

Section 10 of the Rivers and Harbors Act of 1899 regulates any work or structure in, over, or under navigable waters of the United States. This includes such items as boat docks, boat ramps, powerlines, excavation, filling, etc.

Section 404 of the Clean Water Act regulates the discharge of dredged or fill material in all waters of the United States, including rivers, streams, lakes and wetlands. This includes work such as site development fills, causeways or road fills, dams and dikes, artificial islands, bank stabilization (riprap, seawalls and breakwaters) levees, landfills, fish attractors, mechanized clearing of wetlands, and certain types of excavation activities, etc.

Be Sure Before you Start Construction

Department of the Army permits must be obtained prior to starting any work within the Corps' jurisdiction. Persons planning any construction activities in or near any water body should should write or call:

Corps of Engineers, Kansas City District
Regulatory Branch
601 East 12th Street, Room 402
Kansas City, MO 64106
Telephone: 816-389-3990
FAX: 816-389-2032
http://www.nwk.usace.army.mil/Missions/RegulatoryBranch.aspx

A map of the Kansas City District, Regulatory Program Service Areas can be found at:
http://www.nwk.usace.army.mil/Portals/29/docs/regulatory/webregmap-sep2006.pdf

US Army Corps of Engineers ®
Kansas City District

Instructions for Preparing a
Department of the Army Permit Application

Blocks 1 through 4. To be completed by Corps of Engineers.

Block 5. Applicant's Name. Enter the name and the E-mail address of the responsible party or parties. If the responsible party is an agency, company, corporation, or other organization, indicate the name of the organization and responsible officer and title. If more than one party is associated with the application, please attach a sheet with the necessary information marked Block 5.

Block 6. Address of Applicant. Please provide the full address of the party or parties responsible for the application. If more space is needed, attach an extra sheet of paper marked Block 6.

Block 7. Applicant Telephone Number(s). Please provide the number where you can usually be reached during normal business hours.

Blocks 8 through 11. To be completed, if you choose to have an agent.

Block 8. Authorized Agent's Name and Title. Indicate name of individual or agency, designated by you, to represent you in this process. An agent can be an attorney, builder, contractor, engineer, or any other person or organization. Note: An agent is not required.

Blocks 9 and 10. Agent's Address and Telephone Number. Please provide the complete mailing address of the agent, along with the telephone number where he / she can be reached during normal business hours.

Block 11. Statement of Authorization. To be completed by applicant, if an agent is to be employed.

Block 12. Proposed Project Name or Title. Please provide name identifying the proposed project, e.g., Landmark Plaza, Burned Hills Subdivision, or Edsall Commercial Center.

Block 13. Name of Waterbody. Please provide the name of any stream, lake, marsh, or other waterway to be directly impacted by the activity. If it is a minor (no name) stream, identify the waterbody the minor stream enters.

Block 14. Proposed Project Street Address. If the proposed project is located at a site having a street address (not a box number), please enter it here.

Block 15. Location of Proposed Project. Enter the latitude and longitude of where the proposed project is located. If more space is required, please attach a sheet with the necessary information marked Block 15.

Block 16. Other Location Descriptions. If available, provide the Tax Parcel Identification number of the site, Section, Township, and Range of the site (if known), and / or local Municipality that the site is located in.

Block 17. Directions to the Site. Provide directions to the site from a known location or landmark. Include highway and street numbers as well as names. Also provide distances from known locations and any other information that would assist in locating the site. You may also provide description of the proposed project location, such as lot numbers, tract numbers, or you may choose to locate the proposed project site from a known point (such as the right descending bank of Smith Creek, one mile downstream from the Highway 14 bridge). If a large river or stream, include the river mile of the proposed project site if known

Block 18. Nature of Activity. Describe the overall activity or project. Give appropriate dimensions of structures such as wing walls, dikes (identify the materials to be used in construction, as well as the methods by which the work is to be done), or excavations (length, width, and height). Indicate whether discharge of dredged or fill material is involved. Also, identify any structure to be constructed on a fill, piles, or float-supported platforms.

The written descriptions and illustrations are an important part of the application. Please describe, in detail, what you wish to do. If more space is needed, attach an extra sheet of paper marked Block 18.

Block 19. Proposed Project Purpose. Describe the purpose and need for the proposed project. What will it be used for and why? Also include a brief description of any related activities to be developed as the result of the proposed project. Give the approximate dates you plan to both begin and complete all work.

Block 20. Reasons for Discharge. If the activity involves the discharge of dredged and/or fill material into a wetland or other waterbody, including the temporary placement of material, explain the specific purpose of the placement of the material (such as erosion control).

Block 21. Types of Material Being Discharged and the Amount of Each Type in Cubic Yards. Describe the material to be discharged and amount of each material to be discharged within Corps jurisdiction. Please be sure this description will agree with your illustrations. Discharge material includes: rock, sand, clay, concrete, etc.

Block 22. Surface Areas of Wetlands or Other Waters Filled. Describe the area to be filled at each location. Specifically identify the surface areas, or part thereof, to be filled. Also include the means by which the discharge is to be done (backhoe, dragline, etc.). If dredged material is to be discharged on an upland site, identify the site and the steps to be taken (if necessary) to prevent runoff from the dredged material back into a waterbody. If more space is needed, attach an extra sheet of paper marked Block 22.

Block 23. Description of Avoidance, Minimization, and Compensation. Provide a brief explanation describing how impacts to waters of the United States are being avoided and minimized on the project site. Also provide a brief description of how impacts to waters of the United States will be compensated for, or a brief statement explaining why compensatory mitigation should not be required for those impacts.

Block 24. Is Any Portion of the Work Already Complete? Provide any background on any part of the proposed project already completed. Describe the area already developed, structures completed, any dredged or fill material already discharged, the type of material, volume in cubic yards, acres filled, if a wetland or other waterbody (in acres or square feet). If the work was done under an existing Corps permit, identity the authorization, if possible.

Block 25. Names and Addresses of Adjoining Property Owners, Lessees, etc., Whose Property Adjoins the Project Site. List complete names and full mailing addresses of the adjacent property owners (public and private) lessees, etc., whose property adjoins the waterbody or aquatic site where the work is being proposed so that they may be notified of the proposed activity (usually by public notice). If more space is needed, attach an extra sheet of paper marked Block 24.

Information regarding adjacent landowners is usually available through the office of the tax assessor in the county or counties where the project is to be developed.

Block 26. Information about Approvals or Denials by Other Agencies. You may need the approval of other federal, state, or local agencies for your project. Identify any applications you have submitted and the status, if any (approved or denied) of each application. You need not have obtained all other permits before applying for a Corps permit.

Block 27. Signature of Applicant or Agent. The application must be signed by the owner or other authorized party (agent). This signature shall be an affirmation that the party applying for the permit possesses the requisite property rights to undertake the activity applied for (including compliance with special conditions, mitigation, etc.).

DRAWINGS AND ILLUSTRATIONS

General Information.

Three types of illustrations are needed to properly depict the work to be undertaken. These illustrations or drawings are identified as a Vicinity Map, a Plan View or a Typical Cross-Section Map. Identify each illustration with a figure or attachment number.

Please submit one original, or good quality copy, of all drawings on 8½ x11 inch plain white paper (electronic media may be substituted). Use the fewest number of sheets necessary for your drawings or illustrations.

Each illustration should identify the project, the applicant, and the type of illustration (vicinity map, plan view, or cross-section). **While illustrations need not be professional (many small, private project illustrations are prepared by hand), they should be clear, accurate, and contain all necessary information.**

U.S. ARMY CORPS OF ENGINEERS

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT

33 CFR 325. The proponent agency is CECW-CO-R.

Form Approved - OMB No. 0710-0003 Expires: 31-AUGUST-2013

Public reporting for this collection of information is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters, Executive Services and Communications Directorate, Information Management Division and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME	8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required)
First - Middle - Last -	First - Middle - Last -
Company -	Company -
E-mail Address -	E-mail Address -
6. APPLICANT'S ADDRESS:	9. AGENT'S ADDRESS:
Address-	Address-
City - State - Zip - Country -	City - State - Zip - Country -
7. APPLICANT'S PHONE NOs. w/AREA CODE	10. AGENTS PHONE NOs. w/AREA CODE
a. Residence b. Business c. Fax	a. Residence b. Business c. Fax

STATEMENT OF AUTHORIZATION

11. I hereby authorize, _____ to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

_____ SIGNATURE OF APPLICANT _____ DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions)

13. NAME OF WATERBODY, IF KNOWN (if applicable)	14. PROJECT STREET ADDRESS (if applicable)
	Address
15. LOCATION OF PROJECT	City - State- Zip-
Latitude: °N Longitude: °W	

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)

State Tax Parcel ID Municipality

Section - Township - Range -

17. DIRECTIONS TO THE SITE

18. Nature of Activity (Description of project, include all features)

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres

or

Linear Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

24. Is Any Portion of the Work Already Complete? ☐ Yes ☐ No IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (If more than can be entered here, please attach a supplemental list)

a. Address-

City - State - Zip -

b. Address-

City - State - Zip -

c. Address-

City - State - Zip -

d. Address-

City - State - Zip -

e. Address-

City - State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED

* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT DATE SIGNATURE OF AGENT DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.

STATE OF MISSOURI
Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director
DEPARTMENT OF NATURAL RESOURCES
www.dnr.mo.gov

October 14, 2014

Scott Fleming, P.E.
HDR
3741 NE Troon Drive
Lee's Summit, Missouri 64064-1988

Re: CPWSD No. 1 Water Distribution System Improvements (EPA/SRF) Platte County, Missouri

Dear Mr. Fleming:

Thank you for submitting information on the above referenced project for our review pursuant to Section 106 of the National Historic Preservation Act (P.L. 89-665, as amended) and the Advisory Council on Historic Preservation's regulation 36 CFR part 800, which require identification and evaluation of cultural resources.

We have reviewed the information provided concerning the above referenced project. We have determined that there is a moderate to high potential for the presence of archaeological sites near and within the area of the proposed project, as indicated by the topographic location, and that an archaeological survey, with deep testing as deemed appropriate, should be conducted. This survey should be completed prior to the initiation of project-related construction activities.

A list of independent archaeological contractors who can perform such services is available through the Department of Natural Resources, Division of Administrative Support. The list can be obtained by calling Denise Massman, (573) 522-3299 and requesting the "archaeological contractors list." Note that any 36 CFR Part 61 qualified archaeologist may perform an archaeological survey. If you choose a contractor not on the list, please be certain to include his or her curriculum vitae in the report. We would appreciate one (1) hard copy and one (1) pdf copy of the archaeological survey report when it is finished so we may complete the review and comment process.

If you have any questions, please write Judith Deel at State Historic Preservation Office, P.O. Box 176, Jefferson City, Missouri 65102 or call Ms. Deel at 573/751-7862. Please be sure to include the SHPO Log Number (**002-PL-15**) on all future correspondence or inquiries relating to this project.

Sincerely,

STATE HISTORIC PRESERVATION OFFICE

Mark A. Miles

Mark A. Miles
Director and Deputy State
Historic Preservation Officer

RECEIVED
OCT 20 2014
HDR

MAM:jd

c Amber Tucker, EPA
Doug Garrett, DNR/WPP/FAC

Cultural Resource Investigations
Phase I Survey
CPWSD No. 1 Waterline Project
Platte County, Missouri

Prepared for:

CPWSD No. 1 of Platte County
and
HDR

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ABSTRACT

During December 2014 Environmental Research Center of Missouri, Inc. (ERC) carried out a Phase I cultural resource survey for approximately 5.5 miles of 50' wide corridor in Platte County, Missouri. The corridor is the location of a proposed 8" buried waterline construction project.

The records and literature review determined that no National Register of Historic Places (NRHP) are located within or adjacent to the proposed project boundaries. There are three previously recorded archaeology sites within the project boundaries which include 23PL13, 23PL14 and 23PL394. There are no SHPO historic architecture sites within or near the project. Available county histories and plat maps placed no significant historic structures, features, or events within the proposed project.

The field investigation was carried out under mixed surface visibility conditions in a recently plowed fields, harvested soybeans, ornamental lawn, and pasture grass settings. No evidence of previously recorded 23PL14 or 23PL394 was found within the project corridor. Previously recorded 23PL13, a major Steed-Kisker village and cemetery, was identified in the area illustrated on the archaeology site form. The site occupies a hill top and slope above the confluence of the Platte and Missouri rivers. The lower elevation of the site is crossed by the proposed waterline project and located in backyards of homes on the north and south sides of the project corridor. Additionally, two previously unrecorded prehistoric archaeology sites were identified in the project corridor. The sites, 23PL1543 and 23PL1542 consist of low density scatters of local Winterset chert debitage and fire-cracked rock. Shovel tests and erosion cuts produced no evidence of sub-plow zone cultural matrix. No features and no diagnostic artifacts were found. The sites would not meet NRHP eligibility criteria and are recommended not eligible for inclusion on the NRHP. The project will not disturb any existing structures.

On the north end of the project at Farley two alternate corridors, one which follows Highway 45 into Farley and another that follows the left bank of the Platte River crossing the river and ending at Highway 45. Subsequent to completion of this Phase I cultural resources survey it was determined that the alternate that follows Highway 45 would be the preferred corridor thus avoiding 23PL13.

It is the finding of this Phase I cultural resources survey that the proposed project will not threaten significant cultural resources as it is currently planned. It is the recommendation of this investigation that the proposed project proceed as planned in terms of Section 106 compliance.

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INTRODUCTION

Purpose of Study

In compliance with current environmental regulations and policies, HDR entered into a contractual agreement with Environmental Research Center of Missouri, Inc. (ERC) to conduct a Phase I cultural resource survey for a proposed waterline construction project in Platte County, Missouri. The study followed the Missouri Department of Natural Resources (DNR) "Guidelines for Cultural Resource Contract Reports and Professional Qualifications" and is submitted in accordance with current environmental regulations and policies and in agreement with the study contract.

The project actions included discussion of the project with Missouri Department of Natural Resources/Historic Preservation Program staff, a records and literature review, and an intensive pedestrian field investigation of the project area. The study methods used are described and the results of the findings of these actions are presented in terms of cultural resource descriptions, when present, and recommendations for cultural resource compliance in reference to the proposed project actions. The project area cultural and environmental settings are briefly described.

Under state and federal legislation and policies outlined by the Antiquities Act of 1906, the Historic Sites Act of 1935, the National Historic Preservation Act (NHPA) of 1966 as amended, the National Environmental Policy Act of 1970, the 1986 Protection of Historic Properties and other regulations regarding specific activities such as strip mining, it is necessary to inventory archaeological and historical resources located within proposed project areas which may be threatened by federally regulated or funded actions and evaluate any disruptive effects these actions might have on resources that are present. Briefly, the National Historic Preservation Act requires that an area threatened by a federally funded and/or regulated project consider cultural resources which might be impacted by project related actions; the State Historic Preservation Officer (SHPO) and/or federal agency involved may request that a cultural resource survey be conducted prior to granting permission to proceed with the proposed project actions. If any cultural resources are identified, they are evaluated in terms of National Register of Historic Places (NRHP) eligibility criteria. Where NRHP eligible sites are found to occupy compliance project areas, consultation is initiated which may include the Advisory Council on Historic Preservation (Council), the SHPO, and the governmental agency involved in the project. If an eligible site cannot be avoided, a Memorandum of Agreement may be prepared which would stipulate specific compliance actions to be initiated prior to project actions. The project initiator, if not a federal agency, may be requested to concur. The present project is partially funded or regulated by a federal agency. As a result, cultural resource compliance has been implemented by a federal agency and Missouri SHPO and the present survey has been carried out in order to meet NHPA requirements.

Project Personnel and Schedule

The present field investigation was carried out during December 2014. Principal Investigator and report author is Craig Sturdevant. Sturdevant has a Master of Arts degree in Anthropology from the University of Iowa, Iowa City and meets state and federal requirements for Principal Investigator for cultural resource compliance projects. John Carrel, ERC Research Associate, and Sturdevant were field technicians for the project.

The Project

The scope of work described the project as construction of a buried 8" water line. The investigators assumed that a 50' wide corridor would be an appropriate temporary easement width for the project. It was assumed that any cultural resources located within this corridor could be subject to project related threat. The project includes two alternate corridors at the north end in the vicinity of Farley. The project area is located in Sections 27 and 34, Township 52 North, Range 35 West and Sections 3, 10, and 11 Township 51 North, Range 35 West, Platte County, Missouri (Figure 1).

The present investigation has been carried out utilizing Phase I survey procedures as outlined in the methods section of this report and all available standard procedures for determining presence/absence of buried and surficial resources have been attempted (observation of vegetation-free surfaces, stream cut banks and erosion cuts, bank profiling, and shovel testing). Findings and recommendations are made with the understanding that it sometimes may not be possible to identify all possibly significant resources within a project area.

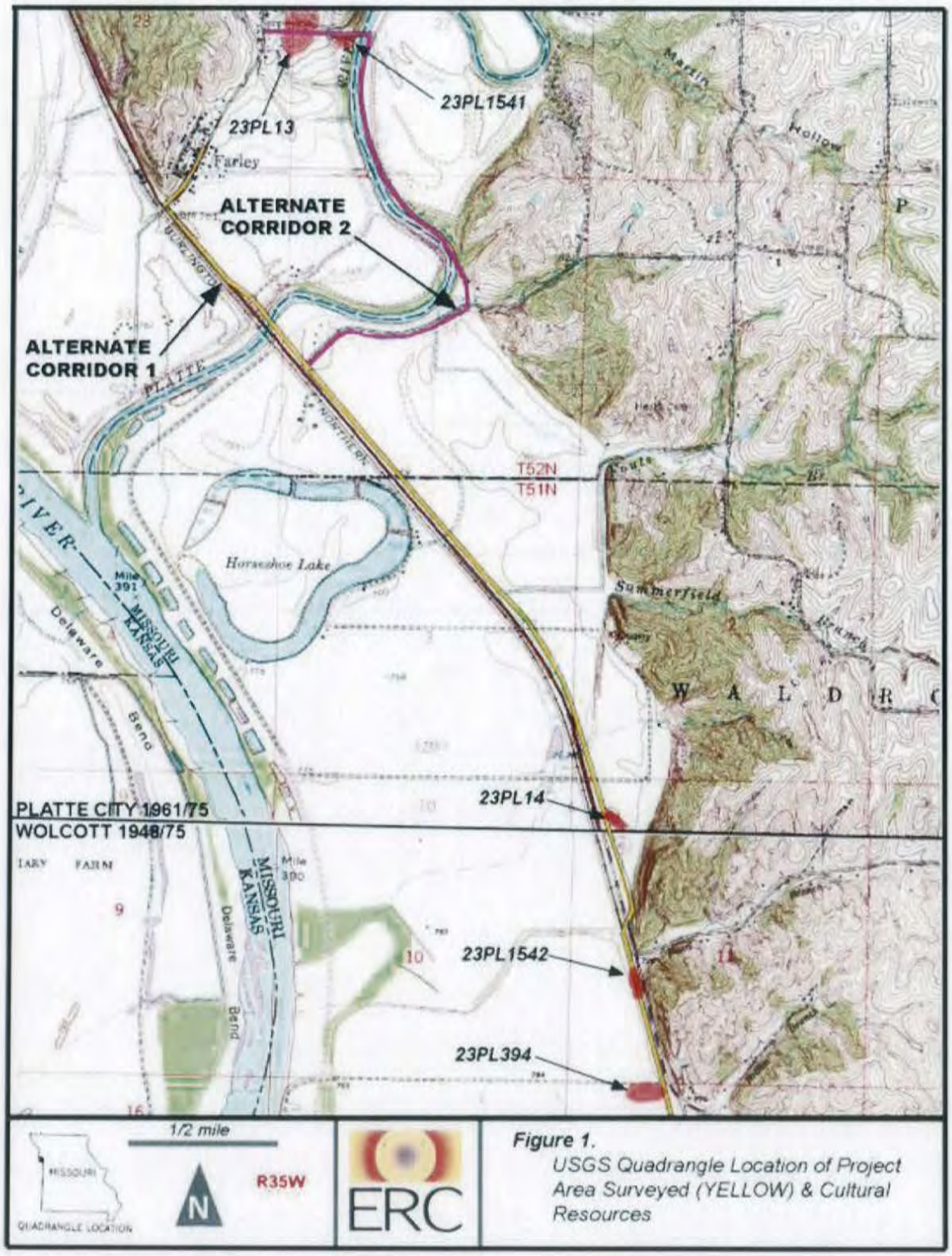

Figure 1.
USGS Quadrangle Location of Project Area Surveyed (YELLOW) & Cultural Resources

INVESTIGATION METHODS

Introduction

The major goal of the this investigation was the inventory and evaluation of cultural resources within the designated project zone through the use of currently accepted Phase I survey techniques and records and literature review. It is important that sufficient data are collected to allow development of appropriate recommendations concerning the significance of the identified cultural resources in the project zone in terms of National Register of Historic Places (NRHP) eligibility criteria. The methods and techniques used during the present investigation allowed an intensity of coverage that should have identified all potentially significant cultural resources. Deeply buried sites and very low material density sites are possible to miss no matter how intensive the survey techniques. This study has been initiated in order to carry out federally mandated Section 106 compliance regulations. The scope of work placed emphasis upon identification of cultural resources within the project area along with recovery of sufficient data to allow the Missouri State Historic Preservation Office (SHPO) to make an informed determination of possible significance of those resources.

The following section includes a discussion of the methods that have been employed in this study. These consist of a pre-field evaluation of pertinent literature and records from which the field survey techniques and site designation criteria are developed, an intensive pedestrian survey of the project area, an attempt to recover sufficient data for site designation and evaluation in terms of NRHP eligibility requirements, notation of locational information regarding site provenience and physiographic setting, post-field activates involving data analysis, and report preparation. The methods and techniques and justifications for interpretations are discussed below.

Records & Literature Review

A review of relevant publications and records prior to the field component of the study is important in establishing an understanding of the cultural sequence and types of cultural resources which might be expected to occur. The process includes review of cultural resource management reports that have been produced for the areas in or near the project zone. These reports are housed in the Missouri Department of Natural Resources State Historic Preservation Office (SHPO), Jefferson City, Missouri. The repository also includes a GIS layer with recorded archaeology sites, National Register of Historic Places (NRHP) properties, and previously Phase I survey locations on USGS topographic quadrangles. GIS layers are accessed and all information pertinent to the current project is reviewed prior to the field investigation. Other resources consulted that contain important data include the State Archives in Jefferson City, local historic societies when appropriate, and the State Historic Society in Columbia. Other archaeologists and architectural historians, particularly those employed by the state that are involved with

Section 106 procedures, are consulted regarding their knowledge of significant cultural resources in a project area.

Field Procedures

The archaeological field component of the present study involved pedestrian coverage of the defined project area by ERC personnel. Transect width utilized ranges from 5 to 15 meters depending upon visibility and site potential based on terrain, streams, and other factors that have been shown to correlate with site presence/absence such as presettlement prairie or woodland setting. All vegetation-free zones are observed for presence of prehistoric cultural materials. Throughout most of Missouri, this can include lithic debitage (chert flakes and shatter), fire-cracked rock, pottery sherds and occasionally bone and shell fragments. Features such as fire hearths and burial tumuli may also be encountered. Where vegetation covers the surface for over 10m, shovel tests are implemented. This involves removal of around a 30cm by 50cm area of sod and then controlled removal of subsurface soil matrix to depths of up to 50cm below surface. Soils are carefully observed to determine presence/absence of cultural evidence. Where soil conditions allow, soils are screened through a portable ¼-inch screen. Shovel testing that does not include screening of matrix is implemented where larger numbers of shovel tests are necessary and surface visibility conditions are poor. In this instance, soil matrix is removed by shovel and carefully scraped with a trowel to look for prehistoric/early historic evidence.

Where evidence of presence of a cultural resource is defined, the location is noted on a U.S.G.S. quadrangle and a sketch map and description of the site area are field prepared. Where features or structures are encountered, photographs are taken. The field procedures incorporated in the pedestrian survey are directed toward two major goals: The first was the inventory of all possibly significant cultural resources within the project zone and the second the attempt to recover sufficient information to allow interpretation of NRHP eligibility of these sites by the SHPO.

While subjective, ERC has developed a set of criteria for determining presence of a cultural resource, which are currently accepted by the SHPO as appropriate. These criteria are not presented as appropriated for all situations but as the general practice followed by ERC in making decisions regarding presence/absence of cultural resources for cultural resource compliance purposes. One extreme would record a site where any evidence of cultural activity occurs. The other extreme would require a significant cultural resource to be present to result in recording a site. The present approach attempts to find a middle ground, which hopefully allows for further consideration for both the cultural resource and the proposed project action prior to threat to either.

A cultural resource site is designated where evidence of prehistoric occupation is identified and at least one of the following specific criteria is met:

A. a prehistoric feature is observed

B. 2 or more artifacts are identified within a <10m by 10m area

C. a shovel test recovers 2 or more artifacts.

Where a site is identified and when the landowner grants permission, materials recovered by the field investigation are placed in appropriately marked collection bags. If permission is not attained, materials are observed and potential diagnostics and tools measured, photographed and left in the field or given to the landowner when requested. When a permanent site number is assigned, retained materials are curated with the site designation. Where material density at a site is obviously high, only a "grab sample" is retained.

Historic resources include architecture, artifacts, features, and evidence of past structures. Where structures are present that are over 50 years old or exhibit some form of possible exceptional significance they are photographed and a description of architectural features is produced. Aside from photography historic structures are not recorded where it is obvious that the structures are less than 50 years old and not significant in any other respect. If historic materials are identified that appear older than 50 years, the situation is assessed in terms of significance potential. Low-density historic scatters are usually not recorded given their ubiquitous nature in rural Missouri settings. Where an area of potential effect (APE) has been established beyond the physical APE, architectural resources within this defined APE are photographed and given preliminary evaluation regarding possible NRHP significance.

Analysis Procedures

Significance of cultural resources is interpreted from National Register of Historic Place eligibility criteria that are listed below:

> "The quality of significance in American History, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling and association, and:
>
> A) that are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> B) that are associated with the lives of persons significant in our past; or
>
> C) that embody the distinctive characteristics of type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant distinguishing entity whose components may lack individual distinction; or

D) that have yielded, or may be likely to yield, information important in prehistory or history: (36 CFR Part 60.6).

Cultural resources that are identified during the Phase I survey are evaluated in terms of meeting one or more of the above criteria. In general, archaeological sites most often are evaluated with reference to D above. A statewide planning document was prepared by the DNR/HPP that allows minimal means for evaluation of potential significance of cultural resources (Weichman and Weston 1986). The statewide plan includes information regarding traditions, types of traditions expected, forms of data that may be potentially important, and research questions that can be incorporated in the interpretation of cultural resource significance where available. Generally, a cultural resource will be evaluated on the bases of types of materials recovered (uniqueness, affiliation, type), resource integrity (degree of disturbance), and material/feature density (density and quantity of artifacts and presence and number of potentially extant features such as hearths, house sites, and burial tumuli). Usually, if an archaeological site exhibits sub-plow zone integrity and produces diagnostic artifacts or features, the site is interpreted as significant in that it would very likely contain sufficient data to contribute to the understanding of the cultural history of the area and meet NRHP eligibility criterion D. The consultant only makes recommendations regarding NRHP eligibility. The determination of eligibility process requires consultation with the SHPO and the federal agency involved in the project.

Statement of Findings and Recommendations

Where ERC locates a cultural resource within the designated APE, recommendations of significance and justification are made to the SHPO and the federal agency involved. A decision regarding significance would be made at that level in terms of possible NRHP eligibility of the resource. Recommendations that may be made include "not eligible for NRHP status", "possibly eligible for NRHP status", or "eligible for NRHP status." Where a recommendation of not eligible is accepted by the SHPO and federal agency, a proposed compliance project can proceed as planned; a recommendation of possibly eligible results in agency request that the project be modified to avoid the resource or tested by Phase II procedures in order to establish NRHP eligibility; a recommendation of eligible results in a request to modify the project to avoid the cultural resource or proceed with the consultation process as outlined by 36 CFR Part 800: Protection of Historic Properties that governs the Section 106 review process established by the National Historic Preservation Act of 1966 as amended.

GENERAL PROJECT SETTING

Environmental Setting

Physiographically the project zone occupies the southern margin of the Dissected Till Plains subprovince (Raisz 1957). Movement of Nebraskan and Kansan glaciers to the immediate north area during the early Pleistocene resulted in the deposition of glacial drift material (till) over the underlying Pennsylvanian age bedrock formations. The surface is comprised of unconsolidated clays, sands, gravels, pebbles and boulders; this drift material is irregular in both depth and distribution throughout the region. Loess deposition during the late Pleistocene and Holocene subsequently covered this drift material. Erosional actions has since extensively modified the post-glacial landforms of the region, producing the present general setting which is characterized by undulating to rolling uplands which become hilly and dissected near stream valleys.

Outcroppings of Pennsylvanian age slate and limestone strata are occasionally exposed along the edges of the stream valley in the general vicinity. Aboriginal inhabitants undoubtedly utilized the limestone from these formations for a variety of purposes as well as cherts and granites from glacial drift. Some of the cherts found in regional sites appear to have come from Mississippian formations to the south and east. Little information is currently available regarding prehistoric chert selection in this project area at present.

Soils of the project zone are in the Knox – Marshall – Kennebec associations of the Deep Loess Hills region (Allgood and Persinger 1979). These soils were formed under a mixed woodland and prairie setting which included Bluestem, Indian Grass, Switch Grass, Side-oats Grama, Plains Muhly, Buffalo Grass, and Blue and Hairy Grama on the ridge top prairies and forest slopes containing oak-hickory (Allgood and Persinger 1979).

Prior to Euro-American settlement and subsequent extensive modification of native vegetation, the general study area would have been characterized by a mosaic pattern of tall grass prairie uplands, interspersed with relatively small areas of deciduous forests along the stream valley and adjacent slopes. The slope forest zone would have supported a near climax community consisting of various species of oaks, hickories, elms, and ashes, as well as basswood, hackberry, black walnut, and redbud. The understory of this community would have included a variety of shade tolerant herbaceous and woody plants. Government Land Office (GLO) maps indicate that the project is located within a presettlement woodland setting (Schroeder 1981:31).

Records describing faunal assemblage possibilities for the general area are available from early history accounts indicate presence of bison, elk, deer, bears, wolves, beaver, turkey, geese, ducks, and many other species (cf. Thwaites 1904). It can be assumed that streams in the area contained a wide variety of fish, amphibians, and mussels that could have been effectively incorporated in prehistoric subsistence patterns.

The climatic conditions in the area are modified midcontinental with frequent and rapid changes in weather. Annual precipitation is around 38 inches with most in the spring. Temperatures range from below 0 degrees F to over 100 degrees F with a growing season of around 180 days and an annual average temperature of around 54 degrees F.

Cultural Setting

Located in the Platte and Missouri West drainage basins (Figure 2), the prehistoric/early historic cultural sequence for the area has been delineated by several archaeologists over the past several years (cf. Chapman 1975; 1980) and varies in terms of number of hypothesized traditions from six to twelve separate prehistoric through proto-historic/early historic American Indian traditions. Chapman has delineated the traditions as follows:

Early Man	pre-12000 B.C.
Paleo-Indian	12000 to 8000 B.C.
Dalton	8000 to 7000 B.C.
Early Archaic	7000 to 5000 B.C.
Middle Archaic	5000 to 3000 B.C.
Late Archaic	3000 to 1000 B.C.
Early Woodland	1000 to 500 B.C.
Middle Woodland	500 B.C. to A.D. 400
Late Woodland	A.D. 400 to 900
Early Mississippian	A.D. 900 to 1250
Middle Mississippian	A.D. 1250 to 1450
Early Historic	A.D. 1700 +

Each of these cultural - chronological periods or traditions represents a prehistoric and historic period of time that can be defined by cultural materials and/or events. The prehistoric periods can only be hypothesized to have occurred in the project area in that too little data are presently available to allow designation of each specific tradition. The historic periods have been relatively well documented by available historic records. Each of the prehistoric and historic periods is briefly described below along with listings of material cultural items, features, and/or architectural forms which would be associated with the specific tradition.

Early Man: An Early Man (or "Pre-Clovis") tradition is hypothesized for the northwest region of Missouri although there is little evidence to support the presence of the tradition in Missouri or Kansas. It is probable that small nomadic populations utilized the Midwest. Some evidence of the period has been reported from northwest Missouri counties in the form of deeply buried modified lithics (cf. Reagan and Evans 1978). No specific tool complex has been defined for this elusive period and it is probable that

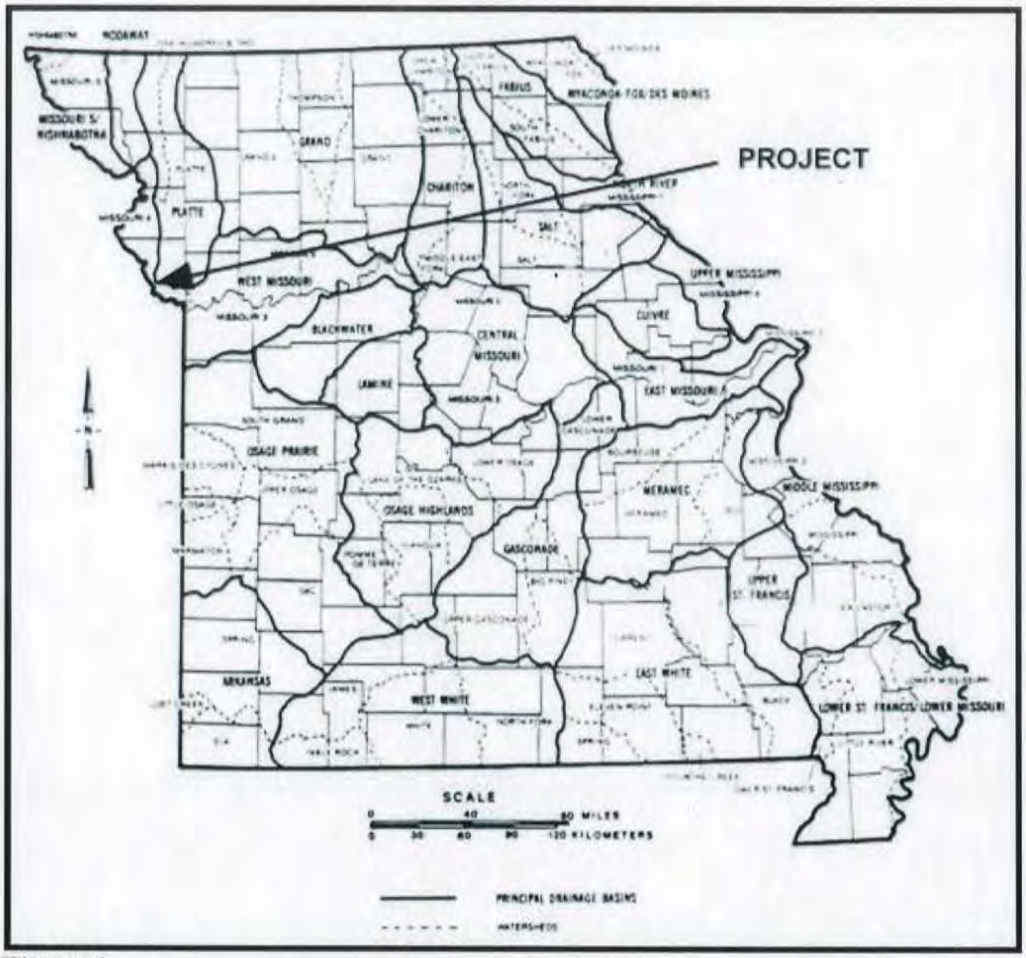

Figure 2.
DNR Drainage Map/Study Unit Location of Project

identification of an Early Man occupation would be very serendipitous. There are no data regarding potential terrain setting within which this early period may occur. No Early Man sites have been identified in the area.

Paleo-Indian (12000 to 8000 B.C.): This early tradition has not been established as present in the general area aside from a small number of fluted Paleo-Indian points reported by Shippee (1964) and Chapman (1975:67). The tradition utilized a nomadic settlement pattern and subsistence was primarily based on large game hunting and flora collecting. The tradition has not been well defined due to lack of identified Paleo-Indian sites. The antiquity of the period along with the nomadic settlement pattern and probable small population base results in a sparse potential database. The most diagnostic artifacts associated with the Paleo-Indian tradition are fluted lanceolate spear or knifepoints known as Clovis and Folsom.

Dalton (8000 to 7000 B.C.): This tradition is characterized as a transitional period to "...encompass the time of change from major emphasis on hunting to foraging, a

transitional period between the Paleo-Indian and the Archaic" (Chapman 1975:29). Few data are available concerning this tradition in the general area although private collections contain examples of Dalton Serrated points, which are diagnostic of the period (Shippee 1964). Specific terrain locations of Dalton occupation have not been well established for the area although it is probable that Dalton populations utilized the area on a short-term basis.

Early Archaic (7000 to 5000 B.C.): The Early Archaic is also poorly known in the area. The socio-cultural patterns of the tradition were probably very similar to Dalton and included a forager subsistence pattern which exhibited small temporary extraction sites along with somewhat less temporary base camp sites (cf. Chapman 1975). The few possible Early Archaic occupations which have been identified in the drainage have been located in upland locations near major streams. The major diagnostic of the period is the Graham Cave Notched lithic point.

Middle Archaic (5000 to 3000 B.C.): Middle Archaic is somewhat better represented in the area than the previous traditions. This foraging tradition was less nomadic than earlier populations and quite probably included a settlement pattern that exhibited semi-permanent base camps with smaller extraction and process sites radiating from base camps. Diagnostics include small side-notched projectiles while the latter includes large expanding stemmed and corner-notched lithic forms. The period is poorly understood in this region and presence of Middle Archaic occupations with some degree of integrity would quite likely be interpreted by the Missouri SHPO as indicating presence of a significant cultural resource.

Late Archaic (3000 to 1000 B.C.): This foraging tradition has better representation in the archaeological record than previous periods. It is probable that the population base was expanding during the period and that settlement patterns were becoming less temporary and/or including more permanent base camps or village centers. With the Late Archaic comes an expansion of tool types quite probably related to an expansion in types of floral and faunal resources exploited. In the general area, Nebo Hill is one of the important Late Archaic complexes that have been identified. Diagnostics of the Late Archaic include Nebo Hill lanceolates, a wide variety of stemmed lithic tools including Sedalia forms and Stone Square Stemmed, Clear Fork Gouge, Smith Basal Notched, and 3/4 grooved axes along with other ground/pecked implements. Several Late Archaic sites have been identified in the region, particularly along the major stream valleys (Chapman 1975).

Early Woodland (1000 to 500 B.C.): This period has not been well defined throughout most of the western Midwest. The area has been hypothesized to include the tradition although there are few good examples of Early Woodland occupation. On the basis of presence of contracting stemmed points as diagnostics, there was a relatively extensive series of these occupations along Fishing River to the south, according to Martin (1976).

Middle Woodland (500 B.C. to A.D. 400): The Middle Woodland has been the focus of a great deal of archaeological attention in northwest Missouri (cf. Wedel 1943; Kay 1980). Presence of the tradition is defined from grit and sand tempered ceramics often exhibiting relatively exotic decorative stamps, cross hatching, punctates, and impressions (cf. Chapman 1980). Sites often extend over a four to six acre area and were apparently intensively occupied as suggested by thick coverings of refuse and numerous trash pits identified (cf. Wedel 1943:22). A mortuary complex has also been associated with the Kansas City Hopewell, which includes earthen mounds typically located upon ridge tops (Wedel 1943). Lithic diagnostics include Snyders and Steuben points along with other hypothesized forms. It is apparent that t he population increased in the area during the Middle Woodland period. Around A.D. 500 the Kansas City Hopewell apparently abruptly disappeared. Johnson argues that this termination of occupation was related to the southward movement of central Plains Woodland influences and that the disappearance was a result of a syncretism of Plains Woodland and Kansas City Hopewell (1976).

Late Woodland (A.D. 400 to 900): This period is not particularly well represented in the watershed although Late Woodland components are identified on Missouri site forms from the region. A continued reliance upon a hunting and gathering subsistence base, possibly supplemented by cultigens, has been postulation for this tradition (cf. Chapman 1980; Shippee 1968). Diagnostics of the period include small side notched and unnotched arrow points, Steuben points, and plain and cord marked grit and sand tempered pottery.

Mississippian - Protohistoric (A.D. 900 to 1600): These periods are primarily represented by Steed-Kisker tradition to the south of the project area and by Plains traditions to the north. Diagnostics include shell tempered ceramics, burial tumuli, and triangular arrow points. Materials include cordmarked and plain surface shell tempered pottery along with triangular notched and unnotched arrow points. The Oneota culture is represented in some sites in the region. The main Oneota villages in central Missouri are located along the Missouri River. Diagnostics of the period include shell-tempered ceramics with distinctive decorative motif. Historic accounts of the Indians in central Missouri began as early as the LaSalle expedition. Both Missouri and Osage Indians had villages in central Missouri by the early 19th century. The Osage apparently were the more recent occupants of the area. Sac and Fox as well as Ioway appear to have penetrated into northern Missouri with the Sac ambushing the main body of the already declining Missouri Indians in 1798 (Henning 1970). The Miamis located themselves at the foot of the bluffs where the town of Miami is located today. They were removed to the west by 1815. Historic Indian occupation of this general area of Missouri has not been well defined or interpreted and fewer than 12 historic Indian sites are known in the drainage. Presence of Historic Indian occupation should be considered an important cultural resource by the Missouri SHPO.

Historic: The first Americans to travel through the region that left a record were Louis and Clark in their 1804-6 expedition who also noted the presence of Kansa Indian occupation:

> ...this river [Kansas] receves its name from a Nation which dwells at this time on its banks & (has) 2 villages one about 20 leagues & the other 40 leagues up, those Indians are not verry noumerous at this time, reduced by war with their neighbors, &c, they formerly lived on the South banks of the Missourie 24 leagues above the river in a open & betifull plain, and were verry noumerous at the time the french first Settled the Illinois, I am told they area a fierce & warlike people, being badly Supplied with fire arms, became easily conquered by the Aiauway & Saukees who are better furnished with these materials of War, This Nation is now out in the Plains hunting the Buffalow our hunters killed Several Deer and Saw Buffalow, Men emp.d Dressing Skins & making themselves comfortable, the high lands come to the river Kansas on the upper Side at about a mile, full in view, and a butifull place for a fort, good landing-place, the waters of the Kansas is verry disagreeably tasted to me (in Thwaites 1904:35-36).

In 1818 the Kansa ceded all their claims to land in Missouri, including area near the present project, for an annuity of two thousand dollars a year. However, the Otoes and Omahas continued to hunt east of the Missouri River but the presence of the Sac, Fox, and Iowa were still felt in the area of what was later known as the Platte Purchase which includes the project counties. Because of conflicts between these groups hurting the fur trade, United States authorities assembled the groups at Prairie du Chien in 1830 and worked out a treaty whereby the groups would share the area as a joint hunting ground. The treaty contained the provision that allowed other groups to be moved into the area. Within three years the land was reallocated to the Potawatomis.

With the opening of the area to white settlers as a result of the Platte Purchase in 1836, the Platte County area drew several settlers. Platte County was organized on December 31, 1838 from the Platte Purchase and named for its principal river (Earngey 1995:67). During the Civil War, Platte County contained elements with both northern and southern sympathies although most supported the pro-slavery Confederate efforts. Prior to the Civil War the county was involved in the precursory skirmishes referred to as the Border Wars. After the war, the general area emphasized farming and stock production along with establishment of several small rural communities.

INVESTIGATION FINDINGS

Records and Literature Review

Platte County, Missouri currently contains 16 National Register of Historic Places (NRHP) properties. These include the following:

Babcock Site, address restricted (11/15/73)

Benjamin Bannaker School, 31 W 8th St., Parkville (9/22/95)

Deister Archaeological Site, address restricted (1/21/70)

Krause, Frederick, Mansion, 3rd and Harrel Ferrel Dr., Platte City (5/22/78)

MacKay Building (MacKay Hall), Park College Campus, Parkville (4/06/79)

McCormick Distillery, MO JJ, Weston (4/16/74)

Missouri District Warehouse, 357 Main St, Weston (7/19/10)

Platte County Courthouse, Courthouse Sq., 3rd and Main Sts., Platte City (1/17/79)

Pleasant Ridge United Baptist Church, MO Route P, Weston vicinity (3/13/02)

Renner Village Archaeological Site, address restricted (4/16/69)

Scott, Charles Smith, Memorial Observatory, 8700 River Park Dr., Parkville (5/29/92)

Sugar Creek Site, address restricted (12/12/73)

TWA Administrative Offices Building, 11500 Ambassador Dr., Kansas City (11/06/07)

Waddell "A" Truss Bridge, English Landing Park over Rush Creek, Parkville (1/25/91)

Washington Chapel C.M.E. Church, 1137 West St., Parkville (8/31/92)

Weston Historic District, roughly bounded by Summit, Rock, Market, and Ashley, Weston (8/21/72)

None of these NRHP properties is located within or adjacent to the proposed project zone. No NRHP property is directly or indirectly threatened as a result of the proposed project actions.

There are three previously recorded archaeology sites within the proposed project boundaries as illustrated on the SHPO GIS layers (Figure 3). The sites include 23PL14 and 23PL394. Approximately 3.5 miles of the corridor was previously surveyed for cultural resources (see Figure 3). There are no SHPO historic architecture sites within the project corridor; no landmarks are located near the project; early plat maps include no indication of structures in the project area.

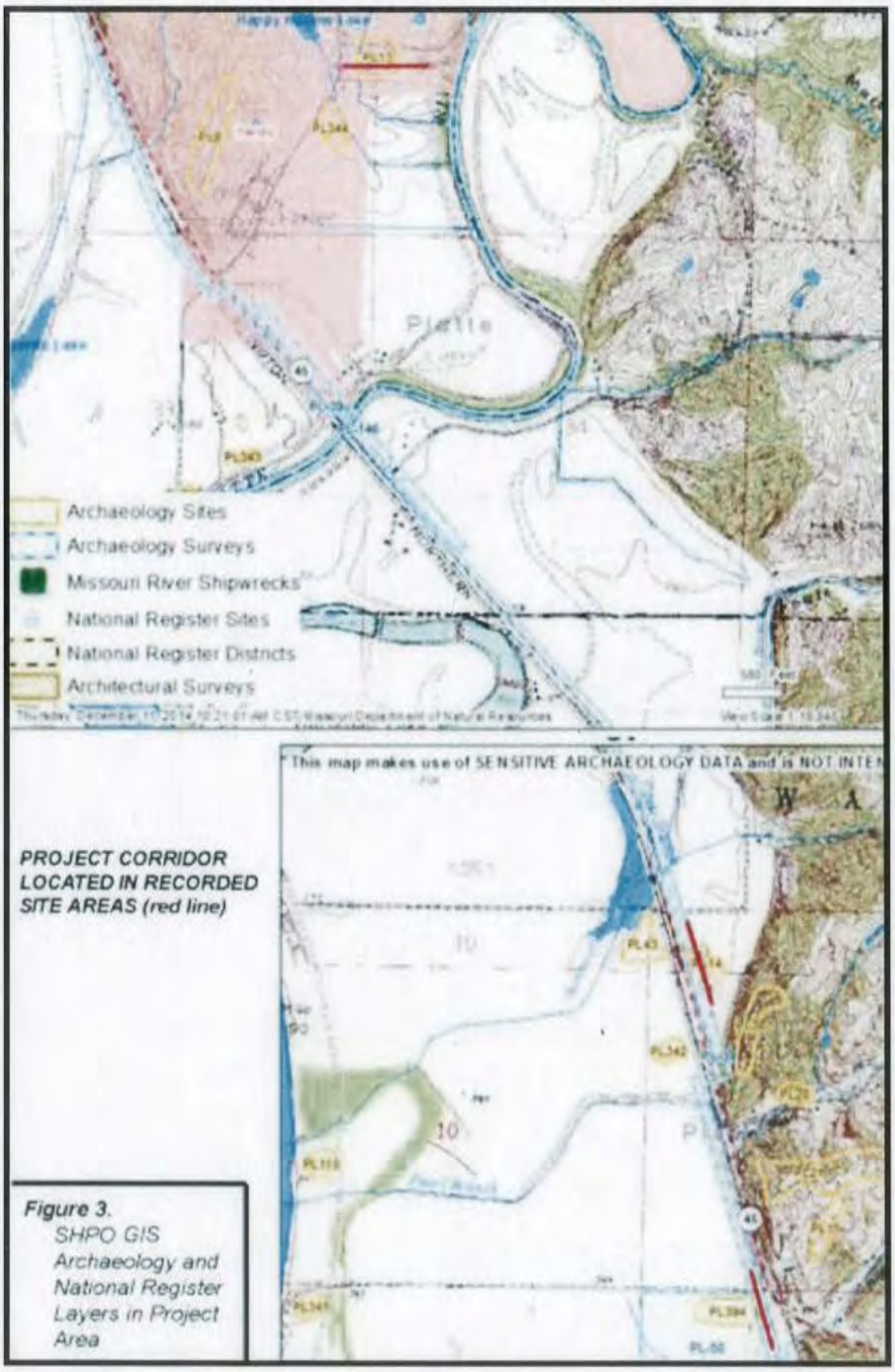

Figure 3.
SHPO GIS Archaeology and National Register Layers in Project Area

Field Investigation Findings

The field investigation was carried out under very good to poor surface visibility conditions in cultivated field, pasture, and ornamental lawn settings. Previously recorded 23PL13 was identified within the project corridor as were two previously unrecorded prehistoric archaeology sites. The sites are described below in terms of provenience, materials observed, cultural affiliation and site type, site integrity, site significance, and recommendations regarding NRHP eligibility and implications for the proposed project actions.

23PL13

Provenience: This site was first recorded in the 1950's by J. Mett Shippee as a Steed-Kisker village and revisited in 1990 and 1996 by other archaeologists. The site is reported to contain a prehistoric cemetery, house sites, and activity areas of the Early Mississippian Steed-Kisker tradition. The present project alternate corridor 2 runs through the area illustrated as 23PL13 on the archaeology site form in an east – west direction (Figure 4). The area currently contains homes with ornamental lawns and some gardens. The garden areas and other vegetation-free locations were observed for evidence of the site during the present field investigation. Winterset chert debitage and fire-cracked rock were observed. No features were identified.

Material Observed:

Prehistoric – lithic

Chert waste flake (Winterset chert)	29
Angular chert shatter	18
Burned limestone (moderate density)	

(average - < 1 item per 1 square meter of visibility)

Cultural Affiliation and Site Type: No diagnostics were recovered during the current field investigation. However, at least three separate archaeology investigations in the site area produced evidence of Steed-Kisker occupation according to the archaeology site form. The site apparently was a major Steed-Kisker village with a cemetery, house sites, Steed-Kisker diagnostic artifacts, and other features.

Site Integrity: The site is located an ornamental lawn setting which could not be adequately assessed by means of usual shovel tests. Some of the homes have gardens in which the cultural materials listed above were observed. The amount of historic disturbance to the site could not be determined at the Phase I level of investigation.

Site Significance: Significance of 23PL13 could not be properly assessed at the Phase level of investigation although previous work in the site area strongly suggests presence of a valuable cultural resource.

Recommendations: It is recommended that 23PL13 be avoided by the proposed project actions. If this is not feasible it is recommended that additional evaluation be implemented under direction of the SHPO. It is probable that controlled Phase II testing would be the appropriate means of determining significance and eligibility for listing on the NRHP. The testing should result in recovery of sufficient information to allow development of an appropriate cultural resource management plan should data warrant further Section 106 compliance concerns.

Figure 4. *Aerial Photograph with Alternate Corridor 1 in Relation to 23PL13 & 23PL1543*

23PL1543

Provenience: This open habitation site is located on a terrace above the Platte River around 200m east of previously recorded 23PL13 (see Figure 5). Provenience was based on observation of low to moderate density Winterset chert waste flake scattered over an estimated 80 by 100m area. Shovel tests produced no cultural material below the 20-25cm disturbed plow zone. Eroded banks in the site area were observed but no evidence of buried features or cultural matrix was identified.

Materials Observed:
Prehistoric – lithic
Chert waste flake (Winterset chert) 20+/-

(average - <1 item per 5 square meters of visibility; <1 per shovel test)

Cultural Affiliation and Site Type: No diagnostics were recovered from the site. It is possible that the area represents an activity area associated with nearby 23PL13. Too few data appear to be available to allow more specific characterization of the site.

Site Integrity: Shovel tests produced a small amount of chert debitage but only within the disturbed plow zone. The site does not appear to retain any integrity.

Site Significance: Lithic scatters in a disturbed context do not meet NRHP eligibility criteria. The site is not considered to be a significant cultural resource.

Recommendations: On the basis of the negative findings regarding significance, it is recommended that 23PL1543 not be considered eligible for listing on the NRHP. It is the further recommendation of the investigators that the proposed project proceed as planned in the site area.

23PL1542

Provenience: This low density lithic scatter is located on the Missouri River floodplain on a low terrace at the confluence of Pearl Branch (Figure 6). Provenience was based on observation of low density fire-cracked rock scattered over an estimated 25 by 200m area under good visibility conditions in a harvested bean field setting. Shovel tests produced no cultural material below the 25 to 30cm disturbed plow zone. Eroded banks in the site area were observed but no evidence of buried features or cultural matrix was identified.

Materials Observed:
Prehistoric – lithic
Fire-cracked limestone (low density)
(average - <1 item per 5 square meters of visibility)

Cultural Affiliation and Site Type: No diagnostics were recovered from the site. The low density fire-cracked rock suggests short term use of area. Too few data appear to be present to allow more specific characterization of tradition or function.

Site Integrity: Shovel tests produced a small amount of fire-cracked rock but only within the disturbed plow zone. The site does not appear to retain any integrity.

Site Significance: Lithic scatters in a disturbed context do not meet NRHP eligibility criteria. The site is not considered to be a significant cultural resource.

Recommendations: On the basis of the negative findings regarding significance, it is recommended that 23PL1542 not be considered eligible for listing on the NRHP. It is the further recommendation of the investigators that the proposed project proceed as planned in the site area.

Figure 6.
Aerial Photograph with Project (YELLOW) & 23PL1542

Historic resources in the project area include roadways, fences, and utilities. None of these meet the investigators' historic site designation criteria as discussed in the methods section of this report and no historic sites were recorded.

It is finding of this Phase I cultural resource survey that the project area does not contain possibly significant cultural resources. On the basis of bank and erosion cut profiles, it is very unlikely that buried cultural resources would be present.

Previously recorded 23PL14, recorded by J. Mett Shippee in the early 1950's, is located on the Missouri River flood plain on the east side of Highway 45. The area exhibited excellent surface visibility in a plowed field setting that had been rained upon. No cultural materials were observed on the surface. Five shovel tests in the corridor where it is illustrated as running through the site were negative. An earlier Phase I cultural resources survey that appeared to run through the site also failed to identify any evidence of the site (SHPO Report No. PL-39).

23PL394 was recorded in 1995 as a result of a Phase I survey of a water treatment facility (SHPO No. PL-50). The site was identified as a low density scatter of prehistoric lithic debitage and domestic historic material in the Missouri River floodplain. The site was recommended not eligible for inclusion on the NRHP. The present investigation

failed to identify any cultural material in the portion of the illustrated site that the project corridor runs through. Shovel tests in the cultivated field setting were also negative.

While structures are located within the 50' wide study corridor in the Farley city limits at the north end of the project, the project will not disturb any existing structures as it is currently planned.

Current Project Plan

With the information supplied by the present cultural resources survey, it was determined by the project engineers that alternate 1 in the Farley area would be considered the preferred corridor for the placement of the waterline. This will avoid possibly NRHP eligible 23PL13.

It is the finding of this Phase I cultural resources survey that the proposed project will not threaten significant cultural resources as it is currently planned.

RECOMMENDATIONS

During December 2014 Environmental Research Center of Missouri, Inc. (ERC) carried out a Phase I cultural resource survey for approximately 5.5 miles of 50' wide corridor in Platte County, Missouri. The corridor is the location of a proposed 8" buried waterline construction project.

The records and literature review determined that no National Register of Historic Places (NRHP) are located within or adjacent to the proposed project boundaries. There are three previously recorded archaeology sites within the project boundaries which include 23PL13, 23PL14 and 23PL394. There are no SHPO historic architecture sites within or near the project. Available county histories and plat maps placed no significant historic structures, features, or events within the proposed project.

The field investigation was carried out under mixed surface visibility conditions in a recently plowed fields, harvested soybeans, ornamental lawn, and pasture grass settings. No evidence of previously recorded 23PL14 or 23PL394 was found within the project corridor. Previously recorded 23PL13, a major Steed-Kisker village and cemetery, was identified in the area illustrated on the archaeology site form. The site occupies a hill top and slope above the confluence of the Platte and Missouri rivers. The lower elevation of the site is crossed by the proposed waterline project and located in backyards of homes on the north and south sides of the project corridor. Additionally, two previously unrecorded prehistoric archaeology sites were identified in the project corridor. The sites, 23PL1543 and 23PL1542 consist of low density scatters of local Winterset chert debitage and fire-cracked rock. Shovel tests and erosion cuts produced no evidence of sub-plow zone cultural matrix. No features and no diagnostic artifacts were found. The sites would not meet NRHP eligibility criteria and are recommended not eligible for inclusion on the NRHP. The project will not disturb any existing structures.

On the north end of the project at Farley two alternate corridors, one which follows Highway 45 into Farley and another that follows the left bank of the Platte River crossing the river and ending at Highway 45. Subsequent to completion of this Phase I cultural resources survey it was determined that the alternate that follows Highway 45 would be the preferred corridor thus avoiding 23PL13.

It is the finding of this Phase I cultural resources survey that the proposed project will not threaten significant cultural resources as it is currently planned. It is the recommendation of this investigation that the proposed project proceed as planned in terms of Section 106 compliance.

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Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

www.dnr.mo.gov

December 29, 2014

Scott Fleming, P.E.
HDR
3741 NE Troon Drive
Lee's Summit, Missouri 64046

Re: CPWSD No. 1 Waterline Project, Platte County, Missouri

Dear Mr. Fleming:

Thank you for submitting information on the above referenced project for our review pursuant to Section 106 of the National Historic Preservation Act (P.L. 89-665, as amended) and the Advisory Council on Historic Preservation's regulation 36 CFR Part 800, which requires identification and evaluation of cultural resources.

We have reviewed the December 2014 report entitled *Cultural Resource Investigations, Phase I Survey, CPWSD No. 1 Waterline Project, Platte County, Missouri* by the Environmental Research Center of Missouri, Inc. Based on this review it is evident that a thorough and adequate cultural resources survey has been conducted of the project area. We concur with the investigator's recommendation that archaeological site 23PL13 may be eligible for inclusion in the National Register of Historic Places. We also concur, that as the project will be follow an alternative route to avoid the area of this site, there will be **no adverse effect**.

Please be advised that, should project plans change, information documenting the revisions should be submitted to this office for further review. In the event that cultural materials are encountered during project activities, all construction should be halted, and this office notified as soon as possible in order to determine the appropriate course of action.

We also concur that sites 23PL1542 and 23PL1543 are not eligible for inclusion in the National Register. If you have any questions, please write Judith Deel at State Historic Preservation Office, P.O. Box 176, Jefferson City, Missouri 65102 or call 573/751-7862. Please be sure to include the SHPO Log Number **(002-PL-15)** on all future correspondence or inquiries relating to this project.

Sincerely,

STATE HISTORIC PRESERVATION OFFICE

Mark A. Miles
Director and Deputy State
Historic Preservation Officer

MAM:jd

c Craig Sturdevant, ERC

From: Buckland, Chris <chris.buckland@dnr.mo.gov>
Sent: Wednesday, December 10, 2014 6:32 AM
To: Graham, Tyler
Subject: RE: Platte County CPWSD #1 Clearance Letter MDNR #DW291335-01.

Attention Tyler Graham EIT

The Department of Natural Resources, Division of State Parks, Planning and Development Program has reviewed the plans you sent regarding the above subject. Based on the information provided, we have determined that this project will have **no impact** to the state parks or federally funded parks located in this area.

This clearance applies only to the rules and regulations governing Missouri State Parks and the National Parks Service's Land and Water Conservation Fund program. Additional clearances from our Department may be required.

Please feel free to contact me by email chris.buckland@dnr.mo.gov

---

From: Graham, Tyler [mailto:Tyler.Graham@hdrinc.com]
Sent: Monday, December 08, 2014 2:16 PM
To: Buckland, Chris
Subject: RE: Platte County CPWSD #1 Clearance Letter

Chris,

This may have been lost in the shuffle over here but we can't find a response from you in regards to this project. If you have completed your review and have sent it to us, a forwarded email would suffice. If not, we are requesting a review and clearance letter at your earliest convenience. The MDNR number is DW291335-01. Our original correspondence and exhibits are attached for your reference. Thank you, if you have any questions or need more information, feel free to contact me.

Tyler Graham, EIT
D 816.347.1169 M 618.967.3853

hdrinc.com/follow-us

From: Graham, Tyler
Sent: Thursday, November 13, 2014 9:35 AM
To: 'chris.buckland@dnr.mo.gov'
Cc: Fleming, Scott
Subject: Platte County CPWSD #1 Clearance Letter

Chris,

Thanks again for calling back. Here are the Clearance Letter and Exhibits for your review. Let me know if you need any more information.

Tyler Graham, EIT
Water/Wastewater EIT

STATE OF MISSOURI
Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director
DEPARTMENT OF NATURAL RESOURCES
www.dnr.mo.gov

October 7, 2014

Mr. Scott Fleming, PE
HDR Engineering, Inc.
3741 NE Troon Drive
Lee's Summit, MO 64064-1988

Re: Water Distribution System Improvements,
Consolidated Public Water Supply District Number 1, Platte County, Missouri

Dear Mr. Fleming:

Thank you for the opportunity to comment on the Water Distribution System Improvements Project for the Consolidated Public Water Supply District Number 1 of Platte County. As these improvements do not include construction of waste containing earthen impoundments, this project does not require a geohydrologic collapse potential evaluation. Because a new NPDES wastewater discharge is not proposed, there is no need for a geologic stream evaluation. Land application of wastewater is not proposed, so the onsite determination of sinkholes and geologic stream classification is not required. Therefore, a geohydrologic site evaluation is not required from this office and we have no comment on the proposed project at this time.

If you are in need of further assistance from our office, please feel free to contact me at (573) 368-2182.

Sincerely,

MISSOURI GEOLOGICAL SURVEY

Jeremiah Jackson, R.G.
Environmental Assistance Unit
Environmental Geology Section
Geological Survey Program

c. WPP/FAC

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MISSOURI DEPARTMENT OF CONSERVATION

Headquarters

2901 West Truman Boulevard, P.O. Box 180, Jefferson City, Missouri 65102-0180

Telephone: 573-751-4115 ▲ www.MissouriConservation.org

ROBERT L. ZIEHMER, Director

October 8, 2014

Scott Fleming, P.E.
3741 NE Troon Drive
Lee's Summit, Mo 64064-1988

RE: CPWSD NO. 1 OF PLATTE COUNTY – WATER DISTRIBUTION IMPROVEMENTS

Dear Mr. Fleming,

The Missouri Department of Conservation (Department) is in receipt of your request for natural resource information within the vicinity of Public Water Supply District Number 1 improvements to an existing system, Platte County. The Public Land Survey System information is as follows: Section 27, 28, & 34 of Township 52 North and Range 35 West and Sections 3, 2, 11, & 14 of Township 51 North Range 35 West.

The attached Natural Heritage Review Report provides information on the presence and/or absence of records pertaining to species and high quality natural communities of conservation concern (including federal listed species) using information provided from the Missouri Natural Heritage Database (MONHD). This report reflects information we currently have in the MONHD. The Department provides this information for planning purposes only; it should not be regarded as a definitive statement as to the presence or absence of species and/or high quality natural communities of conservation concern. Additional on-site inspections may be needed to verify the presence or absence of such species or natural communities. More information about the MONHD may be found at: http://mdc.mo.gov/your-property/greener-communities/missouri-natural-heritage-program. I have also included Best *Management Practices for Construction Projects Affecting MO's Streams and Rivers* as a supplemental information.

If you have any questions, please feel free to contact me at (573)-522-4115 extension 3182 or Emily.Clancy@mdc.mo.gov.

Sincerely,

Emily Clancy

EMILY CLANCY
NATURAL HERITAGE REVIEW COORDINATOR

OCT 14 2014
HDR

Enclosures

COMMISSION

DON C. BEDELL, Sikeston | JAMES T. BLAIR, IV, St. Louis | MARILYNN J. BRADFORD, Jefferson City | DAVID W. MURPHY, Columbia

Missouri Department of Conservation

Natural Heritage Review Report

October 8, 2014 -- Page 1 of 2

Resource Science Division
P. O. Box 180
Jefferson City, MO 65102
Prepared by: Emily Clancy
Emily.Clancy@mdc.mo.gov
(573) 522 – 4115 ext. 3182

HDR, INC. ATTN: SCOTT FLEMING 3741 NE TROON DRIVE LEE'S SUMMIT, MO	***Project type:***	Public Water Supply
	Location/Scope:	Township, Range and Section information on last page
	County:	Platte
	Query reference:	MDNR # DW291335-01, HDR # 236261
	Query received:	October 6, 2014

This NATURAL HERITAGE REVIEW is not a site clearance letter. Rather, it identifies public lands and sensitive resources known to have been located close to and/or potentially affected by the proposed project. *On-site verification is the responsibility of the project. Natural Heritage records were identified at some date and location. This report considers records near but not necessarily at the project site. Animals move and, over time, so do plant communities. To say "there is a record" does not mean the species/habitat is still there. To say that "there is no record" does not mean a protected species will not be encountered. These records only provide one reference and other information (e.g. wetland or soils maps, on-site inspections or surveys) should be considered. Look for additional information about the biological and habitat needs of records listed in order to avoid or minimize impacts. More information may be found at http://mdc.mo.gov/discover-nature/places-go/natural-areas and mdc4.mdc.mo.gov/applications/mofwis/mofwis_search1.aspx. Contact information for the department's Natural History Biologist is online at http://mdc.mo.gov/contact-us.*

Records of federal-listed (these are also state-listed) species or critical habitats near the project site:

Natural Heritage records identify no wildlife preserves, no designated wilderness areas or critical habitats, no federal-listed species records within one mile of the site, or in the public land survey section listed above or sections adjacent.

The project should be managed to minimize erosion and sedimentation/runoff to nearby streams and lakes, including adherence to any "Clean Water Permit" conditions. Revegetate areas in which the natural cover is disturbed to minimize erosion using native plant species compatible with the local landscape and wildlife needs. Pollutants, including sediment, can have significant impacts far downstream. Use silt fences and/or vegetative filter strips to buffer streams and drainages, and monitor those after rain events and until a well-rooted ground cover is reestablished.

FEDERAL LIST species/habitats are protected under the Federal Endangered Species Act. ***Consult with*** *U.S. Fish and Wildlife Service, 101 Park Deville Drive Suite A, Columbia, Missouri 65203-0007; 573-234-2132*

Records of state-listed (not federal-listed) endangered species AND / OR state-ranked (not state-listed endangered) species and natural communities of conservation concern. The Department tracks these species and natural communities due to population declines and/or apparent vulnerability.

Natural Heritage records identify no state-listed endangered species within one mile of the site.

Natural Heritage records identify the Platte River (Section 27 & 34 of Township 52 North Range 35 West) as a central plains warmwater large river (state rank S?). This segment was designated based on it being an example of a large unchannelized prairie river in the upper MO aquatic region. Project activities should prevent soil erosion, water pollution and in-stream activities that modify or diminish aquatic habitats. Following the insert pertaining to *Best Management Practices for Construction Projects Affecting MO's Streams and Rivers* will help minimize potential impacts to aquatic species in the area.

See http://mdc.mo.gov/sites/default/files/resources/2010/04/2014_species_concern.pdf for a complete list of species and communities of conservation concern.

STATE ENDANGERED species are listed in and protected under the Wildlife Code of Missouri (3CSR10-4.111).

General recommendations related to this project or site, or based on information about the historic range of species (unrelated to any specific heritage records):

- Indiana bats (*Myotis sodalis*, federally and state listed endangered) hibernate during winter months in caves and mines. During the summer months, they roost and raise young under the bark of trees in riparian forests and upland forests near perennial streams. During project activities, avoid degrading stream quality and where possible leave snags standing and preserve mature forest canopy. Do not enter caves known to harbor Indiana bats, especially from September to April. **If any trees need to be removed by your project, please contact the U.S. Fish and Wildlife Service (Ecological Services, 101 Park Deville Drive, Suite A, Columbia, Missouri 65203-0007; Phone 573-234-2132).**
- Streams in the area should be protected from soil erosion, water pollution and in-stream activities that modify or diminish aquatic habitats. Best management recommendations relating to streams and rivers may be found at: http://mdc.mo.gov/sites/default/files/resources/2013/02/constprojnearstreams_2013.pdf.
- Invasive exotic species are a significant issue for fish, wildlife and agriculture in Missouri. Seeds, eggs, and larvae may be moved to new sites on boats or construction equipment, so inspect and clean equipment thoroughly before moving between project sites.
  - Remove any mud, soil, trash, plants or animals from equipment before leaving any water body or work area.
  - Drain water from boats and machinery that has operated in water, checking motor cavities, live-well, bilge and transom wells, tracks, buckets, and any other water reservoirs.
  - When possible, wash and rinse equipment thoroughly with hard spray or HOT water (≧104° F, typically available at do-it-yourself carwash sites), and dry in the hot sun before using again.

These recommendations are ones project managers might prudently consider based on a general understanding of species needs and landscape conditions. Natural Heritage records largely reflect only sites visited by specialists in the last 30 years. This means that many privately owned tracts could host unknown remnants of species once but no longer common.

Management Recommendations for Construction Projects Affecting Missouri **Streams and Rivers**

MISSOURI DEPARTMENT OF CONSERVATION

Introduction

The streams and rivers of Missouri support a wide and diverse community of wildlife that includes many species of mammals, birds, fishes, mussels, crayfish, and insects. The continued diversity and health of this community is dependent upon how well Missourians manage and protect this resource. While water quality is essential, maintaining a diverse array of habitat features also is essential for aquatic wildlife to persist. Since implementation of the Clean Water Act, point source pollution has been greatly reduced, but polluted and sediment-laden runoff (non-point source) from rural and urban development is still a serious problem.

There are management practices that can be implemented to prevent degradation of our streams and rivers. By adapting these best management practices we can prevent the loss of species diversity and maintain the quality of our lives as well. Preventative measures may require extra effort initially, but they provide long-term dividends by eliminating costly damage resulting from poor management practices.

Access and Staging Area Management Recommendations

Staging areas are those short- or long-term sites within a construction or development area where most equipment and materials are stored. These areas often are accessed frequently; and when fuel and oil are stored here, the potential for runoff and erosion in these areas may be high.

→ Erosion and sediment controls should be installed and maintained to prevent discharge from the site.

→ Staging areas for crew, equipment, and materials should be established well away from streams and rivers or highly erodible soils.

→ Stationary fuel and oil storage containers should remain within a staging area or another confined area to avoid accidental spills into the stream systems.

→ Excess concrete and wash water from trucks and other concrete mixing equipment should be disposed of where this material cannot enter the stream systems.

→ If temporary roadways must be built, ensure that roadways are of low gradient with sufficient roadbed and storm water runoff drains and outlets. Containment basins, silt fences, filter strips, etc. should be included for retention of storm water runoff for reducing sediment introduction into natural waterways.

→ Avoid stream crossings. If unavoidable, temporary crossings should be used. Temporary crossings should not restrict or interrupt natural stream flow. If temporary in-channel fill is necessary, culverts of sufficient size should be employed to avoid water impoundment and allow for fish passage.

Riparian Corridor Management Recommendations

The riparian corridor is the vegetation adjacent to a stream or river. This area is critical to the health and quality of the aquatic environment because of its ability to slow and reduce sediment and chemical runoff into the stream or river channel. A riparian corridor with a minimum width of 100 feet from the edge of the stream or river should be maintained along both sides of streams and rivers.

→ Limit clearing of vegetation, including both standing and downed timber, to that which is absolutely necessary for construction purposes.

→ Heavy equipment use within the riparian corridor should be restricted to minimize vegetation destruction and compaction of soils. Flagging or fencing areas that are not to be disturbed is helpful in alerting construction personnel.

→ General application of pesticides, herbicides, or fertilizers within the riparian corridor should be prohibited to avoid water contamination due to over-spray or runoff. Fertilizer use or spot application of pesticides and herbicides is acceptable if appropriate non-restricted chemicals are used.

→ Riparian areas located down slope of construction zones should be physically screened with sediment controls, such as silt fences or filter strips. Sediment controls should be monitored after rain and maintained for the duration of the project.

→ All riparian corridors disturbed by the project should be revegetated immediately following or concurrent with project implementation. Appropriate native bottomland or riparian trees, shrubs, and grasses should be planted to ensure long-term stability in areas where the soil erosion threat is not critical. Annual non-native grasses such as rye or wheat may be planted in conjunction with native species to provide short-term erosion control. Areas judged to be subject to immediate soil loss due to steep slopes or other factors causing critical erosion conditions may be planted with non-native mixtures to assure rapid establishment and erosion control.

→ Post-construction evaluation of vegetation establishment should be conducted at one month intervals for at least three months after completion of the project. Any recommended sediment controls should be inspected at these times. If determined beneficial to soil stability and not adversely impacting site function and/or aesthetics, recommended sediment controls should remain permanent.
→ All temporary erosion and sediment controls should be removed (unless removal would cause further disturbance) and properly disposed of within 30 days after final site stabilization is achieved or after temporary practices are no longer needed.

Bank and Channel Management Recommendations

The structure of a bank is an important feature of a stream or river. It defines and provides stability for the channel.
→ Bank stability will vary depending on height, slope, and soil conditions. Project engineers and hydrologists should thoroughly investigate the physical properties and hydrologic record of the proposed site before construction begins.
→ Limit clearing of vegetation, including both standing and downed timber, to that which is absolutely necessary for construction purposes.
→ Projects in which bank alteration is necessary should employ, to the highest degree possible, erosion prevention measures before actual excavation activities begin. These preventative measures should be monitored regularly and maintained for the duration of the project.
→ Use of riprap for stream bank stabilization should be limited to those areas that could experience substantial erosion before adequate vegetation becomes established. The material for the rock blanket should consist of durable stone or broken concrete that is well graded. It is preferable that 40-60 percent of the material be as large as the thickness of the blanket, with enough smaller pieces of various sizes to fill the larger voids. It should not contain more than 10 percent of earth, sand, shale, and non-durable rock. Bank stabilization materials should allow for continuous passage of fish and other aquatic species.
→ No permanent fill materials, other than design-approved structures and related bank stabilization materials, should be placed in the stream channel. Avoid channelization. Excavated materials should not be stored or stockpiled below the high bank.
→ Work should be conducted during low flow periods when possible.
→ Care should be taken to keep machinery out of the waterway as much as possible.
→ Do not alter or remove natural stream features, such as riffles and pools.
→ Large woody debris is an important habitat component of a stream and should not be removed unless absolutely necessary for construction and maintenance purposes.

Information Contacts

For further information regarding regulations for development near streams and rivers, contact:

Missouri Department of Conservation
Policy Coordination Section
P.O. Box 180
2901 W. Truman Blvd.
Jefferson City, MO 65102-0180
Telephone: 573/751-4115

Missouri Department of Natural Resources
Division of Environmental Quality
P.O. Box 176
Jefferson City, MO 65102-0176
Telephone: 573/526-3315

U.S. Army Corps of Engineers
Regulatory Branch
700 Federal Building
Kansas City, MO 64106-2896
Telephone: 816/983-3990

U.S. Environmental Protection Agency
Water, Wetlands, and Pesticides Division
901 North 5th Street
Kansas City, KS 66101
Telephone: 913/551-7307

U.S. Fish and Wildlife Service
Ecological Services Field Office
608 E. Cherry Street, Room 200
Columbia, MO 65201
Telephone: 573/876-1911

Disclaimer

These Best Management Practices were prepared by the Missouri Department of Conservation with assistance from other state agencies, contractors, and others to provide guidance to those people who wish to voluntarily act to protect wildlife and habitat. Compliance with Best Management Practices is not required by the Missouri wildlife and forestry law nor by any regulation of the Missouri Conservation Commission. Other federal, state or local laws may affect construction practices.

Jeremiah W. (Jay) Nixon
Governor

State of Missouri
OFFICE OF ADMINISTRATION
Post Office Box 809
Jefferson City, Missouri 65102
Phone: (573) 751-1851
Fax: (573) 751-1212

Doug E. Nelson
Commissioner

October 21, 2014

Mr. Scott Fleming
HDR
3741 NE Troon Drive
Lee's Summit, MO 64064-1988

Subject SAI: 1504011
Legal Name: HDR
Project Description: CPWSD No. 1 of Platte County, MO / Water Distribution System Improvements / MDNR #DW291335-01, HDR #236261

The Missouri Federal Assistance Clearinghouse, in cooperation with state and local agencies interested or possibly affected, has completed the review on the above project application.

None of the agencies involved in the review had comments or recommendations to offer at this time. This concludes the Clearinghouse's review.

A copy of this letter is to be attached to the application as evidence of compliance with the State Clearinghouse requirements.

Please be advised that I am the contact for the Federal Funding Clearinghouse. You can send future requests to the following address: Sara VanderFeltz, Federal Funding Clearinghouse, 201 West Capitol, Room 125, and Jefferson City, Missouri 65101.

Sincerely,

Sara VanderFeltz

Sara VanderFeltz
Administrative Assistant

cc:

STATE OF MISSOURI
Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director
DEPARTMENT OF NATURAL RESOURCES
www.dnr.mo.gov

July 21, 2015

Mr. Bobby Kincaid, Board President
Platte County Consolidated Public Water Supply District No. 1
18205 NW 45 HWY
Waldron, MO 64092

RE: DW291335-01 Platte Co Consolidated Public Water Supply District No. 1– Facility Plan, Plans and Specifications Approval for the Farley Area Water Transmission Main Improvements

Dear Mr. Kincaid:

The Department of Natural Resources' Water Protection Program has reviewed and approved the enclosed facility plan, plans and specifications for the Farley Area Water Transmission Main improvements submitted by HDR Engineering, Inc., for the Consolidated Public Water Supply District No. 1 in Platte County, MO. Please find the enclosed approval, and one set of approved plans and specifications.

Please be advised the district may be required to obtain other permits for construction and operation. It is your responsibility to insure that any and all necessary permits for the district have been obtained.

Nothing in this approval removes any obligation to comply with other state, county or other local ordinances or restrictions.

NOTE: The proposed eight-inch water main will connect to an existing ten-inch water main with an available flow of 550 gallons with a residual pressure of approximately 105 psi.

NOTE: The approval is valid only if the CONDITION contained in the approval is incorporated in the final construction of the project.

NOTE: You, as the applicant, should be aware that you will need to obtain final construction approval from the department for this project, once it has been constructed and completed. In order to do this, you will need to have your engineer complete the enclosed "Statement of Work Completed" form and also submit two copies (one electronic copy is preferred and one hard copy) of the as-built plans with the affixed seal of the engineer in accordance with 10 CSR 60-10.010(5). This may require you to make additional arrangements with your engineer to provide

this service to you. Once your engineer has completed this form for you, you should return it along with the as-built plans to this office. We will then make arrangements with our regional office staff to conduct a final inspection and issue a final construction approval.

Please note that this approval is for your official records. It should be maintained on file with the approved plans and specifications for a minimum of four years following the completion of the project.

If you have any questions, please contact me at (573) 751-3259, or Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, MO 65102-0176. Thank you.

Sincerely,

WATER PROTECTION PROGRAM

Darleen Groner

Darleen Groner, P.E., Drinking Water Unit Chief
Financial Assistance Center

DG:pac

Enclosures

c: Mr. Scott Fleming, P.E., HDR Engineering, Inc.
Kansas City Regional Office
Mr. Mike McMillian, Manager, Platte County CPWSD No. 1
Mr. Scott Mensing, P.E., KC District, U.S. Army Corp of Engineers
Mr. Jason Crocker, Water Protection Program, Financial Assistance Center
Mr. Phillip M. Akin, Water Protection Program, Financial Assistance Center

DEPARTMENT OF NATURAL RESOURCES OF MISSOURI

APPROVAL ON FACILITY PLAN, PLANS AND SPECIFICATIONS FOR WATER SYSTEM IMPROVEMENTS

Platte County Consolidated Public Water Supply District No. 1
Platte County, MO

July 21, 2015

Review No. 1053699 – 15 FP
Review No. 1053700 – 15 P&S

INTRODUCTION

A facility plan dated November 17, 2014, and plans and specifications dated July 8, 2015 for the Farley Area Water Transmission Main upgrade in Platte County, MO are approved. The facility plan, and plans and specifications were submitted for review and approval by HDR Engineering, Inc.

BRIEF DESCRIPTION

The facility plan, and plans and specifications for the Farley Area Water Transmission Main Platte County, MO have been reviewed.

In general, these documents provide for new eight-inch water main and appurtenances to upgrade the Fairley Area Water Transmission Main. The water main upgrades begin just south of Moores Ferry Road along MO-45 Highway and travels north along the Highway under the Platte River and its levees till it reaches the Fairley area.

Approximately 21,799 lineal feet of eight- inch water main conforming to American Water Works Association (AWWA) standards will be installed to provide upgrades to the Fairley Area Water Transmission Main. The necessary valves, fittings, hydrants, and other appurtenances conforming to AWWA standards will be provided as per detailed plans and specifications. Before being placed in service, the waterlines will be pressure tested, flushed, disinfected, and sampled for bacteriological analyses.

Approval of the facility plan, plans and specifications are hereby given for the waterline improvements. This approval is valid for two years.

CONDITION

This approval is valid contingent upon the district receiving Section 408 approval from the U.S. Army Corps of Engineers.

COMMENT

All construction shall be completed in accordance with the highest quality construction standards and following all applicable state regulations.

Phillip M. Akin, Project Manager
Financial Assistance Center

APPROVAL TO CONSTRUCT

The engineering plans and specifications described above were examined as to sanitary features of design which may affect the operation of the sanitary works, including size, capacities of the units, and factors which may affect the efficiency and ease of operation. Approval as regards these points is hereby given.

Approval is given with the understanding that final inspection and approval of the completed work shall be made by the Missouri Department of Natural Resources before same is accepted and placed in operation. In accordance with 10 CSR 60-3.010(1)(A)4., this authorization is only valid for a period of two years from the date of issuance. The department may grant an extension. If you believe that an extension is necessary, you must submit a request and a justification in writing for the extension at least 30 days prior to the authorization expiration date.

In the examination of plans and specifications, the department's Financial Assistance Center does not examine the structural features of design or efficiency of mechanical equipment. This approval does not include approval of these features.

The department's Financial Assistance Center reserves the right to withdraw the approval of plans and specifications at any time it is found that additional treatment or alterations are necessary to assure reasonable operating efficiency and to afford adequate protection to public health.

MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
FINANCIAL ASSISTANCE CENTER

DRINKING WATER SRF FUNDED PROJECTS
STATEMENT OF WORK COMPLETED

Applicant: _____ PWS ID No: MO_____

Project Name: _____ SRF/EPA Project No.: _____

The undersigned hereby affirms that based on inspections, observations, testing of the construction and upon reports submitted by others, the drinking water facilities for Contract Number/Name(s) _____, authorized by Construction Permit Number (Plan Review Number) _____, have been, to the best of my knowledge and belief, completed in accordance with the plans and specifications, Addendum No(s). _____, and Change Order No(s). _____ approved by the department.

List all approved change order(s) and date(s) (use other side if necessary).

Change Order No(s)./Addendum No(s).	Approval Date
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Engineers Seal, Signature and Date

Engineer: _____

Firm: _____

Address: _____

Mail To: Missouri Department of Natural Resources
Water Protection Program
Financial Assistance Center
P.O. Box 176
Jefferson City, Missouri 65102-0176

STATE OF MISSOURI
Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director
DEPARTMENT OF NATURAL RESOURCES
www.dnr.mo.gov

July 21, 2015

Mr. Bobby Kincaid, Board President
Platte County Consolidated Public Water Supply District No. 1
18205 NW 45 HWY
Waldron, MO 64092

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If you have any questions, please contact me at (573) 751-3259, or Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, MO 65102-0176. Thank you.

Sincerely,

WATER PROTECTION PROGRAM

Darleen Groner

Darleen Groner, P.E., Drinking Water Unit Chief
Financial Assistance Center

DG:pac

Enclosures

c: Mr. Scott Fleming, P.E., HDR Engineering, Inc.
Kansas City Regional Office
Mr. Mike McMillian, Manager, Platte County CPWSD No. 1
Mr. Scott Mensing, P.E., KC District, U.S. Army Corp of Engineers
Mr. Jason Crocker, Water Protection Program, Financial Assistance Center
Mr. Phillip M. Akin, Water Protection Program, Financial Assistance Center

DEPARTMENT OF NATURAL RESOURCES OF MISSOURI

APPROVAL ON FACILITY PLAN, PLANS AND SPECIFICATIONS FOR WATER SYSTEM IMPROVEMENTS

Platte County Consolidated Public Water Supply District No. 1
Platte County, MO

July 21, 2015

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Financial Assistance Center

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US Army Corps of Engineers ®
Kansas City District

APPENDIX B

NOTICE OF AVAILABILITY

WITH COMMENTS AND RESPONSES

August 2015

NOTICE OF AVAILABILITY

US ARMY CORPS

of Engineers
Kansas City District

Request No. 408-2015-0008
Issue Date: August 7, 2015
Expiration Date: August 21, 2015

15-Day Notice

REQUESTOR: Consolidated Public Water Supply District
No. 1 of Platte County
Mr. Bobby Kincaid, President
18205 NW 45 Highway
Waldron, MO 64092

PROJECT LOCATION: The Proposed Modification is located on Missouri River Levee System (MRLS) Unit L408, Station 169+21.00, on the right descending bank of the Platte River and on MRLS Unit L400, Station 184+20.00, on the left descending bank of the Platte River, both in Section 34, Township 52 North, Range 35 West, near the town of Farley, Platte County, Missouri.

AUTHORITY: 33 USC Section 408 – In accordance with the requirements outlined in 33 USC Section 408, any Proposed Modifications to an existing U.S. Army Corps of Engineers (Corps) project, whether Federally or locally maintained, that goes beyond those modifications required for normal operation and maintenance requires a determination by the Corps that the proposed alteration, permanent occupation, or use of a Federal project would not be injurious to the public interest and would not impair the functioning of the existing project. The Corps has prepared an Environmental Assessment (EA) to evaluate the potential environmental consequences of the proposed Section 408 modification.

DESCRIPTION: The public is hereby notified of the availability of the Draft Finding of No Significant Impact (FONSI) for the proposed project to modify the existing Federal projects by constructing a new 8-inch diameter water main crossing with two associated air release manholes on the MRLS L400 and L408 levee units. Each levee unit would be crossed by placing the water main up and over the existing levee in a maximum 12" deep cut, placing the pipe on compacted clay bedding in this excavation, and then filling over the pipe with 42" of compacted engineered fill to provide frost cover. Levee crossing would include raising the levee road and the construction of two air release manholes. Disturbed areas on riverward levee slope and crest road would be restored with rock and landward levee slope would be covered with earthen material and reseeded to grass.

The water transmission main project has been approved for funding through the State Revolving Fund (Project No. DW291335-01). The Missouri Department of Natural Resources (MDNR) - Missouri Public Drinking Water Program staff has prepared an Environmental Assessment (EA) and approved a Finding of No Significant Impact (FONSI), dated May 22, 2015 for the overall project.

ADDITIONAL INFORMATION: A 15-day availability period for the DRAFT FONSI begins with issuance of this notice. Additional information about the Notice of Availability may be obtained by contacting Scott P. Mensing P.E., Project Manager, U.S. Army Corps of Engineers, 601 East 12th Street, Kansas City, Missouri 64106, at telephone 816-389-2321 or via e-mail at scott.p.mensing@usace.army.mil. All comments in response to this Notice of Availability should be directed to the above address.

NOTE: This Notice of Availability is posted on the Kansas City District web page and can be viewed at the following address:

http://www.nwk.usace.army.mil/Media/PublicNotices/PlanningPublicNotices.aspx