

Prepared by Emmons & Olivier Resources, Inc.

Prepared for the Howard County Engineer's Office and the Natural Resources Conservation Service, U.S. Department of Agriculture

Environmental Assessment: Evaluation of Easement Administration Action on an Agricultural Conservation Easement Program- Wetland Reserve Easement (Easement 66-6114-4-4732), Howard County, Iowa



**Environmental Assessment: Evaluation of Easement Administration
Action on an Agricultural Conservation Easement Program-Wetland
Reserve Easement (Easement 66-6114-4-4732), Howard County, Iowa**

Prepared for the Howard County Engineer's Office
Nick Rissman, PE, Howard County Engineer
114 7th Street West
Cresco, Iowa 52136

Prepared by Emmons & Olivier Resources, Inc.
1002 Quartz Avenue
Boone, Iowa 50036

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ACRONYMS

ACEP – Agricultural Conservation Easement Program	HUD – U.S. Department of Housing and Urban Development
BGEPA – Bald and Golden Eagle Protection Act	IDNR – Iowa Department of Natural Resources
BMPs – Best Management Practices	IDOT – Iowa Department of Transportation
CAA – Clean Air Act	ISHPO – Iowa State Historic Preservation Office
CWA – Clean Water Act	IPaC – Information for Planning and Conservation
CEQ – Council on Environmental Quality	MBTA – Migratory Bird Treaty Act
CZMA – Coastal Zone Management Act	NHPA – National Historic Preservation Act
County – Howard County Engineer’s Office	National Register – National Register of Historic Places
ESA – Endangered Species Act	NEPA – National Environmental Policy Act
EA – Environmental Assessment	NRCS – Natural Resources Conservation Service
EIS – Environmental Impact Statement	RCARA – Resource Conservation and Recovery Act
EPA – U.S. Environmental Protection Agency	SDWA – Safe Drinking Water Act
EO – Executive Order	USACE – U.S. Army Corps of Engineers
FPPA – Farmland Protection Policy Act	USDA – U.S. Department of Agriculture
FEMA – Federal Emergency Management Agency	USFWS – U.S. Fish and Wildlife Service
FONSI – Finding of No Significant Impact	WSRA – Wild and Scenic Rivers Act
FIRM – Flood Insurance Rate Map	WRE – Wetland Reserve Easement
FSA – Food Security Act	WRP – Wetland Reserve Program

1. INTRODUCTION

The Howard County Engineer's Office (County) proposes to replace the 25th Street over Upper Iowa Bridge (Bridge C-9) in unincorporated north-central Howard County, Iowa (Project L-(C-9)--73-45). The bridge replacement would require 0.52 acres of new permanent right-of-way and 0.25 acres of temporary construction right-of-way on ground held in a permanent conservation easement by the Natural Resource Conservation Service (NRCS) through the Wetland Reserve Program (WRP), currently administered under Agricultural Conservation Easement Program (ACEP) the *Agricultural Improvement Act* of 2018.¹ The NRCS maintains the 66.81-acre easement (Easement 666114040087F – referred to as the Cray WRP Easement in this review) under a permanent easement. The proposed project would require less than 1.1 percent of the entire easement for temporary and permanent right-of-way for the proposed roadway project. An Easement Administration Action (EAA) would be required to subordinate rights to a portion of the existing easement boundary to accommodate the increase in right-of-way required to construct, maintain, and operate the roadway. The NRCS has received a request to allow the County to proceed with a project to upgrade and modernize the roadway system through portions of the Cray WRP Easement. Consequently, the NRCS needs to decide whether to change its WRP easement to allow for the planned roadway improvements and modernization.

Because one of the alternatives initially developed by the County involved the loss of ground enrolled in the WRP program, the NRCS completed an initial Environmental Evaluation and determined the action (loss and replacement of ground enrolled in the WRP program) would require a review under the *National Environmental Policy Act*. The NRCS administers the ACEP-WRE program, which assists landowners, land trusts, and other entities to 1) protect, restore, and enhance wetlands or 2) protect working farms and ranches through conservation Land Easements. Under the Agricultural Land Easements component, NRCS provides assistance to American Indian tribes, state and local governments, and nongovernmental organizations to protect working agricultural lands and limit non-agricultural uses of the land. The NRCS helps restore, protect, and enhance enrolled wetlands while maximizing wildlife habitat as part of the ACEP-WRP.

This Environmental Assessment (EA) was prepared as a part of the *National Environmental Policy Act* (NEPA) process to fulfill requirements of 42 USC § 4332. Relevant Federal and State laws and regulations that may be applicable to the proposed action include the following:

- *Clean Air Act* (42 U.S.C. § 7401 et seq.)

¹ The Cray WRP Easement was originally enrolled through the WRP, which was retired and brought under the Agricultural Conservation Easement Program Wetland Reserve Easements (ACEP-WRE) with the 2014 Farm Bill. The legacy program heading WRP is maintained with this vintage of easement, even though current administration is through ACEP-WRE.

- *Clean Water Act* (Federal Water Pollution Control Act, 33 U.S.C. § 1251 et seq.);
- *Consolidated Farm and Rural Development Act* (7 U.S.C. §§ 1927(a)(6)(A)) and 2006e)
- *Coastal Zone Management Act* (16 U.S.C. §§ 1451–1464)
- *Endangered Species Act of 1973* (16 U.S.C. § 1531 et seq.)
- *Farmland Protection Policy Act* of 1981 (7 U.S.C. § 4201 et seq.)
- *Federal Noxious Weed Act* of 1974 (7 U.S.C. § 2801 et seq.)
- *Food Security Act* of 1985 (16 U.S.C. §§ 3801-3862)
- *National Environmental Policy Act* of 1969 (42 U.S.C. §§ 4321 et seq.)
- *National Historic Preservation Act* of 1966 (16 U.S.C. § 470 et seq.)
- *Safe Drinking Water Act* of 1974 (42 U.S.C. § 300f et seq.)
- Executive Order (EO) 11514: Protection and Enhancement of Environmental Quality
- EO 11988: Floodplain Management (g) Floodplains and Wetlands
- EO 11990: Protection of Wetlands
- EO 12898: Environmental Justice for Minority and Low Income Populations
- EO 13112: Invasive Species

This environmental review identifies and evaluates all relevant impacts, conditions, and issues associated with the proposed action in accordance with:

- President's Council on Environmental Quality's (CEQ) Regulations outlined in 40 CFR parts 1500-1508, hereafter referred to as the CEQ regulations;
- NRCS procedures for implementing NEPA found at 7 CFR Part 650; *NRCS General Manual* Part 410; and
- *NRCS National Environment Compliance Handbook*.

Additionally, County zoning, permitting, and health and safety requirements are included in this environmental review, if applicable.

The County is proposing the project and is the governmental unit responsible for completing this EA. The NRCS, U.S. Department of Agriculture (USDA), is the federal agency requiring this review, as land currently held in a conservation easement under the WRP program could be affected. The property is owned by Jacob T. Cray. The easement is currently undeveloped ground immediately north of the public right-of-way along 25th Street.

Funding for the proposed project would use local funds. No federal or state aid is anticipated in financing the proposed roadway improvements.

The Cray WRP Easement is being held in a permanent easement by NRCS for the purposes of restoring and protecting the functions and values of wetlands – including wildlife habitat and use, water-quality improvement, floodwater retention, groundwater recharge, open space, aesthetics, and education (Appendix A). NRCS staff would consider these factors (as well as the environmental impacts) into their decision about allowing portions of the existing easement to be

converted into permanent and temporary right-of-way needed for the construction and operation of the project. Under the proposed plan, the NRCS would maintain the Cray WRP Easement, but it would be subordinated to the easement issued to the County by the NRCS for construction and operation of the roadway. NRCS policy requires any impacts be minimized to the greatest extent practicable and that any remaining adverse impacts be mitigated by enrollment of other lands providing equal or greater conservation functions and values; no net loss of acres; and not encompass more than 10 percent of the easement area.

As mitigation for modifying the Cray WRP Easement, the County proposes to restore two oxbows located 400 to 900 feet north and northwest of the roadway corridor. Both are within the Cray WRP Easement. Approximately 1.52 acres would be involved with the mitigation effort. Access to these areas would be along existing undeveloped two-track roads.

This EA is designed to: 1) provide sufficient evidence and analysis for determining whether significant impacts would result from implementing the proposed action and whether the NRCS should prepare an Environmental Impact Statement (EIS); 2) aid the NRCS's compliance with NEPA if no EIS is necessary; and 3) facilitate preparation of an EIS should a significant or potentially significant impact be identified in the EA. If the analysis finds there are no significant impacts, a Finding of No Significant Impact (FONSI) can be issued concluding the NEPA process. Because of potential loss of WRP-enrolled ground associated with the installation of the 25th Street over Upper Iowa Bridge Replacement project, the EA is necessary as part of the decision-making process associated with the review under the EAA to determine if a modification of the existing WRP easement is warranted.

This document is available for public review and comment in accordance with the requirements of 23 CFR 771.119 (d). This EA will be posted for public review at: [News | Natural Resources Conservation Service \(usda.gov\)](#). A copy will also be available at the Howard County NRCS Office, 311 7th Street SW in Cresco for review.

1.1. Location

The project area is approximately 0.75 miles southeast of Chester in currently unincorporated north-central Howard County, Iowa. The roadway corridor is immediately east and west of the Upper Iowa River and immediately north and south of 25th Street (Figure 1). The two oxbow restoration sites are 400 to 900 feet north of 25th Street and 60 to 250 feet west of the Upper Iowa River. The roadway component of the project includes portions of the SW $\frac{1}{4}$ NW $\frac{1}{4}$ and NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 13 and NE $\frac{1}{4}$ SE $\frac{1}{4}$ and SE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 14, Township 100 North, Range 13 West (Chester Township). The oxbow restoration (mitigation) is in the S $\frac{1}{2}$ NE $\frac{1}{4}$ of Section 14, Township 100 North, Range 13 West (Figure 2).

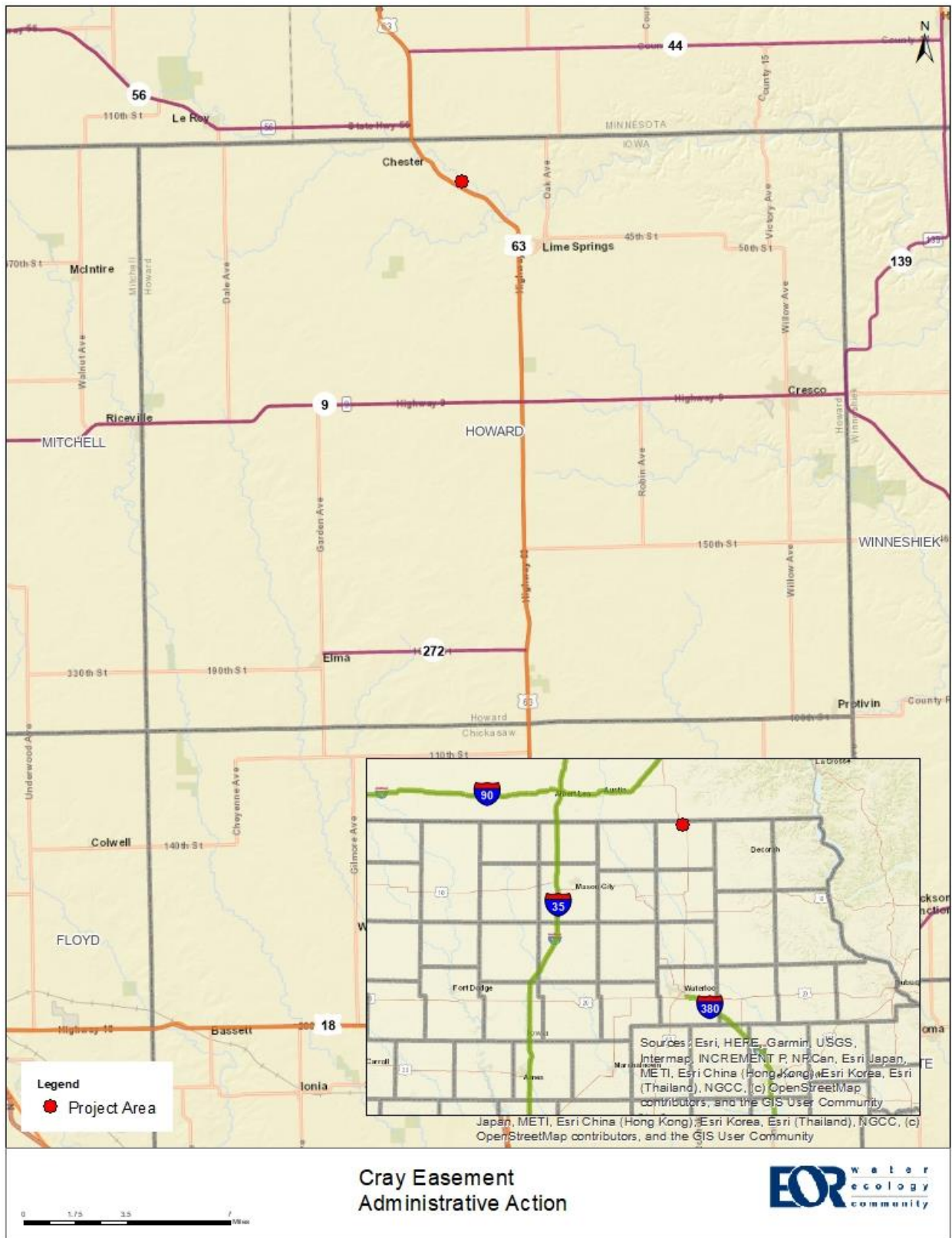


Figure 1. Location.

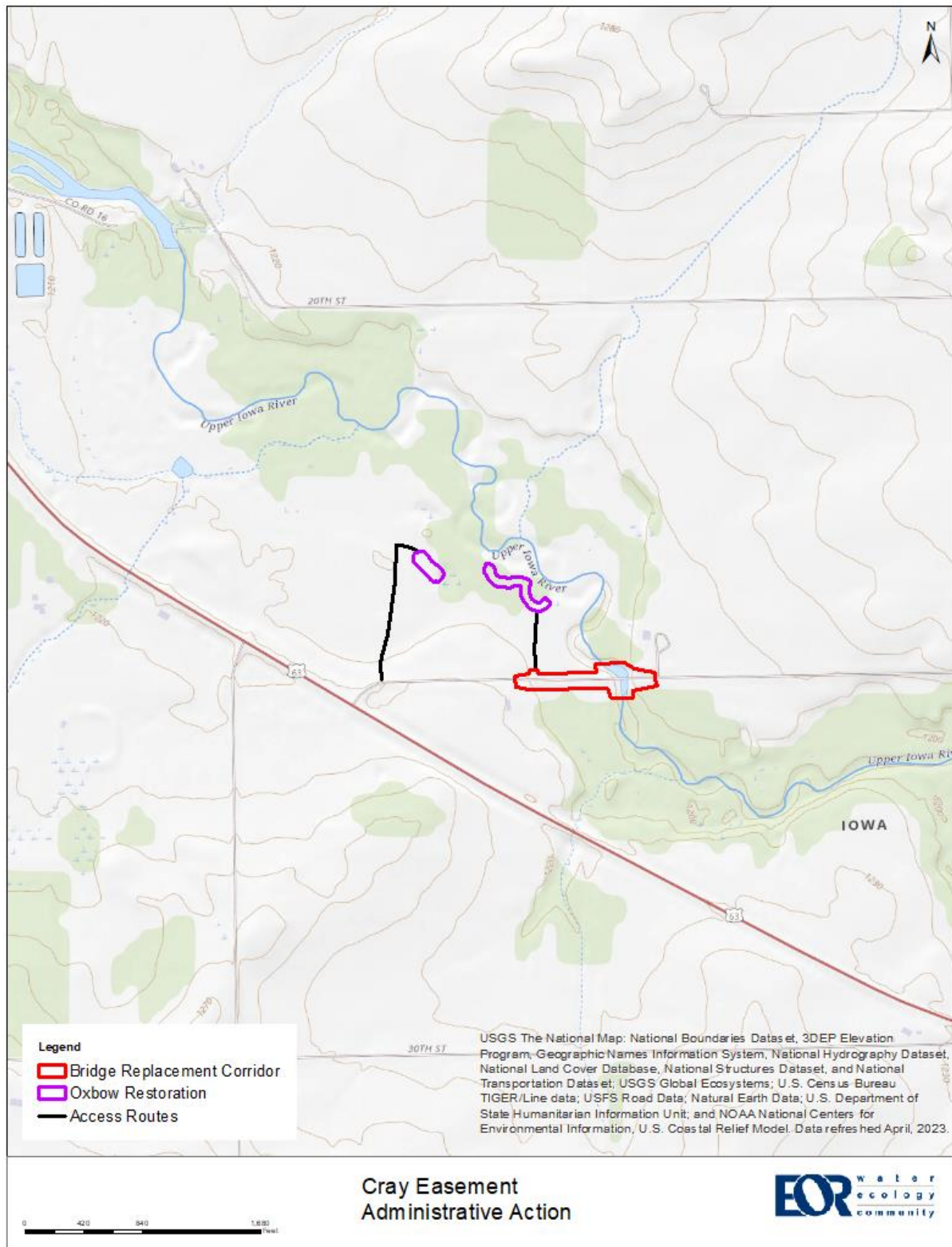


Figure 2. Topographic Map.

2. PURPOSE AND NEED FOR ACTION

2.1. Purpose

To continue to provide safe, affordable, dependable access to Chester from the south and the surrounding areas, the County is proposing to replace the structurally deficient, functionally obsolete, 135-foot long, 18-foot wide steel stringer bridge along 25th Street over the Upper Iowa River with a new bridge meeting current design and safety standards.

2.2. Need

The existing bridge is past its intended design life and is in need of replacement. Many of the bridge components (deck, superstructure, and substructure) are in poor condition and advanced stages of deterioration, based on the April 2022 Bridge Condition Report prepared for the County by its consulting engineer firm (CBA 2022). The bridge currently has load restrictions that prohibit today's larger agricultural machinery from crossing it, so constructing a new bridge meeting current design and safety standards would allow for more efficient farming operations and safer vehicular traffic.

3. ALTERNATIVES

As a part of initial planning completed by the County, project alternatives developed for the project included:

- No Action Alternative (Alternative 1)
- Alignment Along the Existing East/West Alignment and Oxbow Restoration (Alternative 2 – the County’s Preferred Alternative)
- Alignment south of 25th Street (Alternative 3)

Project design will follow Iowa Department of Transportation Specifications, which are incorporated into this review by reference.

3.1. No Action Alternative (Alternative 1)

Under this alternative, the 25th Street over Upper Iowa River Bridge would be left as is. Because parts of the bridge are nearly 140 years old, it would require a continual cycle of repairs. Leaving the bridge in place, with yearly repairs, does not impact the effected environment, including the Cray WRP Easement.² Not replacing the bridge with a newer, safer structure could result in further load restrictions, risk to public safety, and potential closure should conditions deteriorate further. If closed, agricultural operators and area residences would have a 5 mile detour, resulting in increased operation costs, inconveniences, and longer emergency response times. The No Action Alternative would not meet the stated need for the project.

3.2. Existing East/West Alignment and Oxbow Restoration (Alternative 2)

This alternative would involve removal of the existing structure and replacement along the existing road alignment and a slightly elevated grade to establish current free-board requirements for flooding. The replacement structure under this alternative would be a 150.0-foot long, 24.5-foot single-span, continuous concrete slab bridge. This design would be the most appropriate bridge replacement type, as it allows for long spans and is an economical bridge type in Iowa. Piers would likely be round-column piers, with seven columns per pier. The piers would be founded on driven steel pile with concrete encasements. Abutments would consist of concrete-integral abutments and driven-steel piles. Approach grading would be required to raise the profile grade to meet current vertical clearance requirements and accommodate the difference in superstructure depth. The roadbed would be 28 feet wide (shoulder-to-shoulder), with a 20-foot wide granular (gravel) surface. Fore slopes would be 3:1, with a roadbed height of 10 to 12 feet above the native ground surface. The project would involve ditching, grubbing, and clearing. Streambank protection measures (armoring the banks with rip-rap) would be incorporated into the project design. The

² According to the 2022 Bridge Condition Report, the bridge was constructed in 1880 and reconstructed in 1980.

corridor would range from 40 to 270 feet wide and would be 995 feet long. An estimated 3.26 acres of existing, new, and temporary construction right-of-way would be involved with the project. Fill would be supplied by the contractor, though removed sediment from the oxbow restorations may also be used depending on its suitability. Preliminary plans are included in Appendix B.1 for reference.

To compensate for modifying the Cray WRP Easement, the County has proposed restoring two oxbows north of 25th Street and west of the river on the existing Cray Easement. Restoration would include removing 4- to 7- feet of accumulated sediments and vegetation from oxbows west of the Upper Iowa River. Removed sediments would be: 1) stored on site; 2) used as fill material for the 25th Street Bridge Replacement project; and/or 3) transported and stored at an off-site county facility for future use. Approximately 1.52 acres of restoration would be involved with the project. An additional 1.0 acre of access road from the oxbows to 25th Street would be used for access and hauling. Preliminary oxbow restoration plans are included in Appendix B.2 for reference.

This alternative meets the stated need for the project, but it would result in 0.77 acres of impacts to the Cray WRP Easement.

3.3. Alignment South of 25th Street (Alternative 3)

This alternative would construct a new bridge immediately south of the existing bridge and roadway. This option would require: 1) a new road alignment(s); bridge approach(es); and 2) additional new temporary and permanent right-of-way(s). This alternative would preserve the Cray WRP Easement and would meet the stated need for the project. However, it would result in higher construction costs, higher real estate costs, and loss of Prime Agricultural Land. Stream, wetland, and protected-species habitat impacts could be anticipated with this alternative. Additionally, a household would be displaced if this alternative was constructed, and the existing bridge and roadbed would likely be reclaimed, adding costs to the project. Because the Cray WRP Easement would be avoided, oxbow restoration (mitigation) would not be required or undertaken under this alternative.

A road realignment south of the existing bridge would result in the introduction of four horizontal curves into this straight roadway section, which is not desirable. This option would also require the acquisition of a significant amount of ground and could have greater wetland and habitat impacts. While preserving the Cray WRP Easement would be desirable by realigning the road, there are several reasons that make this alternative unfeasible:

- This alternative would result in a road geometry due to shifting the road to the south that the traveling public might not be used to or expect given the east/west-orientation of the current roadway. Having to negotiate a slight curve required for the new alignment could result in vehicles leaving the roadway – especially in winter-time conditions – and could create public safety issues and concerns.

- Construction of a new horizontal alignment of the existing roadway would require substantially more temporary and permanent right-of-way and would significantly increase project costs.

3.4. Alternatives Carried Forward

Alternative 3 was not carried forward for several reasons related to right-of-way impacts and engineering deficiencies outlined above. Project alternatives carried forward for analysis include the No Action Alternative (Alternative 1) and the Existing East/West Alignment and Oxbow Restoration (Alternative 2). Alternative 1 does not meet the purpose and need for the project, as the existing bridge would be left as is and would eventually be closed to traffic as its condition would deteriorate further. Alternative 2 is the Preferred Alternative, as it meets the stated purpose and need for the project.

3.5. Scope of Analysis

The analysis also includes the proposed 3.26 acres of existing, new, and temporary right-of-way north and south and along 25th Street, 1.52 acres of compensatory mitigation, and 1.0 acres of access into and out of the restoration areas. No indirect impacts are anticipated as a result of this project.

4. AFFECTED ENVIRONMENT

The area is in a largely agricultural landscape consisting of row-crop ground; pasture; narrow to moderately wide grass- and tree-lined riparian corridors along streams; CAFOs; and isolated single-family residences and farmsteads (Figure 4). The project area mostly occupies a bottomland landscape position along the floor of a moderately narrow, low relief valley formed by the Upper Iowa River. Landform and soil data indicate that the review area resides in bottomland positions and landforms with soils developed in alluvium. Vegetative communities would have consisted of wetland and mesic prairie communities, with patches of bottomland hardwood forest present in channel scars, sloughs, and other fluvial features retaining permanent or relatively permanent water (Appendix C).

Topography across the project area ranges from level across the floodplain and stream terrace treads east and west of the river to steep along the stream terrace scarps between the river and uplands. Land use within the project area is limited to public right-of-way along 25th Street and undeveloped, private conservation ground. Immediately outside the project corridor, land use consists of a narrow tree-lined riparian buffer along both sides of the river; pasture, and private conservation areas (see Figure 2). Landscape patterns have been consistent since at least the mid-1930s.

In the general area, vegetative communities include: 1) riparian forested communities composed of small-to-medium-diameter Silver maples and several large-diameter Burr oaks in the canopy layer; dense understory and sparse overstory layers; a moderately dense shrub layer; and a dense ground layer of native and invasive grasses and forbs; 2) agricultural fields fringed with cool-season invasive grasses mixed with other invasive and native grasses and forbs; and 3) open, grasses communities. The stream channel substrate consists of clays, silts, sands, and gravel.

The Upper Iowa River is a tributary of the Mississippi River. It is 156 miles (250 km) long, flowing through Howard, Winneshiek, and Allamakee counties in Iowa and has its confluence with the Mississippi River at New Albin. Its headwaters rise in southeastern Mower County, Minnesota, near the Iowa border approximately 20 miles west of the project area. Its watershed comprises nearly 641,000 acres (2,590 km²). Along its course, it passes through Chester, Lime Springs, Florenceville, Kendallville, Bluffton, and Decorah. The reach of the Upper Iowa River flows through the project area in a north/south direction as a perennial, fourth-order stream. This reach is not an Outstanding Iowa Water, a channelized stream, a designated cold-water stream, impaired stream, or a protected stream under Iowa Code.

The project area is within the Iowan Surface, which includes much of northern Iowa. This region is notable for its open, nearly flat topography with few expressions of glacial surges, loess deposits, or erosional sculpturing exhibited throughout much of Iowa. The landscape is slightly inclined to gently rolling, with long slopes, low relief, and open views to the horizon. The region's hillslopes have multi-level/stepped surfaces like the Southern Iowa Drift Plain, but the topography is much more subtle. These levels/stepped surfaces extend outward from major streams to the low crests

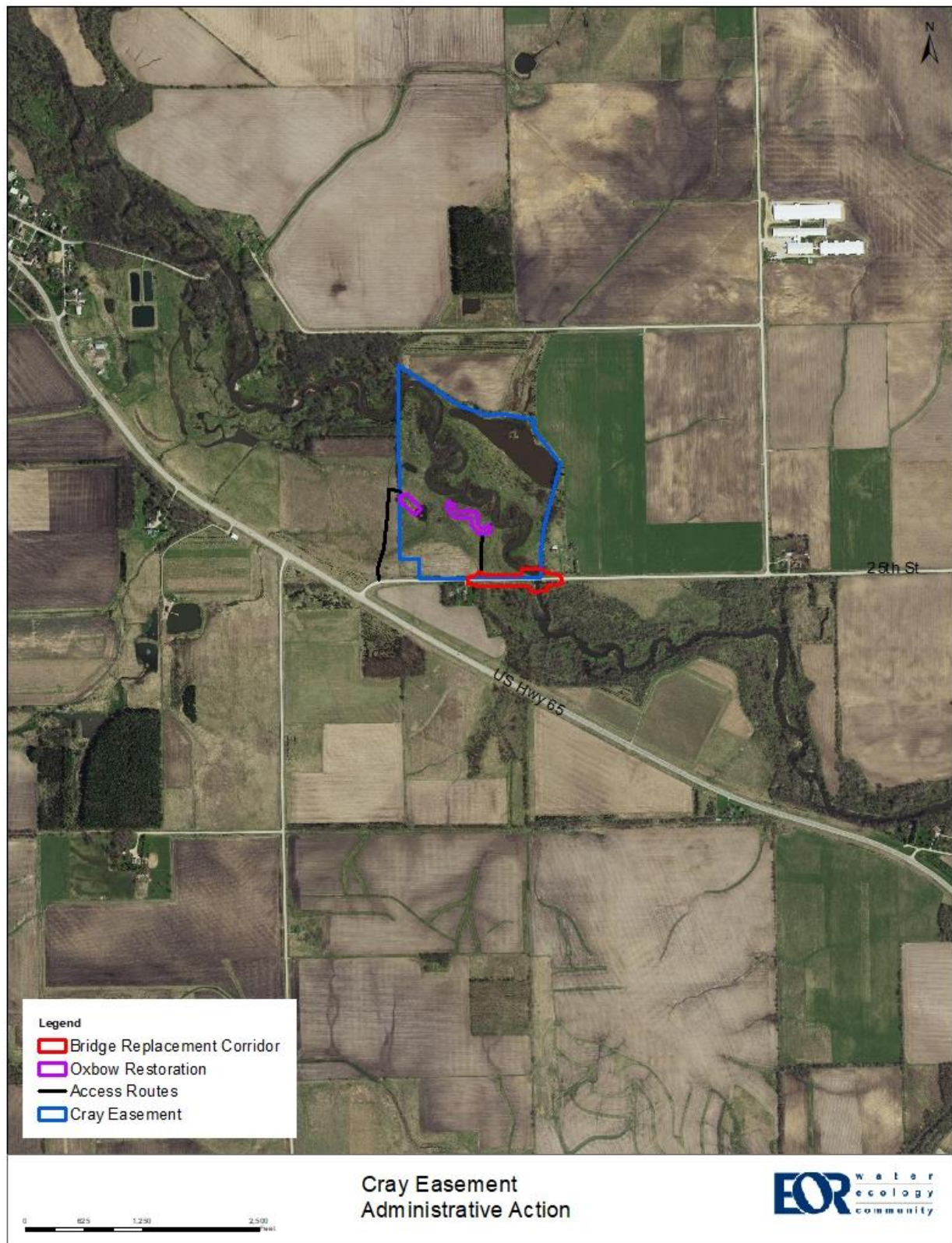


Figure 3. Landscape Overview.

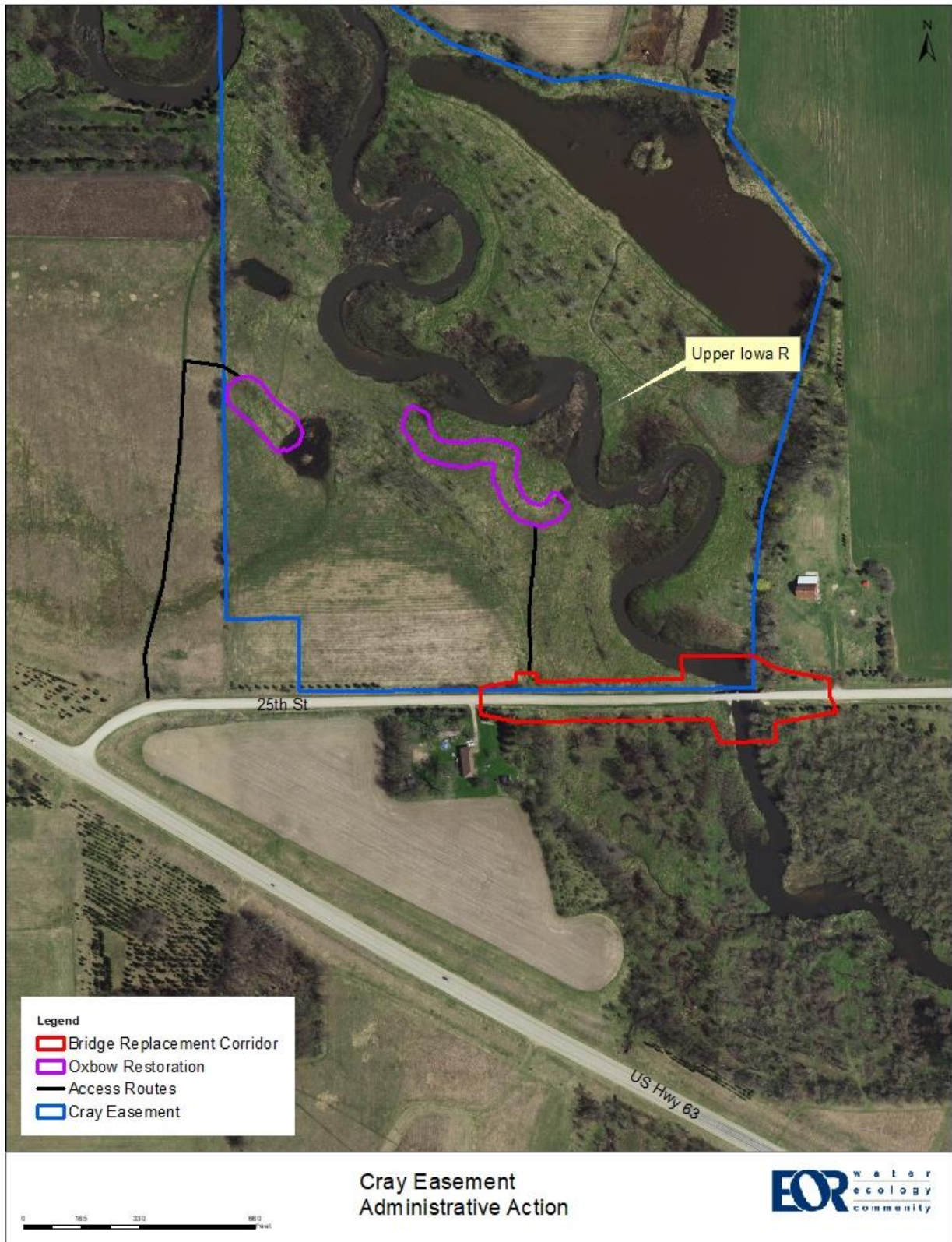


Figure 4. Environmental Overview.

that mark drainage divides. Drainage networks are well established, though low gradients areas of poor drainage promote wetlands communities, especially along area streams. Prior to the Wisconsin glacial event (30,000 to 10,500 years ago), this region was part of the Southern Iowa Drift Plain. The last glacial visit to the area was during the Pre-Illinoian period (over 300,000 years ago). After glacial retreat, the Iowan Surface was exposed to weathering, soil development, loess deposition, and erosion. Significant erosion was caused by high winds from the northwest. Loess is uncommon throughout much of the region, but in the southern third of the Iowan Surface, oblong ridges and hills called “paha” represent wind-blown dunes where loess is preserved.

Soils are alluvium-derived associated with bottomland landscape positions (NRCS 2020b). Mapped soils in the study corridor include Saude loam, Colo-Alluvial land complex, channeled, Coland-Spillville complex, and Lilah Sandy loam (Table 1). Colo-Alluvial land complex channeled and Coland-Spillville complex are defined as hydric soils in Howard County.

Table 1. Soils.

Soil	MUM/Map Symbol	Position	Parent Material	Drainage Class	Hydro-logic Soil Group
Saude loam, 0-2%	177A	Stream terraces	Loamy alluvium over sandy and gravelly alluvium	Well drained	B
Colo-Alluvial land complex, channeled	315	Floodplains	Silty alluvium	Poorly drained	C/D
Coland-Spillville complex, 0-2% slopes, occasionally flooded	585	Floodplains	Fine-loamy alluvium	Poorly drained	C/D
Lilah sandy loam, 0-3% slopes	776A 776C	Stream terraces	Loamy alluvium over sandy and gravelly alluvium	Excessively drained	A

5. ENVIRONMENTAL CONSIDERATIONS

The following section describes the environmental consequences of Alternative 1 (No-Action Alternative) as compared to Alternative 2 (Preferred Alternative).

5.1. Air Quality and Greenhouse Gas

(*Clean Air Act* [CAA], Sections 176(c) and (d), and 40 CFR Parts 6, 51, and 93)

The CAA, its amendments, and NEPA require air quality impacts be addressed in the preparation of environmental documents. The U.S. Environmental Protection Agency (EPA) established National Ambient Air Quality Standards (NAAQS) for six “criteria” pollutants:

- Carbon monoxide (CO)
- Nitrogen dioxide (NO₂)
- Ozone (O₃)
- Particulate matter (PM₁₀ and PM_{2.5})
- Sulfur dioxide (SO₂)
- Lead

The NAAQS also define the allowable concentrations that may be reached (but not exceeded) in a given time period to protect human health (primary standard) and welfare (secondary standard) with a reasonable margin of safety (Appendix D).

Primary and secondary standards for NAAQS have been established for most of the criteria pollutants. The EPA is authorized to: 1) designate those locations that have not met the NAAQS as non-attainment (not in compliance with/in violation of any of the NAAQS for the six criteria pollutants); and 2) classify these non-attainment areas according to their degree of severity. States are required to submit an annual monitoring network plan to EPA. The network plans provide for the creation and maintenance of monitoring stations, in accordance with EPA monitoring requirements specified in 40 CFR Part 58. The State of Iowa’s most recent Monitoring Network Plan was approved by EPA Region 7 in December 2015 (USEPA, 2020a).

Two areas within Iowa have been designated as non-attainment areas under the NAAQS developed under the CAA. These two areas include the 1-hour sulfur dioxide (SO₂) non-attainment area in Muscatine in Muscatine County and the lead non-attainment area in Council Bluffs in Pottawattamie County. Respectively, these two areas are well outside the project area. Howard County is considered an attainment area for all criteria pollutants listed above (USEPA, 2020b and 2020b).

Neither alternative would require an installation permit, construction permit, operating permit, or indirect sources permit in accordance with the CAA (42 U.S.C. 7400 Section 176 & 171). Any increase in impacts to air quality (including the introduction of greenhouse gases) resulting from construction would be limited to the six-month construction period.

Greenhouse gases (GHGs) are gases that absorb and emit radiation within the thermal infrared range, trapping heat in the earth's atmosphere. GHGs are both naturally occurring and generated by human activity. GHGs include carbon dioxide (CO₂), the most abundant GHG, as well as methane, nitrous oxide, and other less-common gases. Major GHG sources include transportation, industrial activities, electric power, commercial and residential land uses, and agriculture. Increased atmospheric concentrations of GHGs are considered a main contributor to global climate change.

In 2016, CEQ issued Guidance on Considering Climate Change in NEPA Reviews, which provides Federal agencies with direction on when and how to consider the effects of greenhouse gas emissions and climate change in their evaluation of proposed Federal actions. The guidance characterizes climate change as a global issue exacerbated by a series of small decisions and uses projected GHG emissions as a proxy for assessing a proposed action's potential climate change impacts. The guidance also establishes 25,000 tons per year as a reference point under which a quantitative analysis of greenhouse emissions is not warranted "unless quantification below that reference point is easily accomplished." The guidance states that the reference point relates to the disclosure of impacts, not to the determination of the significance of those impacts and notes that NEPA requires agencies to consider "the potential significance of the climate change impacts of their proposed actions, [based on] both context and intensity, as they do for all other impacts" (CEQ 2016).

GHG emissions from the project will result from operation of construction equipment. Emissions from construction equipment emissions were calculated by using methods identified in the standard metrics from the EPA's Greenhouse Gas Emission Factors Hub (<https://www.epa.gov/climateleadership/ghg-emission-factors-hub>). Project construction is estimated to take 170 days to complete and require the use of five diesel construction vehicles per day (two excavators, one skid steer, one bulldozer, and one tractor). Fuel consumption at an average of four gallons per hour and eight-hour working days was used to calculate total fuel use of 27,200 gallons: Fuel use = days * hours * fuel use per hour * number of vehicles.

Emissions were calculated using this equation from the EPA guidance document: Tons CO₂ = fuel use in physical units * CO₂ Emission Factor (kg CO₂/physical unit of fuel use) * conversion of kg to short tons. Emissions rates in Table 2 were retrieved from the Emissions Factors for Greenhouse Gas Inventory (EPA, 2023) for diesel nonroad construction vehicles.

Table 2. Emissions.

CO ₂ (kg/gallon)	CH ₄ (grams/gallon)	N ₂ O (grams/gallon)
10.21	1.01	0.94

Totals emissions from construction equipment equate to 306.1.0 short tons of carbon dioxide equivalents (CO₂e), which were calculated using the appropriate global warming potential (GWP) for each GHG and the appropriate unit conversion factor.

Environmental Consequences

The No Action Alternative would not affect non-attainment areas regulated under CAA, because no road system improvements would occur with the selection of this alternative. The No Action Alternative would not produce GHGs.

The Preferred Alternative would not directly or indirectly affect non-attainment areas regulated under CAA, as it is not within a defined non-attainment area. Air quality would be temporarily impacted during the construction due to increased dust and engine emissions from construction vehicles. Upon completion of the proposed action, air quality would return to its preconstruction condition. Impacts are expected to be limited to construction and negligible.

The Preferred Alternative would have no significant impact related to GHG emissions and to global climate change, as the pollutant production from equipment would contribute only a small fraction to global greenhouse gas emissions. Construction activities would generate particulate emissions (fugitive dust) from grading the ground surface for site preparation, excavating (installing utilities and bridge components), operation of heavy equipment, and driving construction vehicles on unpaved and paved roads at the project site. Additional changes in the traffic patterns with the new bridge are not anticipated. Impacts are expected to be limited to construction and negligible.

During construction, the construction contractor would be required to minimize fugitive dust by implementing dust control measures such as application of water to suppress dust and washing down construction vehicles and paved roadways immediately adjacent to the construction site. Fuel combustion in construction vehicles would temporarily result in increased emissions of VOCs, NO_x, SO₂, PM_{2.5} and CO. The impacts to air quality from the project would be minimal and temporary due to exhaust emissions from construction equipment. Minimal dust will be temporarily generated during construction, which is anticipated to last for approximately six months. Dust would be controlled with dust suppression measures such as truck-mounted water sprayers during the hours of construction activities.

No indirect impacts are anticipated under the Preferred Alternative.

Environmental Commitments

Dust-control measures should be incorporated into the project plans to minimize fugitive dust during construction.

5.2. Airport Hazards

(Clear Zones and Accident Potential Zones, 24 CFR Part 51D)

The National Plan of Integrated Airport Systems (NPIAS) was reviewed for civilian and commercial service airports near the program area, as program sites located within 2,500 feet of a

civil airport or 15,000 feet of a military airport would require consultation with the appropriate civil airport operator (Appendix E).

According to the 2023 NPIAS, the Filmore County Airport at Preston, Minnesota, is approximately 17.5 miles north of the project area. There are no military airports in Iowa.

Environmental Consequences

The No Action Alternative would not affect airport operations, because no road system improvements would occur with the selection of this alternative.

The Preferred Alternative would not directly or indirectly affect airport operations, as it is outside the exclusion zone.

Environmental Commitments

No Best Management Practices (BMPs) are proposed.

5.3. Biological Resources

5.3.1. Federally Protected Species

(*Endangered Species Act* [ESA], 50 CFR Part 402)

The ESA was enacted to protect endangered and threatened species and to provide a means to conserve critical habitat. All Federal agencies are mandated to protect species and preserve their habitats by ensuring Federal actions do not jeopardize the continued existence of listed species. When a species is designated as threatened with extinction, a recovery plan includes restrictions on cropping practices, water use, and pesticide use is developed to protect the species from further population declines. All Federal agencies are required to implement the ESA by ensuring Federal actions do not jeopardize the continued existence of listed species.

The USFWS and the National Marine Fisheries Service are mandated the responsibility to ensure other agencies plan or modify Federal projects, so that they would have minimal impact on listed species and their habitats. Section 7 of the ESA requires project areas to be checked against USFWS and State listings of critical habitat and threatened and endangered species.

The ESA defines an endangered species as one in danger of extinction throughout all or a significant portion of its range. Threatened means a species is likely to become endangered within the foreseeable future. Threatened and Endangered designations may be applied to all species of plants and animals except pest insects. A species may be threatened at the state level. However, that same designation does not automatically apply nationwide, because species numbers may be greater in other states.

The ESA also requires the delineation of the *Critical Habitat* of sensitive species. Critical Habitat is defined by the ESA as areas “essential” to the conservation of listed species. Private, city, and state lands are generally not affected by critical habitat until the property owner needs a Federal

permit or requests Federal funding. Consultation with USFWS would be required when *Critical Habitat* is encountered.

Section 7 of the ESA (referred to as Interagency Consultation) is the mechanism by which Federal agencies ensure the actions they take (including those they fund or authorize) do not jeopardize the existence of any listed species. Under Section 7, consultation with USFWS is initiated when any action the agency carries out, funds, or authorizes may affect a threatened and endangered species or critical habitat. This process usually begins as an informal consultation. In the early stages of project planning, a Federal agency approaches USFWS and requests informal consultation. Discussions between the two agencies may include which types of listed species may occur in the proposed action area and what effect the project may have on those species.

If the Federal agency, after discussions with USFWS, determines the Preferred Alternative is not likely to affect any listed species in the project area and if USFWS concurs, the informal consultation is complete and the project moves ahead. If it appears the agency’s action may affect a listed species, that agency may then prepare a Biological Assessment (BA) to assist in its determination of the project’s effect on a species.

When a Federal agency determines (through a BA or other review) its action is likely to adversely affect a listed species, the agency submits a request to USFWS for formal consultation. During formal consultation, the USFWS and NRCS would share information about the project and the species likely to be affected. Formal consultation may last up to 90 days, after which USFWS would prepare a Biological Opinion on whether the activity would jeopardize the continued existence of a listed species. The NRCS would have 45 days after completion of formal consultation to write the opinion.

Using the USFWS’s Information for Planning and Conservation (IPaC) system, five federally threatened or endangered species are listed as having potential habitat within Howard County (Appendix F.1; Table 3) (USFWS 2020a). The proposed project area is not *Critical Habitat* for any of the five federally protected species. A Habitat Assessment review of the review area was conducted to determine the presence or absence of supportive habitat for the five listed federal species (Griggs 2024).

Table 3 Federally Protected Species under the Endangered Species Act – Howard County, Iowa.

Common Name	Scientific Name	Status	Habitat
Northern long-eared bat¹	<i>Myotis septentrionalis</i>	Endangered	Hibernates in caves, mines - swarming in surrounding wooded areas in autumn. Forages in mature forests and along corridors. Roosts in trees ≥3 inch diameter trees in cracks, crevices, and beneath exfoliating bark during late spring and summer.

Common Name	Scientific Name	Status	Habitat
Tricolored bat¹	<i>Perimyotis subflavus</i>	Proposed Endangered	Hibernates in caves, mines and culverts - swarming in surrounding wooded areas in autumn. Roosts and forages in mature upland forests and along corridors during late spring and summer.
Prairie bush-clover	<i>Lespedeza leptostachya</i>	Threatened	Tallgrass prairie remnants
Western prairie fringed orchid	<i>Platanthera praeclara</i>	Threatened	Variety of habitats ranging from mesic prairie to sedge meadows, marsh edges, and bogs in areas of full sun and little to no woody encroachment.
Monarch butterfly¹	<i>Danaus plexippus</i>	Candidate	Not specified.

¹ Project is not within areas defined as Critical Habitat.

Northern Long-eared bat

The Northern long-eared bat (*Myotis septentrionalis*) is an endangered mammal with no established critical habitat.

The Northern long-eared bat is a forest-dependent species, generally relying on forest features for both foraging and roosting during the summer months (USFWS 2013). In particular, the Northern long-eared bat appears to be a forest interior species that requires adequate canopy closure for both roosting and foraging habitat. The wing morphology of the Northern long-eared bat makes it ideally suited for the high maneuverability required for gleaning-type foraging within a cluttered forest interior. Northern long-eared bats roost singly, or in colonies, underneath bark, in cavities, or in crevices of both live and dead trees. Cooler roost locations such as caves and mines may be used by non-reproductive females and males. In general, these bats are opportunistic in selecting roosts and using tree species that retain bark, provide cavities, or crevices. Rarely, Northern long-eared bats have been found roosting in structures such as barns and sheds; however, structures that may be used for roosting are likely located close to wooded habitat that would be used for foraging. Additionally, riparian areas are considered critical resource areas for many species of bats because they support higher concentrations of prey; provide drinking areas; and act as unobstructed commuting corridors. While Northern long-eared bat is typically associated with forest habitats, they also have been documented in agricultural settings where forest habitats are highly fragmented. Studies in landscapes dominated by agricultural activities have also found that Northern long-eared bat may use woodlots and riparian zones with very few acres of actual forest cover as traveling and commuting habitat.

There are no known hibernacula or roost trees in the project area. Given that the project area lacks trees larger than 3 inches dbh present with potential for exfoliating bark, cracks, cavities, or crevices, the potential for suitable habitat is not present in the roadway corridor or mitigation site.

Tricolored Bat

The Tricolored bat (*Perimyotis subflavus*) is proposed for listing as an endangered mammal with no established critical habitat.

The Tricolored bat is one of the smallest North American bats, and is distinguishable and named for its tricolored fur, which is dark at the base and tip of each strand and light colored in the middle. This is a forest-dependent species that is believed to prefer roosting habitat within larger contiguous forest habitat and is generally understood to rely heavily on available foraging areas over waterways and forest edge habitat during the summer months (USFWS *n.d.*). During the spring, summer, and fall, tricolored bats primarily roost in leaf clusters of live or recently dead hardwood deciduous trees; however, these bats have also been documented roosting on pine needles and pinecones, in eastern red cedar (*Juniperus virginiana*) trees and in human-made structures such as within barns, beneath porches, bridges, bunkers, and road-associated culverts. These bats have also been documented roosting on lichen and in Spanish moss in the northern and southern portions of its range, respectively. Neither male or female bats typically utilize cave habitats during the summer season, with male bats roosting singly, and females forming maternity colonies. Winter hibernaculum habitat includes caves, mines, tree cavities, abandoned wells, and road-associated culverts in the southern portion of the range where caves are sparse. Both males and females exhibit high roost site fidelity during both summer and winter seasons, returning to the same roosting areas year after year.

Riparian areas are considered critical resource areas for many species of bats because they support higher concentrations of prey; provide drinking areas; and act as unobstructed commuting corridors. While tricolored bats are typically associated with forest habitats, recent research indicates these species are especially dependent on structured forest habitat with natural openings and riparian areas for roosting and foraging area (Gaulke et al. 2023). Studies in landscapes dominated by agricultural activities have also found that many bats may use woodlots and riparian zones with very few acres of actual forest cover as traveling and commuting habitat.

The status of the tricolored bat was proposed to be listed as endangered on September 13, 2022, with an anticipated decision to occur within 12 months. Please note, as of the date of this report, no official federal regulations regarding this species are required.

There are no known hibernacula or roost trees in the project area. The potential for suitable habitat is absent within the project area based on; 1) the presence of trees larger than 4 inch dbh are present; and 2) the potential for leaf clusters, lichen or moss.

Western Prairie Fringed Orchid

Western prairie fringed orchid (*Platanthera praeclara*) is a threatened flowering plant without a defined critical habitat. This species is a perennial orchid of the North American tall grass prairie and is found most in a wide variety of intact habitats ranging from mesic prairie to sedge meadows, marsh edges, and bogs. It needs conditions of little to no woody encroachment in areas of full sun exposure to be successful and requires a symbiotic relationship with mycorrhizae fungi for successful propagation. Unplowed, wet or mesic prairies and sedge meadows are absent within the project area, as wetland communities are currently dominated by Reed canary grass – an aggressive invasive facultative wet species which has come to dominate Iowa waterways – and have been actively grazed and/or tilled since at least the late 1930s. The proposed project will have no effect on this species.

Prairie Bush clover

Prairie bush-clover (*Lespedeza leptostachya*) is a long-lived, dry-prairie plant species found in Illinois, Iowa, Minnesota, and Wisconsin. The species occurs on remnant prairie sites or prairie habitats that have been previously mowed, burned, cultivated, or grazed (USFWS 1988). The species is adapted to a diverse assortment of prairie soil conditions and can occur at a variety of prairie types including dry, dry-mesic, mesic, or bedrock prairies (USFWS 2021). The number of known populations of prairie bush-clover has increased from 36 populations at the time of listing in 1987 to 113 populations today, with the number of known extant populations increasing in Iowa, Minnesota, and Wisconsin. The current review area is within an area of a known population of the species.

Prairie bush-clover plants may take five or more years to reach maturity. Once mature, adult plants may flower annually, and a single plant may persist on the landscape for thirty years. The species has a relatively short-lived seed bank, and conditions for germination and seedling establishment must occur at least every few years to maintain healthy prairie bush-clover populations (USFWS 2024). The project would not affect this species.

Monarch Butterfly

Specific habitat requirements have not been defined for this candidate species.

5.3.2. Migratory Birds

Migratory Birds Treaty Act (MBTA)

WRP objectives include protecting, restoring, and enhancing wetlands for “migratory bird habitat” and “species of concern” (Title 440 Part 528.100 B. (i)), and the MBTA prohibits harm to the species it protects. The USFWS IPaC identified two migratory birds of conservation concern within the proposed project area: Bald eagle (*Haliaeetus leucocephalus*) and Lesser yellowlegs (*Tringa flavipes*).

5.3.3. Bald and Golden Eagles Protection Act

Bald and Golden Eagles Protection Act (BGEPA)

Bald eagles are known to occur within the region, especially along the larger rivers. While no longer listed as a threatened species under the ESA, the project proponent would contact the USFWS for assistance in complying with the BGEPA if a bald eagle is found on or near the project area. No Bald eagles or nests were observed in or near the study corridor during an on-site visit in April 2024.

5.3.4. State-Protected Species

Iowa's endangered and threatened species law was enacted in 1975. The current law, entitled *Endangered Plants and Wildlife*, is Chapter 481B of the Code of Iowa. The Iowa Natural Resource Commission and the Director of the Iowa Department of Natural Resources (IDNR) are responsible for administration of Chapter 481B. The IDNR maintains a database of Endangered, Threatened, and species of Special Concern, as well as significant natural communities (IDNR 2020b).

Endangered species means any species of fish, plant life, or wildlife in danger of extinction throughout all or a significant part of its range. Threatened Species means any species likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. Special Concern means any species about which problems of status or distribution are suspected but not documented. Not protected by the Iowa Threatened and Endangered Species law *per se*, many animal species listed as Special Concern are protected under other state and federal laws addressing hunting, fishing, collecting, and harvesting.

State-protected species present in Howard County are listed by the Iowa Department of Natural Resources Natural Areas Inventory included as Appendix F.2. A record search of the database was requested as part of this review. The IDNR has no records of state-protected species within the project area (Appendix F.3).

Environmental Consequences

The No Action Alternative would not affect state- or federally protected species, because no roadway improvements would occur with the selection of this alternative.

The Preferred Alternative may affect – but not adversely affect federally protected species, as suitable habitat occurs in a limited area of the project corridor. The corridor is dominated by aggressive, invasive grasses, and intact prairie communities are generally absent. Suitable habitat for the two protected bat species is present in two limited areas of forested riparian corridor east of the river totaling approximately 0.3 acres, which represents less than 0.001 percent of suitable habitat in northeast Iowa. Impacts would be temporary to long-term and negligible. Restoration of the two oxbows could positively affect biological resources by providing restored habitat. No indirect impacts are anticipated under the Preferred Alternative.

Environmental Commitments

The following BMPs should be integrated into the project plans to minimize or reduce impacting the Northern long-eared and Tricolor bat.

Given the presence of potential bat-preferred trees, any tree clearing activities should be completed during winter hibernation periods, extending from October 1 to March 31 of a given year, to avoid “take” as defined by the *Endangered Species Act*. Additional survey efforts will likely be required should tree clearing activities fall outside the winter schedule. Maintaining the project impact area within 100-feet of the road right-of-way will avoid habitat mitigation requirements articulated in the Programmatic Biological Opinion for Transportation Projects in the Range of the Indiana Bat and Northern Long-Eared Bat.

The Interim Consultation Framework for the Northern Long-eared bat was released on March 23, 2023. This release stated that the Section 4(d) rules are going to be utilized for the 2023 field season and are therefore valid from March 31, 2023, through April 1, 2024, for any project within the federal nexus. Section 4(d) has no tree clearing restrictions for NLEB unless there is a known maternity roost tree. If there is a known roost, tree clearing is restricted within 150 feet of the maternity roost during pup-rearing season extending from June 1 through July 31. Revised habitat modification restrictions and/or assessment approaches will likely be required should project activities extend beyond the 2024 breeding season for the Northern long-eared bat,

The status of the Tricolored bat was proposed to be listed as endangered on September 13, 2022, with an anticipated decision to occur within 12 months. Due to the pending federal status of the Tricolored bat, the following recommendations pertaining to the species are therefore optional and are provided to the County for informational purposes. Due to the proclivity of tricolored bats to utilize human-made structures for roosting habitat, an additional bridge inspection is recommended during the summer season during active bat use periods prior to commencement of bridge replacement activities. Timing construction activities to occur during winter periods during bat hibernation periods is recommended. Revised habitat modification restrictions and/or assessment approaches will likely be required should project activities extend beyond the 2024 breeding season for the Tricolored bat.

In terms of the Monarch butterfly currently listed as a Candidate species under the Endangered Species Act, regulatory agencies have not developed BMPs for this species. The following recommendations pertaining to the Monarch butterfly are therefore optional and are provided to the County for informational purposes. Clearing or mowing of observed milkweed within the project footprint prior to the spring season would reduce potential adverse impacts to the species by removing desirable habitat for egg-laying adults. This would reduce potential negative impacts incurred by the project on larval populations of the Monarch. The USFWS encourages all agencies and organizations to take advantage of any opportunity they may have to conserve the species.

5.3.5. Noxious Weeds

(EO 13112, Invasive Species)

Non-native invasive plants are species that have the ability to spread into natural habitats where they can alter plant communities by displacing native species. Non-native invasive plant species are introduced into the United States from other geographic regions, so there are few biological agents to control their populations. “Noxious weeds” are non-native invasive plants designated by state and county weed laws that are injurious to public health, agriculture, recreation, wildlife or any public or private property. In sufficient numbers, they can:

- Reduce biological diversity;
- Increase fire risk;
- Poison humans, wildlife, and livestock; and
- Reduce the quality of forage.

Management of invasive plants is regulated by the *Federal Noxious Weed Act* of 1974, as amended (7 U.S.C 2801 et seq.), requires cooperation with state, local, and other federal agencies in the application and enforcement of all laws and regulations relating to management and control of noxious weeds. Executive Order 13112 (1999) directs federal agencies to reduce the spread of invasive plants. Iowa's noxious weed law is included in Chapter 317 of the Iowa Code.

Environmental Consequences

The No Action Alternative would not result in any additional weed pressures in the immediate study area, as no construction activities would occur with the selection of the No Action Alternative.

The Preferred Alternative could result in conditions favorable for weed establishment as a consequence of ground clearing and grubbing necessary for construction. Impacts would be limited to the construction right-of-way and restoration areas and would be limited to the duration of construction and the period of re-establishment following construction. No indirect impacts are anticipated under the Preferred Alternative.

Environmental Commitments

Restoration should be consistent with the requirements for vegetation management found in Part III, sections B and D of the 2018 conservation easement (see Appendix A). The following BMPs should be incorporated into final project designs:

- Disturbed ground should be reseeded as soon as possible with an appropriate seed mix meeting current specifications.

5.3.6. Coral Reefs

There are no coral reefs in Iowa.

Environmental Consequences

The No Action Alternative would not affect coral reefs, because no road system improvements would occur with the selection of this alternative.

The Preferred Alternative would not directly or indirectly affect coral reefs, as coral reefs are absent in Iowa.

Environmental Commitments

No mitigation measures are proposed.

5.4. Coastal Zone Management

(*Coastal Zone Management Act [CZMA]*, Sections 307(c) and (d))

CZMA is the main Federal law that applies to the management of a nation's coastal resources. CZMA established the planning and management program for U.S. coastal land and water resources and directs Federal agencies to preserve, protect, develop, and (where possible) restore or enhance the resources of the nation's coastal zone. Coastal zones include coastal waters, adjacent shore land, islands, transitional and intertidal areas, marshes, wetlands, and beaches.

No coastal zone management zones or programs are in Iowa, as detailed in information provided by the National Oceanic and Atmospheric Administration, Office of Ocean and Coastal Resource Management (NOAA, 2020).

Environmental Consequences

The No Action Alternative would not affect coastal management zones, because no road system improvements would occur with the selection of this alternative.

The Preferred Alternative would not directly or indirectly any coastal management zones, as coastal management zones are absent in Iowa.

Environmental Commitments

No mitigation measures are proposed.

5.5. Contamination and Toxic Substances

(*Resource Conservation and Recovery Act [RCRA]*, 24 CFR Part 58.5(i)(2))

As defined by the RCRA, hazardous wastes are defined as a solid waste (or combination of solid wastes) that: 1) causes or significantly contributes to an increase in mortality; 2) increases serious irreversible or incapacitating reversible illness; or 3) poses a substantial hazard or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of or otherwise managed. Hazardous materials and wastes are regulated in Iowa through a combination of Federal and State laws. Federal regulations governing the assessment and disposal of hazardous wastes include RCRA, the RCRA Hazardous and Solid Waste Amendments, Comprehensive

Environmental Response, *Compensation and Liability Act*, *Solid Waste Act*, and *Toxic Substances Control Act*.

No Contaminated, Underground Storage Tank (UST), Leaking Underground Storage Tank (LUST), Tier 2 Chemical Storage Facilities, National Priority Sites (Super Fund), or National Non-Priority Sites (Brownfields) are reported with the study corridor or proposed oxbow restoration areas (IDNR, 2020c, 2020d, 2020e, and 2020f; USEPA 2020b and 2020c). A Phase I Environmental Site Assessment conducted for the project concluded that there are no recognized environmental conditions, historical recognized environmental conditions, or controlled recognized environmental conditions on the review area (Appendix G).

Environmental Consequences

The No Action Alternative would not affect contaminated or toxic sites or produce any hazardous waste, because no road system improvements would occur with the selection of this alternative.

The Preferred Alternative would not directly or indirectly affect contaminated or toxic sites or produce any hazardous waste, as evidenced by the absence of recognized environmental conditions, historical recognized environmental conditions, or controlled recognized environmental conditions. No indirect impacts are anticipated under the Preferred Alternative.

Environmental Commitments

If a hazardous substance is discovered during construction activities, the IDNR should be contacted at 712.262.4177. Work within the sensitive area should not resume until IDNR personnel indicate no further assessment is needed.

5.6. Environmental Justice

(EO 12898)

Title VI of the *Civil Rights Act* of 1964 (Title VI) ensures that individuals are not excluded from participation in, denied the benefit of, or subjected to discrimination under any program or activity receiving Federal financial assistance on the basis of race, color, national origin, age, sex, and disability (42 USC 2000d et seq.). EO 12898 on environmental justice directs that programs, policies, and activities do not result in a disproportionately high and adverse human health or environmental effect on minority and low-income populations (59 FR 7629).

Within a 5-mile radius, the area in and around Chester is home to 1,036 people (2022) and 463 households according to the U.S. Census Bureau. Median home value is \$125,000 (2022) for Howard County. The area has a relatively homogenous population dominated by *White alone* (95.9 percent). Represented minorities include *Black or African American alone* (less than 1 percent), *Native Hawaiian or Other Pacific Islander alone* (less than 1 percent), *Hispanic or Latino* (approximately 2 percent), and *Two or More Races* (approximately 3 percent). There is a German-speaking population of approximately 12 percent. This evaluation was conducted to ensure that no

minority and/or low-income population in the area would be disproportionately affected by project activities.

As defined in Executive Order 12898 and CEQ guidance, a minority population occurs where one or both of the following conditions are met within a given geographic area:

- The American Indian, Alaskan Native, Asian, Pacific Islander, Black, or Hispanic population of the affected area exceeds 50 percent.
- The minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis.

A minority population also exists if more than one minority group is present and the aggregate minority percentage meets one of the above conditions. The selection of the appropriate unit of geographic analysis could be a governing body's jurisdiction, a neighborhood, census tract, or other similar unit (Note that the Hispanic/Latino population is a multi-racial group, which may overlap with other minority groups.).

Executive Order 12898 does not provide criteria to determine if an affected area consists of a low-income population. For this assessment, the CEQ criteria for defining a minority population has been adapted to identify whether or not the population in an affected area constitutes a low-income population. An affected geographic area is considered a low-income population (below the poverty level, for purposes of this analysis) where one or both of the following conditions are met within a given geographic area:

- The poverty rate of the total population is above 50 percent.
- The percentage of individuals in poverty is meaningfully greater than in the general population or other appropriate unit of geographic analysis.

Howard County (7.2 percent) has a lower minority population lower than Iowa (16.3 percent) and has a lower percentage of its population below the poverty level (5.4 percent) than the state average of 11.0 percent. A summary of the population demographics is shown in Table 4. This demographic information was confirmed using the USEPA's environmental justice tool available on their website (<https://www.epa.gov/ejscreen>). This tool identifies environmental justice communities and their associated demographics (Appendix H).

Table 4. Demographic Information for Howard County and Iowa (2022).

Category	Howard County	Iowa
Total Population	9,469	3,200,517
Under 18 years	25.6%	22.6%
Under 5 years	7.1%	5.8%
White (not Hispanic or Latino percent)	97.1%	83.7%

Category	Howard County	Iowa
Black or African American	0.8%	4.4%
American Indian and Alaska Native	0.4%	0.6%
Asian	0.5%	2.8%
Native Hawaiian and Other Pacific Islander	0.1%	0.2%
Hispanic or Latino¹	2.0%	6.9%
Two or more races	1.1%	2.2%
High School Graduate and Higher	92.0%	92.8%
Bachelor's Degree or Higher	19.2%	29.7%
Median Household Income	\$63,947	\$65,429
Below Poverty Level	9.1%	11.0%

¹ – Hispanics can be any race and are included in applicable race categories

In terms of social justice and evaluating potential impacts, it was analyzed if construction of the recommended alternative would have a disproportionate impact to minorities, low-income households, or children under the age of 18. To evaluate potential disproportional impacts to minority populations or to low-income households, socioeconomic data from Iowa was compared to socioeconomic data for Howard County. Additionally, the EPA's environmental justice screening and mapping tool was consulted to determine if the project area was in an environmental justice census block.

Approximately 2.9 percent of the population in Howard County is comprised of minority individuals. This does not exceed the minority population of Iowa (11.0 percent). In terms of poverty, 9.1 percent of households in Howard County are below the poverty line as compared to 11.0 percent for the state. Approximately 25.6 percent of the population of the county are children under the age of 18, which is slightly higher than the state average of 22.6 percent. Howard County does not appear to have a disproportionate number of minority individuals, households below the poverty line, or children under the age of 18 in relation to the state. Given these facts, this project would not have a significant effect on any minority populations, low-income populations, or children under the age of 18 in the project area. Finally, no minority or disadvantage community or population would be relocated or displaced by the project.

Environmental Consequences

The No Action Alternative would not affect any low-income or minority communities or individual households, because no road system improvements would occur with the selection of this alternative.

The Preferred Alternative would not significantly alter the demographic characteristic of the community; would not disproportionately impact low-income or minority populations or the public in general; would not displace any individuals or families; and would not significantly increase or decrease employment opportunities. This alternative would have a positive impact for the greater community and inherently for vulnerable (minority and low-income) populations by providing a safer road system. No indirect impacts are anticipated under the Preferred Alternative.

Environmental Commitments

No BMPs are proposed.

5.7. Farmland Protection

(Farmland Protection Policy Act [FPPA], 7 CFR Part 658)

The FPPA was enacted in 1981 (P.L. 98-98) to minimize the unnecessary conversion of farmland to nonagricultural uses as a result of Federal actions. In addition, the act seeks to ensure that Federal programs are administered in a manner that would be compatible with State and Local policies and programs that have been developed to protect farmland. The policy of the NRCS is to protect significant agricultural lands from conversions that are irreversible and that result in the loss of essential food and environmental resources. The NRCS has developed criteria for assessing the efforts of Federal actions on converting farmland to other uses, including Farmland Conversion Impact Rating form AD-1066 that documents a site-scoring evaluation process to assess its potential agricultural value. In accordance with Section 1541 of the FPPA, the alternatives were reviewed for potential impacts on prime farmlands (Table 5)

The NRCS Web Soil Survey shows that the mapped soils within the study corridor as Saude loam, Colo-Alluvial land complex, channeled, Coland-Spillville complex, and Lilan sandy loam. Water, rivers, and streams comprise approximately 19.2 percent of the bridge replacement corridor.

Table 5. Farmland Classification.

Soil	Farmland Classification	Hydrologic Soil Group	Hydric Rating
Saude loam, 0-2%	Farmland of state-wide importance	B	Non-hydric
Colo-Alluvial land complex, channeled	Farmland of state-wide importance	C/D	Hydric
Coland-Spillville complex, 0-2% slopes, occasionally flooded	Prime farmland if drained	C/D	Hydric
Lilah sandy loam, 0-9% slopes	Farmland of state-wide importance	A	Non-hydric

Based on review of historical aerial photographs, the project area has been used continuously for agricultural production (including pasturage and forage production) since at least the late 1930s.

Prime farmland soils, as defined by the USDA, are those soils that have the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and are available for agriculture. They have the quality, growing season, and moisture supply needed to economically produce sustained high yields of crops. Prime farmland soils may be in use as cropland, pastureland, range land, forestland, or other uses, but do not include soils under urban or built-up areas.

The conversion of these soils to industrial and other nonagricultural uses essentially precludes farming them in the foreseeable future. Continued conversion of prime farmland to nonagricultural uses prompted enactment of the FPPA (FPPA - 7 U.S.C. 4201 et seq.). This act requires all federal agencies to identify prime farmland proposed to be converted to nonagricultural use and evaluate the impact of the conversion. A Farmland Conversion Impact Rating (Form AD-1006) is used to determine whether a site is farmland and subject to the FPPA. The impact rating is based on soil characteristics, as well as site assessment criteria, such as agriculture and urban infrastructure, support services, farm size, compatibility factors, on-farm investments, and potential farm production loss to the local community and county.

A Farmland Conversion Impact Rating was conducted by the NRCS to determine impacts to prime farmland on the proposed project area. A copy of the form is attached in Appendix I.

The proposed bridge replacement project is expected to convert approximately 3.3 acres of farmland. The total amount of prime farmland in question represents less than 0.001 percent of the farmland in Howard County. The NRCS assessed the Land Evaluation of the converted acreage at 24.07 out of 160 points. According to the criteria stated in FPPA regulations (7 CFR 658.4(c)(2)), no further consideration for protection is necessary. The proposed oxbow restoration areas are not expected to convert farmland, as the project received a score of less than 160.

According to the criteria stated in FPPA regulations (7 CFR 658.4(c)(2)), because the corridor received scores of less than 160, no further consideration for protection is necessary.

Environmental Consequences

The No Action Alternative would not affect significant or important agricultural land, because no road system improvements would occur with the selection of this alternative.

Based on a review of soil types present within the project corridor and the intensity and duration of potential effects, the NRCS determined that the Preferred Alternative would not significantly affect agricultural potential. Impacts would be long-term to permanent and negligible, as most impacts would be limited to the existing public right-of-way along 25th Street. No indirect impacts are anticipated under the Preferred Alternative.

Environmental Commitments

No BMPs are proposed.

5.8. Historical and Cultural Resources

(National Historic Preservation Act [NHPA], 36 CFR Part 800)

Cultural Resources are often defined as the tangible remains of past human activity and may include buildings and structures; prehistoric and historic archaeological sites; canals; or landscapes. These non-renewable resources may yield unique information about past societies and environments and provide answers for modern day social and conservation problems. Although many have been discovered and protected, many more remain undiscovered or unprotected.

Federal actions are subject to the review requirements of Section 106 of the NHPA. The review process involves consultation with various agencies, groups and individuals. The goal of consultation is to identify historic properties potentially affected by the undertaking; assess its effects; and seek ways to avoid, minimize, or mitigate any adverse effects on historic properties. Historic Properties are those properties that are listed on the National Register of Historic Places (National Register) or are eligible for listing. A property is considered eligible when it meets specific criteria established by the National Park Service (36 CFR Part 63).

Compliance with Section 106 of the NHPA is required since this project requires an Easement Administration Action by the NRCS. Under Section 106 of the NHPA, a Federal agency must consider direct and indirect impacts of any action they fund or permit on properties listed on or evaluated as eligible for listing on the National Register of Historic Places (NRHP). Construction and installation of a structure or practice could impact an archaeological site through earthmoving activities such as trenching, grading, and grubbing. The NHPA implementation regulations are found at 36 CFR 800, Protection of Historic Properties. Compliance with Section 106 of NHPA must be followed in planning for most agency activities where there is some potential to impact a historic property and in the ongoing management of agency resources. NRCS cultural resource specialists sent the ISHPO a letter on July 1, 2024, initiating the Section 106 review and compliance process for the project. On August 15, 2024, ISHPO staff concurred with the determination that no historic properties would be affected by the proposed undertaking (Appendix J.1.)

5.8.1. National Register of Historic Places

Authorized by the NHPA and administered by the National Park Service in collaboration with the Iowa State Historic Preservation Office (ISHPO), Division of Cultural Affairs, the National Register is the official list of the country's historic places worthy of preservation and recognition. Under Section 106 of the NHPA, a federal agency must consider direct and indirect impacts of any action they fund or permit on properties listed on or evaluated as eligible for listing on the National Register (For purposes of Section 106 of the NHPA, a property evaluated as eligible is treated as though it were listed on the National Register.). In Howard County, nine properties are currently

listed on the National Register (NPS 2023a). No National Register property occurs within or proximal to the project area. The Lime Spring Mill Complex –which is the closest listed property – is approximately 3.0 miles southeast of the project area.

5.8.2. Standing Structures and Buildings

A cultural resources inventory of the Preferred Alternative documented and evaluated Bridge C-09 (FHWA 183840) as part of this review. Bridge C-09 is a steel and timber stringer/multibeam structure spanning the Upper Iowa River along 25th Street. This bridge has an original construction date of 1880, but following reconstruction in 1980, only a stone pier remains of the original bridge. Bridge C-09 was recommended as not eligible for listing on the National Register when evaluated against Criteria A through C (Blikre et al. 2024).

5.8.3. Archaeological Resources

All ground associated with Alternative 2 was intensively inventoried for archaeological resources by specialists in April 2024 as part of this review. The inventory followed best practices for conducting archaeological resources inventories in Iowa. No archaeological resources were identified as a result of the literature review conducted in anticipation of the fieldwork. The archaeological resources inventory included a visual inspection of the ground surface and excavation of soil probes and shovel and auger tests to verify soil conditions and the absence of buried soil horizons and archaeological layers. Specialists excavated 41 auger tests and 31 shovel tests (Blikre et al. 2024).

A single unmodified flaked stone artifact (broadly dating to the prehistoric period [300 to 14,000 years ago]) was recovered from one of the shovel test. Additional testing close to the initial shovel test did not produce any more artifacts. The identified artifact was recorded Site 13HW53. The unmodified flake was recovered from a filled burrow and appears to be in a disturbed context. Because of the find is likely associated in a disturbed context and because it is not likely to produce significant information about the region’s prehistory, the site was recommended not eligible for listing on the National Register when evaluated against Criterion D.

5.8.4. Unmarked Graves and Burials

Chapter 263B of the Iowa Code protects ancient human remains in Iowa. No known cemeteries or unmarked graves were identified during the literature review. The Good Hope Cemetery is located 2.7 miles east of the project area. The intensive archaeological resources inventory of the project area also failed to note any potential cemeteries, mounds, or graves within the project area.

5.8.5. Native American Consultation

In addition to the agencies listed above, the following Tribal agencies were given the same opportunity to identify and or comment on the identification of any historic properties and or culturally sensitive properties and or areas within the scope of the project area. These Tribal

agencies are registered with the U.S. Department of Housing and Urban Development's (HUD) Tribal Directory as having interest based on state and county location of the project. As a result, the following ten (n = 10) Tribes/Organizations were contacted:

- Apache Tribe of Oklahoma
- Menominee Indian Tribe of Wisconsin
- Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota
- Flandreau Santee Sioux Tribe of South Dakota
- Prairie Island Community in the State of Minnesota
- Spirit Lake Tribe, North Dakota
- Lower Sioux Indian Community in the State of Minnesota
- Santee Sioux Nation, Nebraska
- Upper Sioux Community, Minnesota
- Peoria Tribe of Indians of Oklahoma

NRCS cultural resource specialists sent these tribal entities a letter on July 1, 2024, inviting them to be consulting parties in the Section 106 review and asking if they had any concerns about the project's potential effect on cultural and archaeological resources of concern to them. On August 29, 2024, a representative of the Peoria Tribe of Indians of Oklahoma offered no objections to the project but requested that they be notified of any discovery during construction. They accepted the invitation to serve as a consulting party for the project (Appendix J.2)., none of the Tribal agencies contacted expressed any concerns about impacts to properties of potential concern or importance to them. Any concerns would be addressed through the Section 106 review and compliance process and would be resolved before the proposed project would be allowed to proceed.

Environmental Consequences

The No Action Alternative would not affect significant archaeological or cultural resources, because would not be undertaken under this alternative.

Based on the literature review; file search results; and the intensive archaeological and cultural resources inventory of the project corridor, which only identified a single unmodified flaked stone artifact, the Preferred Alternative would not affect significant cultural and archaeological resources listed on or eligible for listing on the National Register. Impacts to cultural and archaeological resources would be permanent.

Because the project would not impact any property or properties currently listed or eligible for listing on the National Register, the NRCS has determined that no historic properties would be affected by the project. The NRCS would consult with its partners at the ISHPO and Tribal Historic Preservation Offices to obtain concurrence with the No Historic Properties Effect finding for this action. No indirect impacts are anticipated under the Preferred Alternative. Any comments will be included in the final EA, if warranted.

Environmental Commitments

All project activities should be limited to the area covered by the intensive cultural resources inventory.

The NRCS would continue to consult with the ISHPO and THPOs to address concerns regarding impacts to cultural resources. Consultation would continue until there is resolution concerning project effects.

Should human remains be exposed during the proposed construction, the Iowa Burial Law [Code of Iowa, Sections 263B, 523I.316(6), and 716.5; IAC 685, Chapter 11.1] requires that all work in the vicinity of the find be halted, the remains protected, local law enforcement officials notified, and the Office of the State Archaeologist Bioarchaeology Program Director be notified immediately.

5.9. Water Resources

WRP objectives include protecting, restoring, and enhancing wetlands for the protection and improvement of water quality and attenuation of floodwater (Title 440 Part 528.100 B (ii) and (iii)). Impacts to water resources relative to laws, regulations, EOs or policies under Alternatives 1 and 2 are discussed below.

5.9.1. Floodplain Management

[24 CFR Part 55, EO 11988]

All Federal actions must meet the standards of EO 11988, Floodplain Management. The purpose of the EO is to avoid incompatible development in floodplain areas. It states, in part, that:

Each agency shall provide leadership and shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values served by floodplains in carrying out its responsibilities for (1) acquiring, managing, and disposing of Federal lands and facilities; (2) providing federally undertaken, financed, or assisted construction and improvements; and (3) conducting Federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulating, and licensing activities.

Floodplains are lowlands or relatively flat areas adjoining inland or coastal waters, including areas subject to a one percent or greater chance of flooding in any given year. Floodplains serve critical functions and values including:

- dissipating the energy of floods and reducing flood damage downstream;
- storing floodwater that slowly releases water into adjacent streams; and
- maintaining base flows for area streams.

The floodplain is divided into two sections: the floodway which carries most of the flow during a flood event, and the floodway fringe which is an area of very slow-moving water or “slack water.” A floodway is the channel of a river or stream and those portions of the floodplain adjoining the

channel that are reasonably required to carry and discharge the 100-year flood. These are high hazard areas of rapidly moving water during times of flood. Regulations are designed to ensure the flow-carrying capacity of a watercourse is not harmfully obstructed and the floodway portion of the floodplain is not used for residential construction. One of the duties of the Floodplain Section, IDNR, is to ensure development that does occur within the 100-year floodplain is reasonably safe from flooding and does not increase flood damage potential.

Howard County participates in the Federal Flood Insurance Program. Most of the project corridor and the mitigation area is within the 100-year (Zone A) floodplain (Appendix K.1).

Environmental Consequences

The No Action Alternative would not affect any floodplains, because no road system improvements would occur with the selection of this alternative.

The Preferred Alternative would be placed across portions of the defined and regulated 100-year floodplain along the Upper Iowa River. Impacts would be temporary and limited to the area in and immediately outside the construction corridor. The bridge design integrates current standards and lessens flooding impacts at this crossing when compared to the existing situation. Oxbow restoration provides additional flood storage capacity and would lessen the severity of flooding along this reach of the Upper Iowa River.

The IDNR issued a Floodplain Permit on February 27, 2024 (Appendix K.2). The Howard County Emergency Management Coordinator stated the project does not require a local floodplain permit (Brody Malone, personal communication, May 22, 2024).

No indirect impacts are anticipated under the Preferred Alternative.

Environmental Commitments

All stipulations required under the IDNR floodplain permit would be adhered to and incorporated into the final project design.

5.9.2. Water Quality (Sole Source Aquifers)

(Safe Drinking Water Act [SDWA], 40 CFR Part 149)

The SDWA requires protection of drinking water systems that are the sole or principal drinking water source for an area and that, if contaminated, would create a significant hazard to public health. The EPA uses Sole Source Aquifer designations as a tool to protect drinking water supplies in areas where alternatives to the groundwater resource are few, cost-prohibitive, or nonexistent. The designation protects an area's groundwater resource by requiring an EPA review of any proposed projects within the designated area receiving Federal financial assistance. All proposed actions involving new conversion or construction projects receiving Federal funds are subject to review to ensure they do not endanger the water source. There are no sole source aquifers in Iowa (USEPA, 2020a) (Appendix K.3).

Environmental Consequences

The No Action Alternative would not affect aquifers regulated under the SDWA, because no road system improvements would occur with the selection of this alternative.

The Preferred Alternative would not directly or indirectly affect any aquifers regulated under the SDWA, as regulated aquifers are absent in Howard County. No indirect impacts are anticipated under the Preferred Alternative.

Environmental Commitments

No BMPs are proposed.

5.9.3. Wetlands and Waters of the United States

(*Clean Water Act* {CWA}, 24 CFR Part 55, EO 11990)

Wetlands are areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, bottomland forest, and similar areas.

Over the last 125 years, the rate of wetland loss due to filling and drainage by man has greatly increased. Before World War II, drainage to expand agricultural lands accounted for most of this loss. More recently, wetland destruction has been caused by commercial, industrial, and residential expansion. The estimated 4 to 6 million acres of Iowa wetlands existing in pre-settlement times have now been reduced to less than 500,000 acres. Approximately 95 percent of Iowa's original wetlands have been drained or filled, while many remaining wetlands are no longer representative of original landscape types.

In general, the impacts of agricultural development on Iowa's wetlands are:

- field drainage has eliminated large areas of wetlands;
- erosion and sedimentation from plowed fields have greatly increased water turbidity and eliminated aquatic plants that require clear water;
- nutrient loading has locally reduced oxygen levels, prompted algal blooms, and led to the dominance of species (cattails) that thrive on high nutrient levels;
- heavy agricultural runoff has led to the deposition of rich organic mud in the wet meadows and along the shoreline, favoring the dominance of early successional and weedy species; and
- introduced, aggressive exotic plants have crowded out native plant species and reduced dependent insects and birds.

Wetlands are a significant factor in the health and existence of other natural resources, such as inland lakes, groundwater, fisheries, and wildlife. Ecological services provided by wetlands include:

- Flood and storm control by the hydrologic absorption and storage capacity of wetlands;

- Wildlife habitat by providing breeding, nesting, feeding grounds and cover for many types of wildlife and waterfowl, including migratory waterfowl and rare, threatened, or endangered wildlife species;
- Protection of subsurface water resources and provision of valuable watersheds and recharging groundwater supplies;
- Pollution treatment by serving as a biological and chemical oxidation basin;
- Erosion control by serving as a sedimentation area and filtering basin, absorbing silt and organic matter; and
- Sources of nutrients in water food cycles and nursery grounds and sanctuaries for fish.

Waters of the U.S. (including wetlands, waterways, lakes, natural ponds and impoundments) are regulated by the U.S. Army Corps of Engineers (USACE). Under Section 404 of the CWA, a permit is issued by the USACE which authorizes the discharge of dredged or fill material into waters of the U.S. (33 USC 1251 et seq.). EO 11990, Protection of Wetlands, requires Federal agencies to implement “no net loss” measures for wetlands (42 FR 26951). These no net loss measures include a phased approach to wetland impact avoidance, then minimization of impacts if wetlands cannot be avoided, and finally mitigation.

Discharges of dredged or fill material, excavation, and mechanized land clearing in waters of the U.S. requires authorization from the USACE under Section 404 of the *Clean Water Act*. Final authorization for activities in waters of the United States (waters of the U.S.) must be authorized by the USACE’s District Engineer.

An on-site wetland delineation of the study corridor was completed April 2024 (Griggs and Martin 2024). Results from the offsite wetland analysis identified the Upper Iowa River as a likely jurisdictional waterway. This waterbody is hydrologically connected to the Mississippi River. The Level 1 review suggested the project area has the potential for supporting wetland hydrology, is adjacent to jurisdictional waterways, and/or is partially within the mapped 100-year floodplain. Wetlands that are within the 100-year floodplain of a Water of the United States (WOTUS) are considered adjacent and are regulated resources. A Level 2 onsite delineation, performed by EOR specialists on April 18, 2024, found that the study area contains four palustrine emergent wetlands and a reach of the Upper Iowa River within the study area (Table 6; Appendix K.4). The Upper Iowa River is likely a waters of the United States. An estimated 1.28 acres of palustrine emergent wetlands were delineated within the project area. Delineated wetlands may have adjacency to and a significant nexus with waters of the U.S (Upper Iowa River) and could be subject to regulations stated under the *Clean Water Act*.

Other Concerns

Outstanding Iowa Water is defined as a surface water the IDNR has classified as an outstanding state resource because of its high-water quality standard. No Outstanding Iowa Water has been designated within the study area.

Table 6. Summary of Wetlands.

Wetland ID	Size (Acres)	Sampling Point(s)	Circular 39 Wetland Type / Cowardin Wetland Type Wetland Description	WOTUS/ Jurisdictional
WL1	0.15	H4SW and H5NWW	PEM1A – Palustrine emergent within roadway ditch	Potentially
WL2	0.02	H6SWW	PEM1Ax – Palustrine emergent within roadway ditch	Potentially
WL3	0.44	H10, H11, and H12	PEM1C – Palustrine emergent in oxbow	Potentially
WL4	0.67	H13 and H14	PEM1C – Palustrine emergent in oxbow	Potentially

Environmental Consequences

The No Action Alternative would not affect wetlands and streams regulated under the CWA, because no road system improvements would occur with the selection of this alternative.

The Preferred Alternative would affect up to 1.28 acres of wetland resources and one stream reach regulated under the CWA. As a result of Preconstruction Notification for the roadway component of the project, the USACE staff determined that wetland impacts would fall within the limits of Nationwide Permit 14 – Linear Transportation. Special conditions included returning the 0.09 acres of temporary wetland impacts to the original contours and reseeding the affected area with native wetland plant mix. A copy of the USACE letter (CEMVR-RD-2023-0302) is included as Appendix K.5.

On June 4, 2024, the County submitted a Joint Application to the Regulatory Branch, Rock Island District, USACE, for the oxbow restoration component of the proposed action. The oxbows support an estimated 1.11 acres of poor-quality emergent and scrub-shrub wetlands. While the proposed action would impact wetlands, the oxbow restoration is expected to provide a net ecological lift by providing habitat, increasing biodiversity, and improving water quality and quantity issues. It is anticipated that the restoration efforts would fall within the parameters of Nationwide Permit 27 – Aquatic Habitat Restoration, Enhancement, and Establishment Activities. The conditions and stipulations required by Nationwide Permit 27 would be included in the final project design. No indirect impacts are anticipated under the Preferred Alternative.

Environmental Commitments

Temporary erosion control measures would be used during construction and the site would be restored to include permanent erosion control measures. Upon completion of construction, all disturbed areas (including equipment staging areas) would be stabilized and restored to their

original condition with approved vegetation or other appropriate non-polluting materials. Conditions and stipulations required under Nationwide Permits 14 and 27 would be adhered to in the final project design and implementation.

5.10. Climate Change

Climate change refers to any significant changes in average climatic conditions (such as mean temperature, precipitation, or wind) or variability (such as seasonality and storm frequency) lasting for an extended period (century or longer). Although some effects of climate change are considered known or likely to occur, many potential impacts are unknown. Climate change science is a rapidly advancing field, and new information is being collected and released continually. Construction activities associated with implementation of the proposed action would contribute to increased greenhouse gases emissions, but such emissions would be short term, ending with the project completion. It is not possible to meaningfully link the greenhouse gases emissions of such individual project actions to quantitative effects on regional or global climatic patterns. Any effects on climate change would not be discernible at a regional scale.

Environmental Consequences

The No Action Alternative would not affect the climate, because no road system improvements would occur with the selection of this alternative.

The Preferred Alternative would not affect the climate, as impacts would be negligible and limited to construction (approximately six months). The system is designed to be resilient and to withstand extreme weather and hydrological conditions and events, so environmental exposure stemming from a systems failure is not anticipated. It is estimated that the project would generate 370.1 metric tons (or 408.0 short tons) of CO₂, which is less than 0.001 percent of the 124.22 million metric tons carbon dioxide equivalent generated in Iowa in 2022. No indirect impacts are anticipated under the Preferred Alternative.

Environmental Commitments

No BMPs are proposed.

5.11. Natural Areas, Scenic Beauty, and Viewsheds

WRP objectives include protecting, restoring, and enhancing wetlands for the “protection and enhancement of open space and aesthetic quality” (Title 440 Part 528.100 B. (v)) with landowners retaining the rights to undeveloped recreation. Natural areas are land and water units where natural conditions are maintained and they have been designated as “natural areas” by government, foundations, organizations and/or private landowners. No officially designated natural or scenic areas occur near the study corridor.

5.11.1. Wild and Scenic Rivers

(*Wild and Scenic Rivers Act* [WSRA], 36 CFR Part 297)

The purpose of the WSRA is to preserve the free-flowing state of rivers listed in the NWSRS, or under study for inclusion in the NWSRS. This designation is based on a river's outstanding scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values. Rivers in the NWSRS are classified as wild river areas, scenic river areas, or recreational river areas. The WSRA establishes requirements applicable to water resource projects and protects both the river, or river segments, and the land immediately surrounding them. Section 7 of the WSRA specifically prohibits Federal agencies from providing assistance for the construction of any water resources projects adversely affecting any listed Wild and Scenic River.

Section 5(d) of WSRA requires the NPS to compile and maintain a Nationwide Rivers Inventory (NRI), a registry of river segments potentially qualified as national wild, scenic, or recreational river areas. A river segment may be listed on the NRI if it is free-flowing and has one or more "outstandingly remarkable values." All agencies are required to consult with the NPS before taking actions that could effectively foreclose wild, scenic, or recreational status for rivers on the NRI.

No activities would occur along a component of the NWSRS or in a river officially designated by Congress as a *study river* for possible inclusion in the NWSRS unless the appropriate Federal agency has determined in writing the proposed activity would not adversely affect the Wild and Scenic River designation or study status. There are no NPS-designated Wild and Scenic Rivers within Iowa. Nine stream reaches are officially designated in Iowa as a *Study River* (NPS, 2020b). While the reach of the Upper Iowa River flowing through Winneshiek and Allamakee counties has been designated a Study River, the reach flowing through the project area has not received this designation (Appendix L).

Environmental Consequences

The No Action Alternative would not affect Wild or Scenic Rivers, because no road system improvements would occur with the selection of this alternative.

The Preferred Alternative would not directly or indirectly any Wild or Scenic Rivers, as the project does not cross any designated Wild or Scenic Rivers.

Environmental Commitments

No BMPs are proposed.

5.11.2. National Parks, National Monuments, and Battlefields

Construction would not occur within or in close proximity to any National Parks, National Monuments, or Battlefields per the National Natural Landmarks national registry (NPS, 2020c).

Environmental Consequences

The No Action Alternative would not affect a National Parks, National Monuments, Battlefields, or other units administered by the National Park Service, because no road system improvements would occur with the selection of this alternative.

The Preferred Alternative would not directly or indirectly any a National Parks, National Monuments, Battlefields, or other units administered by the National Park Service.

Environmental Commitments

No BMPs are proposed.

5.11.3. Wilderness Areas, Recreational Rivers, Lake Shores, and Trails

Construction would not occur in proximity or span any wild and scenic rivers per the National Park Service (NPS, 2020d), lake shores, or recreational trails (INHF 2020).

Environmental Consequences

The No Action Alternative would not affect a Wilderness Areas, Recreational Rivers, Lake Shores, and Trails.

The Preferred Alternative would not directly or indirectly any Wilderness Areas, Recreational Rivers, Lake Shores, and Trails.

Environmental Commitments

No BMPs are proposed.

5.11.4. National Wildlife Refuges

Union Slough National Wildlife Refuge is located approximately 90.0 miles southwest of the project corridor (USFWS, 2020c).

Environmental Consequences

The No Action Alternative would not affect a National Wildlife Refuges.

The Preferred Alternative would not directly or indirectly any National Wildlife Refuges.

Environmental Commitments

No BMPs are proposed.

5.11.5. Federally Operated lands

No federally owned or operated lands are in or near the review area.

Environmental Consequences

The No Action Alternative would not affect federally operated lands.

The Preferred Alternative would not directly or indirectly any federally operated lands.

Environmental Commitments

No BMPs are proposed.

5.11.6. State-sovereign Lands

No state-owned or protected lands are associated in or near the review area.

Environmental Consequences

The No Action Alternative would not affect state-sovereign lands.

The Preferred Alternative would not directly or indirectly any state-sovereign lands.

Environmental Commitments

No BMPs are proposed.

5.12. Permitting

The project would not threaten any violations of local, state or federal statutory, regulatory, or permitting requirements. Project permit needs have been properly identified and would be obtained prior to the start of any construction.

5.13. Miscellaneous Issues

5.13.1. Environmental Controversy (Aesthetics)

The project would not create any negative aesthetic impact.

Environmental Consequences

The No Action Alternative would not affect visual integrity of the surrounding area, because no road system improvements would occur with the selection of this alternative.

The Preferred Alternative would be limited to ground within existing roadway corridor and would not directly or indirectly change in the visual landscape.

Environmental Commitments

Restoration of the construction corridor using current BMPs is proposed.

5.13.2. Transportation

All construction would be completed using required safety traffic control devices and signs where required. Public transportation would not be unduly affected by the project.

Environmental Consequences

The No Action Alternative would not affect traffic along area roadways, because no road system improvements would occur with the selection of this alternative.

There could be a slight increase in traffic during construction under the Preferred Alternative, but that level should decrease once construction is completed.

Environmental Commitments

The contractors selected for this project would ensure that appropriate signage is used to ensure the public is aware of on-going construction activities. The contractor would also comply with all other safety practices (state and federal) and obtain any necessary permits. BMPs would be used to prevent or minimize the track-out of sediment from the construction site.

5.13.3. Noise, Radio, and Television Interference; Human Health and Safety; Socioeconomic and Community Resources

The project would not unduly disrupt the public livelihood or create excessive noise. Construction under the Preferred Alternative would be completed during typical normal daylight hours during normal workdays.

Environmental Commitments

No BMPs are proposed.

5.14. Cumulative Effects

The CEQ's regulations for implementing NEPA require an assessment of cumulative effects during the decision-making process for Federal projects. Cumulative effects are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions" (40 CFR Part 1508.7). Cumulative effects are considered for both the No Action Alternative and Preferred Alternative (Alternative 2). Cumulative effects were determined by combining the effects of the alternative with other past, present, and reasonably foreseeable future actions.

Two alternatives were evaluated in this EA: (1) a No-action Alternative, and (2) the Preferred Alternative. Table 7 summarizes the potential environmental impacts expected with each of the alternatives. The No-action Alternative would result in no impacts on the environment. The Preferred Alternative could result in minor environmental impacts from the temporary increase in noise; the production of fugitive dust during construction; and impacts to wetlands, protected-species habitat, and farmlands. However, these impacts would be mitigated by the use of BMPs.

The project area is in a rural, agricultural area in north-central Howard County, Iowa. It is surrounded by agricultural land planted in a bi-annual corn-bean rotation and public and private conservation ground, including the Cray WRP Easement. The project would not impact water

quality or quantity; state- or federally protected threatened or endangered species; natural communities; or floodplains. No property listed on, or eligible for listing on the National Register of Historic Places exists within the study area. Tribal organizations were consulted to determine if any impacts would occur to tribal historical and cultural resources. Wetland impacts are anticipated to be permitted under Nationwide Permits 15 – Linear Transportation Projects and 27 – Aquatic Habitat Restoration, Enhancement, and Establishment Activities.

The human environment would only be minimally impacted by this project, and those impacts would be mitigated by BMPs and design considerations. The project is consistent with local planning and development policies and local ordinances. The public would not be exposed to hazardous substances and electronic magnetic fields as a result of the project. No coastal resources would be affected by the project. The project would not disproportionately impact low-income or

Table 7. Environmental Review Status.

Resources	Resources Present	Effects to Resources	Environmental Commitments/Best Management Practices
Airports	No	No Impacts	None proposed
Air Quality	No	No Significant Impacts	BMPs to minimize fugitive dust during construction.
Historic Prop./Cultural Resources	Yes	No Significant Impacts	Consultation with ISHPO on No Historic Properties Effected findings. In the unlikely event that there are any unanticipated archaeological or cultural discoveries made during construction, the proper agency or agencies (NRCS, ISHPO, Howard County Sheriff), tribes, and nations shall be notified immediately so that the discovery can be properly treated before the resumption of earth-moving activities.
TSA/ESA, Habitat, State Species	Yes	No Significant Impacts (May affect but not likely to adversely affect)	BMPs for the Northern-long eared and Tri-colored bats would be integrated in the final project design and project plans. Continued consultation with IDNR and USFWS regarding proposed BMPs for state- and

Resources	Resources Present	Effects to Resources	Environmental Commitments/Best Management Practices
			federally protected species, as appropriate.
Water Resources	Yes	No Significant Impacts	If wetland impacts can be kept under 0.10 acres, project activities would be permitted under Nationwide Permit 17 – Linear Transportation for the bridge replacement component of the proposed action and Nationwide Permit 27 – Aquatic Habitat Restoration, Enhancement, and Establishment Activities for the mitigation (oxbow restoration) component. If impacts are between 0.11 and 0.50 acres, compensatory mitigation – likely credits obtained from a wetland bank would be purchased. Wetland impacts greater than 0.51 acres would require both compensatory mitigation and an Individual Permit from the USACE. A Preconstruction Notice would be submitted to the USACE for each project component to ensure compliance with the CWA. Loss of existing wetland protected under the Cray WRP Easement would be compensated by the oxbow restoration oxbow restoration site west north of the Upper Iowa River. Regulated waters of the U.S. are present. Project activities would likely be permitted under Nationwide Permit 17 – Linear Transportation Projects issued by the USACE. Conditions and stipulations required under Nationwide

Resources	Resources Present	Effects to Resources	Environmental Commitments/Best Management Practices
			Permits 17 and 27 should be adhered to in the final project design and implementation. Critical area stabilization actions must be taken to prevent any direct or indirect filling or sedimentation of stream, river, or wetland habitats on the easement. The proponent take action to ensure no substances harmful to fish, aquatic wildlife, or vegetation are released into stream, river, or wetland habitats (fuels, adhesives, bonding agents, or other substances).
Floodplains	Yes	No Significant Impacts	Floodplain permit applications has been approved to the IDNR Floodplain Section for each component. Permit conditions should be included in final project design.
Formally Classified Lands	No	No Impacts	None present
Weeds	N/A	No Significant Impacts	Acres offered as replacement for acres removed must be seeded to diverse native prairie habitat cover, meeting a minimum pollinator habitat requirement set forth in the NRCS-Iowa 327 conservation cover standard; Upon completion, any additional area impacted must be immediately replanted to native covers, including native grasses and forbs tolerant of hydric soils and other appropriate materials. Monitor for invasive species and treat with current BMPs if weeds become an issue in these plantings.
Coastal Resources	N/A	No Impacts	None proposed

Resources	Resources Present	Effects to Resources	Environmental Commitments/Best Management Practices
Coral Reefs/Protected Aquatics	N/A	No Impacts	None proposed
Important Farmlands	Yes	No Significant Impacts	None proposed
Production of Hazardous Waste	No	No Impacts	If a hazardous substance is discovered during construction activities, the IDNR should be contacted at 712.262.4177. Work within the sensitive area should not resume until IDNR personnel indicate no further assessment is needed.
Environmental Justice Concerns	No	No Impacts	None proposed
Environmentally Controversial	No	No Impacts	None proposed
Other Controversial Issues	No	No Impacts	None proposed
Overall Project Finding	--	No Significant Impacts	The contractors selected for this project would ensure that appropriate signage is placed to ensure the public is aware of on-going construction activities. The contractor would also comply with all other safety practices (state and federal) and obtain any necessary permits. BMPs would be used to prevent or minimize the track-out of sediment from the construction site.

disadvantaged groups, and no groups would be dislocated because of the project. It would not put an undue burden on first responders or community cultural facilities or institutions.

Grading would be required under the Preferred Alternative. All land disturbing activities would incorporate erosion, sediment control, and stormwater management BMPs to protect water quality and soil resources. Construction activities would only minimally and temporarily affect air quality due to the creation of dust during soil excavation and transport. Construction activities could also cause a minor amount of noise and would only affect the construction workers that are on the construction site. BMPs would be implemented to minimize dust, noise, erosion, and sediment runoff associated with construction activities. Construction activities would be limited to day-light hours.

The Preferred Alternative is not anticipated to pose a significant cumulative impact on Howard County or the surrounding region. The environmental and human impacts are minimal or temporary. Mitigation efforts implemented through BMPs and other measures would further mitigate the duration and intensity of all potential impacts. The area would still support important habitat, ecological system functions, and enjoyable aesthetics.

6. CONCLUSIONS

The No Action Alternative (Alternative 1) would have no significant impact on environmental resources. The modernized bridge would not be constructed, and no social, economic, or health-related benefits would occur from this project for Howard County.

The Preferred Alternative (Alternative 2) consists of an approximately 3.26-acres of existing, new, and temporary right-of-way along 25th Street and 2.52 acres associated with the oxbow restoration and temporary access roads, including 0.52 acres of new permanent right-of-way and 0.25 acres of temporary construction right-of-way within the Cray WRP Easement. Alternative 2 was selected as it prevents significant short-term and long-term adverse environmental impacts and meets the stated purpose and need for the project. The selected alternative would not:

- result in significant adverse effects on public health or safety;
- adversely impact any property currently listed on or eligible for listing on the National Register;
- significantly affect historic or cultural resources, parks, public open space, prime farmlands, wetland, wild and scenic rivers, or ecologically critical areas;
- result in impacts on the quality of the human environment which are controversial;
- pose any highly uncertain outcomes and does not involve unique or unknown risks;
- adversely affect endangered or threatened species or critical habitat to any significant degree;
- impact minority or economic disadvantaged persons or communities; and
- violate Federal, State, or local requirements required for protection of the environment.

The majority of potential impacts associated with Alternative 2 are considered to be negligible and temporary and limited mostly during construction. The remaining impacts would be mitigated to less than significant levels through the implementation of permitting and management measures. Assuming the appropriate measures, no significant impacts are anticipated. The proposed bridge replacement would result in positive socioeconomic impacts on the immediate area and surrounding community. The oxbow restoration would improve habitat and water quality.

If BMPs and regulatory compliance permits and requirements described in this EA are implemented, the analysis performed in this EA concludes that the proposed action would not have a significant adverse impact – either directly, indirectly, or cumulatively – on the human environment.

The Cray WRP Easement is being held in perpetuity by NRCS for the purposes restoring and protecting the functions and values of wetlands –wildlife conservation, water quality improvement, floodwater retention, groundwater recharge, open space, aesthetics, and education. NRCS policy also requires that any impacts be minimized to the greatest extent practicable, and that any remaining adverse impacts to be mitigated are by enrollment of other lands providing equal or greater conservation functions and values; no net loss or acres; and not encompass more than 10 percent of the easement area. When all of these factors were considered, as well as the

environmental impacts detailed in this EA, the Preferred Alternative meets all of these conditions. By implementing the Preferred Alternative, including the oxbow restoration/compensatory mitigation area, all benefits of the WRP easement would remain.

7. AGENCIES AND ASSOCIATED CORRESPONDENCE

The following agencies have been contacted for review and comments regarding the environmental aspects of the Easement Administration Action of the Cray WRP tract. The agencies were asked to review the project based on the Environmental Review Guide.

U.S. Department of Housing and Urban Development – HUD.GOV

Community Planning and Development - <https://egis.hud.gov/tdat/Tribal.aspx>

Tribal Directory Assessment Tool (TDAT) v2.3

TDAT v2.2 was developed by the Office of Environment and Energy (OEE) to help users identify tribes that may have an interest in the location of a HUD-assisted project and provide tribal contact information to assist users with initiating Section 106 consultation under the NHPA (54 U.S.C. § 300101 et seq.). The following tribes and nations were invited to participate in the Section 106 review process:

Mr. Matthew Tselee, Chairman
Apache Tribe of Oklahoma
P.O. Box 1330
Andarko, Oklahoma 73005

Mr. Anthony Reider, Chairperson and Mr. Gary Kills A Hundred, Tribal Historic Preservation Officer
Flandreau Santee Sioux Tribe of South Dakota
P.O. Box 283
Flandreau, South Dakota 57028-0283

Mr. Robert Larson, President and Ms. Cheyanne St. John, Tribal Historic Preservation Officer
Lower Sioux Indian Community in the State of Minnesota
P.O. Box 308
Morton, Minnesota 56270

Ms. Gena Kakkak, Chairwoman and Mr. David Grignon, Tribal Historic Preservation Officer
Menominee Indian Tribe of Wisconsin
P.O. Box 910
Keshena, Wisconsin 54135-0910

Mr. Johnny Johnson, Chairperson and Mr. Noah White, Tribal Historic Preservation Officer
Prairie Island Community in the State of Minnesota
5636 Sturgeon Lake Road
Welch, Minnesota 55089

Mr. Alonzo Denney, Chairperson and Mr. Larry Thomas, Tribal Historic Preservation Officer
Santee Sioux Nation, Nebraska
108 Spirit Lake Avenue West

Niobrara, Nebraska 68760-8605

Mr. J. Garret Renville, Chairperson and Ms. Dianne Desrosiers, Tribal Historic Preservation Officer

Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota

Old Agency Box 717

Agency Village, South Dakota 57262

Ms. Lonna Street, Chairwoman and Mr. Kenneth Graywater, Interim Tribal Historic Preservation Officer

Spirit Lake Tribe, North Dakota

P.O. Box 359

Fort Totten, North Dakota 58335-0359

Mr. Kevin Jensvold, Chairperson and Ms. Samantha Odegard, Tribal Historic Preservation Officer
Upper Sioux Community, Minnesota

P.O. Box 147

Granite Falls, Minnesota 56241-0147

Chief Craig Harper

Peoria Tribe of Indians of Oklahoma

118 S. Eight Tribes Trail

Miami, Oklahoma 74354

Iowa Department of Natural Resources

Mr. Casey Laskowski, Environmental Specialist

502 East 9th Street

Des Moines, Iowa 50319

Iowa State Historic Preservation Office

Ms. Heather Gibb, Interim State Historic Preservation Officer

Iowa State Historical Building

600 East Locust Street

Des Moines, Iowa 50319

Natural Resources Conservation Service – State Office

Mr. John Paulin, Easement Restoration, Monitoring, and Management Specialist

USDA-NRCS Iowa

210 Walnut

693 Federal Building

Des Moines, Iowa 50309-2174

U.S. Fish and Wildlife Service

Information for Planning and Conservation

Illinois-Iowa Ecological Services Field Office

1511 47th Avenue

Moline, Illinois 61265-7022
Consultation Code: 03E18000-2020-SL1-0803

Howard County Emergency Management

Brody Malone, Coordinator
124 South Park Place
Cresco, IA 52136

Calhoun-Burns and Associates, Inc.

Juli Redmond, PE, Project Manager
1500 30th Street
West Des Moines, IA

7.1. PUBLIC INVOLVEMENT

A public hearing was held concurrently during a session of the Howard County Board of Supervisor's weekly meeting on December 21, 2023. No comments were received at that time. Notices have been passed out to residents to notify residents of project work occurring in their area. This EA will be posted at [News | Natural Resources Conservation Service \(usda.gov\)](#) for public review and comment, and a copy will also be available for review at the Howard County NRCS Office, 311 7th Street SW in Cresco for review.

8. REFERENCES CITED AND CONSULTED

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APPENDIX A. CRAY WETLAND RESERVE PROGRAM EASEMENT DEED

Document 2005 2512
Book 126 Page 393 Type D0 Pages 9
Date 6/29/2005 Time 1:56 PM
Rec Amt \$47.00

CHERRI CAFFREY, RECORDER
HOWARD COUNTY IOWA

Prepared by: Shelley A. Dugan, Legal Instruments Examiner, Phone (515) 284-4222
Natural Resources Conservation Service, 210 Walnut, 693 Federal Building, Des Moines, IA 50309

Address for tax statement: No change of ownership – easement only. Current landowners will still be responsible for property taxes.

EXEMPT FROM TRANSFER TAX -- EASEMENT-- IOWA CODE SECTION 428A.2 (17)

U.S. DEPARTMENT OF AGRICULTURE
COMMODITY CREDIT CORPORATION

CCC-1255
6-25-00
OMB No. 0578-0013

WARRANTY EASEMENT DEED

WETLANDS RESERVE PROGRAM AGREEMENT NO. 66-6114-4-4732

THIS WARRANTY EASEMENT DEED is made by and between **Dean L. Thompson, a single person** (hereafter referred to as the "Landowner"), Grantor(s), and the UNITED STATES OF AMERICA, by and through the Commodity Credit Corporation (CCC) (hereafter referred to as the "United States"), Grantee. The Landowner and the United States are jointly referred to as the "Parties". The acquiring agency of the United States is the Natural Resources Conservation Service (NRCS), United States Department of Agriculture.

Witnesseth

Purposes and Intent. The purpose of this easement is to restore, protect, manage, maintain, and enhance the functional values of wetlands and other lands, and for the conservation of natural values including fish and wildlife habitat, water quality improvement, flood water retention, groundwater recharge, open space, aesthetic values, and environmental education. It is the intent of the CCC to give the Landowner the opportunity to participate in the restoration and management activities on the easement area.

Authority. This easement deed acquisition is authorized by Title XII of the Food Security Act of 1985, as amended (16 U.S.C. Section 3837), for the Wetlands Reserve Program.

NOW THEREFORE, for and in consideration of the sum of **Sixty Thousand Two Hundred Fifteen Dollars (60,215.00)**, the Grantor(s), hereby grants and conveys with general warranty of title to the UNITED STATES OF AMERICA and its assigns, the Grantee, forever, all rights, title and interest in the lands comprising the easement area described in Part I and appurtenant rights of access

to the easement area, but reserving to the Landowner only those rights, title and interest expressly enumerated in Part II. It is the intention of the Landowner to convey and relinquish any and all other property rights not so reserved. This easement shall constitute a servitude upon the land so encumbered, shall run with the land in perpetuity, and shall bind the Landowner, (the Grantor(s)), their heirs, successors, assigns, lessees, and any other person claiming under them.

SUBJECT, however, to all valid rights of record, if any.

PART I. Description of the Easement Area. The lands encumbered by this easement deed, referred to hereafter as the easement area, are described on a Plat of Survey by Michael J. Shimak, and recorded as Document 2004 845, in the office of the Howard County Recorder. A reduced copy of said Plat of Survey is attached hereto as EXHIBIT A and incorporated herein by this reference.

TOGETHER with a right of access for ingress and egress to the easement area across adjacent or other properties of the Landowner. Such a right-of-way for access purposes is described in EXHIBIT B, which is appended to and made a part of this easement deed.

NONE

PART II. Reservations in the Landowner on the Easement Area. Subject to the rights, title, and interest conveyed by this easement deed to the United States, the Landowner reserves:

A. Title. Record title, along with the Landowner's right to convey, transfer, and otherwise alienate title to these reserved rights.

B. Quiet Enjoyment. The right of quiet enjoyment of the rights reserved on the easement area.

C. Control of Access. The right to prevent trespass and control access by the general public.

D. Recreational Uses. The right to undeveloped recreational uses, including hunting and fishing, and including leasing of such rights for economic gain, pursuant to applicable State and Federal regulations that may be in effect at the time.

E. Subsurface Resources. The right to oil, gas, minerals, and geothermal resources underlying the easement area, provided that any drilling or mining activities are to be located outside the boundaries of the easement area unless activities within the boundaries are specified in accordance with the terms and conditions of EXHIBIT C.

NONE

PART III. Obligations of the Landowner. The Landowner shall comply with all terms and conditions of this easement, including the following:

A. Prohibitions. Without otherwise limiting the rights of the United States acquired hereunder, it is expressly understood that the rights to the following activities and uses have been acquired by the United States and, unless authorized by the United States under Part IV, are prohibited of the Landowner on the easement area:

1. haying, mowing or seed harvesting for any reason;
2. altering of grassland, woodland, wildlife habitat or other natural features by burning, digging, plowing, disking, cutting or otherwise destroying the vegetative cover;
3. dumping refuse, wastes, sewage or other debris;
4. harvesting wood products;

5. draining, dredging, channeling, filling, leveling, pumping, diking, impounding or related activities, as well as altering or tampering with water control structures or devices;
6. diverting or causing or permitting the diversion of surface or underground water into, within or out of the easement area by any means;
7. building or placing buildings or structures on the easement area;
8. planting or harvesting any crop;
9. grazing or allowing livestock on the easement area; and
10. disturbing or interfering with the nesting or brood-rearing activities of migratory birds.

B. Noxious plants and pests. The Landowner is responsible for noxious weed control and emergency control of pests as required by all Federal, State and local laws. A plan to control noxious weeds and pests must be approved in writing by the CCC prior to implementation by the Landowner.

C. Fences. Except for establishment cost incurred by the United States and replacement cost not due to the Landowner's negligence or malfeasance, all other costs involved in maintenance of fences and similar facilities to exclude livestock shall be the responsibility of the Landowner.

D. Taxes. The Landowner shall pay any and all real property and other taxes and assessments, if any, which may be levied against the land.

E. Reporting. The Landowner shall report to the CCC any conditions or events that may adversely affect the wetland, wildlife, and other natural values of the easement area.

PART IV. Allowance of Compatible Uses by the Landowner.

A. General. The United States may authorize, in writing and subject to such terms and conditions the CCC may prescribe at its discretion, the use of the easement area for compatible economic uses, including, but not limited to, managed timber harvest, periodic haying, or grazing.

B. Limitations. Compatible use authorizations will only be made if, upon a determination by CCC in the exercise of its discretion and rights, that the proposed use is consistent with the long-term protection and enhancement of the wetland and other natural values of the easement area. CCC shall prescribe the amount, method, timing, intensity, and duration of the compatible use.

PART V. Rights of the United States. The rights of the United States include:

A. Management Activities. The United States shall have the right to enter unto the easement area to undertake, at its own expense or on a cost share basis with the Landowner or other entity, any activities to restore, protect, manage, maintain, enhance, and monitor the wetland and other natural values of the easement area. The United States, at its own cost, may apply to or impound additional waters on the easement area in order to maintain or improve wetland or other natural values.

B. Access. The United States has a right of reasonable ingress and egress to the easement area over the Landowner's property, whether or not the property is adjacent or appurtenant to the easement area, for the exercise of any of the rights of the United States under this easement deed. The authorized representatives of the United States may utilize vehicles and other reasonable modes of transportation for access purposes. To the extent practical, the United States shall utilize the access identified in Part I.

C. Easement Management. The Secretary of Agriculture, by and through the CCC may delegate all or part of the management, monitoring or enforcement responsibilities under this easement

State of Iowa)

County of Howard) ss.

On this 29th day of June, 2005, before me, the undersigned, a notary public in and for the state of Iowa, personally appeared Dean L. Thompson, a single person to me known to be the identical person named in and who executed the foregoing instrument, and acknowledged that such person executed the same as such person's voluntary act and deed.


Notary public in and for said State



This instrument was drafted by the Office of the General Counsel, U.S. Department of Agriculture, Washington, D.C. 20250-1400.

OMB DISCLOSURE STATEMENT

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0578-0013. The time required to complete this information collection is estimated to average .69 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.

NONDISCRIMINATION STATEMENT

The United States Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 1400 Independence Avenue S.W., Washington, D.C. 20250-9410 or call (202) 720-5964.

Project No. 04245.LS

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Thence North 85°-59'-52" East, 180.00 feet;

Thence South 78°-12'-21" East, 340.00 feet to the Easterly Line of Lot A in the Northwest Quarter of said Section 13;

Thence South 07°-54'-59" West, 100.00 feet;

Thence South 36°-55'-36" East, 470.00 feet, both along said Lot A;

Thence South 15°-22'-03" West, 731.49 feet;

Thence South 05°-55'-11" West, 250.00 feet;

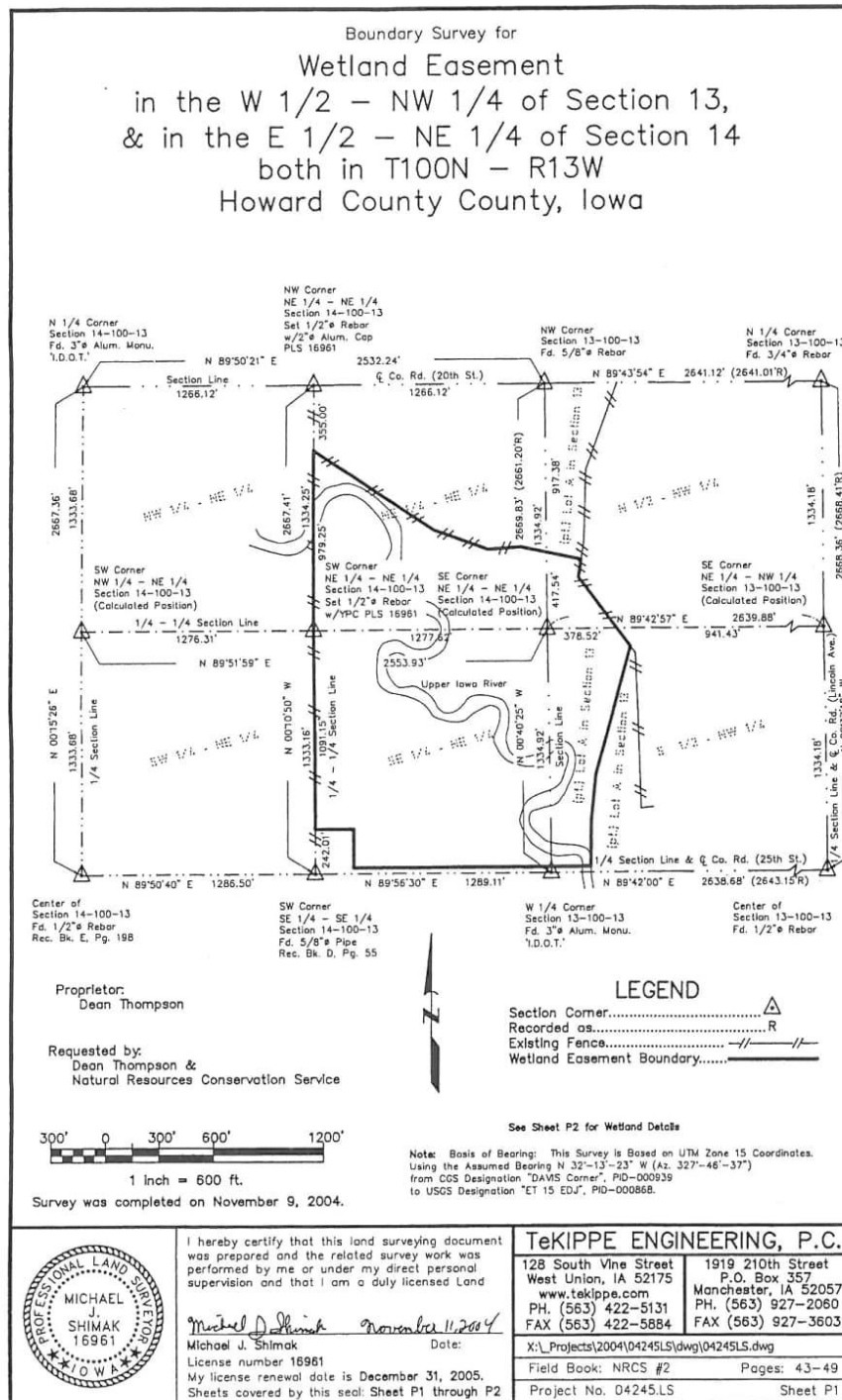
Thence South 00°-33'-40" West, 250.00 feet to said Right-of-Way Line;

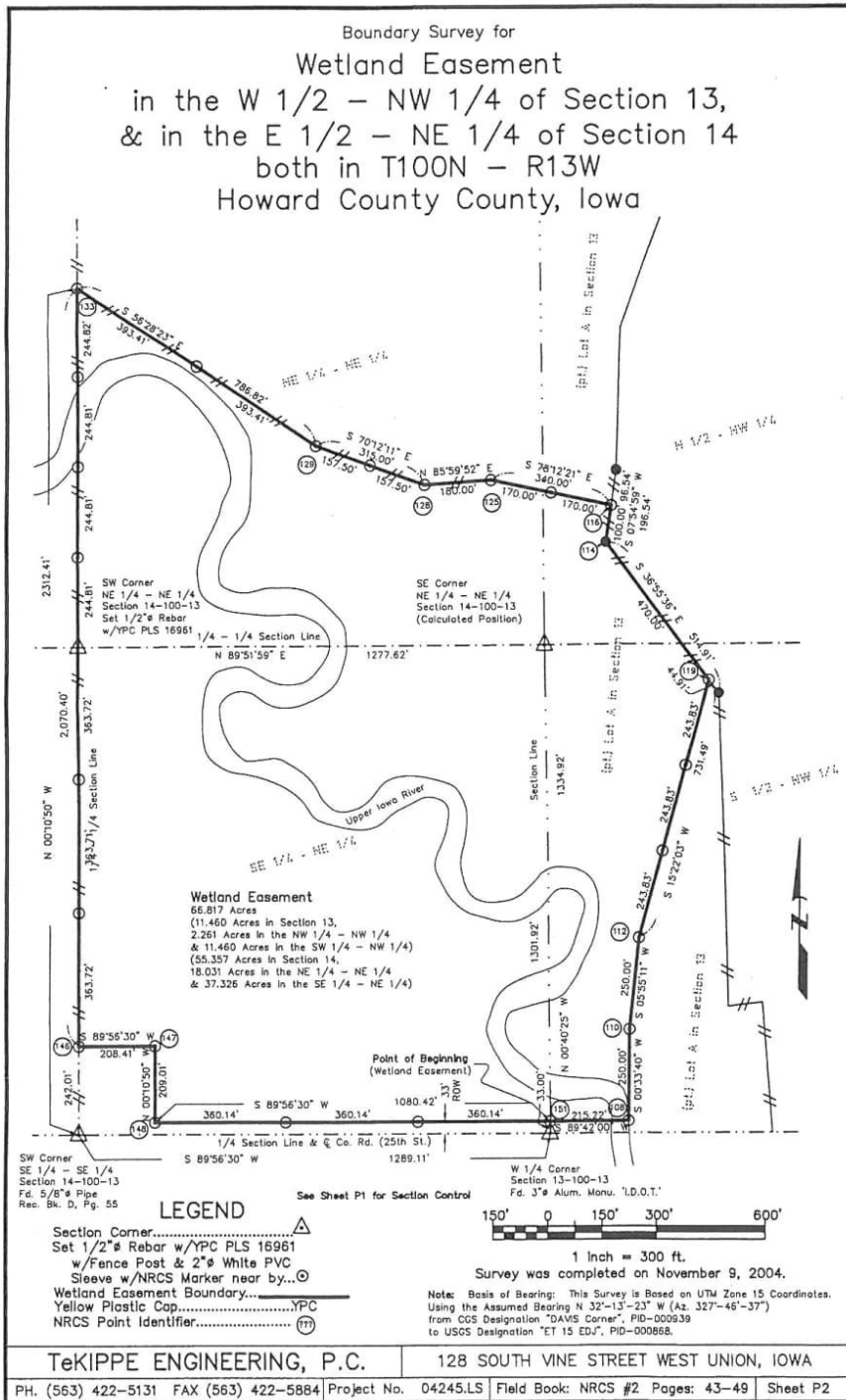
Thence South 89°-42'-00" West, 215.22 feet along said Right-of-Way Line to said Point of Beginning.

Containing 66.817 acres, subject to other easements of record.
(See plat attached to this original wetland easement description.)

Note: Basis of Bearing: This Survey is based on UTM Zone 15 Coordinates. Using the Assumed Bearing of North 32°-13'-23" West (Azimuth 327°-46'-37"), from CGS designation "Davis Corner", PID-000939 to USGS Designation "ET 15 EDJ" PID-000868.

Reference is hereby made to a Survey and Plat made by L.P. Erdman, recorded July 8, 1992, in Book D, pages 48-49, on file in the Howard County Recorder's office, Cresco, Iowa.

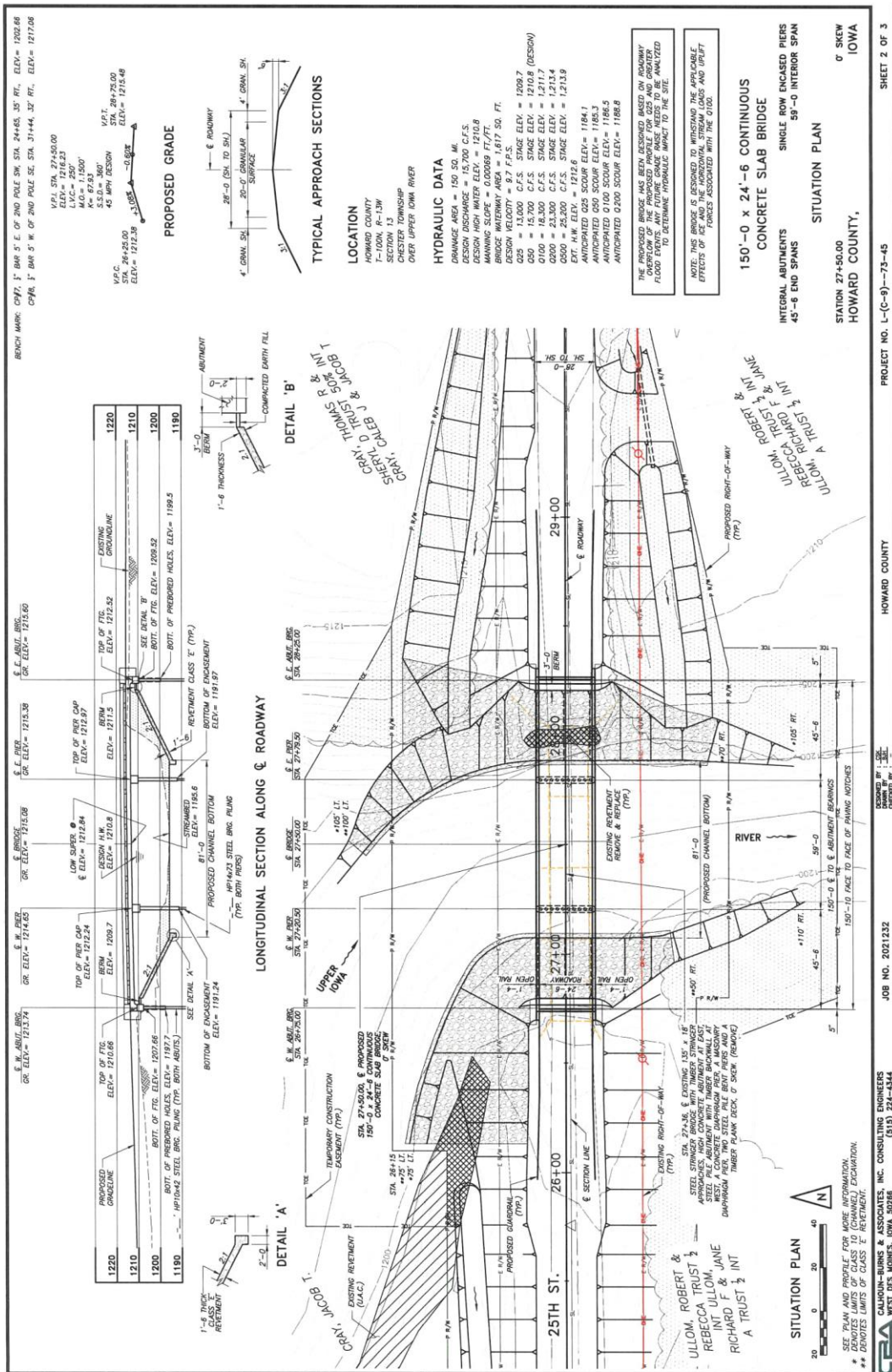


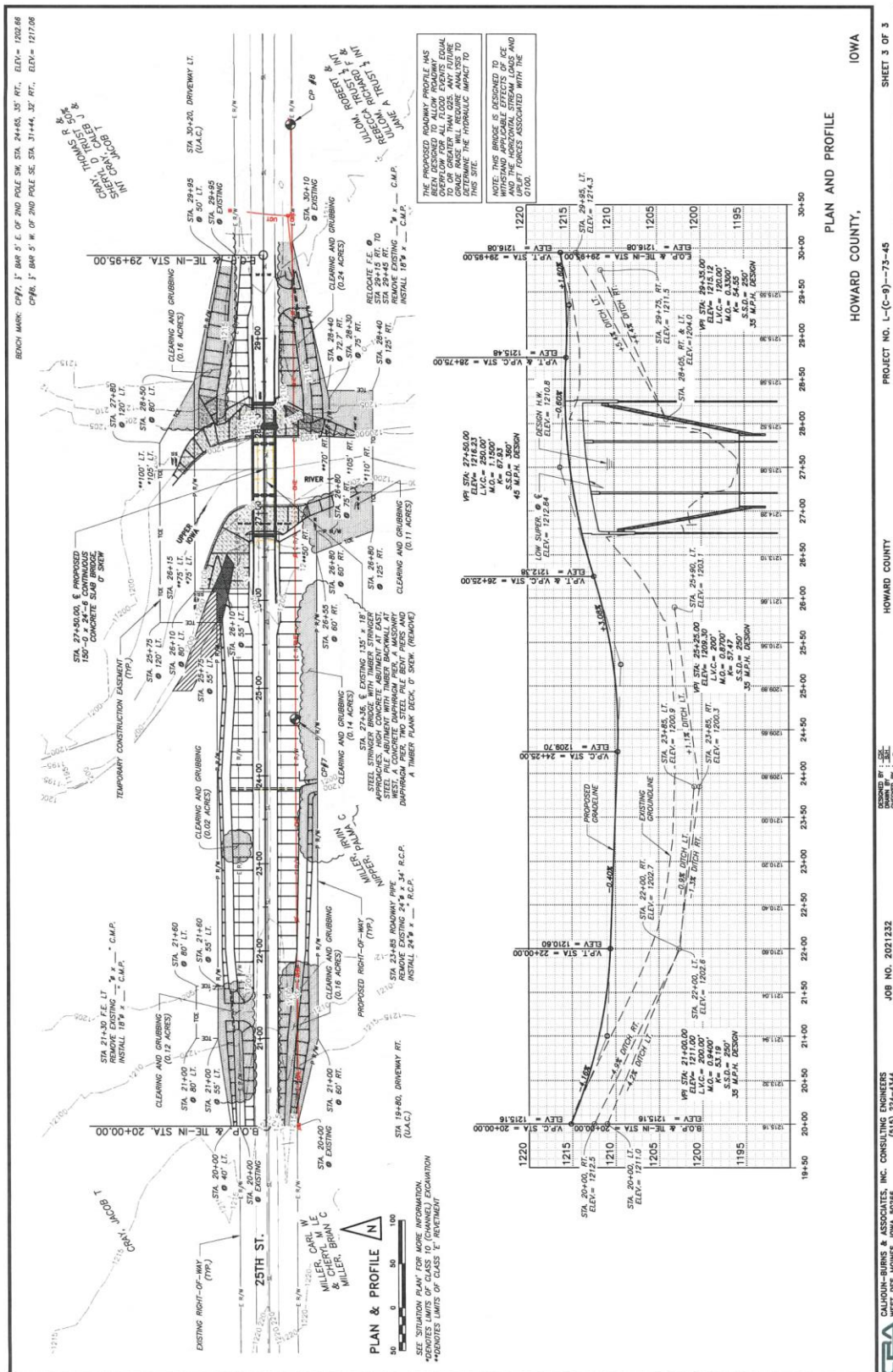


APPENDIX B. PRELIMINARY PROJECT PLANS

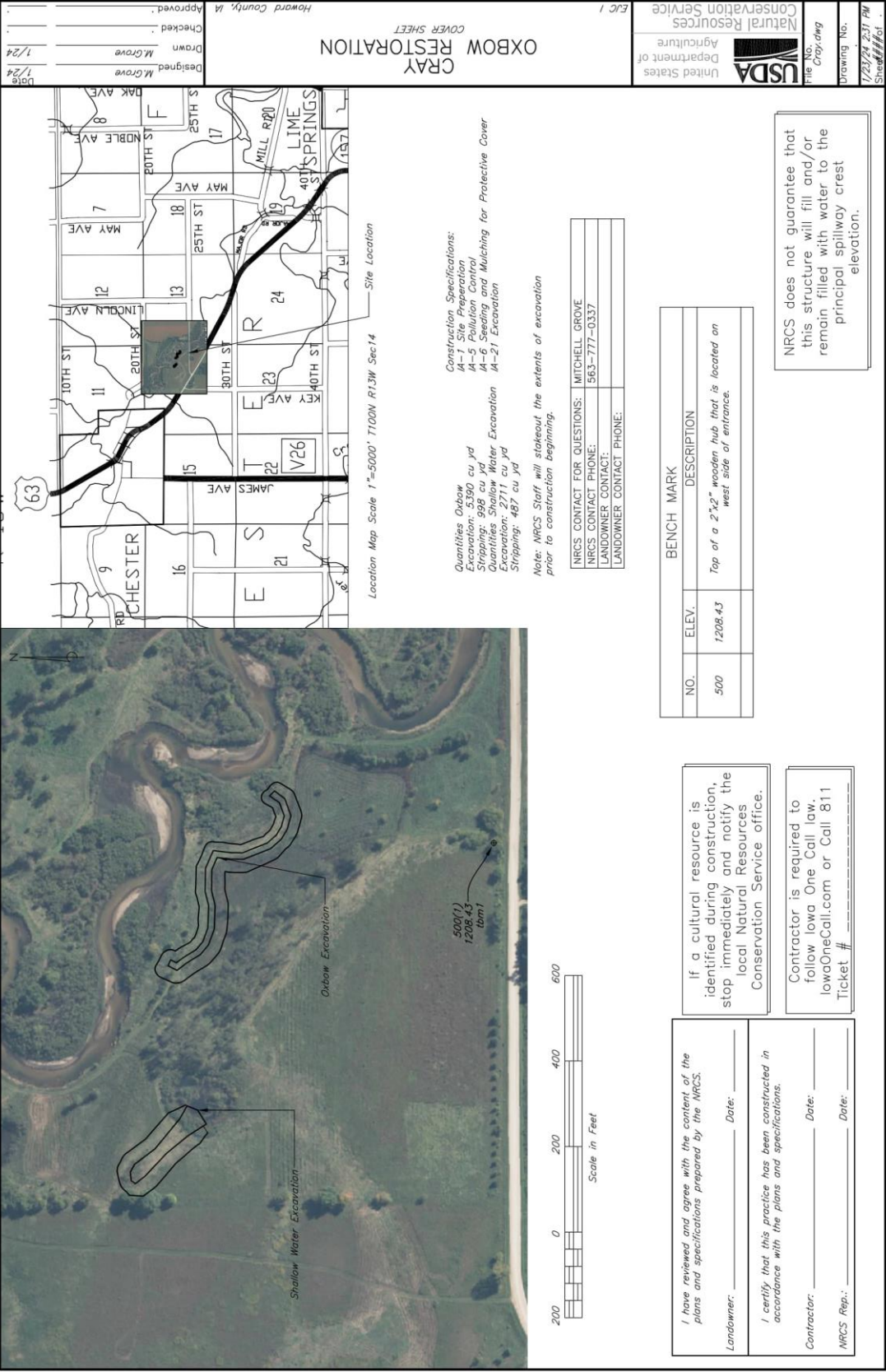
Appendix B.1. Preliminary Project Plans (Project No. L-(C-9)--73-45)

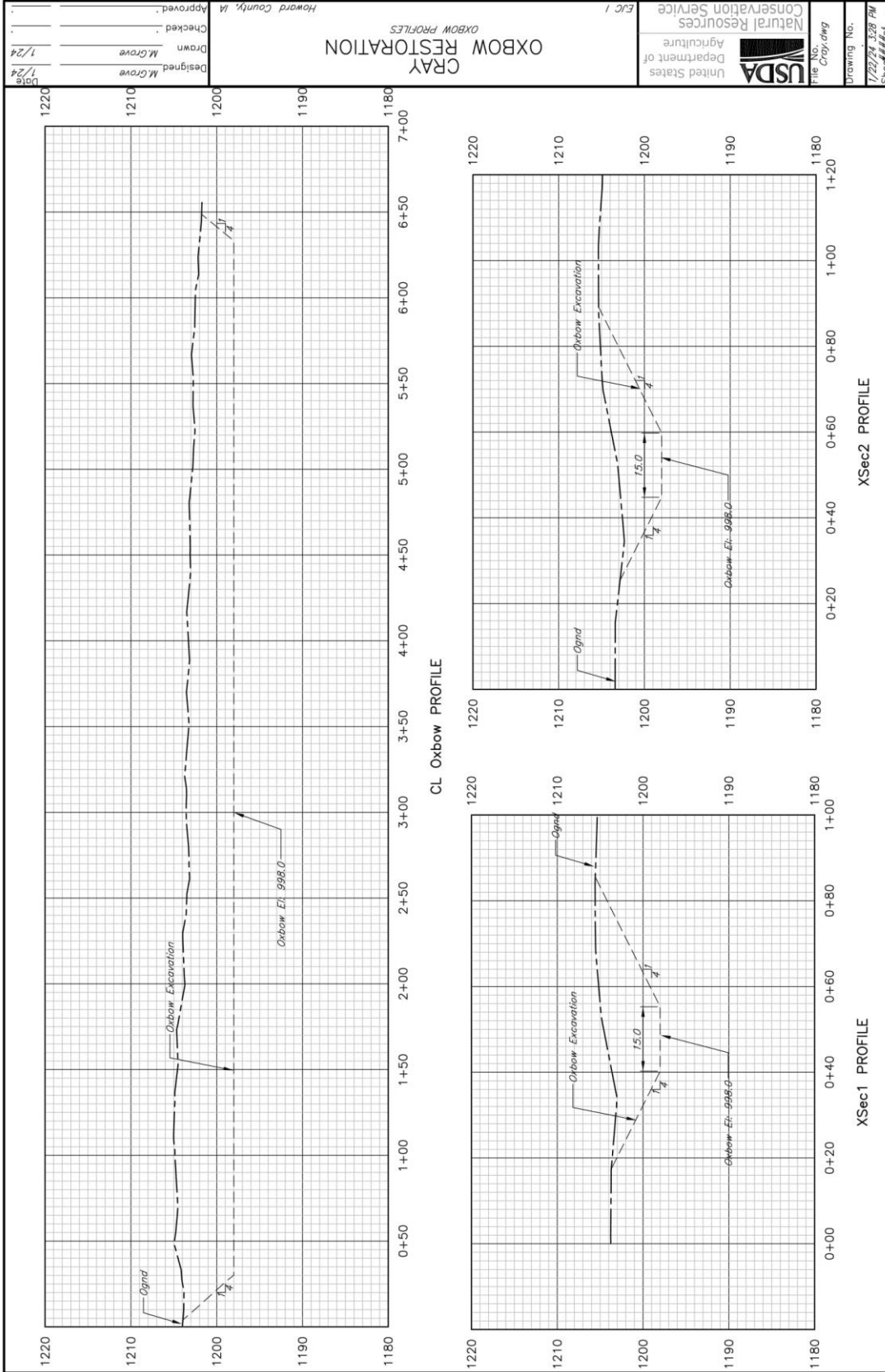
BRIDGE REPLACEMENT - CCS

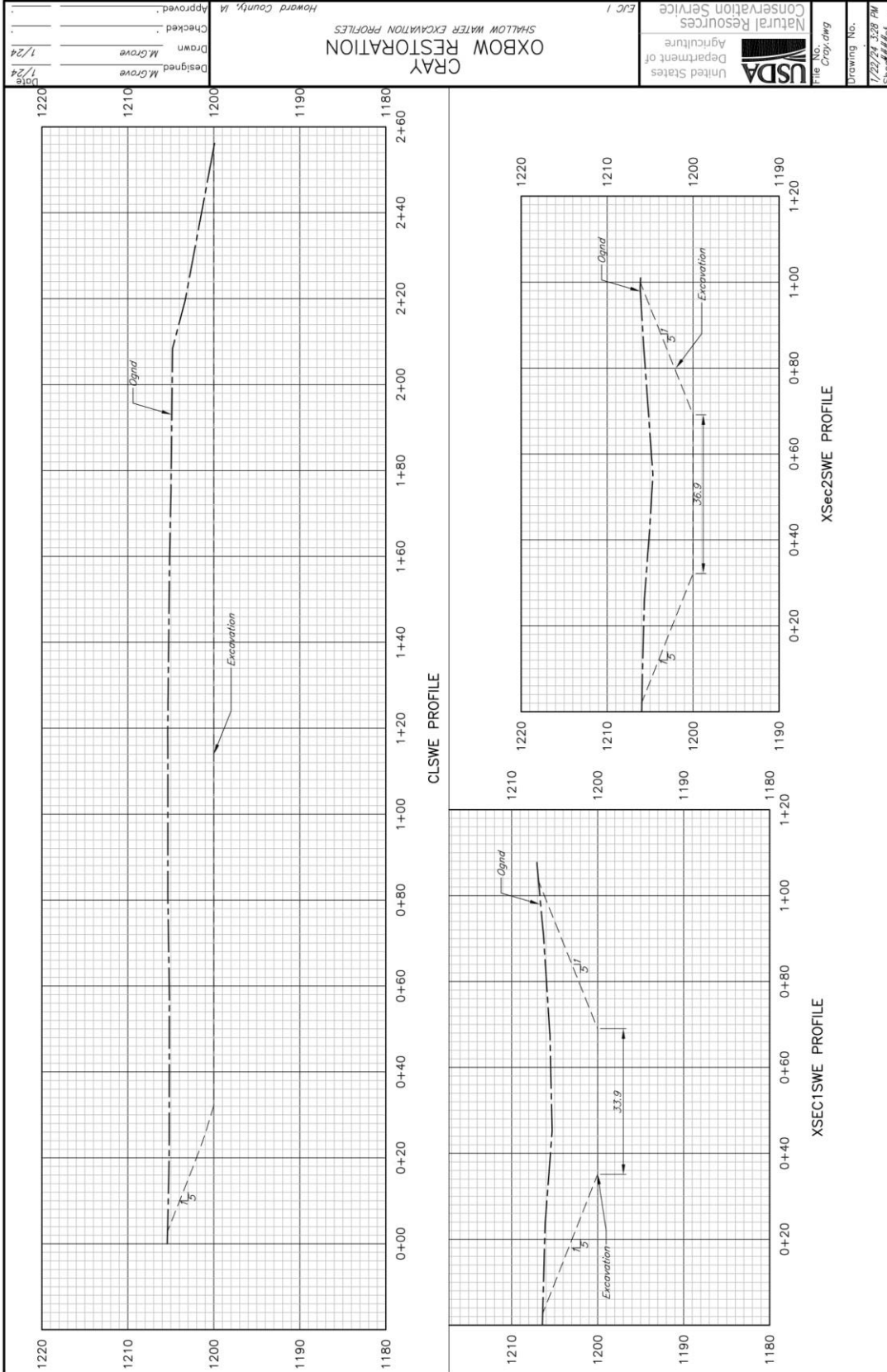


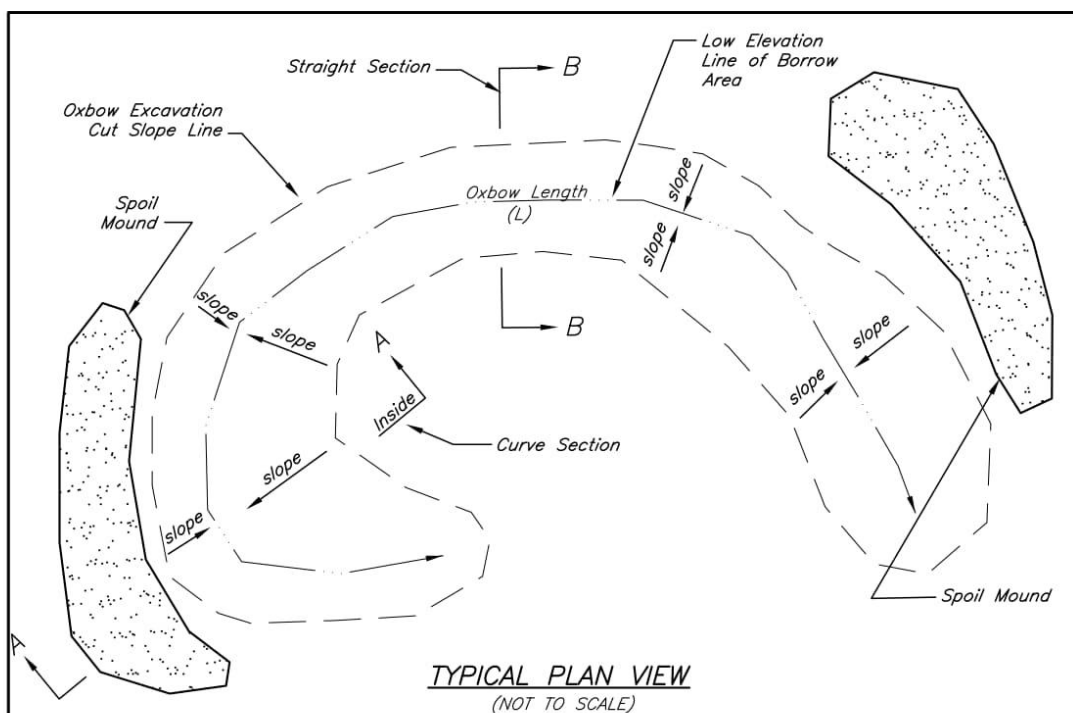


Appendix B.2. Preliminary Plans – Oxbow Restoration









NOTES:

1. Oxbow excavation cross-section locations, shapes, and layout coordinates shall be as shown on the Plan View drawing for the site or as staked in the field.
2. See Page 2 of 2 for Oxbow Channel Section Details.
3. If excavated spoil material is not needed for other purposes, it shall be used to build spoil mounds in the locations shown on the drawings or staked in the field.
4. Spoil mounds are to be constructed with minimum compactive effort.
5. Final surface of spoil mounds is to be smooth enough for operation of tillage and seeding equipment.
6. Mounds shall be discontinuous along the length of excavation.
7. Spoil mound size may vary from the plan if needed to dispose of all excavated material, but shall not be constructed higher than the elevations shown in the table.

STANDARD DWG. IA-1303		TYPICAL WETLAND OXBOW EXCAVATION		Date _____		File Name _____			
DATE	Dec. 2008			PAGE	1 OF 2	Designed _____		Drawing Name _____	
United States Department of Agriculture Natural Resources Conservation Service				Drawn _____		Sheet _____ of _____			
				Checked _____					
Approved _____				Date _____					

OXBOW EXCAVATION DIMENSION TABLE													
Oxbow		SECTION B-B				SECTION A-A					Mound Offset Distance X (ft.)	Max. Mound Height (ft.)	Excavation Volume (Cu.Yd.)
		Bottom		Side Slope WS (H:V)	Allowable Variance in Side Slope	Bottom		Side Slopes		Allowable Variance in Side Slope			
ID	Length L (ft.)	Elev.	Width (ft.)					Elev.	Width W (ft.)		BS1 (H:V)	BS2 (H:V)	
1	644	1198.0	15	4:1	3.5 to 4.5	1198.0	15	4:1	4:1	3.5 to 4.5	N/A	N/A	5390
					_____ to _____					_____ to _____			
					_____ to _____					_____ to _____			
					_____ to _____					_____ to _____			

TYPICAL STRAIGHT CROSS SECTION B-B
(NOT TO SCALE)

TYPICAL CURVE CROSS SECTION A-A
(NOT TO SCALE)

NOTES:

1. Transition between cross-section shapes by blending slopes and widths.
2. Bottom elevations shall average the elevations shown, but may vary +/- 0.5' or as directed by the Engineer. An uneven bottom surface is preferred unless otherwise noted.
3. Unless otherwise noted, side slopes of all excavations shall average those shown in the dimension table. The slope ratio may vary along the excavated length as shown in the table.
4. Spoil mound side slopes may be flatter than those shown in the detail.

STANDARD DWG. IA-1303		TYPICAL WETLAND OXBOW EXCAVATION		Date _____		File Name _____	
DATE Dec. 2008 PAGE 2 OF 2				Designed _____		Drawing Name _____	
United States Department of Agriculture Natural Resources Conservation Service				Drawn _____			
				Checked _____			
		Approved _____		Sheet _____ of _____			

APPENDIX C. OVERVIEW PHOTOGRAPHS



Photo 1 – Project Overview along the Upper Iowa River – View to the North.



Photo 2 – Project Overview along the Upper Iowa River – View to the South.



Photo 3 – Project Overview along 25th Avenue – View to the Southwest.



Photo 4 – Project Overview – Southwest Quarter – View to the Southwest.



Photo 5 – Project Overview – Southeast Quarter – View to the Southeast.



Photo 6 – Project Overview – Northwest Quarter – View to the Northwest.



Photo 7 – Project Overview – Northeast Quarter – View to the Northeast.



Photo 8 – Bridge over the Upper Iowa River – View to the South.



Photo 9 – Project Overview – Access Road – View to the Northwest.



Photo 10 – Overview of Western Oxbow Restoration Site – View to the Southeast.

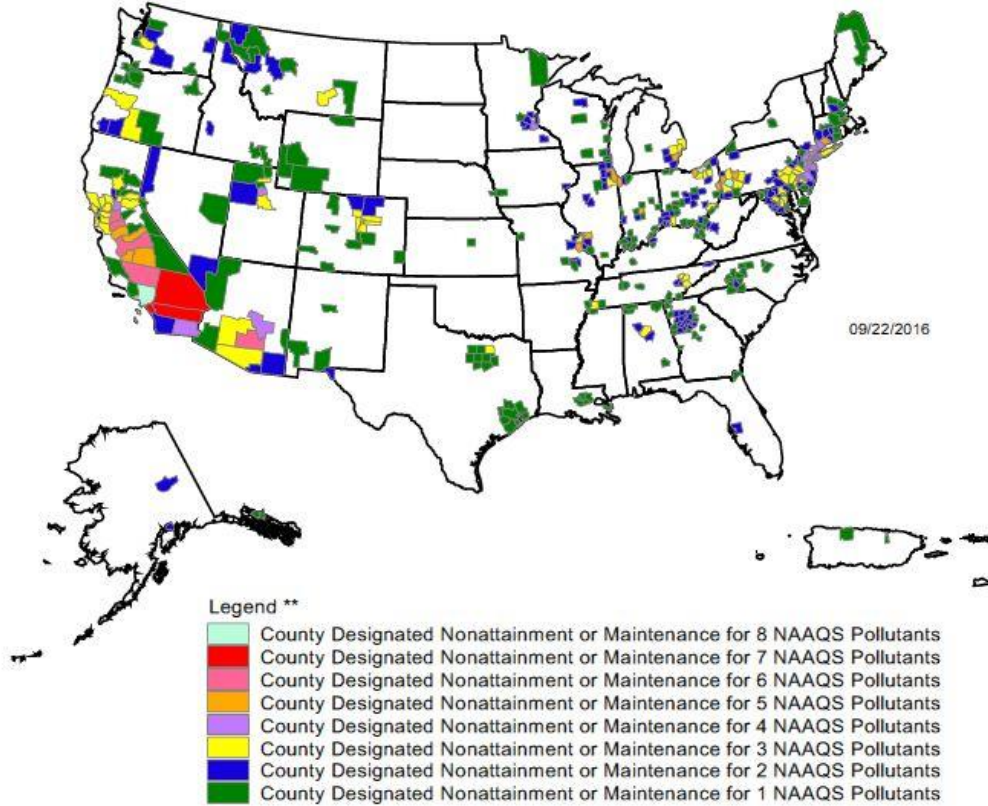


Photo 11 – Overview of Eastern Oxbow Restoration Site – View to the Southeast.

APPENDIX D. AIR QUALITY

Counties Designated "Nonattainment" or "Maintenance"

for Clean Air Act's National Ambient Air Quality Standards (NAAQS) *

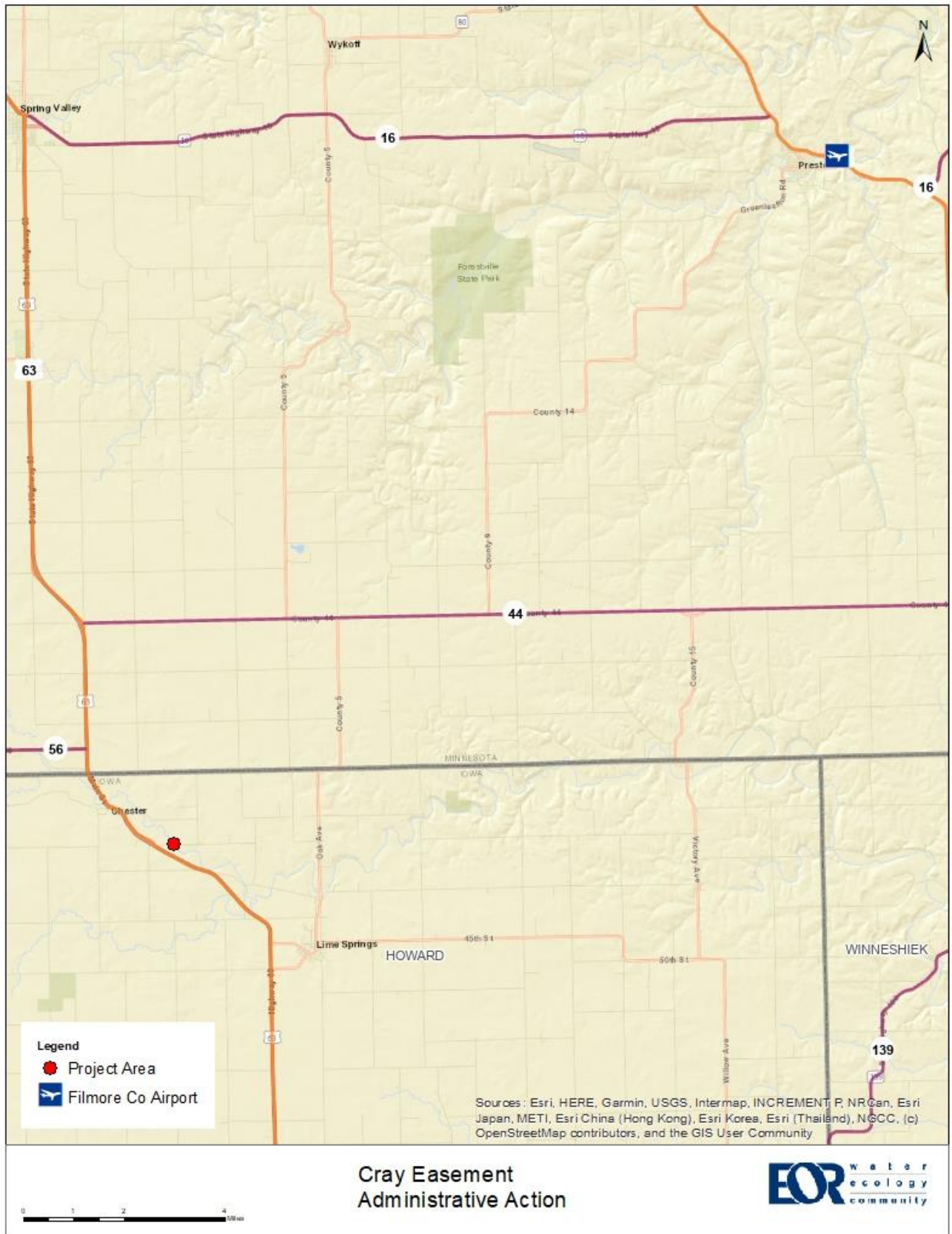


Guam - Piti and Tanguisson Counties are designated nonattainment for the SO₂ NAAQS

* The National Ambient Air Quality Standards (NAAQS) are health standards for Carbon Monoxide, Lead (1978 and 2008), Nitrogen Dioxide, 8-hour Ozone (2008), Particulate Matter (PM-10 and PM-2.5 (1997, 2006 and 2012), and Sulfur Dioxide.(1971 and 2010)

** Included in the counts are counties designated for NAAQS and revised NAAQS pollutants. Revoked 1-hour (1979) and 8-hour Ozone (1997) are excluded. Partial counties, those with part of the county designated nonattainment and part attainment, are shown as full counties on the map.

APPENDIX E. AIRPORTS



APPENDIX F. BIOLOGICAL RESOURCES

Appendix F.1. IPaC Consultation



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Illinois-Iowa Ecological Services Field Office
Illinois & Iowa Ecological Services Field Office
1511 47th Ave
Moline, IL 61265-7022
Phone: (309) 757-5800 Fax: (309) 757-5807

In Reply Refer To:

05/01/2024 20:13:54 UTC

Project Code: 2024-0084669

Project Name: Howard County 25th Street Bridge over Upper Iowa River

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The attached species list identifies federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat, if present, within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Under 50 CFR 402.12(e) (the regulations that implement Section 7 of the Endangered Species Act) **the accuracy of this species list should be verified after 90 days**. This verification can be completed formally or informally. You may verify the list by visiting the ECOSPHERE Information for Planning and Consultation (IPaC) website <https://ipac.ecosphere.fws.gov> at regular intervals during project planning and implementation and completing the same process you used to receive the attached list.

Section 7 Consultation

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representative) must consult with the U.S. Fish and Wildlife Service (Service) if they determine their project "may affect" listed species or designated critical habitat. Under the ESA, it is the responsibility of the Federal action agency or its designated representative to determine if a proposed action may affect endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with the Service further. Similarly, it is the responsibility of the Federal action agency or project proponent, not the Service to make "no effect" determinations. If you determine that your proposed action will have no effect on threatened or endangered species or their respective designated critical habitat, you do not need to seek concurrence with the Service.

Note: For some species or projects, IPaC will present you with *Determination Keys*. You may be able to use one or

more Determination Keys to conclude consultation on your action.

Technical Assistance for Listed Species

1. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain information on the species life history, species status, current range, and other documents by selecting the species from the thumbnails or list view and visiting the species profile page.

No Effect Determinations for Listed Species

1. If there are *no* species or designated critical habitats on the Endangered Species portion of the species list: conclude "no species and no critical habitat present" and document your finding in your project records. No consultation under ESA section 7(a)(2) is required if the action would result in no effects to listed species or critical habitat. Maintain a copy of this letter and IPaC official species list for your records.
2. If any species or designated critical habitat are listed as potentially present in the **action area** of the proposed project the project proponents are responsible for determining if the proposed action will have "no effect" on any federally listed species or critical habitat. No effect, with respect to species, means that no individuals of a species will be exposed to any consequence of a federal action or that they will not respond to such exposure.
3. If the species habitat is not present within the action area or current data (surveys) for the species in the action area are negative: conclude "no species habitat or species present" and document your finding in your project records. For example, if the project area is located entirely within a "developed area" (an area that is already graveled/paved or supports structures and the only vegetation is limited to frequently mowed grass or conventional landscaping, is located within an existing maintained facility yard, or is in cultivated cropland conclude no species habitat present. Be careful when assessing actions that affect: 1) rights-of-ways that contains natural or semi-natural vegetation despite periodic mowing or other management; structures that have been known to support listed species (example: bridges), and 2) surface water or groundwater. Several species inhabit rights-of-ways, and you should carefully consider effects to surface water or groundwater, which often extend outside of a project's immediate footprint.
4. Adequacy of Information & Surveys - Agencies may base their determinations on the best evidence that is available or can be developed during consultation. Agencies must give the benefit of any doubt to the species when there are any inadequacies in the information. Inadequacies may include uncertainty in any step of the analysis. To provide adequate information on which to base a determination, it may be appropriate to conduct surveys to determine whether listed species or their habitats are present in the action area. Please contact our office for more information or see the survey guidelines that the Service has made available in IPaC.

May Effect Determinations for Listed Species

1. If the species habitat is present within the action area and survey data is unavailable or inconclusive: assume the species is present or plan and implement surveys and interpret results in coordination with our office. If assuming species present or surveys for the species are positive continue with the may affect determination process. May affect, with respect to a species, is the appropriate conclusion when a species might be exposed to a consequence of a federal action and could respond to that exposure. For critical habitat, 'may affect' is the appropriate conclusion if the action area overlaps with mapped areas of critical habitat and an essential physical or biological feature may be exposed to a consequence of a federal action and could change in response to that exposure.
2. Identify stressors or effects to the species and to the essential physical and biological features of critical habitat that overlaps with the action area. Consider all consequences of the action and assess the potential for each life stage of the species that occurs in the action area to be exposed to the stressors. Deconstruct the action into its component parts to be sure that you do not miss any part of the action that could cause effects to the species or physical and biological features of critical habitat. Stressors that affect species' resources may have consequences even if the species is not present when the project is implemented.
3. If no listed or proposed species will be exposed to stressors caused by the action, a 'no effect' determination may be appropriate – be sure to separately assess effects to critical habitat, if any overlaps with the action

area. If you determined that the proposed action or other activities that are caused by the proposed action may affect a species or critical habitat, the next step is to describe the manner in which they will respond or be altered. Specifically, to assess whether the species/critical habitat is "not likely to be adversely affected" or "likely to be adversely affected."

4. Determine how the habitat or the resource will respond to the proposed action (for example, changes in habitat quality, quantity, availability, or distribution), and assess how the species is expected to respond to the effects to its habitat or other resources. Critical habitat analyses focus on how the proposed action will affect the physical and biological features of the critical habitat in the action area. If there will be only beneficial effects or the effects of the action are expected to be insignificant or discountable, conclude "may affect, not likely to adversely affect" and submit your finding and supporting rationale to our office and request concurrence.
5. If you cannot conclude that the effects of the action will be wholly beneficial, insignificant, or discountable, check IPaC for species-specific Section 7 guidance and conservation measures to determine whether there are any measures that may be implemented to avoid or minimize the negative effects. If you modify your proposed action to include conservation measures, assess how inclusion of those measures will likely change the effects of the action. If you cannot conclude that the effects of the action will be wholly beneficial, insignificant, or discountable, contact our office for assistance.
6. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

For additional information on completing Section 7 Consultation including a Glossary of Terms used in the Section 7 Process, information requirements for completing Section 7, and example letters visit the Midwest Region Section 7 Consultations website at: <https://www.fws.gov/office/midwest-region-headquarters/midwest-section-7-technical-assistance>.

You may find more specific information on completing Section 7 on communication towers and transmission lines on the following websites:

- Incidental Take Beneficial Practices: Power Lines - <https://www.fws.gov/story/incidental-take-beneficial-practices-power-lines>
- Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning. - <https://www.fws.gov/media/recommended-best-practices-communication-tower-design-siting-construction-operation>

Tricolored Bat Update

On September 14, 2022, the Service published a proposal in the Federal Register to list the tricolored bat (*Perimyotis subflavus*) as endangered under the Endangered Species Act (ESA). The Service has up to 12-months from the date the proposal published to make a final determination, either to list the tricolored bat under the Act or to withdraw the proposal. The Service determined the bat faces extinction primarily due to the rangewide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across North America. Because tricolored bat populations have been greatly reduced due to WNS, surviving bat populations are now more vulnerable to other stressors such as human disturbance and habitat loss. Species proposed for listing are not afforded protection under the ESA; however, as soon as a listing becomes effective (typically 30 days after publication of the final rule in the Federal Register), the prohibitions against jeopardizing its continued existence and "take" will apply. Therefore, if your future or existing project has the potential to adversely affect tricolored bats after the potential new listing goes into effect, we recommend that the effects of the project on tricolored bat and their habitat be analyzed to determine whether authorization under ESA section 7 or 10 is necessary. Projects with an existing section 7 biological opinion may require

reinitiation of consultation, and projects with an existing section 10 incidental take permit may require an amendment to provide uninterrupted authorization for covered activities. Contact our office for assistance.

Other Trust Resources and Activities

Bald and Golden Eagles

Although no longer protected under the Endangered Species Act, be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act, as are golden eagles. Projects affecting these species may require measures to avoid harming eagles or may require a permit. If your project is near an eagle nest or winter roost area, please contact our office for further coordination. For more information on permits and other eagle information visit our website <https://www.fws.gov/library/collections/bald-and-golden-eagle-management>. We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Illinois-Iowa Ecological Services Field Office
Illinois & Iowa Ecological Services Field Office
1511 47th Ave
Moline, IL 61265-7022
(309) 757-5800

PROJECT SUMMARY

Project Code: 2024-0084669
Project Name: Howard County 25th Street Bridge over Upper Iowa River
Project Type: Bridge - Replacement
Project Description: The Howard County Engineer’s Office (County) proposes to replace the existing 25th Street over the Upper Iowa Bridge (Bridge C-9) in unincorporated north-central Howard County, Iowa (Project L-(C-9)--73-45). The bridge replacement would require 0.77 acres of new permanent and temporary construction easement on ground held in a permanent conservation easement by the Natural Resource Conservation Service (NRCS) through the Agricultural Conservation Easement Program (ACEP), Wetland Reserve Easement (WRE) administered under the Food Security Act (FSA). The NRCS maintains the 66.81-acre easement (Easement 666114040087F – referred to as the Cary Easement in this review) under a permanent contract.

Project Location:
The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@43.47966915,-92.33650299903684,14z>



Counties: Howard County, Iowa

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Prairie Bush-clover <i>Lespedeza leptostachya</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4458	Threatened
Western Prairie Fringed Orchid <i>Platanthera praeclara</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1669	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the ["Supplemental Information on Migratory Birds and Eagles"](#).

1. The [Bald and Golden Eagle Protection Act](#) of 1940.
2. The [Migratory Birds Treaty Act](#) of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (🟡)

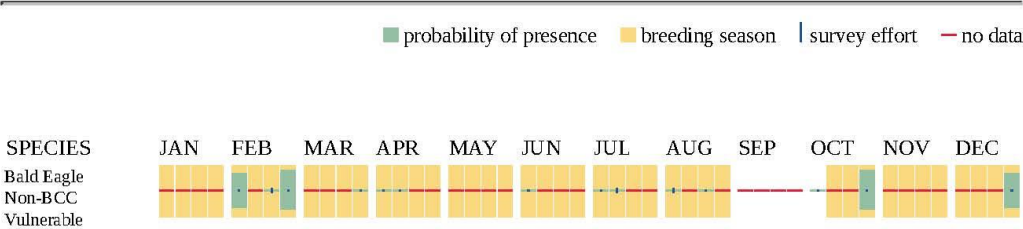
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (I)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the **PROBABILITY OF PRESENCE SUMMARY** below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Prairie Loggerhead Shrike <i>Lanius ludovicianus excubitorides</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8833	Breeds Feb 1 to Jul 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

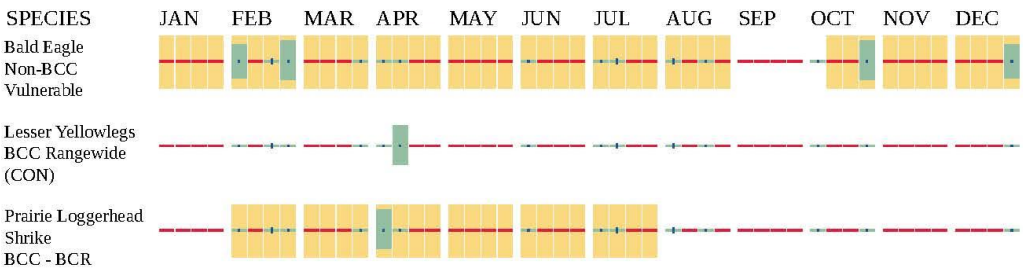
Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

■ probability of presence ■ breeding season | survey effort — no data



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE VISIT [HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML](https://www.fws.gov/wetlands/data/mapper.html) OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

IPAC USER CONTACT INFORMATION

Agency: County of Howard
Name: Kevin Griggs
Address: 1002 Quartz Ave.
City: Boone
State: IA
Zip: 50036
Email: kgriggs@eorinc.com
Phone: 5152307044

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Natural Resources Conservation Service
Name: John Paulin
Email: john.paulin@usda.gov
Phone: 5153232237



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Illinois-Iowa Ecological Services Field Office
Illinois & Iowa Ecological Services Field Office
1511 47th Ave
Moline, IL 61265-7022
Phone: (309) 757-5800 Fax: (309) 757-5807



In Reply Refer To:

05/01/2024 20:21:49 UTC

Project code: 2024-0084669

Project Name: Howard County 25th Street Bridge over Upper Iowa River

Subject: Consistency letter for the 'Howard County 25th Street Bridge over Upper Iowa River' project under the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (NLEB).

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request dated May 01, 2024 to verify that the **Howard County 25th Street Bridge over Upper Iowa River** (Proposed Action) may rely on the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 *et seq.*).

Based on the information you provided (Project Description shown below), you have determined that the Proposed Action will have no effect on the endangered Indiana bat (*Myotis sodalis*) or the endangered northern long-eared bat (*Myotis septentrionalis*). If the Proposed Action is not modified, **no consultation is required for these two species**. If the Proposed Action is modified, or new information reveals that it may affect the Indiana bat and/or northern long-eared bat in a manner or to an extent not considered in the PBO, further review to conclude the requirements of ESA section 7(a)(2) may be required.

For Proposed Actions that include bridge/culvert or structure removal, replacement, and/or maintenance activities:

If your initial bridge/culvert or structure assessment failed to detect Indiana bats and/or NLEBs use or occupancy, yet later detected prior to, or during construction, please submit the Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form (User Guide Appendix E) to this Service Office within 2 working days of the incident. In these instances, potential incidental take of Indiana bats and/or NLEBs may be exempted provided that the take is reported to the Service.

If the Proposed Action may affect any other federally-listed or proposed species and/or designated critical habitat, additional consultation between the lead Federal action agency and this Service Office is required. If the proposed action has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act may also be required. In either of these circumstances, please advise the lead Federal action agency accordingly.

The following species may occur in your project area and **are not** covered by this determination:

- Monarch Butterfly *Danaus plexippus* Candidate
- Prairie Bush-clover *Lespedeza leptostachya* Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered
- Western Prairie Fringed Orchid *Platanthera praeclara* Threatened

PROJECT DESCRIPTION

The following project name and description was collected in IPaC as part of the endangered species review process.

NAME

Howard County 25th Street Bridge over Upper Iowa River

DESCRIPTION

The Howard County Engineer's Office (County) proposes to replace the existing 25th Street over the Upper Iowa Bridge (Bridge C-9) in unincorporated north-central Howard County, Iowa (Project L-(C-9)--73-45). The bridge replacement would require 0.77 acres of new permanent and temporary construction easement on ground held in a permanent conservation easement by the Natural Resource Conservation Service (NRCS) through the Agricultural Conservation Easement Program (ACEP), Wetland Reserve Easement (WRE) administered under the Food Security Act (FSA). The NRCS maintains the 66.81-acre easement (Easement 666114040087F – referred to as the Cary Easement in this review) under a permanent contract.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@43.47966915,-92.33650299903684,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the endangered Indiana bat and/or the endangered northern long-eared bat. Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for these two species.

QUALIFICATION INTERVIEW

1. Is the project within the range of the Indiana bat^[1]?

[1] See [Indiana bat species profile](#)

Automatically answered

No

2. Is the project within the range of the northern long-eared bat^[1]?

[1] See [northern long-eared bat species profile](#)

Automatically answered

Yes

3. Which Federal Agency is the lead for the action?

A) Federal Highway Administration (FHWA)

4. Are *all* project activities limited to non-construction^[1] activities only? (examples of non-construction activities include: bridge/abandoned structure assessments, surveys, planning and technical studies, property inspections, and property sales)

[1] Construction refers to activities involving ground disturbance, percussive noise, and/or lighting.

No

5. Does the project include *any* activities that are **greater than** 300 feet from existing road/rail surfaces^[1]?

[1] Road surface is defined as the actively used [e.g. motorized vehicles] driving surface and shoulders [may be pavement, gravel, etc.] and rail surface is defined as the edge of the actively used rail ballast.

Yes

6. Are *all* project activities **greater than** 300 feet from existing road/rail surfaces^[1]?

[1] Road surface is defined as the actively used [e.g. motorized vehicles] driving surface and shoulders [may be pavement, gravel, etc.] and rail surface is defined as the edge of the actively used rail ballast.

No

7. Does the project include *any* activities **within** 0.5 miles of a known Indiana bat and/or NLEB hibernaculum^[1]?

[1] For the purpose of this consultation, a hibernaculum is a site, most often a cave or mine, where bats hibernate during the winter (see suitable habitat), but could also include bridges and structures if bats are found to be hibernating there during the winter.

No

8. Is the project located **within** a karst area?

No

9. Is there *any* suitable^[1] summer habitat for Indiana Bat or NLEB **within** the project action area^[2]? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

[2] The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR Section 402.02). Further clarification is provided by the [User's Guide for the Range-wide Programmatic Consultation for Indiana Bat and Northern Long-eared Bat](#).

No

10. Does the project include maintenance of the surrounding landscape at existing facilities (e.g., rest areas, stormwater detention basins)?

No

11. Does the project include wetland or stream protection activities associated with compensatory wetland mitigation?

Yes

12. Does the project include slash pile burning?

No

13. Does the project include *any* bridge removal, replacement, and/or maintenance activities (e.g., any bridge repair, retrofit, maintenance, and/or rehabilitation work)?

Yes

14. Is there *any* suitable habitat^[1] for Indiana bat or NLEB **within** 1,000 feet of the bridge? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

[1] See the Service's current [summer survey guidance](#) for our current definitions of suitable habitat.

No

15. Does the project include the removal, replacement, and/or maintenance of *any* structure other than a bridge? (e.g., rest areas, offices, sheds, outbuildings, barns, parking garages, etc.)

No

16. Will the project involve the use of **temporary** lighting *during* the active season?

No

17. Will the project install new or replace existing **permanent** lighting?

No

18. Does the project include percussives or other activities (**not including tree removal/trimming or bridge/structure work**) that will increase noise levels above existing traffic/background levels?

No

19. Are *all* project activities that are **not associated with** habitat removal, tree removal/trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives, limited to actions that DO NOT cause any additional stressors to the bat species?

Examples: lining roadways, unlighted signage, rail road crossing signals, signal lighting, and minor road repair such as asphalt fill of potholes, etc.

Yes

20. Will the project raise the road profile **above the tree canopy**?

No

21. Is the location of this project consistent with a No Effect determination in this key?

Automatically answered

Yes, because the project action area is not within suitable Indiana bat and/or NLEB summer habitat and is outside of 0.5 miles of a hibernaculum.

22. Is the bridge removal, replacement, or maintenance activities portion of this project consistent with a No Effect determination in this key?

Automatically answered

Yes, because the bridge is more than 1,000 feet from the nearest suitable habitat and is therefore considered unsuitable for use by bats

DETERMINATION KEY DESCRIPTION: FHWA, FRA, FTA PROGRAMMATIC CONSULTATION FOR TRANSPORTATION PROJECTS AFFECTING NLEB OR INDIANA BAT

This key was last updated in IPaC on October 30, 2023. Keys are subject to periodic revision.

This decision key is intended for projects/activities funded or authorized by the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and/or Federal Transit Administration (FTA), which may require consultation with the U.S. Fish and Wildlife Service (Service) under Section 7 of the Endangered Species Act (ESA) for the endangered **Indiana bat** (*Myotis sodalis*) and the endangered **northern long-eared bat** (NLEB) (*Myotis septentrionalis*).

This decision key should only be used to verify project applicability with the Service's [amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion \(dated March 23, 2023\) for Transportation Projects](#). The programmatic biological opinion covers limited transportation activities that may affect either bat species, and addresses situations that are both likely and not likely to adversely affect either bat species. This decision key will assist in identifying the effect of a specific project/activity and applicability of the programmatic consultation. The programmatic biological opinion is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic biological opinion, or that may affect ESA-listed species other than the Indiana bat or NLEB, or any designated critical habitat, may require additional ESA Section 7 consultation.

IPAC USER CONTACT INFORMATION

Agency: County of Howard
Name: Kevin Griggs
Address: 1002 Quartz Ave.
City: Boone
State: IA
Zip: 50036
Email: kgriggs@eorinc.com
Phone: 5152307044

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Natural Resources Conservation Service
Name: John Paulin
Email: john.paulin@usda.gov
Phone: 5153232237

Appendix F.2. Iowa Natural Areas Inventory

Listed Species In a County

[<< Back To Query Page](#)

HOWARD County, IA

Summary by Species Report

Total Unique Listed Species In This County: 69

County	Common Name	Scientific Name	Class	State Status	Federal Status	Link To Species Profile
HOWARD	Mudpuppy	<i>Necturus maculosus</i>	AMPHIBIANS	T		PDF
HOWARD	Bald Eagle	<i>Haliaeetus leucocephalus</i>	BIRDS	S		PDF
HOWARD	Henslow's Sparrow	<i>Ammodramus henslowii</i>	BIRDS	T		PDF
HOWARD	Northern Harrier	<i>Circus cyaneus</i>	BIRDS	E		PDF
HOWARD	Short-eared Owl	<i>Asio flammeus</i>	BIRDS	E		PDF
HOWARD	American Brook Lamprey	<i>Lampetra appendix</i>	FISH	T		PDF
HOWARD	Black Redhorse	<i>Moxostoma duquesnei</i>	FISH	T		PDF
HOWARD	Creek Heelsplitter	<i>Lasmigona compressa</i>	FRESHWATER MUSSELS	T		
HOWARD	Creeper	<i>Strophitus undulatus</i>	FRESHWATER MUSSELS	T		
HOWARD	Cylindrical Papershell	<i>Anodontoidea ferussacianus</i>	FRESHWATER MUSSELS	T		
HOWARD	Ellipse	<i>Venusta concha ellipsiformis</i>	FRESHWATER MUSSELS	T		
HOWARD	Acadian Hairstreak	<i>Satyrus acadicum</i>	INSECTS	S		
HOWARD	Poweshiek Skipperling	<i>Oarisma poweshiek</i>	INSECTS	T	E	
HOWARD	Regal Fritillary	<i>Speyeria idalia</i>	INSECTS	S		
HOWARD	Silvery Blue	<i>Glaucopsyche lygdamus</i>	INSECTS	T		
HOWARD	Two-spotted Skipper	<i>Euphyes bimacula</i>	INSECTS	S		
HOWARD	Spotted Skunk	<i>Spilogale putorius</i>	MAMMALS	E		PDF
HOWARD	Alderleaf Buckthorn	<i>Rhamnus alnifolia</i>	PLANTS (DICOTS)	S		
HOWARD	Bog Birch	<i>Betula pumila</i>	PLANTS (DICOTS)	T		
HOWARD	Brook Lobelia	<i>Lobelia kalmii</i>	PLANTS (DICOTS)	S		
HOWARD	Earleaf Foxglove	<i>Tomanthera auriculata</i>	PLANTS (DICOTS)	S		
HOWARD	Fineberry Hawthorn	<i>Crataegus chrysocarpa</i>	PLANTS (DICOTS)	S		
HOWARD	Flat Top White Aster	<i>Aster pubentior</i>	PLANTS (DICOTS)	S		
HOWARD	Glade Mallow	<i>Napaea dioica</i>	PLANTS (DICOTS)	S		
HOWARD	Golden Saxifrage	<i>Chrysosplenium iowense</i>	PLANTS (DICOTS)	T		PDF
HOWARD	Hill's Thistle	<i>Cirsium hillii</i>	PLANTS (DICOTS)	S		
HOWARD	Kidney-leaf White Violet	<i>Viola renifolia</i>	PLANTS (DICOTS)	T		PDF
HOWARD	Muskroot	<i>Adoxa moschatellina</i>	PLANTS (DICOTS)	S		
HOWARD	Northern Lungwort	<i>Mertensia paniculata</i>	PLANTS (DICOTS)	E		
HOWARD	Pink Shinleaf	<i>Pyrola asarifolia</i>	PLANTS (DICOTS)	E		
HOWARD	Prairie Bush Clover	<i>Lespedeza leptostachya</i>	PLANTS (DICOTS)	T	T	PDF
HOWARD	Purple Angelica	<i>Angelica atropurpurea</i>	PLANTS (DICOTS)	S		

HOWARD	Rush Aster	<i>Aster junciformis</i>	PLANTS (DICOTS)	T		
HOWARD	Sage Willow	<i>Salix candida</i>	PLANTS (DICOTS)	S		
HOWARD	Small Fringed Gentian	<i>Gentianopsis procera</i>	PLANTS (DICOTS)	S		
HOWARD	Small Sundrops	<i>Oenothera perennis</i>	PLANTS (DICOTS)	T		
HOWARD	Swamp Thistle	<i>Cirsium muticum</i>	PLANTS (DICOTS)	S		
HOWARD	Sweet Indian Plantain	<i>Cacalia suaveolens</i>	PLANTS (DICOTS)	T		
HOWARD	Valerian	<i>Valeriana edulis</i>	PLANTS (DICOTS)	S		
HOWARD	Violet	<i>Viola macloskeyi</i>	PLANTS (DICOTS)	S		
HOWARD	Winterberry	<i>Ilex verticillata</i>	PLANTS (DICOTS)	E		
HOWARD	Balsam Fir	<i>Abies balsamea</i>	PLANTS (GYMNOSPERMS)	S		PDF
HOWARD	Arrow Grass	<i>Triglochin maritimum</i>	PLANTS (MONOCOTS)	T		PDF
HOWARD	Beakrush	<i>Rhynchospora capillacea</i>	PLANTS (MONOCOTS)	T		PDF
HOWARD	Bog Bluegrass	<i>Poa paludigena</i>	PLANTS (MONOCOTS)	S		PDF
HOWARD	Field Sedge	<i>Carex conoidea</i>	PLANTS (MONOCOTS)	S		
HOWARD	Grass Pink	<i>Calopogon tuberosus</i>	PLANTS (MONOCOTS)	S		PDF
HOWARD	Green's Rush	<i>Juncus greenii</i>	PLANTS (MONOCOTS)	S		
HOWARD	Hidden Sedge	<i>Carex umbellata</i>	PLANTS (MONOCOTS)	S		
HOWARD	Leafy Northern Green Orchid	<i>Platanthera hyperborea</i>	PLANTS (MONOCOTS)	T		PDF
HOWARD	Nodding Onion	<i>Allium cernuum</i>	PLANTS (MONOCOTS)	T		
HOWARD	Northern Panic-grass	<i>Dichanthelium boreale</i>	PLANTS (MONOCOTS)	E		
HOWARD	Pale Green Orchid	<i>Platanthera flava</i>	PLANTS (MONOCOTS)	E		
HOWARD	Purple Fringed Orchid	<i>Platanthera psycodes</i>	PLANTS (MONOCOTS)	T		
HOWARD	Richardson Sedge	<i>Carex richardsonii</i>	PLANTS (MONOCOTS)	S		
HOWARD	Slender Sedge	<i>Carex tenera</i>	PLANTS (MONOCOTS)	S		
HOWARD	Small White Lady's Slipper	<i>Cypripedium candidum</i>	PLANTS (MONOCOTS)	S		
HOWARD	Tall Cotton Grass	<i>Eriophorum angustifolium</i>	PLANTS (MONOCOTS)	S		
HOWARD	Toad Rush	<i>Juncus bufonius</i>	PLANTS (MONOCOTS)	S		
HOWARD	Vasey's Rush	<i>Juncus vaseyi</i>	PLANTS (MONOCOTS)	S		
HOWARD	Western Prairie Fringed Orchid	<i>Platanthera praeclara</i>	PLANTS (MONOCOTS)	T	T	PDF
HOWARD	Limestone Oak Fern	<i>Gymnocarpium robertianum</i>	PLANTS (PTERIDOPHYTES)	S		PDF
HOWARD	Northern Adder's-tongue	<i>Ophioglossum pusillum</i>	PLANTS (PTERIDOPHYTES)	S		
HOWARD	Prairie Moonwort	<i>Botrychium campestre</i>	PLANTS (PTERIDOPHYTES)	S		
HOWARD	Woodland Horsetail	<i>Equisetum sylvaticum</i>	PLANTS (PTERIDOPHYTES)	T		
HOWARD	Blanding's Turtle	<i>Emydoidea blandingii</i>	REPTILES	T		PDF
HOWARD	Smooth Green Snake	<i>Liochlorophis vernalis</i>	REPTILES	S		PDF
HOWARD	Iowa Pleistocene Vertigo	<i>Vertigo iowaensis</i>	SNAILS	E		
HOWARD	Variable Pleistocene Vertigo	<i>Vertigo hubrichti variabilis</i>	SNAILS	T		

Appendix F.3. IDNR Correspondence

From: casey.laskowski@dnr.iowa.gov
To: nrissman@howardcounty.iowa.gov; [Juli Redmond](#); [Chris Keys](#)
Subject: 2023-0307 Environmental Review Request - Howard County, Iowa, 25th Street over the Upper Iowa River
Date: Thursday, July 13, 2023 8:41:38 AM

43.4797/-92.3356; Howard County
Sec. 13/T100N/R13W

Thank you for inviting Department comment on the impact of this project. The Department has searched for records of rare species and significant natural communities in the project area and found no site-specific records that would be impacted by this project. However, these records and data are not the result of thorough field surveys. If listed species or rare communities are found during the planning or construction phases, additional studies and/or mitigation may be required.

This email is a record of review for protected species, rare natural communities, state lands and waters in the project area, including review by personnel representing state parks, preserves, recreation areas, fisheries and wildlife but does not include comment from the Environmental Services Division of this Department. This email does not constitute a permit. Other permits may be required from the Department or other state or federal agencies before work begins on this project.

If you have questions about this letter or require further information, please contact me at (515) 330-6432.

Environmental Review requests can be submitted electronically to: SLER@dnr.iowa.gov.

Sincerely,



Casey Laskowski | Environmental Specialist
Iowa Department of Natural Resources
P 515-330-6432 | F 515-725-8202 | 502 E. 9th St., Des Moines, IA 50319
www.iowadnr.gov

***Phase I Environmental Site Assessment Report – Presented Under
Separate Cover and Incorporated by Reference***

APPENDIX H. EJ SCREENING REPORT



EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

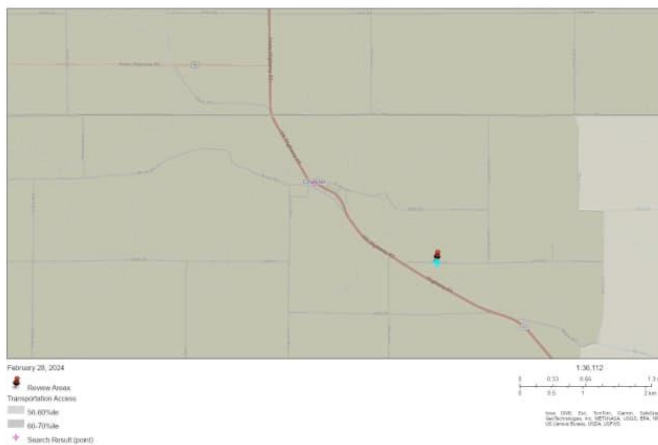
Howard County, IA

5 miles Ring Centered at 43.479611,-92.336497

Population: 1,036

Area in square miles: 78.53

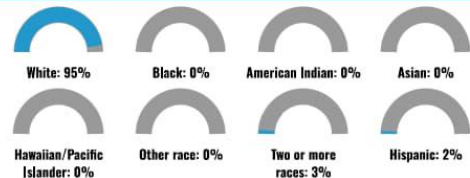
A3 Landscape



COMMUNITY INFORMATION



BREAKDOWN BY RACE



BREAKDOWN BY AGE



LIMITED ENGLISH SPEAKING BREAKDOWN



Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race. Source: U.S. Census Bureau, American Community Survey (ACS) 2017-2021. Life expectancy data comes from the Centers for Disease Control.

LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	87%
Spanish	1%
German or other West Germanic	12%
Total Non-English	13%

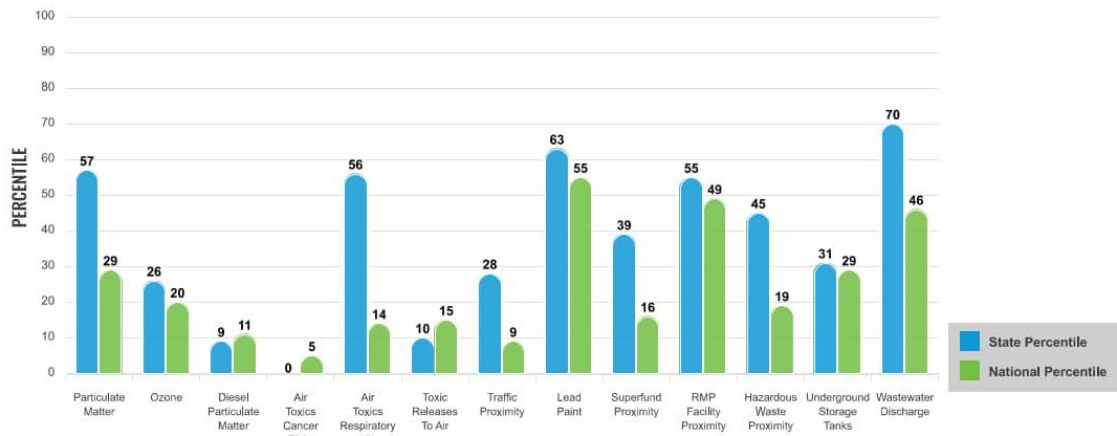
Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the [EJScreen website](#).

EJ INDEXES

The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.

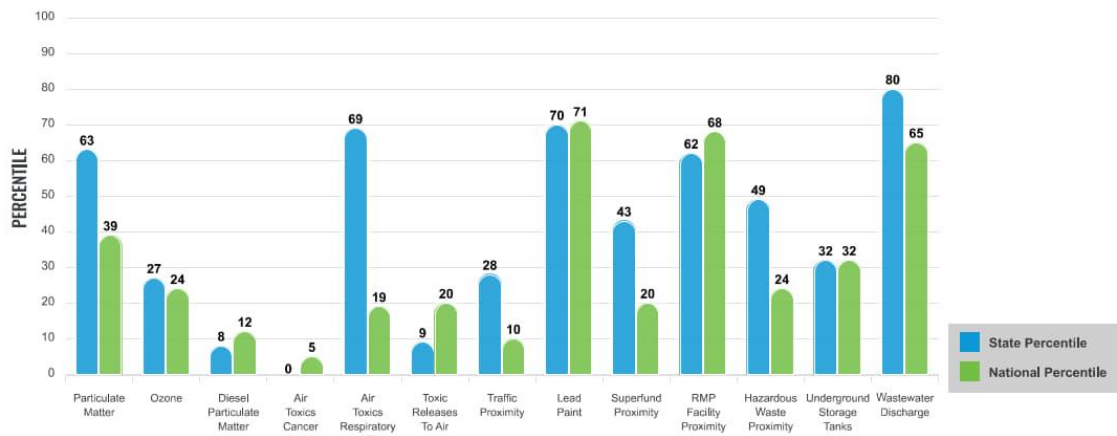
EJ INDEXES FOR THE SELECTED LOCATION



SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.

SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION



These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation.

Report for 5 miles Ring Centered at 43.479611,-92.336497

EJScreen Environmental and Socioeconomic Indicators Data

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
POLLUTION AND SOURCES					
Particulate Matter ($\mu\text{g}/\text{m}^3$)	7.52	7.63	53	8.08	33
Ozone (ppb)	57.5	58.8	20	61.6	20
Diesel Particulate Matter ($\mu\text{g}/\text{m}^3$)	0.0808	0.158	5	0.261	10
Air Toxics Cancer Risk* (lifetime risk per million)	11	20	0	25	1
Air Toxics Respiratory HI*	0.2	0.21	3	0.31	4
Toxic Releases to Air	44	2,800	6	4,600	16
Traffic Proximity (daily traffic count/distance to road)	3.1	140	21	210	8
Lead Paint (% Pre-1960 Housing)	0.57	0.45	62	0.3	78
Superfund Proximity (site count/km distance)	0.02	0.094	36	0.13	17
RMP Facility Proximity (facility count/km distance)	0.63	0.72	61	0.43	80
Hazardous Waste Proximity (facility count/km distance)	0.091	0.42	37	1.9	18
Underground Storage Tanks (count/km ²)	0.03	1.9	21	3.9	24
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.013	0.28	87	22	70
SOCIOECONOMIC INDICATORS					
Demographic Index	17%	22%	47	35%	26
Supplemental Demographic Index	13%	12%	62	14%	50
People of Color	5%	15%	30	39%	12
Low Income	30%	29%	59	31%	55
Unemployment Rate	3%	4%	50	6%	38
Limited English Speaking Households	2%	2%	78	5%	62
Less Than High School Education	11%	8%	79	12%	62
Under Age 5	8%	6%	74	6%	75
Over Age 64	24%	18%	79	17%	79
Low Life Expectancy	18%	19%	37	20%	34

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: <https://www.epa.gov/haps/air-toxics-data-update>.

Sites reporting to EPA within defined area:

Superfund	0
Hazardous Waste, Treatment, Storage, and Disposal Facilities	0
Water Dischargers	3
Air Pollution	0
Brownfields	0
Toxic Release Inventory	0

Other community features within defined area:

Schools	0
Hospitals	1
Places of Worship	5

Other environmental data:

Air Non-attainment	No
Impaired Waters	Yes

Selected location contains American Indian Reservation Lands*	No
Selected location contains a "Justice40 (CEJST)" disadvantaged community	Yes
Selected location contains an EPA IRA disadvantaged community	Yes

Report for 5 miles Ring Centered at 43.479611, -92.336497

EJScreen Environmental and Socioeconomic Indicators Data

HEALTH INDICATORS					
INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	18%	19%	37	20%	34
Heart Disease	7.8	6.5	82	6.1	81
Asthma	9.1	9.4	34	10	27
Cancer	8	6.8	80	6.1	89
Persons with Disabilities	8.9%	12.5%	18	13.4%	24

CLIMATE INDICATORS					
INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Flood Risk	13%	11%	66	12%	75
Wildfire Risk	0%	2%	0	14%	0

CRITICAL SERVICE GAPS					
INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	20%	16%	70	14%	74
Lack of Health Insurance	11%	5%	90	9%	70
Housing Burden	No	N/A	N/A	N/A	N/A
Transportation Access	Yes	N/A	N/A	N/A	N/A
Food Desert	No	N/A	N/A	N/A	N/A

Report for 5 miles Ring Centered at 43.479611, -92.336497

APPENDIX I. FORM NRCS – CPA – 106 – FARMLAND CONVERSION IMPACT RATING

FARMLAND CONVERSION IMPACT RATING
FOR CORRIDOR TYPE PROJECTS

PART I (To be completed by Federal Agency)		3. Date of Land Evaluation Request 3/27/24	4. Sheet 1 of 1
1. Name of Project Howard County Bridge C-9 Replacement		5. Federal Agency Involved NRCS	
2. Type of Project Easement Administration Action		6. County and State Howard County, Iowa	
PART II (To be completed by NRCS)		1. Date Request Received by NRCS 3/27/24	2. Person Completing Form Patrick Chase
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form).		YES ☒ NO ☐	4. Acres Irrigated 2262
5. Major Crop(s) Corn		6. Farmable Land in Government Jurisdiction Acres: 297218 % 98.2	Average Farm Size 342
7. Amount of Farmland As Defined in FPPA Acres: 295917 % 97.8		10. Date Land Evaluation Returned by NRCS 4/2/24	
8. Name Of Land Evaluation System Used Iowa CSR2		9. Name of Local Site Assessment System Howard County, IA	

PART III (To be completed by Federal Agency)		Alternative Corridor For Segment			
		Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly		3.3			
B. Total Acres To Be Converted Indirectly, Or To Receive Services					
C. Total Acres In Corridor		3.3			
PART IV (To be completed by NRCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland		0.7			
B. Total Acres Statewide And Local Important Farmland		2.0			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted		.00001			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value		96.8			
PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)		24.07			
PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))		Maximum Points			
1. Area in Nonurban Use		15			
2. Perimeter in Nonurban Use		10			
3. Percent Of Corridor Being Farmed		20			
4. Protection Provided By State And Local Government		20			
5. Size of Present Farm Unit Compared To Average		10			
6. Creation Of Nonfarmable Farmland		25			
7. Availability Of Farm Support Services		5			
8. On-Farm Investments		20			
9. Effects Of Conversion On Farm Support Services		25			
10. Compatibility With Existing Agricultural Use		10			
TOTAL CORRIDOR ASSESSMENT POINTS		160	0	0	0
PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)		100	24.07	0	0
Total Corridor Assessment (From Part VI above or a local site assessment)		160	0	0	0
TOTAL POINTS (Total of above 2 lines)		260	24.07	0	0
1. Corridor Selected: A	2. Total Acres of Farmlands to be Converted by Project: 3.3	3. Date Of Selection: 4/2/24	4. Was A Local Site Assessment Used? YES ☐ NO ☒		

5. Reason For Selection:

Given topography, river alignment, and orientation of existing road right-of-way easement, adhering to these previously disturbed areas as closely as possible limits impact to surrounding farmland. Acquisition of new right-of-way is minimal and largely limited to land currently under NRCS conservation easement.

Signature of Person Completing this Part: JOHN PAULIN
DATE 4/2/24
NOTE: Complete a form for each segment with more than one Alternate Corridor

Clear Form

APPENDIX J. SECTION 106 CORRESPONDENCE

Appendix J.1. Iowa SHPO Concurrence

From: [Messerole, Megan - FPAC-NRCS, IA](#)
To: [Will Martin](#); [Paulin, John - FPAC-NRCS, IA](#)
Subject: FW: [External Email]R&C 240745568 - 00052568 - NRCS - Howard - Howard County Easement Administration Action
Date: Thursday, August 15, 2024 1:44:50 PM

FYI

From: sara.andre@email.iowaeda.com <sara.andre@email.iowaeda.com>
Sent: Thursday, August 15, 2024 1:42 PM
To: Messerole, Megan - FPAC-NRCS, IA <Megan.Messerole@usda.gov>
Cc: shpo106@iowaeda.com; branden.scott@iowaeda.com
Subject: [External Email]R&C 240745568 - 00052568 - NRCS - Howard - Howard County Easement Administration Action

You don't often get email from sara.andre@email.iowaeda.com. [Learn why this is important](#)

[External Email]

If this message comes from an **unexpected sender** or references a **vague/unexpected topic**;

Use caution before clicking links or opening attachments.

Please send any concerns or suspicious messages to: Spam.Abuse@usda.gov

We have received your submittal for the above referenced federal undertaking. We provide the following response in accordance with Section 106 of the National Historic Preservation Act of 1966 and its implementing regulations 36 CFR 800.

Regarding this project, please see the following comments:

R&C 240745568 - 00052568 - NRCS - Howard - Howard County Easement

Administration Action - Howard County Engineers Office (HCEO) is currently in the design phase for the replacement of bridge C-9 (FHWA #183840) on 25th Street over the Upper Iowa River. To replace the bridge according to modern requirements, HCEO needs additional Right-of-Way that extends into an NRCS easement. In addition to the bridge replacement, HCEO is proposing an oxbow restoration and shallow water excavation within the existing wetland easement to offset impacts to deed terms. Due to the nature of the project, it is considered an undertaking under 36 CFR 800.16(y). The NRCS is the responsible federal agency for compliance with Section 106 of the National Historic Preservation Act (NHPA), as amended.

Howard County hired a private archaeological contractor, Bear Creek Archeology, to conduct a Phase I Cultural Resource investigation of the APE. Based on their survey, Bear Creek Archeology recommends that the bridge is not eligible for the National Register of Historic Places. Bear Creek Archaeology also conducted shovel and auger testing in the APE. One shovel test produced a flake, but subsequent closely spaced tests were negative. The area that produced this flake area has been recorded 13HW53.

The flake was obtained from a filled burrow, and NRCS has determined that the site is not eligible for listing on the National Register of Historic Places. Based on the results of the surveys, NRCS has determined that No Historic Property will be affected by this undertaking.

- Concur with the federal agency and/or their designated representative (No Historic Properties Affected - No Properties).

You will not receive a hard copy of this email. It is the submitter's responsibility to maintain the official file of record. If you have any questions or comments, please feel free to contact our office.

Sincerely,

Sara André

Architectural Historian/Historic Preservation Specialist

State Historic Preservation Office

Pronouns: She/Her/Hers

sara.andre@iowaeda.com | +1 (515) 348-6286 | culture.iowaeda.com/shpo

Iowa Economic Development Authority

This electronic message contains information generated by the USDA solely for the intended recipients. Any unauthorized interception of this message or the use or disclosure of the information it contains may violate the law and subject the violator to civil or criminal penalties. If you believe you have received this message in error, please notify the sender and delete the email immediately.

Appendix J.2. Peoria Tribe of Indians of Oklahoma

P (918) 540-2535
F (918) 540-2538



PEORIA TRIBE
OF INDIANS OF OKLAHOMA

118 S. Eight Tribes Trail Miami, OK 74354
P.O. Box 1527 Miami, OK 74355

CHIEF
Craig Harper

SECOND CHIEF
Rosanna Dobbs

Via email: megan.messerole@usda.gov

August 29, 2024

USDA-NRCS

Iowa State Office

210 Walnut Street, Room 693

Des Moines, IA 50309

RE: Easement T100N-R13W--Sections 13 and 14, Howard County, Iowa

Dear Megan Messerole:

The Peoria Tribe offers no objection to the above-referenced project at this time. However, given the Peoria Tribe's deep and enduring relationship to its historic lands and cultural property within present-day Iowa, if any human remains or Native American cultural items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) or archaeological evidence is discovered during any phase of this project, the Peoria Tribe requests immediate consultation with the entity of jurisdiction for the location of discovery. In such a case, please contact me at (918) 544-9234 or by email at bfletcher@peoriatribes.com to initiate consultation.

The Peoria Tribe accepts this request to serve as a consulting party.

Respectfully,

Burgundy Fletcher

Burgundy Fletcher

Historic Preservation Specialist

SECRETARY
Jenny Rampey

TREASURER
Jason Dollarhide

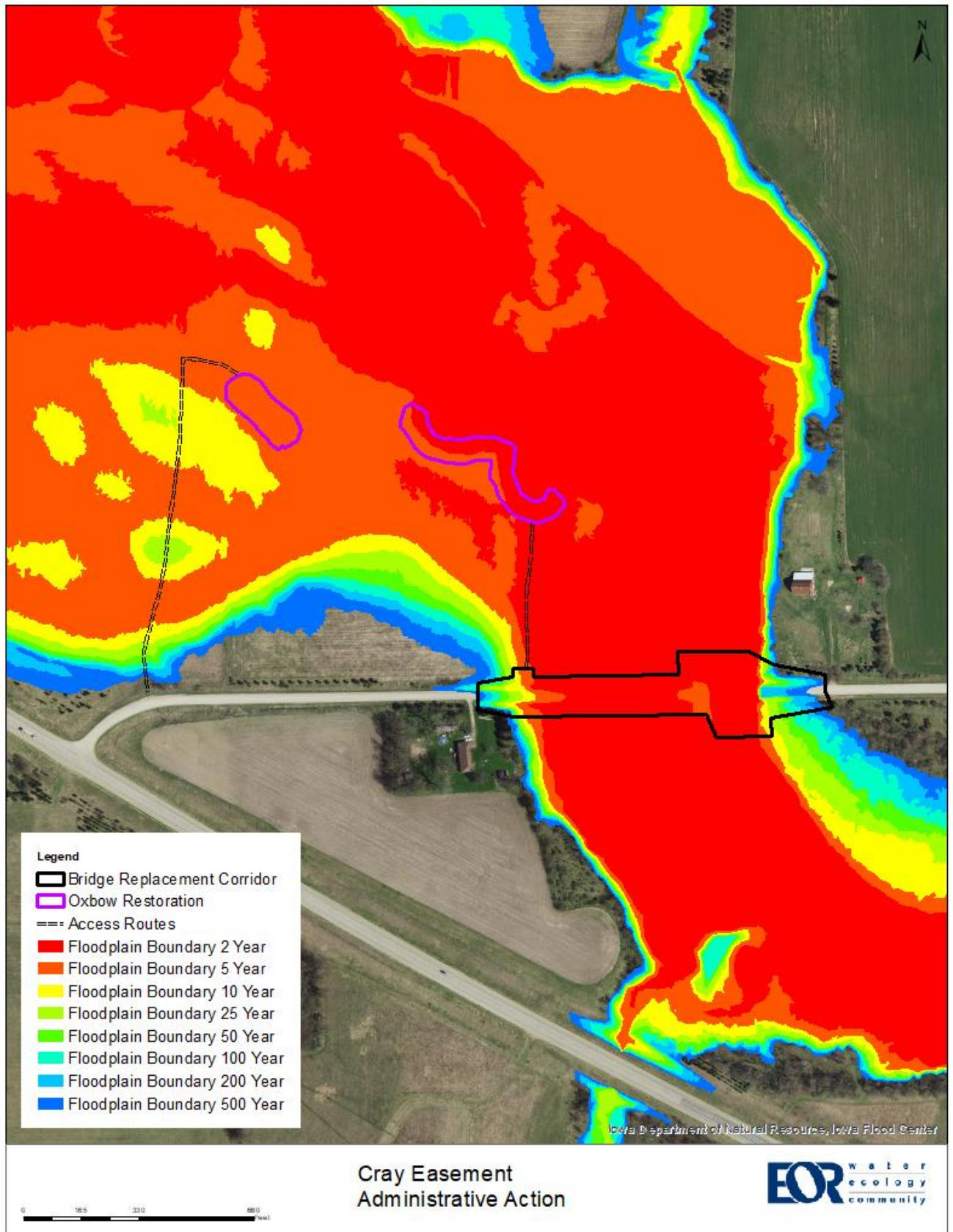
FIRST COUNCILMAN
Nick Hargrove

SECOND COUNCILMAN
Kara D. North

THIRD COUNCILMAN
Scott Myers

APPENDIX K. WATER RESOURCES

Appendix K.1. Iowa Flood Center Flood Risk Map



Appendix K.2. Iowa Department of Natural Resources Floodplain Permit



2/27/2024

HOWARD COUNTY
C/O JULI A. REDMOND, P.E.
CB&A
1500 30TH STREET
WEST DES MOINES, IA 50266

Project Description: Bridges, Culverts, Stream Crossings, and Road Embankments: Construct a new 150'-0 x 24'-6 CCS Bridge over the Upper Iowa River to replace an existing deteriorated bridge. See the preliminary plans for additional details: (Upper Iowa River)

Project Latitude / Longitude Location(s): Bridges, Culverts, Stream Crossings, and Road Embankments
43.4797/-92.3356; Howard County

Iowa DNR Project Tracking Number: 2023-0307

Dear Juli A. Redmond, P.E.:

The application for an Iowa DNR Flood Plain Development Permit for the above referenced project has been approved. Flood Plain Development Permit Number 2023-0307FP-01 and an approved copy of the Iowa DNR Approved Plans are enclosed. You may download additional copies, or verify the Iowa DNR Flood Plain and Dam Safety Section (Department) official response document(s) for this project at the Iowa DNR Flood Plain PERMT website using the tracking number above. (PERMT Website Address: <https://programs.iowadnr.gov/permt/>)

Please review all permit conditions. If you don't agree with any of the permit conditions, you have 30 days from the date of mailing of the permit to appeal. If you wish to appeal, it is suggested that you contact Bradley Adams at 515-664-8894, Iowa DNR Legal Services Bureau, within 15 days to determine the correct procedure and format. Also, you should be aware of the fact that any person can appeal the issuance of this permit within the same 30 day period.

Within 30 days of the completion of construction, proper completion of construction notice shall be provided to the Department. Notice may be provided through the Department PERMT website <https://programs.iowadnr.gov/permt/>, or by certified mail. Certified mail requirements are provided in permit document post construction condition section.

The project may require a local flood plain development permit from Howard County. If you have not yet done so, please contact the following local Flood Plain Manager for assistance in applying for the local flood plain permit:

- Howard County: Darrell Knecht, Howard County, 124 South Park Place, 124 South Park Place, Cresco, IA, 52136, dknecht@howardcountv.iowa.gov, 563-547-9208

No land or water, under the jurisdiction of the State of Iowa, is involved in the project area; therefore, a Sovereign Lands Construction Permit pursuant to Chapter 461A of the Iowa Code will not be required for this project.

The permittee is responsible for complying with all other local, state, and federal statutes, ordinances, rules, and permit requirements applicable to the construction, operation, and maintenance of the approved works. Approval through the Corps of Engineers Section 404 Permit Program may be required for this project. The Corps of Engineers



Iowa Department of Natural Resources Flood Plain Development Permit

I.	Permit Number	2023-0307FP-01
II.	Project Latitude / Longitude Location(s)	Bridges, Culverts, Stream Crossings, and Road Embankments 43.4797/-92.3356; Howard County
III.	Approved Activity	Bridges, Culverts, Stream Crossings, and Road Embankments: Construct a new 150'-0 x 24'-6 CCS Bridge over the Upper Iowa River to replace an existing deteriorated bridge. See the preliminary plans for additional details.; (Upper Iowa River)
IV.	Applicant(s) / Permittee(s) Company(s) Address(s) City/State/Zip	NICK RISSMAN, P.E. HOWARD COUNTY 114 7TH STREET WEST CRESCO, IA 52136-1228
V.	Authorized Agent Company Address City/State/Zip	JULI A. REDMOND, P.E. CB&A 1500 30TH STREET WEST DES MOINES, IA 50266
VI.	Basis for Issuance	The decision to issue this permit was based on a staff review of the project with respect to relevant approval criteria contained in 567 IAC 72 and applicable provisions of Iowa Code Sections 455B.262, .264, .275 and .277.
VII.	General Permit Conditions	
	a. Responsibility	No legal or financial responsibility arising from the construction or maintenance of the approved works shall attach to the state of Iowa or the agency due to the issuance of a permit, order, or administrative waiver.
	b. Lands	The permittee shall be responsible for obtaining such government licenses, permits, and approvals, and lands, easements, and rights-of-way which are required for the construction, operation, and maintenance of the authorized works prior to construction.
	c. Change in plans	No material change from the plans and specifications approved by the Department shall be made unless authorized by the Department.
	d. Revocation of order	A Department permit may be revoked if construction is not completed within the permit construction period of time specified in the Department permit, or extended by official post permit response letter from this Department.
	e. Appeal of Initial Decision	Per 567 IAC 70.5(4), this permit represents the initial decision of the Department. You have 30 days from the date of mailing of the permit to appeal. If you wish to appeal, it is suggested that you contact our Legal Services Section within 15 days to determine the correct procedure and format. Also, you should be aware of the fact that any person can appeal the issuance of this permit within the same 30 day period.
VIII.	Permit Special Construction Conditions	

a. Permit Construction Period Covered	2/27/2024 to 2/27/2027
b. Temporary Flood Plain Obstruction Requirement	All temporary flood plain obstructions to be used during construction shall comply with all sections of 567 IAC 72.1(6).
c. Spoil Disposition Requirements	All excess spoil material resulting from the project shall be removed from the flood plain or spread thinly (less than 0.5 ft. thick) on the surrounding ground. In addition, spoil material should not be placed in an area that is, or could be, classified as a regulated wetland.
d. Riprap Requirements	Acceptable riprap material includes: field stone, quarry rock, and broken concrete. If any broken concrete is used, all exposed reinforcing steel must be cut off flush with the surface of the concrete prior to placing the riprap. Also, any concrete pieces larger than three feet across shall either be broken into smaller pieces prior to placement or not used as riprap material. The use of asphalt or other solid waste is prohibited. The finished bank slope on the riprap revetment shall be no steeper than two feet horizontal to one foot vertical (2H:1V). In locations to receive revetment, the area shall be over excavated as required so that the finished surface elevation of the revetment shall not be elevated above the plan elevation. The thickness of the blanket of armoring materials shall not exceed three feet. In no case shall the material be placed so that the resulting channel cross-section is more restrictive than the adjacent natural upstream and downstream channel cross-section. The armoring material shall not extend vertically above the elevation of the adjacent top of bank.
IX. Permit Post Construction Conditions	
a. Certification of Completion of Construction Requirement	The permittee is required to provide notice to the Iowa DNR that construction of the project authorized by the Iowa Department of Natural Resources was completed in accordance with Iowa DNR Approved Plans and specifications. 1. This notice may be provided on the Iowa DNR PERMT Website Iowa DNR PERMT Website (use Permit Number) https://programs.iowadnr.gov/permt/ 2. If computer access is unavailable, the permittee shall submit a signed certification of project construction completion. The certification(s) shall be submitted to: FLOOD PLAIN PERMITS IOWA DNR 502 E 9TH ST DES MOINES IA 50319
b. General Maintenance and Storm Damage Restoration Requirement	The permittee, and any successor, in interest to the real estate on which the permitted project or activity is located shall be responsible for proper maintenance of the project until this permit is revoked, or replaced with a new permit. The required maintenance shall include, but is not limited to, the restoration of the project back to the permit condition shown on the enclosed Iowa DNR Approved Plan document.
X. Permit Issued By:	Payam Aghsaee Digitally signed by Payam Aghsaee Date: 2024.02.27 15:42:49 -0600 Payam Aghsaee; Iowa DNR, Flood Plain Management and Dam Safety Section Date: 2/27/2024

Appendix K.3. Water Quality (Sole-Source Aquifers)

Designated Sole Source Aquifers in EPA Region VII

Iowa, Kansas, Missouri, Nebraska



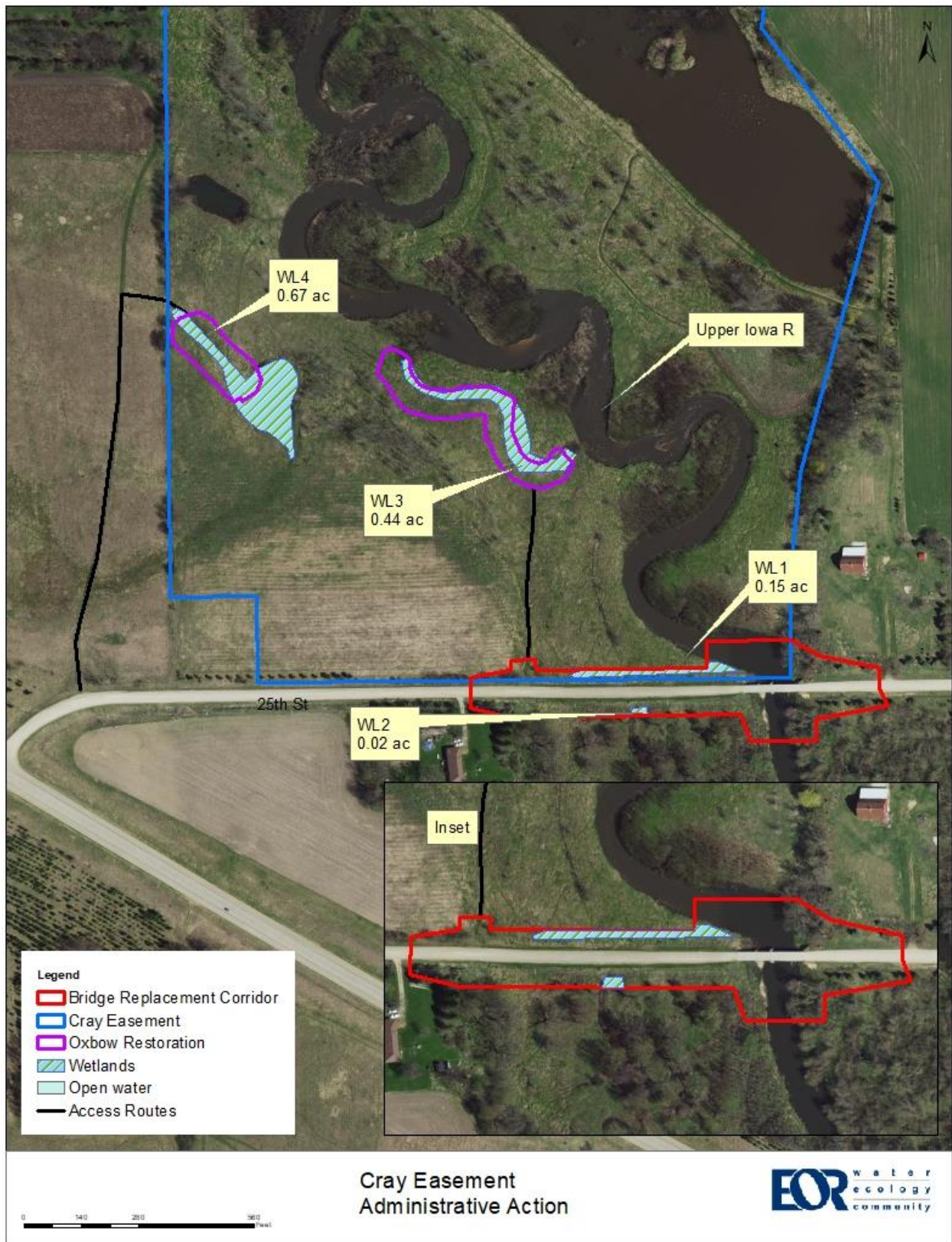
REGION VII (IA, KS, MO, NE)

Stephanie Lindberg
Drinking Water/Ground Water Branch
EPA Region 7
901 N. 5th Street
Kansas City, KS 66101
phone: (800) 223-0425
email: lindberg.stephanie@epa.gov

There are no designated Sole Source Aquifers in Region VII. Contact the coordinator above for more information about designating SSAs in Region VII.

Return to: [Sole Source Aquifer program home page](#)

Appendix K.4. Map of Wetlands and Waters of the United States



Appendix K.5. USACE Letter – May 16, 2024



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, ROCK ISLAND DISTRICT
PO BOX 2004 CLOCK TOWER BUILDING
ROCK ISLAND, ILLINOIS 61204-2004

May 16, 2024

Regulatory Division

SUBJECT: CEMVR-RD-2023-0302

Nick Rissman
Howard County
114 7th Street West
Cresco, Iowa 52136

Dear Nick Rissman:

Our office has reviewed your resubmitted application received March 8, 2024, concerning the proposed replacement of an existing bridge with a 150'x24.5' bridge impacting 250 linear feet of the Upper Iowa River and 0.01 acres of permanent impacts to adjacent emergent wetland for placement of rip rap. There is also temporary impact to 0.09 acres of adjacent emergent wetland for excavation of the roadside ditch. This project is located in Section 13, Township 100N, and Range 13W, Howard County, Iowa. Lat/Long: 43.4797, -92.3356

Your project is authorized under Department of the Army, Section 404, Nationwide Permit No. 14 - Linear Transportation Projects, provided you meet the Nationwide Permit terms and conditions. Fact Sheet No. 9 (IA) including the Iowa Regional Conditions and the Section 401 Water Quality Certification issued by the Iowa Department of Natural Resources (IADNR) can be found on the Rock Island District Regulatory Webpage at: <https://www.mvr.usace.army.mil/Missions/Regulatory.aspx>. The Corps has made a determination of no effect on federally threatened and endangered species and/or critical habitat under Section 7 of the Endangered Species Act. In accordance with Section 106 of the National Historic Preservation Act, the Corps has made a determination of no potential to affect. The decisions regarding these actions are based on information found in the administrative record, which document the District's decision-making process, the basis for the decision, and the final decision. Special conditions associated with this permit will be listed below and must also be adhered to.

Special Condition:

The 0.9 acres of temporary wetland impacts will be returned to original contours and reseeded with a native wetland plant mix.

Please contact our office if the project plans change and there are different impacts caused by dredged or fill material into Corps' regulated waters. This may require modification of your Department of the Army Section 404 authorization.

This verification is valid until March 14, 2026, unless the nationwide permit is modified, reissued, or revoked. It is your responsibility to remain informed of changes to the nationwide permit program. We will issue a public notice announcing any changes if and when they occur. Furthermore, if you commence or are under contract to commence this activity before the date the nationwide permit is modified or revoked, you will have twelve months from this date to complete your activity under the present terms and conditions of this nationwide permit.

This authorization does not eliminate the requirement that you must still obtain other applicable Federal, state, and local permits. If you have not already coordinated your project with the IADNR, please contact them by telephone 866/849-0321 to determine if a floodplain development permit is required for your project. You should also contact Casey Laskowski, in writing or telephone 515/330-6432 to determine if a sovereign lands construction permit is required or if this project may adversely impact Iowa threatened or endangered species or their habitat.

You are required to complete and return the enclosed "Transfer of Nationwide Permit Verification" and "Completed Work Certification" forms in accordance with General Condition Nos. 29 and 30 of the nationwide permits.

The Rock Island District Regulatory Division is committed to providing quality and timely service to our customers. In an effort to improve customer service, please take a moment to complete our Customer Service Survey found on our web site at <https://regulatory.ops.usace.army.mil/ords/f?p=136:4>. (Be sure to select "Rock Island District" under the area entitled: Which Corps office did you deal with?)

Should you have any questions, please contact our Regulatory Division by letter, email rowen.e.schmidt@usace.army.mil, or telephone Rowen Schmidt at 309/386-3496.

Sincerely,



Abigail A. Steele
Chief, Western Branch
Regulatory Division

Enclosures

cc:

Iowa Department of Natural Resources floodplain-help@dnr.iowa.gov
Nick Rissman, Howard County nrissman@howardcounty.iowa.gov
Juli Redmond, CB&A jredmond@calhounburns.com

TRANSFER OF NATIONWIDE PERMIT VERIFICATION

Permit Number: CEMVR-RD-2023-0302

Name of Permittee/Project: Howard County

County/State: Howard County / Iowa

Date of Issuance: May 16, 2024

When the structure(s) or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s), of the property. To validate the transfer of this nationwide permit and the liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

Transferee

Date

RS

COMPLETED WORK CERTIFICATION

Permit Number: CEMVR-RD-2023-0302

Name of Permittee/Project: Howard County

County/State: Howard County / Iowa

Date of Issuance: May 16, 2024

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification, and return it to the following address:

U.S. Army Engineer District, Rock Island
ATTN: Regulatory Division
Clock Tower Building
Post Office Box 2004
Rock Island, Illinois 61204-2004

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above reference permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

Signature of Permittee

Date

RS



Iowa Segments

Hector Santiago
National Park Service
Midwest Regional
Office
601 Riverside Drive
Omaha, Nebraska
68102
(402) 661-1848



Authorizations /
History / Eligibility
Descriptions /
**Outstandingly
Remarkable
Values /Potential
Classification /Wild and
Scenic Rivers System**

[Return to nri Page](#)

River	County	Reach	Length (miles)	Year Listed/Updated	Potential Classification	ORVs	Description	Other States
Boone	Hamilton and Webster	From Webster City to confluence with Des Moines River.	25	1995	S	S, R, F, W	Iowa's first designated "Protected Water Area." Identified for it's scenic and natural qualities, including relatively undisturbed riparian habitat and excellent smallmouth bass fishery.	
Cedar River	Louisa, Muscatine	Iowa River to Highway 6.	26	1982		F, W, C	Two federally listed endangered species of mussel and one federally listed species of bat may be found along the river; potentially rich	

<https://www.nps.gov/nrcr/programs/rtca/nri/states/ia.html>

1/19/2017

							in cultural resources; nice streamside relief with bluffs and ridges.	
Maquoketa River	Jackson, Jones	Mississippi River to US 151 Bridge (omit small reservoir northwest of Maquoketa)	68	1982		S, R, G, F, W, H, C, O	River cuts narrow, gorge-like valley up to 150 feet deep through limestone; excellent water quality supporting productive smallmouth bass fishery; potentially rich in cultural resources; threatened northern wild monkshood has been found in basin.	
Middle Raccoon River	Guthrie and Dallas	City of Panora to the city of Redfield dam.	15	1995	S	S, R, F, W	A designated Iowa "Protected Water Area." Beautiful canoe route with good access. Excellent smallmouth bass fishing and wildlife viewing.	
Turkey River	Clayton, Fayette, Winneshiek, Howard	Mississippi River to Vernon Springs.	110	1982		S, R, G, F, H, C, O	Gently rolling hills with dense stands of trees; good trout stream; high potential for significant cultural resources; northern wild monkshood, a federally listed endangered species, has been found in the basin.	
Upper Iowa River	Winneshiek and Allamakee	City of Kendallville to Highway 76 crossing.	64	1995	W	S, R, G, F, W	A designated "Protected Water Area." The state's most scenic canoe river	

							with towering limestone outcroppings and beautiful riparian habitat. Good bass and trout fishing.	
Wapsipinicon River	Clinton, Scott, Cedar, Jones, Linn, Buchanan, Black Hawk, Bremer	Mississippi River to State Highway 334 at Frederika (omit reservoir northwest of Independence).	195	1982		S, G, F, W, H	A designated Iowa "Protected Water Area." Wide, wooded flood plain with only limited development and agricultural encroachment; wide diversity of fish and wildlife habitat; exposed geologic fault; historically valuable Stone City quarries.	
Yellow River	Allamakee	Entire segment within Effigy Mounds National Monument	1	1982/1993	S	S, R, G, W, H, C	One of fastest falling rivers in state, providing excellent fishing and canoeing opportunities. Numerous prehistoric Indian burial mounds. Site of Jefferson Davis Sawmill upstream from boundary.	
Yellow River	Allamakee	Mississippi River to Highway W60 near Myron.	34	1982		S, R, F, W, H, C	Heavily wooded with marked relief, camping and backpacking opportunities; unusual ecological niches and plant life, including the northern wild monkshood, a federally listed threatened plant, has been found in the basin; good fishery;	

							high potential for cultural resources (Effigy Mounds National Monument adjoins near mouth).	
--	--	--	--	--	--	--	---	--

Challenge Cost Share Program | Federal Lands to Parks | Hydropower Relicensing Program
Land and Water Conservation Fund | National Center for Recreation and Conservation | National Trails System
Partnership Wild and Scenic Rivers | Rivers and Trails Program | Urban Park and Recreation Recovery

Webmaster
NPS.gov U.S. Department of the Interior FOIA Privacy Disclaimer USA.gov

Last Modified 2-27-09