DETERMINATION OF LEVEL OF REVIEW
ENVIRONMENTAL REVIEW RECORD

Project Name: City of Early Stormwater Improvements
CDBG Contract Number: 22-OT-001
Project Location: City of Early

Project Description (Attach additional descriptive information, as appropriate to the project, including narrative, maps, photographs, site plans, budgets and other information.): **In 2019, a petition was filed with the County Auditor to evaluate Drainage District No. 59, which runs through the City of Early. The evaluation determined that there are blowouts and blockages on the district's main tile. This project includes the cleaning, inspecting, and repair of the main drainage tile. The project will increase the storm basin's capacity. Also, the City's storm sewer will also be cleaned, inspected, and repaired as needed.**

The proposed basin site is located north west of the City of Early's downtown. The basin site was selected as it has the storage capacity to release storm water into the existing tile, negating the need to increase the main tile's capacity throughout the community. The other project sites where the Main Tile and City Storm Sewer will be repaired/replaced were determined by the televising of each pipe.

The subject project has been reviewed pursuant to HUD regulations 24 CFR Part 58 "Environmental Review Procedures for Entities Assuming HUD Environmental Responsibilities," and the following determination with respect to the project is made:

☐ **Exempt** from NEPA review requirements per 24 CFR 58.34(a)( )

☐ **Categorically Excluded NOT Subject** to §58.5 authorities per 24 CFR 58.35(b)()

☐ **Categorically Subject** to §58.5 authorities per 24 CFR 58.35(a)() (A Statutory Checklist for the §58.5 authorities is attached.)

☒ An **Environmental Assessment** (EA) is required to be performed in accordance with subpart E of 24 CFR Part 58 is attached.

☐ An **Environmental Impact Statement** (EIS) is required to be performed.

The ERR (see §58.38) must contain all the environmental review documents, public notices and written determinations or environmental findings required by Part 58 as evidence of review, decision making and actions pertaining to a particular project. Include additional information including checklists, studies, analyses and documentation as appropriate.

Chief Elected Official:

Sharon Irwin	Sharon Ann Irwin
Print Name	Signature
	5/24/23
Mayor	
Title	Date

U.S. Department of Housing and Urban Development
451 Seventh Street, SW
Washington, DC 20410
www.hud.gov

espanol.hud.gov

Updated 3/8/2012

All projects will need to submit this form with their ERR to IEDA prior to a release of funds being is issued.

U.S. Department of Housing and Urban Development
451 Seventh Street, SW
Washington, DC 20410
www.hud.gov

espanol.hud.gov

Environmental Assessment
Determinations and Compliance Findings for HUD-assisted Projects
24 CFR Part 58

This is a suggested format that may be used by Responsible Entities to document completion of an Environmental Assessment.

Project Information

Project Name: City of Early Storm Sewer Improvements

Responsible Entity: City of Early, IA

Grant Recipient (if different than Responsible Entity):

State/Local Identifier:

Preparer: Lauren Mortensen

Certifying Officer Name and Title:

Grant Recipient (if different than Responsible Entity):

Consultant (if applicable):

Direct Comments to: Lauren Mortensen, Economic Development Planner, Region XII Council of Governments, 712-792-9914, lmortensen@region12cog.org

U.S. Department of Housing and Urban Development
451 Seventh Street, SW
Washington, DC 20410
www.hud.gov

espanol.hud.gov

Project Location: City of Early

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]**:**
This project will construct a new storm basin to be able to capture flows from a 2-year, 24-hour storm and slowly release it through the existing main tile. Work will also be completed to ensure the grass waterway leading from the basin properly drains as well. Overall, this project will make improvements to the drainage district and reduce the amount of flooding within the City of Early.

Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:
This project will reduce the amount of flooding within the City of Early through the reconstruction of the storm basin and rehabilitation of the grass waterway. The new storm basin will capture storm flows and release water through an infiltration trench to the DD59 Main tile. As the community floods during severe weather events, there is a measureable amount of erosion occurring that this project will correct.

Existing Conditions and Trends [24 CFR 58.40(a)]:
Over the course of the last several years the DD59 Main Tile has suffered from multiple blowout failures. Blowout failures occur when a tile fails, and soil is sucked in from the surrounding ground. Investigation found that the tile has several stretches where the cover is only about 2 feet in depth. The shallow depth of the tile makes it more susceptible to freeze and thaw conditions, which cause the tile to shift off line. In addition, a grass waterway through town also exists along the same general alignment as the DD59 Main Tile. The grass waterway begins southwest of the baseball field and continues north through Early to the top end of the tile. The grass waterway serves 98 acres of agricultural land and 90 acres of urban land. The grass waterway is not properly graded, which causes water to pool along the waterway and at culverts. The 36-inch storm sewer outlets to a ditch, which runs parallel to the access road for the wastewater lagoons. Despite dry conditions preceding the field review, the 36-inch storm sewer near the outlet was found to have nearly half the pipe filled with standing water. The outlet ditch was also found to have standing water; with grass and semi-aquatic vegetation growing within the channel.

As part of the project the new DD59 Main Tile, will outlet to the 36-inch storm sewer. The 36-inch storm sewer provides a closer outlet and reduces the overall project cost for replacement of the DD59 Main Tile. The storm basin will allow for peak flows to be reduced in the DD59 watershed. Flows will be captured in the storm basin and released through an infiltration trench to the DD59 Main tile.

Funding Information

Grant Number	HUD Program	Funding Amount
21-OT-001	CDBG	$217,300

Estimated Total HUD Funded Amount: $217,300

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]**:**
Total Cost: $421,548**; HUD Funds:** $217,300**; Non-HUD Funds: $**204,248.00

Compliance with 24 CFR 50.4, 58.5, and 58.6 Laws and Authorities
Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of

U.S. Department of Housing and Urban Development
451 Seventh Street, SW
Washington, DC 20410
www.hud.gov

espanol.hud.gov

approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 and 58.6		
Airport Hazards 24 CFR Part 51 Subpart D	Yes ☐ No ☒	Project is NOT located within 2,500 feet of the end of a civil airport runway or 15,000 feet of the end of a military Airfield runway. HUD policy is to promote compatible land uses in RCZ/CZ/APZ. Airport map can be found in Appendix A.
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes ☐ No ☒	No coastal zone management programs exist in the states of HUD Region VII, as established by Nat'l Oceanic & Atmospheric Administration, Office of Ocean and Coastal Resource Management.
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	Yes ☐ No ☒	Project is not located in the 100 or 500 year floodplain. The City of Early FIRM can be found in G. Map Panel 19161C0184C.
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.5		
Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93	Yes ☐ No ☒	Project is not located in an EPA-designated non-attainment area or maintenance area for one or more of six "criteria pollutants," called National Ambient Air Quality Standards (NAAQS). Map documentation is included in Appendix B.
Coastal Zone Management Coastal Zone Management Act, sections 307(c) & (d)	Yes ☐ No ☒	No coastal zone management programs are in the states of HUD Region VII, per Nat'l Oceanic & Atmospheric Administration, Office of Ocean and Coastal Resource Management. www.coastalmanagement.noaa.gov/mystate/welcome.html
Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2)	Yes ☐ No ☒	Project will not be affected by any contaminated or toxic substance. A field inspection, land use search, and review of environmental compliance were conducted. All sites in proximity were in compliance according to the previous searches. EPA ECHO also found that all sites in proximity were in compliance. The IDNR storage database for LUST sites was searched and no leaking sites and no tanks were registered on the site. When searching the State of Iowa Contaminated Sites database, two contaminated sites show up, but after further investigation, both sites are closed. Documentation can be found in Appendix C.

U.S. Department of Housing and Urban Development
451 Seventh Street, SW
Washington, DC 20410
www.hud.gov

espanol.hud.gov

Endangered Species Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402	Yes ☐ No ☒	Project will not affect any Federally listed endangered or threatened species or its habitat because the project location does not have habitat suitable for the listed species. A consultation with USFWS was completed and the consultation results can be found in Appendix D.
Environmental Justice Executive Order 12898	Yes ☐ No ☒	The project neighborhood does not suffer from adverse health or environmental effects which disproportionately impact a minority or low-income population relative to the community at large. Project will assist low to moderate income persons for a better quality of life. See census statistics in Appendix E or here https://data.census.gov/cedsci/.
Explosive and Flammable Hazards 24 CFR Part 51 Subpart C	Yes ☐ No ☒	This project is modification to the city's current stormwater drainage district; therefore, it is exempt from review under this criteria.
Farmlands Protection Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658	Yes ☐ No ☒	The project is located in an area that includes prime farmland, unique farmland, and land of statewide or local importance. The project site has been evaluated through the Farmland Conversion Impact Rating analysis and found to score 110, which is less than the prescribed maximum 160 points. The farmland classification map and Farmland Conversion Impact Rating Form can be found in Appendix F.
Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR Part 55	Yes ☐ No ☒	Project is not located in the 100 or 500 year floodplain. The City of Early FIRM can be found in G. Map Panel 19161C0184C.
Historic Preservation National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800	Yes ☐ No ☒	According to the Programmatic Agreement, CDBG recipients are to consult with IEDA's Section 106 Coordinator instead of the SHPO. Section 106 documentation was submitted to IEDA for review and received approval on May 17, 2023. Section 106 submittal documentation, including tribal consults, can be found in Appendix H
Noise Abatement and Control Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B	Yes ☐ No ☒	This project is exempt from noise considerations as it falls under the stormwater purview. Information Sheet C, Page 43 of Appendix 3 of Iowa CDBG Management Guide is located in Appendix I.
Sole Source Aquifers Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149	Yes ☐ No ☒	Project is NOT located within area of an EPA-designated sole source aquifer. Map found in Appendix J and at www.epa.gov/dwssa/map-sole-source-aquifer-locations
Wetlands Protection Executive Order 11990, particularly sections 2 and 5	Yes ☐ No ☒	The project is located in an area where wetlands are present. The 8-step process, as outlined in 24 CFR 55.20 was followed an information pertaining to the process and the appropriate publications can be found in Appendix K.
Wild and Scenic Rivers	Yes No	Project is not located within one mile of a designated Wild & Scenic River, or river being studied as a potential component

Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)	☐ ☒	of the Wild & Scenic River System. Iowa does not have any designated rivers, but does have 1 study river and 7 potential rivers listed in the NRI (Sections of the Boone River, Cedar River, Maquoketa, Middle Raccoon River, Turkey River, Upper Iowa River, Wapsipinicon, Yellow River). www.nps.gov/ncrc/programs/rtca/nri/states/ia.html This information can be found in Appendix L.

Environmental Assessment Factors [24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27] Recorded below is the qualitative and quantitative significance of the effects of the proposal on the character, features and resources of the project area. Each factor has been evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation has been provided and described in support of each determination, as appropriate. Credible, traceable and supportive source documentation for each authority has been provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits of approvals have been obtained or noted. Citations, dates/names/titles of contacts, and page references are clear. Additional documentation is attached, as appropriate. **All conditions, attenuation or mitigation measures have been clearly identified.**

Impact Codes: Use an impact code from the following list to make the determination of impact for each factor.
(1) Minor beneficial impact
(2) No impact anticipated
(3) Minor Adverse Impact – May require mitigation
(4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement

Environmental Assessment Factor	Impact Code	Impact Evaluation
LAND DEVELOPMENT		
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	**1**	This project was constructed to conform to the city's current plans and land use. The project was also designed to be compatible with the city's current size. The project will ensure that the current land use patterns and plans are followed into the future. ***No mitigation is necessary.*** (9-14-2020 ISG Letter Report.)
Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	**1**	The result of this project will create a recommended drainage coefficient and will reduce the surface drainage entering the grass waterway. This will reduce storm water runoff and increase the drainage capability of the drainage ditch. ***No mitigation is necessary.*** (9-14-2020 ISG Letter Report pages 3-4)
Hazards and Nuisances including Site Safety and Noise	**2**	The project will have no impact on community noise upon completion. Site safety will be managed by the contractor who will ensure that the appropriate measures are followed during construction. ***No mitigation is necessary.*** (9-14-2020 ISG Letter Report)

U.S. Department of Housing and Urban Development
451 Seventh Street, SW
Washington, DC 20410
www.hud.gov

espanol.hud.gov

Energy Consumption	**1**	The completion of this project will reduce flooding within the community, reducing the amount of resources homeowners use to dry their homes after flooding occurs. ***No mitigation is necessary.*** (9-14-2020 ISG Letter Report page 4)

Environmental Assessment Factor	Impact Code	Impact Evaluation
SOCIOECONOMIC		
Employment and Income Patterns	**2**	This project will not affect any employment or income patterns within the City of Early. ***No mitigation is necessary.*** (9-14-2020 ISG Letter Report)
Demographic Character Changes, Displacement	**1**	The completion of this project will reduce flooding within the City of Early, allowing residents to stay in their homes with a reduced flood risk. The project will not include any displacement of residents and will reduce further displacement due to flooding within the community. ***No mitigation is necessary.*** (9-14-2020 ISG Letter Report page 4)
Environmental Justice	**1**	The project neighborhood does not suffer from adverse health or environmental effects, which disproportionately impact a minority or low-income population relative to the community at large. Project will assist low to moderate-income persons for a better quality of life. According to the LMI data based off the American Community Survey Estimates, Early is 54.7% LMI. ***No mitigation is necessary.*** (9-14-2020 ISG Letter Report page 5 & American Community Survey Estimates)

Environmental Assessment Factor	Impact Code	Impact Evaluation
COMMUNITY FACILITIES AND SERVICES		
Educational and Cultural Facilities	**2**	There are no educational facilities located within the City of Early, therefore there will be no impact on any educational facilities. The project will not impact any cultural facilities within the community, as there are no buildings located within the project area. ***No mitigation is necessary.*** (9-14-2020 ISG Letter Report page 3)
Commercial Facilities	**2**	This project will be located in land that is currently not developed, therefore no commercial facilities will be impacted as a result of this project. ***No mitigation is necessary.*** (9-14-2020 ISG Letter Report page 1)
Health Care and Social Services	**2**	This project will be located in land that is currently not developed, therefore no health care or social services will be impacted as a result of this project. ***No mitigation is necessary.*** (9-14-2020 ISG Letter Report page 1)
Solid Waste Disposal / Recycling	**2**	The project will have no impact on solid waste disposal/recycling within the City of Early. ***No mitigation is necessary.*** (9-14-2020 ISG Letter Report page 1)

Wastewater / Sanitary Sewers	**2**	This project will have no impact on the wastewater/sanitary sewers within the city of Early. ***No mitigation is necessary.*** (9-14-2020 ISG Letter Report page 3)
Water Supply	**2**	The project will have no impact on the City of Early's water supply. ***No mitigation is necessary.*** (9-14-2020 ISG Letter Report page 1)
Public Safety - Police, Fire and Emergency Medical	**2**	The project will have no impact on public safety including policing, fire and emergency medical response within the City of Early. ***No mitigation is necessary.*** (9-14-2020 ISG Letter Report page 1)
Parks, Open Space and Recreation	**2**	The project land is currently privately owned, therefore not available to the public for parks, open space, or recreational activities. The project, once complete will continue to be an open space, but not utilized for recreational activities. ***No mitigation is necessary.*** (9-14-2020 ISG Letter Report)
Transportation and Accessibility	**2**	The project will have no impact on transportation and accessibility within the City of Early. ***No mitigation is necessary.*** (9-14-2020 ISG Letter Report page 1)

Environmental Assessment Factor	Impact Code	Impact Evaluation
NATURAL FEATURES		
Unique Natural Features, Water Resources	**1**	The project will not affect any unique natural features as there are none present in the project area. The project may positively benefit the city's groundwater as water will collect in the basin, instead of running downstream to other locations. ***No mitigation is necessary.*** (9-14-2020 ISG Letter Report)
Vegetation, Wildlife	**1**	The project, once complete, will replace the grass that is currently located on the project site, with native vegetation which will filter the water within the basin. ***No mitigation is necessary.*** (9-14-2020 ISG Letter Report)
Other Factors	**2**	This project will not impact other factors. ***No mitigation is necessary.*** (9-14-2020 ISG Letter Report)

Environmental Assessment Factor	Impact Code	Impact Evaluation
CLIMATE CHANGE / ENERGY		
Impact on occupants, alteration of future site, effect on/from weather related disasters	**1**	This project will reduce the amount of flooding within the community, lowering the number of residents affected by flooding on their properties. This project will reduce the number of flooding events within the community, lowering the city's impact from weather related disasters. ***No mitigation is necessary.*** (9-14-2020 ISG Letter Report)
Energy efficiency, Green building practices	**1**	In order to utilize green building practices, this project will utilize native vegetation once construction is completed and as few trees as possible will

U.S. Department of Housing and Urban Development
451 Seventh Street, SW
Washington, DC 20410
www.hud.gov

espanol.hud.gov

		be cut down during construction. ***No mitigation is necessary.*** (9-14-2020 ISG Letter Report)
Energy usage, Emissions	**1**	This project will reduce the amount of flooding within the community, lowering the number of times sump pumps, or other pumps are needed to remove water from basements, lowering the amount of energy consumed by the community. ***No mitigation is necessary.*** (9-14-2020 ISG Letter Report)

Additional Studies Performed:
"PHASE I CULTURAL RESOURCES INVESTIGATION FOR A PROPOSED STORMWATER PROJECT IN THE CITY OF EARLY, BOYER VALLEY TOWNSHIP, SAC COUNTY, IOWA"
Completed By: Bear Creek Archeology, Inc., April 2023

Field Inspection (Date and completed by)**:** October 10, 2022 – Lauren Mortensen
March 2023 – Bear Creek Archeology, Inc.

List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]**:**
Apache Tribe of Oklahoma
Iowa Tribe of Kansas and Nebraska
Iowa Tribe of Oklahoma
Menominee Indian Tribe of Wisconsin
Omaha Tribe of Nebraska
Otoe-Missouria Tribe of Indians, Oklahoma
Sac & Fox Nation, Oklahoma
Sac & Fox Tribe of the Mississippi in Iowa
Iowa DNR
EPA
U.S. Fish and Wildlife Service
NRCS/USDA

List of Permits Obtained:
No permits obtained to date.

Public Outreach [24 CFR 50.23 & 58.43]**:**
A public hearing was conducted to give the public an opportunity to provide input on the project. No questions or comments were received before or during the public hearing. The City also published for the project being completed near a riverine (wetland), and no comments were received during the early publication comment period.

Cumulative Impact Analysis [24 CFR 58.32]**:**
Overall, the project will have no adverse environmental impact. There are no concerns with contaminated substances. No endangered species will be impacted by this project. The project will have a slight beneficial impact on the city's water resources and energy consumption. The project conforms to the city's current land use and comprehensive plans.

Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]

U.S. Department of Housing and Urban Development
451 Seventh Street, SW
Washington, DC 20410
www.hud.gov

espanol.hud.gov

For this project, two alternatives were considered for the Drainage District's Main Tile repairs, but for the storm basin and the city's storm sewer, only one alternative was explored and selected due to the needs of the community and district. For the Main Tile, alternative one was the selected alternative. This alternative includes repairs to the portion of tile found to be in the worst condition which has the largest effect on flooding within the district. This alternative is focused on making repairs to the most important portions of the tile, which would be 11,880 linear feet of tile. The first alternative has a lower price tag due to focusing on the vital portions of the tile. The second alternative was to fix a large majority of the tile. This alternative was rejected due to it's high price tag and repairs on portions of the tile which currently did not require repair.

No Action Alternative [24 CFR 58.40(e)]:
The no action alternative would require the City of Early to continue utilizing the city's stormwater facilities in their current condition. This will continue to flood residential properties within the community, leading to property maintenance costs to increase during periods of heavy rainfall.

Summary of Findings and Conclusions:
Overall, this project will have little to no impact on the community, its natural resources, the local climate or other evaluated areas. Any impact that this project will have on the community will be beneficial in nature which leads to no mitigation measures being necessary.

Mitigation Measures and Conditions [40 CFR 1505.2(c)]
Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure

Determination:

☒ **Finding of No Significant Impact** [24 CFR 58.40(g)(1); 40 CFR 1508.27]
The project will not result in a significant impact on the quality of the human environment.

☐ **Finding of Significant Impact** [24 CFR 58.40(g)(2); 40 CFR 1508.27]
The project may significantly affect the quality of the human environment.

Preparer Signature: Lauren Matensen Date: 5-24-23

U.S. Department of Housing and Urban Development
451 Seventh Street, SW
Washington, DC 20410
www.hud.gov

espanol.hud.gov

Name/Title/Organization: Lauren Mortensen, Economic Development Planner, Region XII Council of Governments

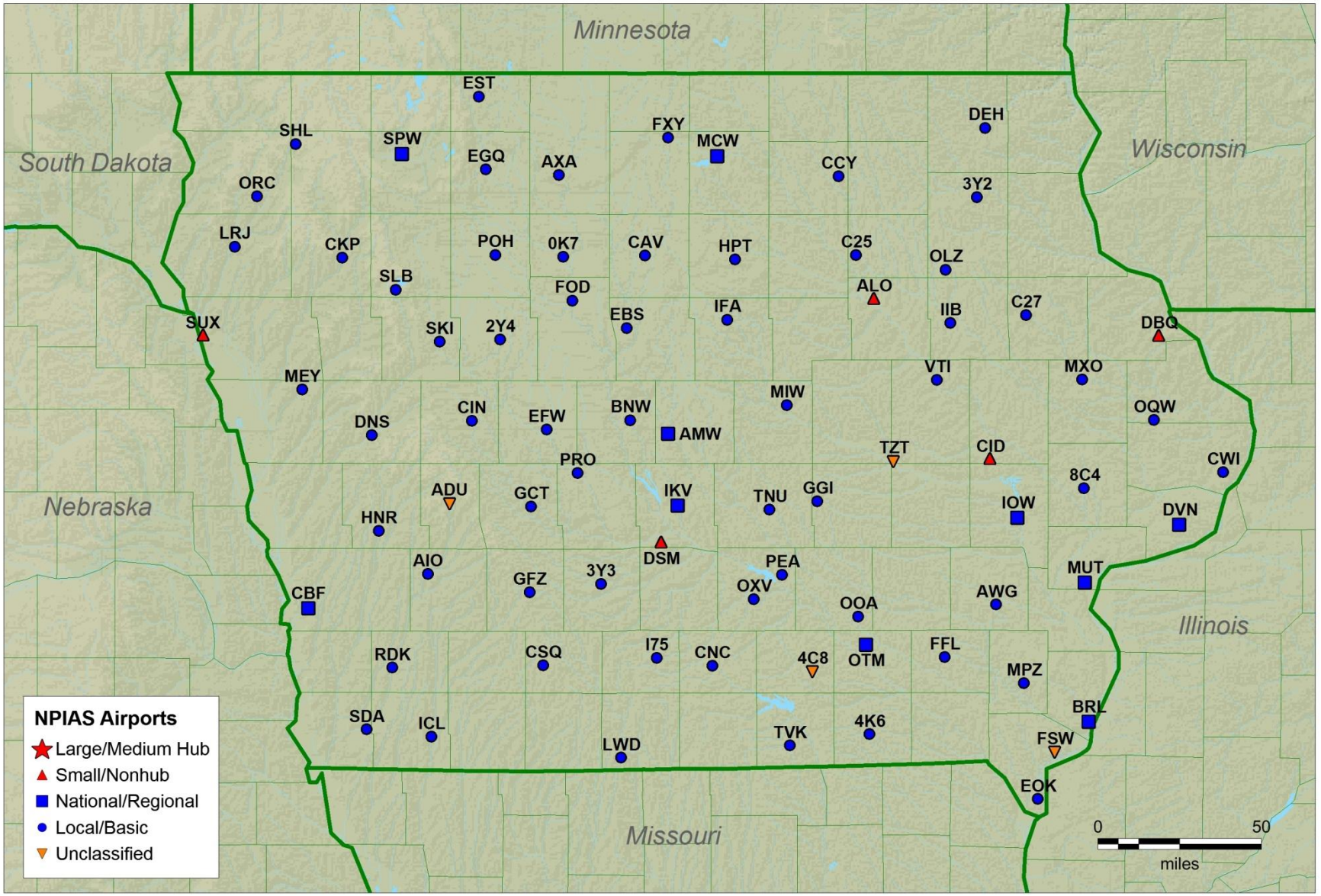
Certifying Officer Signature: Sharon Ann Irwin Date: 5/24/23

Name/Title: Sharon Irwin, Mayor

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

Appendix A

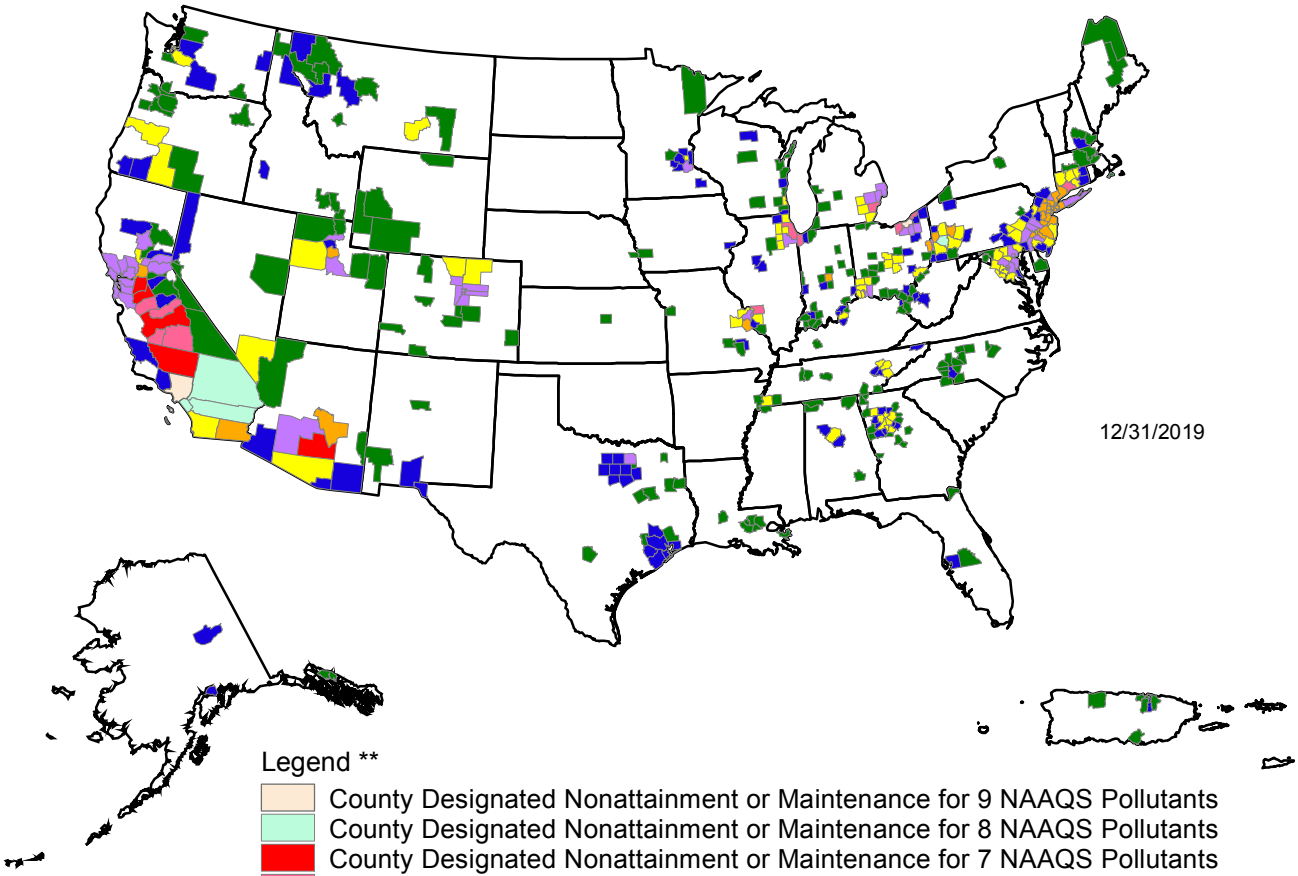
Iowa


Minnesota
South Dakota
Wisconsin
Nebraska
Illinois
Missouri
EST
SHL
SPW
FXY
MCW
DEH
EGQ
AXA
CCY
ORC
3Y2
LRJ
CKP
POH
0K7
CAV
HPT
C25
OLZ
SLB
FOD
ALO
SUX
SKI
2Y4
EBS
IFA
IIB
C27
DBQ
MEY
VTI
MXO
MIW
CIN
EFW
BNW
OQW
DNS
AMW
TZT
CID
PRO
CWI
8C4
ADU
GCT
IKV
TNU
GGI
IOW
DVN
HNR
DSM
AIO
PEA
MUT
GFZ
3Y3
OXV
CBF
AWG
OOA
RDK
CSQ
I75
CNC
4C8
OTM
FFL
MPZ
SDA
ICL
4K6
BRL
TVK
FSW
LWD
EOK
NPIAS Airports
Large/Medium Hub
Small/Nonhub
National/Regional
Local/Basic
Unclassified
0
50
miles

Appendix B

Counties Designated "Nonattainment" or "Maintenance"

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



Legend **

- County Designated Nonattainment or Maintenance for 9 NAAQS Pollutants
- County Designated Nonattainment or Maintenance for 8 NAAQS Pollutants
- County Designated Nonattainment or Maintenance for 7 NAAQS Pollutants
- County Designated Nonattainment or Maintenance for 6 NAAQS Pollutants
- County Designated Nonattainment or Maintenance for 5 NAAQS Pollutants
- County Designated Nonattainment or Maintenance for 4 NAAQS Pollutants
- County Designated Nonattainment or Maintenance for 3 NAAQS Pollutants
- County Designated Nonattainment or Maintenance for 2 NAAQS Pollutants
- County Designated Nonattainment or Maintenance for 1 NAAQS Pollutants

Guam - Piti and Tanguisson power stations are designated nonattainment for the SO2 (1971) NAAQS
Piti and Cabras power stations are designated nonattainment for the SO2 (2010) 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 C

Facility Search Results

Missouri, Nebraska, North Carolina, Pennsylvania, Vermont, Washington, West Virginia, and Wisconsin are working with EPA to fix problems with their Clean Water Act violation data.

Read More...

Map Legend | Basemap Options | EJScreen Add EJ Summary Map | Supplemental Indexes (US)

Zoom To: Early Iowa

Customize Columns | Download Data | Quick CSV Download | Source Data | Results Guide | Reports Legend

Facility Name	Mapped	Street Address	City	State	FRS ID	Reports	Count of Supplemental Indexes At or Above 80th Percentile (US - Block Group)	Compliance Monitoring Activity (5 years)	Significant Violations	Quarters with Noncompliance (3 years)	Formal Enforcement Actions (5 years)
AGRIUM EARLY TERMINAL		1887 KARR AVENUE	EARLY	IA	110070160278		--	0	No	0	0

Facility Summary

Select a facility row from the search results table.

Current Search

4 Facilities Found

Selected Criteria

Media Program: All Media Programs
City, State, and/or ZIP Code: Early Iowa ✕
Active/Operating: Yes ✕

Explore Enforcement and Compliance Criteria

- **0** Facilities with Current Violations
- **0** Facilities with Significant Violations
- **1** Facilities with Violations (3 years)
- **0** Facilities with Formal Enforcement Actions (5 years)
- **1** Facilities with Informal Enforcement Actions (5 years)

Modify Search

Filter Facilities

Not Filtering on 4 Facilities

Only Show Matches

Facility Characteristics

Facility Type

0 Major **4** Minor

Facility Permit/ID

1 Has Water Permit (ICIS-NPDES)
1 Has ICIS-Air ID **1** Has RCRA ID
0 Has TRI Releases

Facility Name	Mapped	Street Address	City	State	FRS ID	Reports	Count of Supplemental Indexes At or Above 80th Percentile (US - Block Group)	Compliance Monitoring Activity (5 years)	Significant Violations	Quarters with Noncompliance (3 years)	Formal Enforcement Actions (5 years)
CRESTLAND JR SR HIGH 7-12		310 W MAIN	EARLY	IA	110021919753		0	0	No	0	0
EARLY CITY OF STP		CITY CLERK, CITY HALL	EARLY	IA	110010034417		0	2	No	0	0
EARLY MUNICIPAL WATER SUPPLY		--	EARLY	IA	110013090421		0	0	No	1	0

Enforcement and Compliance Characteristics

☐ **1** Facilities with Violations (1 or more quarters within the past 3 years)

◉ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10 ○ 11 ○ 12

Facilities with Formal Enforcement Actions (5 yrs)

☐ **0** Yes ☐ **4** No

○ 1 ○ 2 ○ 3 ○ 4 ◉ 5

Facilities with Informal Enforcement Actions (5 yrs)

☐ **1** Yes ☐ **3** No

○ 1 ○ 2 ○ 3 ○ 4 ◉ 5

Facilities with Compliance Monitoring Activities within Date Range

☐ **0** Yes ☐ **4** No

mm/dd/yyyy mm/dd/yyyy

Community Characteristics

☐ **0** Facilities Located in Areas with EJ Indexes At or Above 80th Percentile (US)

◉ Any ○ 1 or More ○ 4 or More ○ 7 or More ○ 10 or More

▼ Layers

Each map layer requires a specific map scale for display. Layers are only available for selection if the map i zoomed in to a sufficient scale. Zoom in further to enable selection of additional layers. Note that adding multiple overlapping map layers may cause performance issues in the browser and display.

☐ Do not show again

Current Zoom: 78%

▶ EJScreen Maps

▶ Air Maps

▶ Water Maps

▶ Places

▶ Boundaries

▶ Endangered Species Act Critical Habitat

LAST UPDATED ON SEPTEMBER 21, 2022

DATA REFRESH INFORMATION

Contaminated Sites

Site Search

Sites may be searched by entering text in one text boxes at the base of the columns (name, address, city or program). Other search criteria may also be entered the general text box including county, zip code, project manager, alternative name, or ownership type.

The system will start sorting as a search is initiated in the general text search box; pressing an enter or return key isn't necessary. The best results are obtained by using the column text boxes in combination with the general text box to narrow the search list.

Copy | CSV | Print | Clear

Show 10 entries Search:

ID	Name	Address	City	Program
1458	Agland Coop	1/4 mile east of intersection of Hwy 71 and D27	Early	Chapter 133
513	Agrium Agchem	1887 Highway 71	Early	Chapter 133
	Search	Search	Early	-- (All) --

Showing 1 to 2 of 2 entries (filtered from 2,452 total entries)

Previous 1 Next

Contaminated Sites

Agland Coop
Chapter 133 - Closed
1/4 mile east of intersection of Hwy 71 and D27 , SW SE SW SW Section 3 T88N R37W , Early , IA
Project Manager:

Detail
Documents
Location
Background
Summary
Site Search

Detail

ID	1458
Name	Agland Coop
Alternate Name(s)	---
Origin Type	NA
Site Type	Unknown
Institutional Control(s)	---
Ownership	Private
Project Manager	

Contaminated Sites

Agrium Agchem
Chapter 133 - Closed
1887 Highway 71 , Early , IA 50535
Project Manager: Hylton Jackson

Detail
Documents
Location
Background
Summary
Site Search

Detail

ID	513
Name	Agrium Agchem
Alternate Name(s)	---
Origin Type	Notified by PRP
Site Type	Ag-Chem
Institutional Control(s)	---
Ownership	Private
Project Manager	Hylton Jackson

IOWA DEPARTMENT OF NATURAL RESOURCES
Underground Storage Tanks Database

5/17/2023 10:03 AM user: Login

Advanced search UST Registration Number for Go

Advanced Search

UST LUST AST UST 3rd Party Inspections UST Certifications

Leak Number:	
Leak Risk Classification:	High Risk
Site Name:	
Site Address:	
Site City:	EARLY
County:	Sac
Site Status:	--Status Type--

Search

Export Results

No Lust Records Found

DISCLAIMER: The information on this website represents data provided to the DNR from outside entities. Although believed to be generally reliable, its accuracy cannot be guaranteed. No warranty, expressed or implied, is provided for the data herein, or its use. The Tanks database does not display nor contain all the records submitted for a site. Additional information may be obtained from the DNR Records Center at 515-725-8480 or DNR.Records@dnr.iowa.gov.

The Above Ground Storage Tank (AST) information on this website is no longer maintained. The DNR does not regulate ASTs. For additional information on ASTs, please contact the State Fire Marshal office at (515)-725-6145.

Appendix D

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: May 23, 2023
Project Code: 2023-0015376
Project Name: City of Early Stormwater Improvements

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

Northern Long-eared Bat Update

Please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.
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

- 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: 2023-0015376
Project Name: City of Early Stormwater Improvements
Project Type: Stormwater Discharge
Project Description: The City of Early is constructing a drainage basin to alleviate the amount of storm runoff within the community.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@42.4648179,-95.15402041560812,14z

Counties: Sac County, Iowa

ENDANGERED SPECIES ACT SPECIES

There is a total of 2 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.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], 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
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

INSECTS

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

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.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

---

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)

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

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

NAME	BREEDING SEASON
American Golden-plover *Pluvialis dominica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Bald Eagle *Haliaeetus leucocephalus* 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.	Breeds Oct 15 to Aug 31
Bobolink *Dolichonyx oryzivorus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31

NAME	BREEDING SEASON
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Lesser Yellowlegs *Tringa flavipes* 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
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Rusty Blackbird *Euphagus carolinus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Short-billed Dowitcher *Limnodromus griseus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere

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 and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence

in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

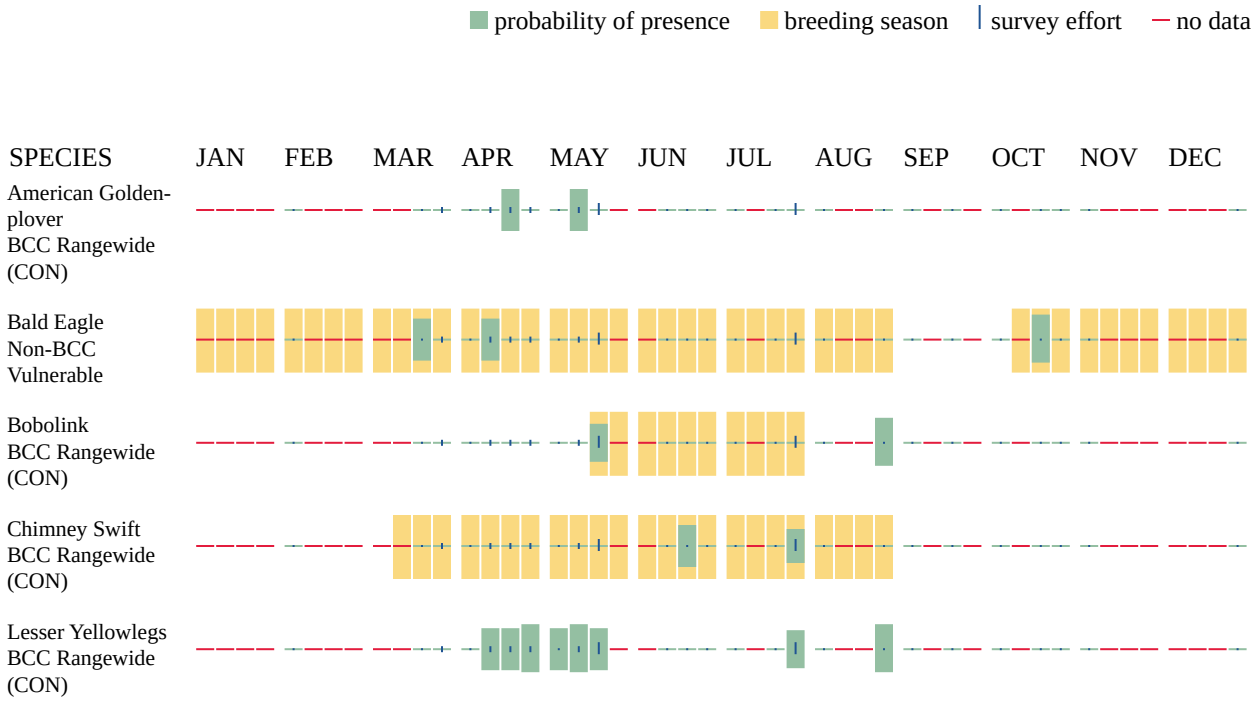
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

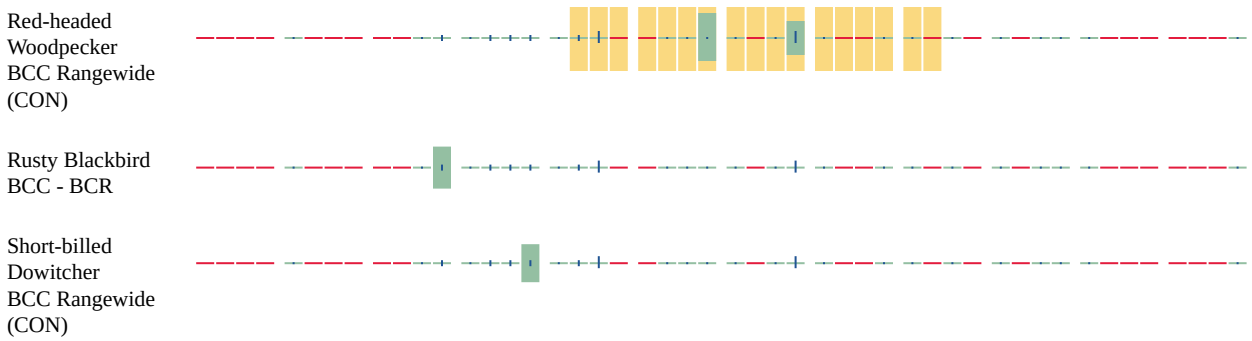
Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- 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

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?
The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?
To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?
Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects
For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides

birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?
If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report
The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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.

RIVERINE

- R4SBC

IPAC USER CONTACT INFORMATION

Agency: Region XII Council of Governments
Name: Lauren Mortensen
Address: 1009 East Anthony Street
Address Line 2: PO Box 768
City: Carroll
State: IA
Zip: 51401
Email lmortensen@region12cog.org
Phone: 7127929914

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Housing and Urban Development

FISH & WILDLIFE SERVICE

ENDANGERED SPECIES CONSULTATION

NO EFFECTS DETERMINATION

A determination has been made that the project named below will have no affect on any federally listed species or their habitats.

This determination is based on upon one or more of the following factors: (check all that apply)

- ☐ The project involves no new construction activities
- ☐ The project involves the replacement, reconstruction or resurfacing of existing infrastructure components without disturbance of previously undisturbed soil
- ☐ The project involves the removal of blight through demolition with no storage or disposal of removed materials in or adjacent any listed species habitats
- ☐ The project involves the rehabilitation of existing buildings/facilities without a significant increase in capacity or change in use
- ☒ The project site is within an already developed area containing pavement, structures and/or regularly mowed or maintained grass or landscaped area and will not involve the removal of any native vegetation, including trees
- ☒ The project will not directly or indirectly effect any habitat area utilized by a listed endangered or threatened species

CDBG Project Name: City of Early Drainage District 59 Stormwater Improvements

Nature of Project: Construction of Storm Basin and other Stormwater Improvements

Signature of Certifying Person: Lauren Mortensen

Date: 5-23-22

Appendix E

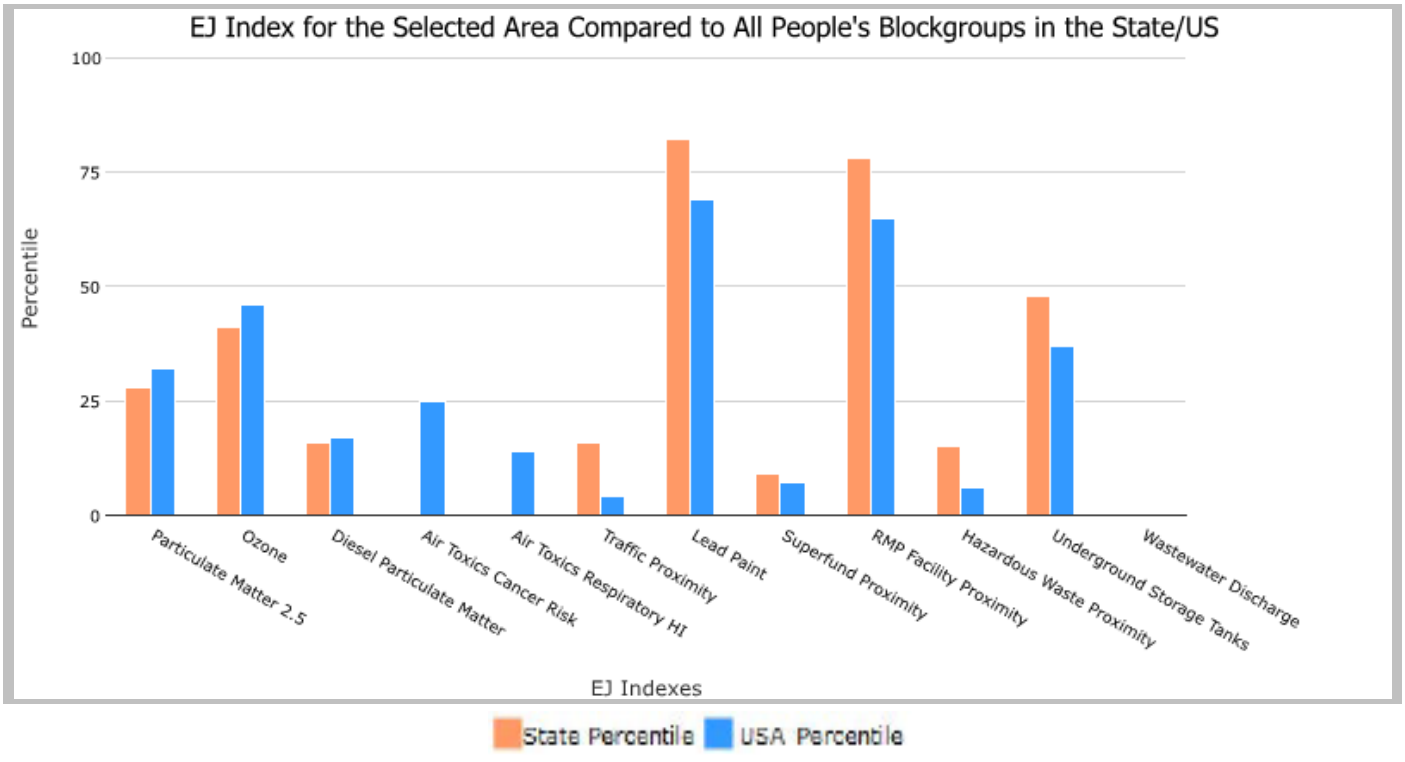
EJScreen Report (Version 2.1)

1 mile Ring Centered at 42.459719,-95.148082, IOWA, EPA Region 7

Approximate Population: 835

Input Area (sq. miles): 3.14

Selected Variables	State Percentile	USA Percentile
Environmental Justice Indexes		
EJ Index for Particulate Matter 2.5	28	32
EJ Index for Ozone	41	46
EJ Index for Diesel Particulate Matter*	16	17
EJ Index for Air Toxics Cancer Risk*	0	25
EJ Index for Air Toxics Respiratory HI*	0	14
EJ Index for Traffic Proximity	16	4
EJ Index for Lead Paint	82	69
EJ Index for Superfund Proximity	9	7
EJ Index for RMP Facility Proximity	78	65
EJ Index for Hazardous Waste Proximity	15	6
EJ Index for Underground Storage Tanks	48	37
EJ Index for Wastewater Discharge	N/A	N/A



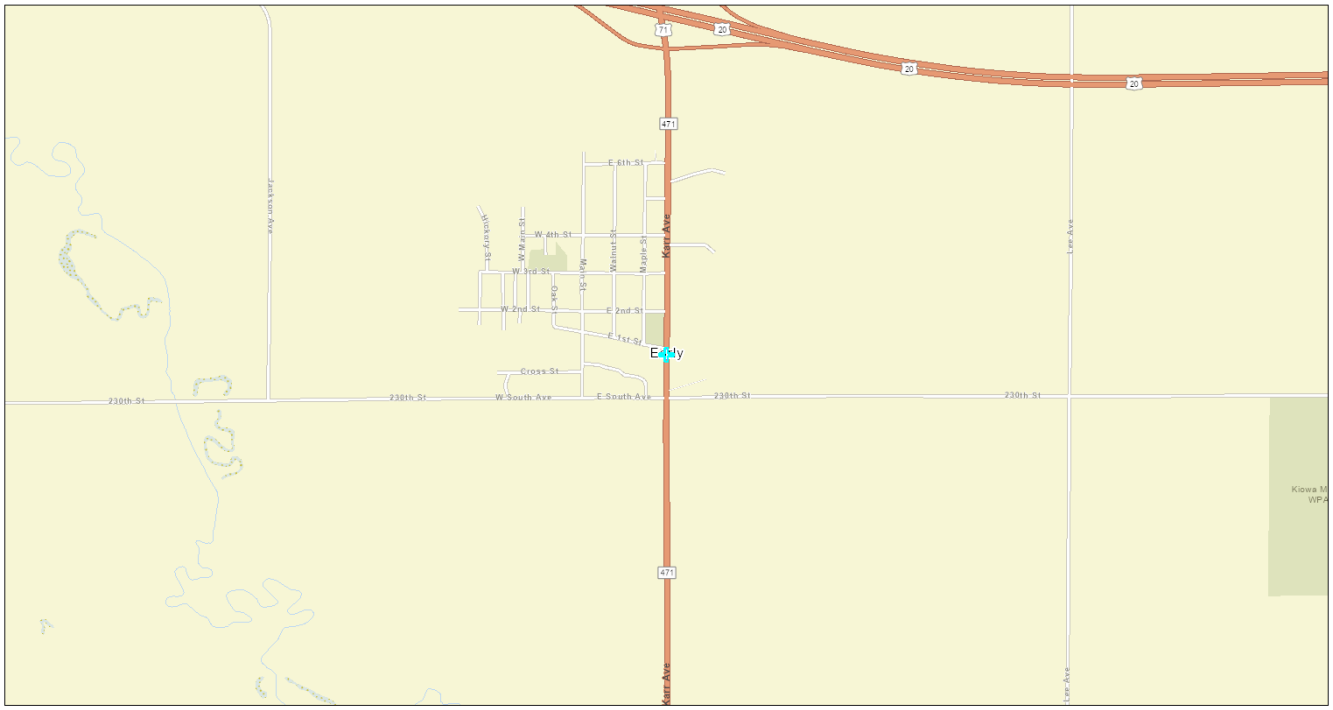
This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

EJScreen Report (Version 2.1)

1 mile Ring Centered at 42.459719,-95.148082, IOWA, EPA Region 7

Approximate Population: 835

Input Area (sq. miles): 3.14



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

EJScreen Report (Version 2.1)

1 mile Ring Centered at 42.459719,-95.148082, IOWA, EPA Region 7

Approximate Population: 835

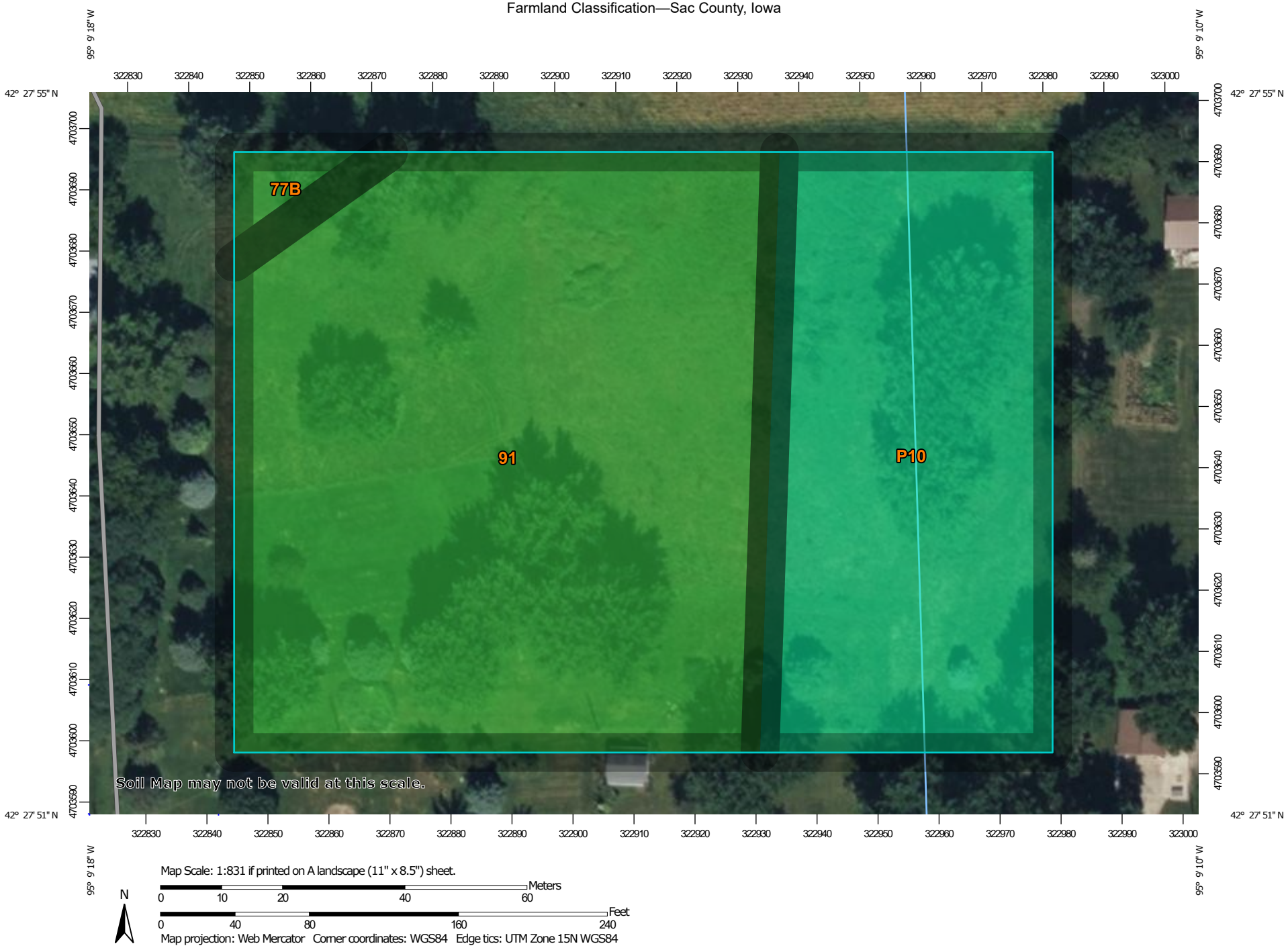
Input Area (sq. miles): 3.14

Selected Variables	Value	State Avg.	%ile in State	USA Avg.	%ile in USA
Pollution and Sources					
Particulate Matter 2.5 (µg/m^3)	7.68	8.22	16	8.67	26
Ozone (ppb)	41.4	41.8	25	42.5	41
Diesel Particulate Matter* (µg/m^3)	0.0891	0.165	8	0.294	<50th
Air Toxics Cancer Risk* (lifetime risk per million)	20	21	0	28	<50th
Air Toxics Respiratory HI*	0.2	0.24	0	0.36	<50th
Traffic Proximity (daily traffic count/distance to road)	1.4	390	7	760	2
Lead Paint (% Pre-1960 Housing)	0.7	0.4	80	0.27	85
Superfund Proximity (site count/km distance)	0.011	0.094	5	0.13	5
RMP Facility Proximity (facility count/km distance)	1.6	1.2	73	0.77	85
Hazardous Waste Proximity (facility count/km distance)	0.03	0.45	8	2.2	4
Underground Storage Tanks (count/km^2)	0.073	1.9	29	3.9	26
Wastewater Discharge (toxicity-weighted concentration/m distance)	N/A	0.29	N/A	12	N/A
Socioeconomic Indicators					
Demographic Index	25%	22%	69	35%	42
People of Color	14%	15%	66	40%	30
Low Income	35%	28%	69	30%	62
Unemployment Rate	2%	4%	38	5%	30
Limited English Speaking Households	0%	2%	0	5%	0
Less Than High School Education	7%	8%	58	12%	45
Under Age 5	9%	6%	84	6%	82
Over Age 64	16%	17%	43	16%	53

*Diesel particular 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.

For additional information, see: www.epa.gov/environmentaljustice

Appendix F



Map Scale: 1:831 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 10 20 40 60

Feet
0 40 80 160 240

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

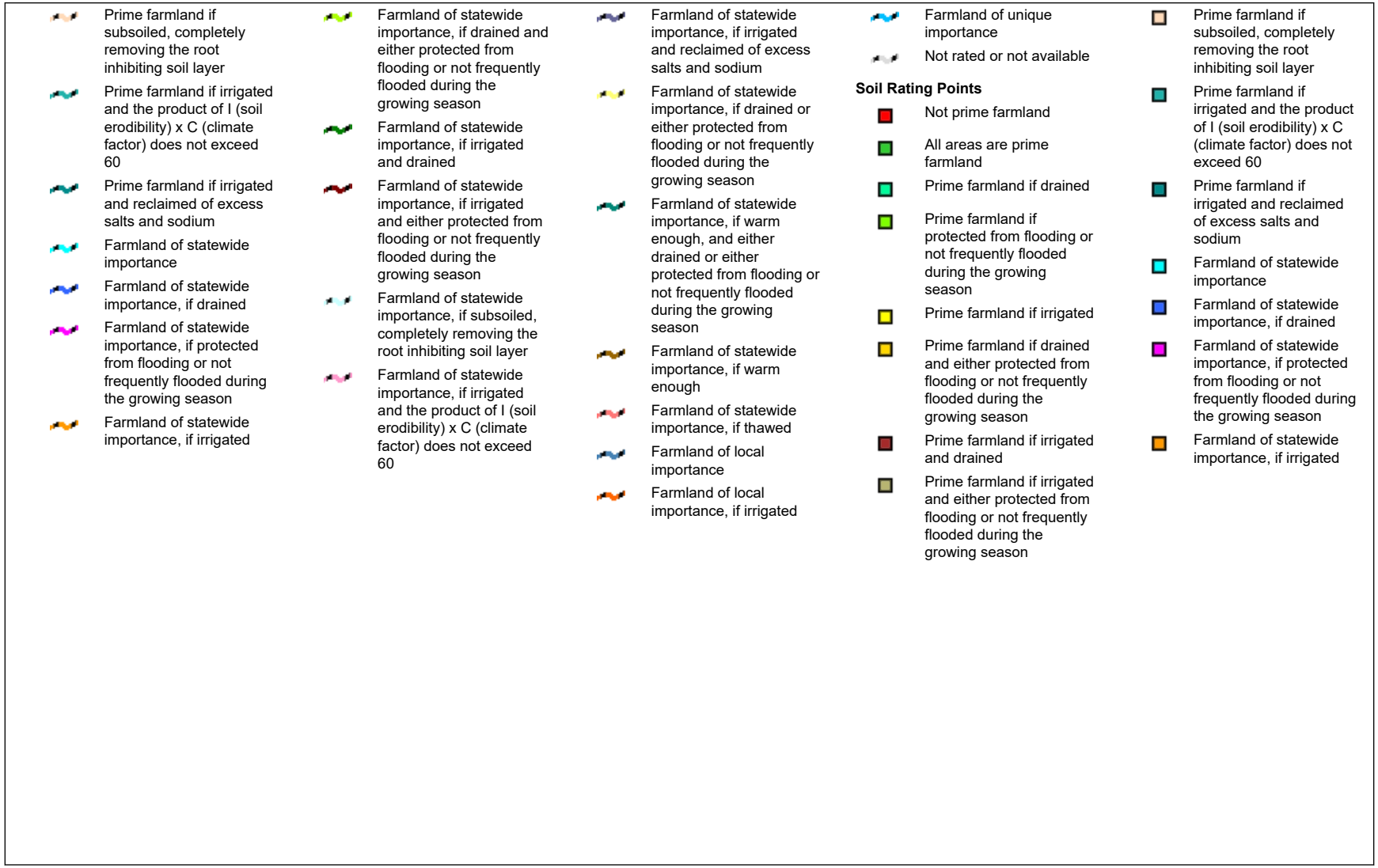
Soils

Soil Rating Polygons

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of statewide importance, if drained
- Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated
- Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated and drained
- Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
- Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough
- Farmland of statewide importance, if thawed
- Farmland of local importance
- Farmland of local importance, if irrigated
- Farmland of unique importance
- Not rated or not available

Soil Rating Lines

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season


Prime farmland if subsoiled, completely removing the root inhibiting soil layer
Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
Prime farmland if irrigated and reclaimed of excess salts and sodium
Farmland of statewide importance
Farmland of statewide importance, if drained
Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
Farmland of statewide importance, if irrigated
Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
Farmland of statewide importance, if irrigated and drained
Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
Farmland of statewide importance, if warm enough
Farmland of statewide importance, if thawed
Farmland of local importance
Farmland of local importance, if irrigated
Farmland of unique importance
Not rated or not available
Soil Rating Points
Not prime farmland
All areas are prime farmland
Prime farmland if drained
Prime farmland if protected from flooding or not frequently flooded during the growing season
Prime farmland if irrigated
Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
Prime farmland if irrigated and drained
Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
Prime farmland if subsoiled, completely removing the root inhibiting soil layer
Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
Prime farmland if irrigated and reclaimed of excess salts and sodium
Farmland of statewide importance
Farmland of statewide importance, if drained
Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
Farmland of statewide importance, if irrigated

- Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated and drained
- Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
- Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough
- Farmland of statewide importance, if thawed
- Farmland of local importance
- Farmland of local importance, if irrigated
- Farmland of unique importance
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Sac County, Iowa
Survey Area Data: Version 30, Sep 2, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 5, 2021—Oct 14, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
77B	Sac silty clay loam, loam substratum, 2 to 5 percent slopes	All areas are prime farmland	0.1	1.7%
91	Primghar silty clay loam, 0 to 2 percent slopes	All areas are prime farmland	2.1	63.7%
P10	Afton silty clay loam, Sheldon creek formation, 0 to 2 percent slopes, occasionally flooded	Prime farmland if drained	1.1	34.6%
Totals for Area of Interest			**3.3**	**100.0%**

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*		Date Of Land Evaluation Request May 17, 2023	
Name of Project Early Stormwater Basin/Improvements		Federal Agency Involved HUD (IEDA)	
Proposed Land Use Stormwater Basin		County and State Sac, Iowa	
PART II *(To be completed by NRCS)*		Date Request Received By NRCS 5/22/2023	Person Completing Form: Louis Moran
Does the site 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 ☐	Acres Irrigated 737	Average Farm Size 397
Major Crop(s) AG LAND, FARM OPERATIONS	Farmable Land In Govt. Jurisdiction Acres: 96 % 355027	Amount of Farmland As Defined in FPPA Acres: 47 % 172370	
Name of Land Evaluation System Used Iowa Corn Suitability Rating	Name of State or Local Site Assessment System Iowa Corn Suitability Rating	Date Land Evaluation Returned by NRCS 5/22/2023	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	3.8			
B. Total Acres To Be Converted Indirectly	0			
C. Total Acres In Site	3.8			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	3.8			
B. Total Acres Statewide Important or Local Important Farmland	0.0			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.0			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	2.3			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	95			

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	3			
2. Perimeter In Non-urban Use	(10)	2			
3. Percent Of Site Being Farmed	(20)	0			
4. Protection Provided By State and Local Government	(20)	0			
5. Distance From Urban Built-up Area	(15)	5			
6. Distance To Urban Support Services	(15)	0			
7. Size Of Present Farm Unit Compared To Average	(10)	0			
8. Creation Of Non-farmable Farmland	(10)	0			
9. Availability Of Farm Support Services	(5)	5			
10. On-Farm Investments	(20)	0			
11. Effects Of Conversion On Farm Support Services	(10)	0			
12. Compatibility With Existing Agricultural Use	(10)	0			
TOTAL SITE ASSESSMENT POINTS	160	15	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	95	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	15	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	110	0	0	0

Site Selected: A	Date Of Selection 5-23-2023	Was A Local Site Assessment Used? YES ☐ NO ☑

Reason For Selection:

Per 7 CFR 658.4 of the Farmland Protection Policy Act (FPPA), the AD 1006 was completed on the proposed project site and scored 110, which is less than the prescribed maximum points of less than 160. Therefore, no further consideration for the protection and no additional sites need to be evaluated.

Name of Federal agency representative completing this form: Lauren Mortensen	Date: 5-23-2023

(See Instructions on reverse side) **Form AD-1006 (03-02)**

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

Step 1 - Federal agencies (or Federally funded projects) involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form. For Corridor type projects, the Federal agency shall use form NRCS-CPA-106 in place of form AD-1006. The Land Evaluation and Site Assessment (LESA) process may also be accessed by visiting the FPPA website, http://fppa.nrcs.usda.gov/lesa/.

Step 2 - Originator (Federal Agency) will send one original copy of the form together with appropriate scaled maps indicating location(s)of project site(s), to the Natural Resources Conservation Service (NRCS) local Field Office or USDA Service Center and retain a copy for their files. (NRCS has offices in most counties in the U.S. The USDA Office Information Locator may be found at http://offices.usda.gov/scripts/ndISAPI.dll/oip_public/USA_map**,** or the offices can usually be found in the Phone Book under U.S. Government, Department of Agriculture. A list of field offices is available from the NRCS State Conservationist and State Office in each State.)

Step 3 - NRCS will, within 10 working days after receipt of the completed form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland. (When a site visit or land evaluation system design is needed, NRCS will respond within 30 working days.

Step 4 - For sites where farmland covered by the FPPA will be converted by the proposed project, NRCS will complete Parts II, IV and V of the form.

Step 5 - NRCS will return the original copy of the form to the Federal agency involved in the project, and retain a file copy for NRCS records.

Step 6 - The Federal agency involved in the proposed project will complete Parts VI and VII of the form and return the form with the final selected site to the servicing NRCS office.

Step 7 - The Federal agency providing financial or technical assistance to the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

(For Federal Agency)

Part I: When completing the "County and State" questions, list all the local governments that are responsible for local land use controls where site(s) are to be evaluated.

Part III: When completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them or other major change in the ability to use the land for agriculture.
2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities planned build out capacity) that will cause a direct conversion.

Part VI: Do not complete Part VI using the standard format if a State or Local site assessment is used. With local and NRCS assistance, use the local Land Evaluation and Site Assessment (LESA).

1. Assign the maximum points for each site assessment criterion as shown in § 658.5(b) of CFR. In cases of corridor-type project such as transportation, power line and flood control, criteria #5 and #6 will not apply and will, be weighted zero, however, criterion #8 will be weighed a maximum of 25 points and criterion #11 a maximum of 25 points.

2. Federal agencies may assign relative weights among the 12 site assessment criteria other than those shown on the FPPA rule after submitting individual agency FPPA policy for review and comment to NRCS. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total points at 160. For project sites where the total points equal or exceed 160, consider alternative actions, as appropriate, that could reduce adverse impacts (e.g. Alternative Sites, Modifications or Mitigation).

Part VII: In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, convert the site assessment points to a base of 160.
Example: if the Site Assessment maximum is 200 points, and the alternative Site "A" is rated 180 points:

$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \text{ X } 160 = 144 \text{ points for Site A}$$

For assistance in completing this form or FPPA process, contact the local NRCS Field Office or USDA Service Center.

NRCS employees, consult the FPPA Manual and/or policy for additional instructions to complete the AD-1006 form.

Appendix G

FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT HTTPS://MSC.FEMA.GOV

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) *Zone A,V, A99* With BFE or Depth *Zone AE, AO, AH, VE, AR* Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X* Future Conditions 1% Annual Chance Flood Hazard *Zone X* Area with Reduced Flood Risk due to Levee See Notes. *Zone X* Area with Flood Risk due to Levee *Zone D*
OTHER AREAS	NO SCREEN Area of Minimal Flood Hazard *Zone X* Area of Undetermined Flood Hazard *Zone D*
GENERAL STRUCTURES	Channel, Culvert, or Storm Sewer Levee, Dike, or Floodwall
OTHER FEATURES	18.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation Coastal Transect Coastal Transect Baseline Profile Baseline Hydrographic Feature 513 Base Flood Elevation Line (BFE) Limit of Study Jurisdiction Boundary

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Mapping and Insurance eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at https://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study Report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Base map information shown on this FIRM was provided in digital format by the Iowa Department of Natural Resources and Iowa Department of Transportation, dated 2018 or earlier.

Project Area

SCALE

N

Map Projection:
Universal Transverse Mercator Zone 15N;
North American Datum 1983;
Western Hemisphere; Vertical Datum: NAVD 88

1 inch = 500 feet 1:6,000

0 500 1,000 2,000 feet

0 125 250 500 meters

PANEL LOCATOR

* PANEL NOT PRINTED

FEMA

National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

SAC COUNTY, IOWA
and Incorporated Areas

PANEL 184 OF 525

FEMA

Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
EARLY, CITY OF	190572	0184	C
SAC COUNTY	190904	0184	C

VERSION NUMBER
2.4.3.0

MAP NUMBER
19161C0184C

EFFECTIVE DATE
JUNE 1, 2022

Appendix H

CITY OF EARLY

Chairman Bobby Komardley
PO Box 1330
Anadarko, OK

November 28, 2022

Subject: City of Early, Sac County, Iowa CDBG Opportunities and Threats Grant

The City of Early, Iowa has received federal funding from the Community Development Block Grant Opportunities and Threats program. A project map can be found as an attachment to this email. If you would like more information on the project, please visit www.region12cog.org/plans. This funding is for a project that will result in the construction of a new retention basin, which will alleviate flooding within the City of Early. This project does involve new construction and requires digging for the proposed stormwater basin. All construction will take place inside the city limits of Early. A map of the proposed project location is enclosed with this letter.

The city would be interested to have you review this proposal and provide a written response within thirty days of the date of this letter if there are considerations the city should be making while completing this project.

Should you have reason to respond, please send your response to:

Lauren Mortensen
Region XII Council of Governments
1009 East Anthony Street
PO Box 768
Carroll, IA 51401

Or

lmortensen@region12cog.org

If you have any questions, please call 712-792-9914.

On behalf of the City of Early,

Lauren Mortensen
Economic Development Planner

PO Box 411
107 Main St.
Early, Iowa 50535

PHONE (712) 273-5283
E-MAIL cityclerk@earlyia.com
WEB SITE www.earlyia.com
ONLINE PAY earlyia.frontdeskgworks.com

CITY OF EARLY

Chairperson Tim Rhodd
3345 B Thrasher Rd.
White Cloud, KS 66094

November 28, 2022

Subject: City of Early, Sac County, Iowa CDBG Opportunities and Threats Grant

The City of Early, Iowa has received federal funding from the Community Development Block Grant Opportunities and Threats program. A project map can be found as an attachment to this email. If you would like more information on the project, please visit www.region12cog.org/plans. This funding is for a project that will result in the construction of a new retention basin, which will alleviate flooding within the City of Early. This project does involve new construction and requires digging for the proposed stormwater basin. All construction will take place inside the city limits of Early.

The city would be interested to have you review this proposal and provide a written response within thirty days of the date of this letter if there are considerations the city should be making while completing this project.

Should you have reason to respond, please send your response to:

Lauren Mortensen
Region XII Council of Governments
1009 East Anthony Street
PO Box 768
Carroll, IA 51401

Or

lmortensen@region12cog.org

If you have any questions, please call 712-792-9914.

On behalf of the City of Early,

Lauren Mortensen
Economic Development Planner

PO Box 411
107 Main St.
Early, Iowa 50535

PHONE (712) 273-5283
E-MAIL cityclerk@earlyia.com
WEB SITE www.earlyia.com
ONLINE PAY earlyia.frontdeskgworks.com

CITY OF EARLY

Chairman Edgar Kent
335588 E 750 Rd
Perkins, OK 74059-3268

November 28, 2022

Subject: City of Early, Sac County, Iowa CDBG Opportunities and Threats Grant

The City of Early, Iowa has received federal funding from the Community Development Block Grant Opportunities and Threats program. A project map can be found as an attachment to this email. If you would like more information on the project, please visit www.region12cog.org/plans. This funding is for a project that will result in the construction of a new retention basin, which will alleviate flooding within the City of Early. This project does involve new construction and requires digging for the proposed stormwater basin. All construction will take place inside the city limits of Early.

The city would be interested to have you review this proposal and provide a written response within thirty days of the date of this letter if there are considerations the city should be making while completing this project.

Should you have reason to respond, please send your response to:

Lauren Mortensen
Region XII Council of Governments
1009 East Anthony Street
PO Box 768
Carroll, IA 51401

Or

lmortensen@region12cog.org

If you have any questions, please call 712-792-9914.

On behalf of the City of Early,

Lauren Mortensen
Economic Development Planner

PO Box 411
107 Main St.
Early, Iowa 50535

PHONE (712) 273-5283
E-MAIL cityclerk@earlyia.com
WEB SITE www.earlyia.com
ONLINE PAY earlyia.frontdeskgworks.com

CITY OF EARLY

Davin Grignon, Tribal Historic Preservation Officer
PO Box 910
Keshena, WI 54135-0910

November 28, 2022

Subject: City of Early, Sac County, Iowa CDBG Opportunities and Threats Grant

The City of Early, Iowa has received federal funding from the Community Development Block Grant Opportunities and Threats program. A project map can be found as an attachment to this email. If you would like more information on the project, please visit www.region12cog.org/plans. This funding is for a project that will result in the construction of a new retention basin, which will alleviate flooding within the City of Early. This project does involve new construction and requires digging for the proposed stormwater basin. All construction will take place inside the city limits of Early.

The city would be interested to have you review this proposal and provide a written response within thirty days of the date of this letter if there are considerations the city should be making while completing this project.

Should you have reason to respond, please send your response to:

Lauren Mortensen
Region XII Council of Governments
1009 East Anthony Street
PO Box 768
Carroll, IA 51401

Or

lmortensen@region12cog.org

If you have any questions, please call 712-792-9914.

On behalf of the City of Early,

Lauren Mortensen
Economic Development Planner

PO Box 411
107 Main St.
Early, Iowa 50535

PHONE (712) 273-5283
E-MAIL cityclerk@earlyia.com
WEB SITE www.earlyia.com
ONLINE PAY earlyia.frontdeskgworks.com

CITY OF EARLY

Thomas Parker, Tribal Historic Preservation Officer
PO Box 368
Macy, NE 68039

November 28, 2022

Subject: City of Early, Sac County, Iowa CDBG Opportunities and Threats Grant

The City of Early, Iowa has received federal funding from the Community Development Block Grant Opportunities and Threats program. A project map can be found as an attachment to this email. If you would like more information on the project, please visit www.region12cog.org/plans. This funding is for a project that will result in the construction of a new retention basin, which will alleviate flooding within the City of Early. This project does involve new construction and requires digging for the proposed stormwater basin. All construction will take place inside the city limits of Early.

The city would be interested to have you review this proposal and provide a written response within thirty days of the date of this letter if there are considerations the city should be making while completing this project.

Should you have reason to respond, please send your response to:

Lauren Mortensen
Region XII Council of Governments
1009 East Anthony Street
PO Box 768
Carroll, IA 51401

Or

lmortensen@region12cog.org

If you have any questions, please call 712-792-9914.

On behalf of the City of Early,

Lauren Mortensen
Economic Development Planner

PO Box 411
107 Main St.
Early, Iowa 50535

PHONE (712) 273-5283
E-MAIL cityclerk@earlyia.com
WEB SITE www.earlyia.com
ONLINE PAY earlyia.frontdeskgworks.com

CITY OF EARLY

Chairman John Shotton
8151 Highway 177
Red Rock, OK 94651-0348

November 28, 2022

Subject: City of Early, Sac County, Iowa CDBG Opportunities and Threats Grant

The City of Early, Iowa has received federal funding from the Community Development Block Grant Opportunities and Threats program. A project map can be found as an attachment to this email. If you would like more information on the project, please visit www.region12cog.org/plans. This funding is for a project that will result in the construction of a new retention basin, which will alleviate flooding within the City of Early. This project does involve new construction and requires digging for the proposed stormwater basin. All construction will take place inside the city limits of Early.

The city would be interested to have you review this proposal and provide a written response within thirty days of the date of this letter if there are considerations the city should be making while completing this project.

Should you have reason to respond, please send your response to:

Lauren Mortensen
Region XII Council of Governments
1009 East Anthony Street
PO Box 768
Carroll, IA 51401

Or

lmortensen@region12cog.org

If you have any questions, please call 712-792-9914.

On behalf of the City of Early,

Lauren Mortensen
Economic Development Planner

PO Box 411
107 Main St.
Early, Iowa 50535

PHONE (712) 273-5283
E-MAIL cityclerk@earlyia.com
WEB SITE www.earlyia.com
ONLINE PAY earlyia.frontdeskgworks.com

CITY OF EARLY

Chairperson Tiauna Carnes
305 N. Main St.
Reserve, KS 66434

November 28, 2022

Subject: City of Early, Sac County, Iowa CDBG Opportunities and Threats Grant

The City of Early, Iowa has received federal funding from the Community Development Block Grant Opportunities and Threats program. A project map can be found as an attachment to this email. If you would like more information on the project, please visit www.region12cog.org/plans. This funding is for a project that will result in the construction of a new retention basin, which will alleviate flooding within the City of Early. This project does involve new construction and requires digging for the proposed stormwater basin. All construction will take place inside the city limits of Early.

The city would be interested to have you review this proposal and provide a written response within thirty days of the date of this letter if there are considerations the city should be making while completing this project.

Should you have reason to respond, please send your response to:

Lauren Mortensen
Region XII Council of Governments
1009 East Anthony Street
PO Box 768
Carroll, IA 51401

Or

lmortensen@region12cog.org

If you have any questions, please call 712-792-9914.

On behalf of the City of Early,

Lauren Mortensen
Economic Development Planner

PO Box 411
107 Main St.
Early, Iowa 50535

PHONE (712) 273-5283
E-MAIL cityclerk@earlyia.com
WEB SITE www.earlyia.com
ONLINE PAY earlyia.frontdeskgworks.com

CITY OF EARLY

Principal Chief Justin Wood
920883 South Highway 99
Building A
Stroud, OK 74079

November 28, 2022

Subject: City of Early, Sac County, Iowa CDBG Opportunities and Threats Grant

The City of Early, Iowa has received federal funding from the Community Development Block Grant Opportunities and Threats program. A project map can be found as an attachment to this email. If you would like more information on the project, please visit www.region12cog.org/plans. This funding is for a project that will result in the construction of a new retention basin, which will alleviate flooding within the City of Early. This project does involve new construction and requires digging for the proposed stormwater basin. All construction will take place inside the city limits of Early.

The city would be interested to have you review this proposal and provide a written response within thirty days of the date of this letter if there are considerations the city should be making while completing this project.

Should you have reason to respond, please send your response to:

Lauren Mortensen
Region XII Council of Governments
1009 East Anthony Street
PO Box 768
Carroll, IA 51401

Or

lmortensen@region12cog.org

If you have any questions, please call 712-792-9914.

On behalf of the City of Early,

Lauren Mortensen
Economic Development Planner

PO Box 411
107 Main St.
Early, Iowa 50535

PHONE (712) 273-5283
E-MAIL cityclerk@earlyia.com
WEB SITE www.earlyia.com
ONLINE PAY earlyia.frontdeskgworks.com

CITY OF EARLY

Chairwoman Vern Jefferson
349 Meskwaki Rd.
Tama, IA 52339

November 28, 2022

Subject: City of Early, Sac County, Iowa CDBG Opportunities and Threats Grant

The City of Early, Iowa has received federal funding from the Community Development Block Grant Opportunities and Threats program. A project map can be found as an attachment to this email. If you would like more information on the project, please visit www.region12cog.org/plans. This funding is for a project that will result in the construction of a new retention basin, which will alleviate flooding within the City of Early. This project does involve new construction and requires digging for the proposed stormwater basin. All construction will take place inside the city limits of Early.

The city would be interested to have you review this proposal and provide a written response within thirty days of the date of this letter if there are considerations the city should be making while completing this project.

Should you have reason to respond, please send your response to:

Lauren Mortensen
Region XII Council of Governments
1009 East Anthony Street
PO Box 768
Carroll, IA 51401

Or

lmortensen@region12cog.org

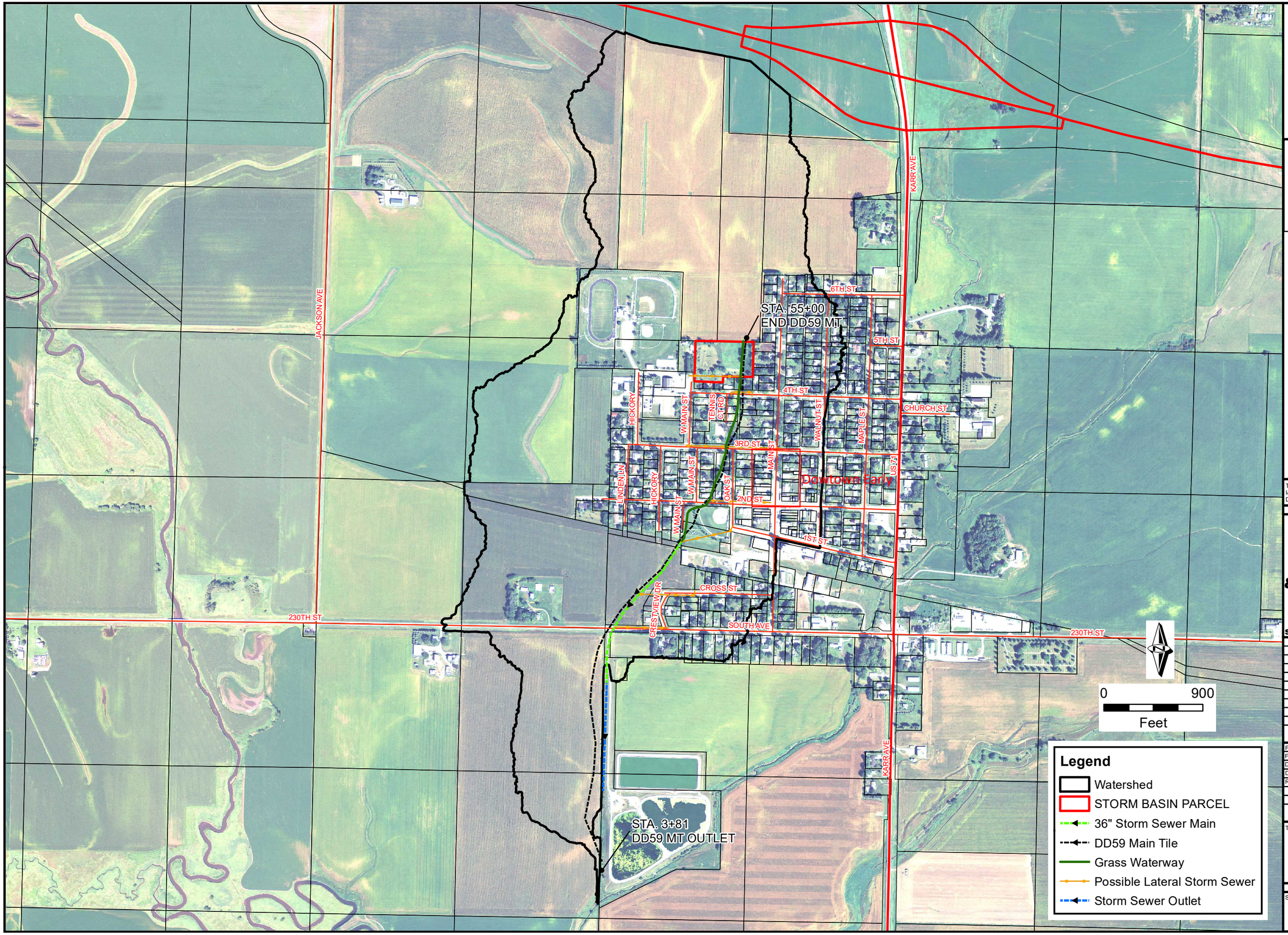
If you have any questions, please call 712-792-9914.

On behalf of the City of Early,

Lauren Mortensen
Economic Development Planner

PO Box 411
107 Main St.
Early, Iowa 50535

PHONE (712) 273-5283
E-MAIL cityclerk@earlyia.com
WEB SITE www.earlyia.com
ONLINE PAY earlyia.frontdeskgworks.com



ISG

Drainage District No. 59 Main Tile & Early Storm Sewer

SAC COUNTY **IOWA**

Revision Schedule

Mark	Date	

PROJECT NO.	19-22656
FILE NAME	22656 District Plat
DRAWN BY	CMB
DESIGNED BY	x
REVIEWED BY	IDD

TITLE

District Plat

SHEET

1

Appendix E

AUTHORIZATION FOR ALTERNATE SIGNATORIES
FOR SECTION 106 COMPLIANCE FORMS

CDBG Grant Administrators or City Clerks may now sign the Section 106 Compliance Forms including the *Exempt from Review Project Determination Form* and the *Request for Comment on a HUD Project* form. In order to take advantage of this opportunity, the Agency Official/CEO must sign this form before a notary public. The CEO is the person who signed the CDBG contract. The grant administrator or City Clerk must also sign this form as a signatory.

Note: By signing this agreement, the Agency Official/CEO is still legally responsible for all findings and determinations made on their behalf by the signatory.

Once signed, submit this form with your Section 106 compliance documentation.

As stated in 36 CFR Part 800, the implementing regulation for Section 106 of the National Historic Preservation Act of 1966, the Agency Official with jurisdiction over an undertaking takes legal and financial responsibility for Section 106 compliance in accordance with Subpart B of 36 CFR Part 800. In the case of the state Community Development Block Grant (CDBG) Program, however, the Agency Official will be the selected non-entitlement cities, which as CDBG recipients are authorized to serve as the Agency Official under 24 CFR Part 58.

In the event that the Agency Official is unable to sign the *Request for Comment* form or the Exempt from Review Project Determination From, however, the following alternates signatories listed below are authorized to act on the behalf of the Agency Official. In the event an alternate signatory is used, the Agency Official remains legally responsible for all required findings and determinations made through the Section 106 process. The signatures attested below are effective as of:

5/5/2023
(Date)

Sincerely,

Sharon Ann Irwin
Agency Official (CEO) signature

Lexi Houston, City Clerk
[Name and Title of] Signatory # 1

L Houston
Signature of Signatory #1

[Name and Title of] Signatory # 2

Signature of Signatory #2

William R Cargill
[Name and Title of] Witness

William R Cargill
Signature of Witness

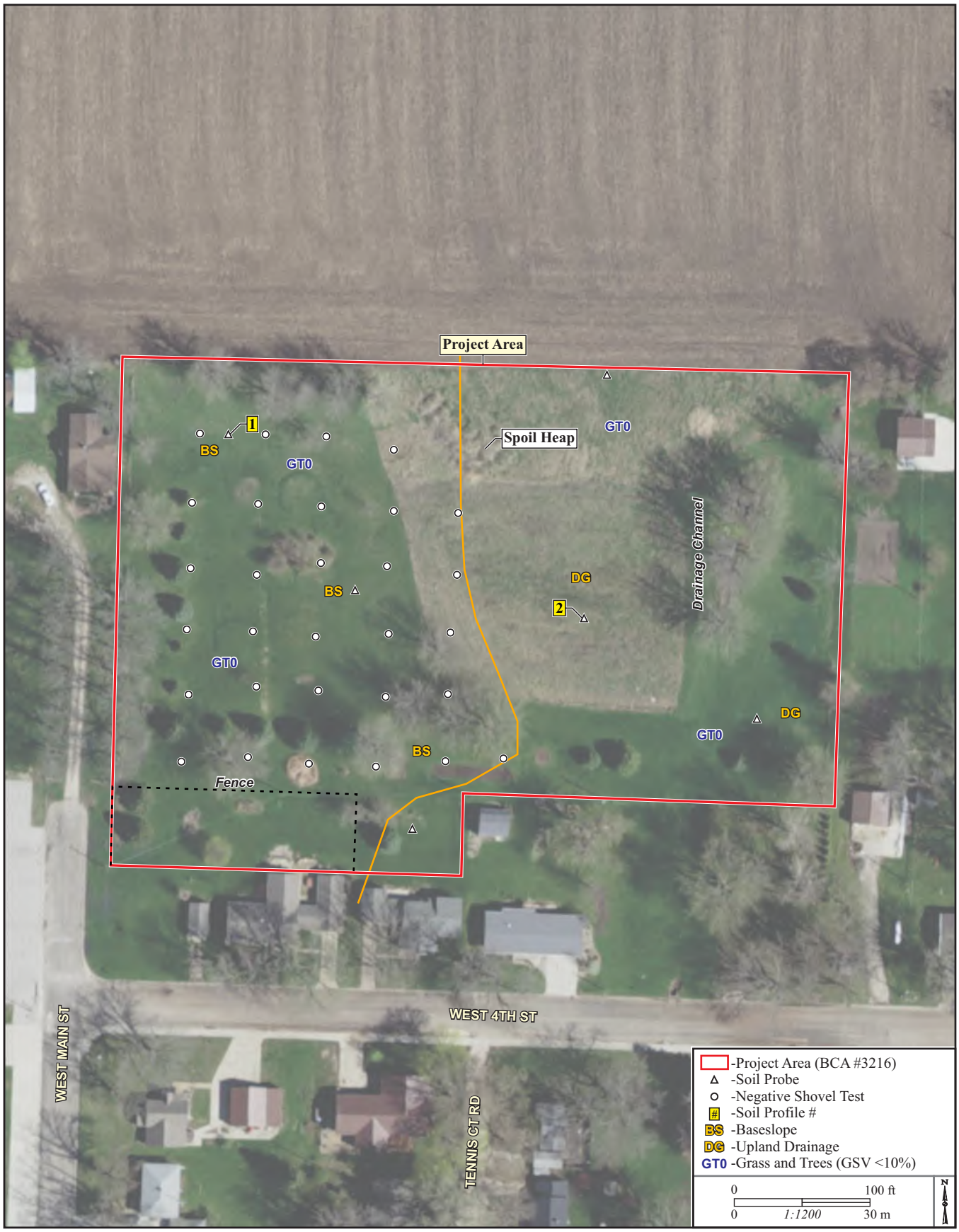
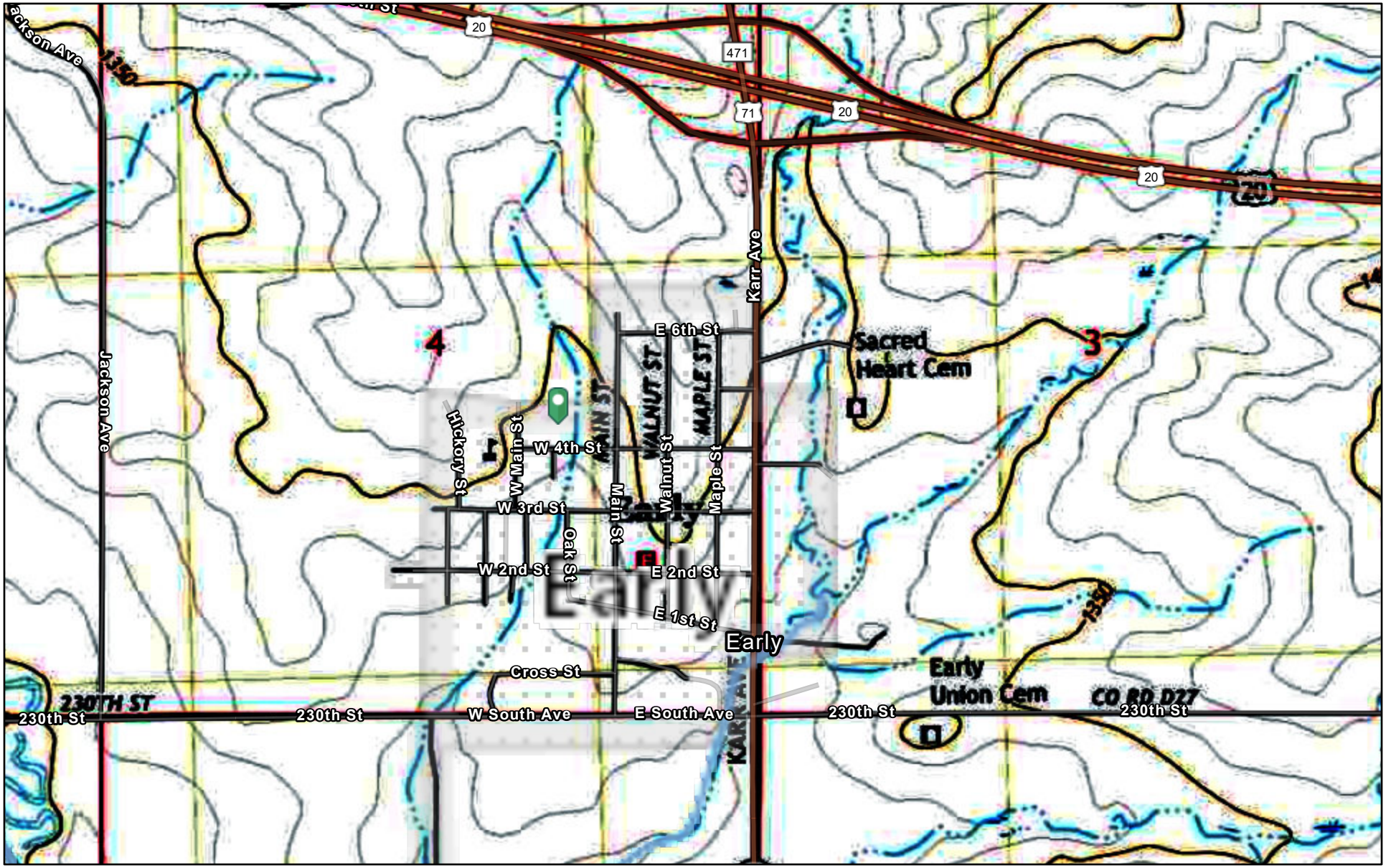


Figure 3. Scale map of the project area.

Early 7.5 Min Quad U.S.G.S Map



5/2/2023, 3:57:05 PM

World Hydro Reference Overlay

Iowa - USGS 24K Topographic Series

Red: Band_1

Green: Band_2

Blue: Band_3

1:18,056

0 0.1 0.2 0.4 mi

0 0.17 0.35 0.7 km

Source: Esri, Esri Community Maps Contributors, Iowa DNR, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS,

Iowa State University GIS Facility

PHASE I CULTURAL RESOURCES INVESTIGATION FOR A PROPOSED STORMWATER PROJECT IN THE CITY OF EARLY, BOYER VALLEY TOWNSHIP, SAC COUNTY, IOWA

Section 4, T88N, R37W

BCA 3216

THIS REPORT MAY CONTAIN SITE LOCATION INFORMATION
NOT FOR PUBLIC DISTRIBUTION

Prepared for
City of Early
PO Box 411
107 Main Street
Early, Iowa 50535

Prepared by
Jared Langseth
(Principal Investigator)

Bear Creek Archeology, Inc.
P.O. Box 347
Cresco, Iowa 52136
Derek V. Lee, Director

April 2023

MANAGEMENT SUMMARY

The following report presents the results of a Phase I cultural resources investigation conducted for the City of Early, Early, Iowa, by Bear Creek Archeology, Inc., Cresco, Iowa, for a proposed stormwater project in the city of Early, Boyer Valley Township, Sac County, Iowa. Occupying portions of the S½, NE¼, NW¼, SE¼ of Section 4, T88N, R37W, Boyer Valley Township, Sac County, Iowa, the project area is set north of West 4th Street between North Main Street and West Main Street and is positioned along upland baseslopes and the drainage bottom of an unnamed intermittent drainage, flowing into the Boyer River Valley to the southeast. The project area is roughly rectangular, measuring at maximum 163.1 m (535 ft) east-west and 114.3 m (375 ft) north-south and covers approximately 1.7 ha (4.2 ac).

Based on the landscape review conducted the project area was considered to have low to moderate archeological potential, and that the better drained portions of the project area will have the highest archaeological potential. Based on the review of available archival materials, there were no previous archeological surveys, recorded archeological sites, or inventoried properties within the project area. The archival review of historic maps and aerial photographs indicated there are no potential historic resources within the project area, but various portions of the project area may have been differentially disturbed throughout the modern era. Specifically, post-1974 the drainage extending through the project area appears to have been channelized and there is likely a spoil heap placed near the northern project area boundary.

The project area at the time of the survey in March of 2023 was in cover of grass and sparce trees with <10% ground surface visibility. The area immediately north of the project area was in row crop cover with 80–90% ground surface visibility. The geomorphological assessment conducted across the project area indicated the western portion, approximate half, was positioned along moderately well drained upland baseslope deposits, while the eastern portion, approximate half, was positioned along poorly drained deposits associated with the drainage extending through the project area. Based on the landscape evaluation, archival review, available ground surface visibility, and geomorphic assessment, limited pedestrian survey and subsurface testing (n = 30) was conducted across the project area. No archeological deposits were identified during the field investigation and Bear Creek Archeology, Inc. recommends no further cultural resources investigations for the project area.

Information contained in this report relating to the nature and location of archeological sites is considered private and confidential and not for public disclosure in accordance with Section 304 of the National Historic Preservation Act (54 U.S.C § 307103); 36 CFR Part 800.6(a)(5) of the Advisory Council on Historic Preservation's rules implementing Sections 106 and 110 of the National Historic Preservation Act; Section 9(a) of the Archaeological Resource Protection Act (54 U.S.C. § 100707), and Chapter 22.7, subsection 20 of the Iowa Code.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF FIGURES, continued

INTRODUCTION

The following report presents the results of a Phase I cultural resources investigation conducted for the City of Early, Early, Iowa, by Bear Creek Archeology, Inc. (BCA), Cresco, Iowa, for a proposed stormwater project in the city of Early, Boyer Valley Township, Sac County. This Phase I cultural resources investigation was conducted in accordance with the National Historic Preservation Act (Advisory Council on Historic Preservation [ACHP] 2004, 2016) and the Secretary of the Interior's standards for the identification of historic properties (National Park Service [NPS] 1983), the investigation meets or exceeds the guidelines for Iowa archeological investigations offered by the Association of Iowa Archaeologists (AIA; 2022). This report details the information gathering process concerning cultural resource properties that may exist in or near the project area, provides descriptions of cultural resources when encountered, their natural contexts, and recommendations concerning the potential impact of the proposed development on existing cultural resources. This investigation included archival research, landform evaluations, and a field investigation which included a geomorphic assessment. The fieldwork portion of this investigation was conducted by BCA personnel in March of 2023. The fieldwork, data analyses, and report production were completed by BCA personnel under the supervision of the Principal Investigator. The resulting field notes and other records generated by BCA during this project are housed at BCA's office in Cresco, Iowa.

PROJECT LOCATION AND DESCRIPTION

The project area is located in northwest Iowa within the Northwest Iowa Plains physiographic region near its interface with the Des Moines Lobe physiographic region (Prior 1991; Figure 1). Positioned along upland slopes and the drainage bottom of an unnamed intermittent drainage, flowing into the Boyer River valley to the southeast, the project area is located along the northern outskirts of Early, Iowa. Set north of West 4th Street between North Main Street and West Main Street, the project area occupies portions of the S½, NE¼, NW¼, SE¼ of Section 4, T88N, R37W, Boyer Valley Township, Sac County, Iowa (Figure 2). The project area is roughly rectangular, measuring at maximum 163.1 m (535 ft) east-west and 114.3 m (375 ft) north-south and covers approximately 1.7 ha (4.2 ac; Figure 3).

INVESTIGATION PREMISES

The purpose of this investigation is to document the cultural resources within the project area at the Phase I level of investigation. The goals of the Phase I survey are based on the Secretary of the Interior's Standards and Guidelines for the Identification of Archeological Properties (NPS 1983:44716–44728). These standards are summarized and annotated

within the archeological guidelines for Iowa (AIA 2022). Phase I surveys are intended to provide basic data on the occurrence, location, and identification of cultural resources within a given area.

The survey strategy for this Phase I investigation was based on an analysis of the project area and the landforms that exist within it. Archeological sites are integrated into the environment by natural surficial and formation processes and may be viewed not only as cultural remains, but also as geologic deposits. The geographic and pedologic character of a region is conditioned by geological processes, and an awareness of these site formation processes is fundamental to any evaluation of the archeological record. Landform and soil attributes have a strong influence on the presence, absence, and distribution of the plant and animal populations utilized by human groups. Geological processes affect not only the patterns of human habitation and environmental exploitation, but they are also largely responsible for the preservation, destruction, and manipulation of the archeological record. Therefore, archeological sites should be viewed as a product of both cultural and geological processes (Bettis and Green 1991).

This perspective on site location considers both the geological processes and cultural interactions of an area, allowing archeologists to use landform modeling to predict site occurrence and patterned distributions within a given region (Bettis and Benn 1984; Bettis and Thompson 1981). Such an approach also proves useful in investigator recognition of post-settlement alluvium (PSA), made land, plowzones (Ap horizons), and other disturbances that may have modified the area under investigation.

As a tool of cultural resource management, this type of landform modeling is critical to the development and implementation of survey strategies. Strategies sensitive toward geomorphological context allow the investigator to focus on those areas where the probabilities of site occurrence are highest. This reduces or eliminates the cost of surveying areas where sites should not sensibly occur in situ (e.g., made land, heavily disturbed areas, landforms consisting entirely of recent alluvium, etc.). Informed survey strategies such as those outlined above allow for the determination of the depth and distribution of subsurface tests necessary for the detection of buried cultural resource deposits. Additionally, the nature of the proposed impacts can be assessed in terms of the landforms present.

GENERAL INVESTIGATION METHODOLOGY

Prior to beginning the fieldwork, online site and previous survey records at the Office of the State Archaeologist (OSA) in Iowa City were examined to determine if previously reported properties are recorded within or near the project area. To check for potential historic properties and non-extant structures, digital copies of nineteenth century and early twentieth century General Land Office (GLO) maps, historic plat maps, and 1939–2021 aerial photographs stored on the BCA server were also consulted.

Also preceding the fieldwork, a geomorphic review was conducted to assess the general landform context of the survey area. A ¾" hand probe was used to inspect subsurface deposits and monitor the depth of plowzones and other modern impacts. Representative soil profiles were recorded and supplemented by visual assessments of the project area. Based on the results of the geomorphic assessment, pedestrian survey was conducted across most of the project area. Subsurface testing was also required across portions of the southern project area. Specific field methodologies are detailed below in the *Archeological Survey* subsection. This Phase I cultural resources survey followed the guidelines for archeological investigations in Iowa offered by the AIA (2022).

ENVIRONMENTAL CONTEXT AND LANDFORM MODELS

Physiographic Region

The project area is located in northwest Iowa in the physiographic region known as the Northwest Iowa Plains (Prior 1991; Figure 1). This region has a gently rolling landscape marked by well-established branching network of streams, and in general is defined by low topographic relief with broad U-shaped valleys. Advancement of the Des Moines Lobe to the east caused severe weather that eroded much of the Pleistocene-age surface. While erosion played a major role in the smoothing of the land surface, eolian sediment covered and leveled the topography further. These eolian sediments, or loess, originated from glacial meltwater deposits along the Big Sioux and Missouri rivers and blanketed the region during the late Pleistocene. Because these eolian sediments were deposited prior to human occupation of the area, deeply buried sites are unlikely on upland landforms (Bettis and Benn 1987:22). Subsurface features are also not probable because of plowing and erosion (Bettis and Benn 1987:22). Accordingly, sites that occur in the uplands are visible on the surface and most are destroyed (Benn 1986:11; Bettis and Benn 1987:22). The highest potential for site preservation occurs in landforms associated with the DeForest Formation. The DeForest Formation is described in further detail below.

Upland Landform Model

The upland landform model (Figure 4) used in this report is based on Ruhe's (1969) analysis of hillslope evolution detailing the erosional and depositional sequences of upland components. Hillslopes are divided into five components (listed in descending order): summit, shoulder, sideslope, footslope, and toeslope. Not all components, however, may be present on a given hillslope.

Summits, comprising the upper portion of the uplands, are typically stable and subjected to minor deposition and erosion by eolian processes. Shoulders form by the gradual back cutting of hillslopes at summit margins and are generally convex in cross-section with a low degree of slope. Comprised of backslope, headslope, and noseslope subcomponents, sideslopes are erosional features formed by the back cutting of valley walls. Footslopes, the lower remnants of hillslopes, are eroded and often covered by colluvial deposits derived

from the shoulder and backslope. Toeslopes are found at the base of the upland landform and consist almost entirely of colluvial deposits.

Due to their low degree of erosion and relative flatness, summits and shoulders have high potential for containing prehistoric sites that, at times, may be intact and shallowly buried. Footslope and toeslope areas also have good prehistoric site potential because they represent depositional features (i.e., they are time transgressive in terms of stability), they generally have a low degree of slope (Van Nest 1993) and may be relatively close to water. Sideslopes, because of their steeper inclines and higher rates of erosion, rarely contain intact prehistoric materials. Finally, historic archeological sites can be found on any upland landform component.

When using this model, it is important to account for agriculturally induced wind and water erosion. For example, all cultivated upland components have been subjected to erosional pressures. Consequently, summit, shoulder, footslope, and toeslope positions that have undergone decades of cultivation typically possess lower potential for intact sites.

Project Area Soils and Landscape Analysis

According to the Natural Resources Conservation Service (NRCS) and soil survey of Sac County the project area contains three distinct soil units associated with the Sac, Primghar, and Afton soil series. Additional information germane to the individual soil unit found throughout the project area is presented in Table 1, while individual soil horizontal limits across the project area are illustrated in Figure 5. Based on the soils information approximately 95% of the project area is identified as being comprised of somewhat poorly drained and poorly drained soils associated with upland and upland drainage deposits, while the balance of the project area was comprised of moderate well drained upland deposits. The soils series identified are typically associated with deposits that are considered shallow to till or loess-mantled terrace/thick loess (Artz 2005; Table 1).

Table 1. Mapped soil types within the project area (Koppen and Worster 1979; Soil Survey Staff 2021, 2023).

Soil Unit	% of Project Area	Unit/Series Description	Artz 2005
(77B) Sac silty clay loam, loam substratum, 2–5% slopes	4.7	Moderately well drained soils on ridgetops and sideslopes of uplands formed in loess mantled till under native vegetation of tall grass prairie. Typical 2 m (6.6 ft) profile: Ap-A-AB-Bw1-Bw2-2Bw3-2Bk1-2Bk2-2C1-2C2.	Shallow to till
(91) Primghar silty clay loam, 0–2% slopes	64.3	Somewhat poorly drained soils on uplands and high stream terraces formed in loess under tall grass prairie. Typical 1.5 m (4.9 ft) profile: Ap-A-AB-Bw1-Bw2-Bkg-Cg.	Loess-mantled terrace, thick loess
(P10) Afton silty clay loam, Sheldon Creek formation, 0–2% slopes, occasionally flooded	31.0	Poorly drained soils in upland drainageways on dissected till plains formed in loess and local alluvium and the underlying till under herbaceous wetland plants. Typical 2 m (6.6 ft) profile: Ap-A1-A2-A3-Bg1-Bg2-2Cg1-2Cg2-2Cg3-2Cg4.	shallow to till

A review of the topographic map (Figure 2) and lidar image (Figure 6) indicates the project area is set along gently sloping upland baseslope landforms as well as within the broad, moderately incised, unnamed intermittent drainage bottom. The lowest landscape position, approximately 409.1 m (1342.2 ft) above the NGVD, occurs along the unnamed intermittent drainage bottom near the southeastern boundary of the project area, while the highest elevation, approximately 412.8 m (1354.3 ft) above the NGVD, is positioned along the upland baseslopes in the northwest corner of the project area. The lidar image reveals that the north and west portions of the project area are positioned along relatively higher landforms, likely upland baseslope deposits, and the landforms descend down to the south and east towards the broad drainage extending through the project area (Figure 6). Lidar also indicates the drainage extending through the was likely channelized. Additionally, lidar indicates there are several areas of potential surficial disturbance throughout the project area (Figure 6). Specifically, an undulating oblong pile or heap appears near the northcentral project area boundary as well as subtle linear contouring visible across various portions of the project area, suggesting surficial disturbance from grading or leveling the area.

Overall, the project area extends across and along upland baseslope and upland drainage deposits. The available soils data indicates approximately 95% of the project area is comprised of somewhat poorly drained and poorly drained soils associated with upland and upland drainage deposits, while the balance of the project area was comprised of moderate well drained upland deposits. Given this information the project area is considered to have low to moderate archeological potential, and the better drained portions of the project area will have the highest archaeological potential. Buried surfaces may occur along potential alluvial landforms within the drainage extending through the project area, however, a geomorphic assessment in the field including hand coring will be required to determine if these landforms possess potential for intact archeological deposits.

ARCHIVAL REVIEW RESULTS

Previous Surveys, Recorded Sites, and Inventoried Properties

Prior to fieldwork, information regarding previously documented archeological sites, historic structures, as well as former surveys within or near the project area was obtained from the on-line resource managed by the Office of the State Archaeologist (OSA) in Iowa City. The archival search indicated there were no previously recorded archeological sites, inventoried properties, or previously conducted surveys within the current project area. The archival search did indicate there are three previously recorded archeological sites, eight previously inventoried properties, and at least eight previously conducted surveys within a 1.6 km (1 mi) radius of the project area. The three sites located within a 1.6 km (1 mi) radius of the project area include 13SA22, 12SA58, and 13SA98. Site 13SA22 is identified as the remains of a twentieth century railroad bridge (Anderson 1991a, 1991b). Both sites 13SA58 and 13SA98 are identified as a historic Euro-American farm/residences

(Anderson 2002, 2005). All three sites were recommended as not eligible for listing on the National Register of Historic Places (NRHP) and for no further work (Anderson 1991b, 2002, and 2005). The eight previously inventoried properties identified within a 1.6 km (1 mi) radius of the project area include the Greenly/Hirons Crib (81-00002), a house (81-00127), the James and Dianne Tiefenthaler house (81-00222), the Gard Farmstead (81-00251) and Barn (81-00252), the City of Early Water Tower (81-00302), the Sacred Heart Cemetery (81-00319), and Early Union Cemetery (81-00320). All historic properties, except the afore noted cemeteries, were recommended as not eligible for listing to the NRHP. The two cemeteries remain unevaluated for listing on the NRHP. Details pertaining the eleven previous surveys conducted within a 1.6 km (1 mi) radius of the project are presented in Table 2 below. A supplementary layer comprised of Historic Indian Location Database (HILD) locations and other Notable Locations was examined and identified three locations of interest within or proximal to the project area. Two of these areas (XX3254 and XX3255) are associated with the aforementioned recorded cemeteries and one is the collection location of chert used for comparative samples (XX7050).

Table 2. Previous archeological surveys within 1.6 km (1 mi) of the project area.

Survey ID	Survey Type	Reference
19911281107	road construction	Anderson 1991a
19980900081	road construction	Anderson 1998
19990300074	road construction	Anderson 2001
20070181094	sewage lagoon	Kapler 2007
20090981084	natural gas pipeline	Lueck 2010
20100581031	cell tower	Rickers 2010
20100981026	electric distribution line	Lueck 2011
20101281076	water system	Butler 2010

Historic Maps and Aerial Photographs

Prior to fieldwork, a GLO map, state atlas, and two county plat maps were consulted to identify potential historic properties within or directly adjacent to the project area (Andreas 1875; GLO 1853; Midland Map Company 1912; Ogle and Company 1908; Figures 7–10). No potential historic resources appear within or directly adjacent to the project area on the GLO map or state atlas (Figures 7 and 8). The 1908 plat map depicts the project area as being located within a parcel of land set along the outskirts and immediately adjacent corporate boundaries of Early (Figure 9). The 1912 plat map of the area indicates the project area is entirely located within the corporate boundaries of Early (Figure 10). None of the historic maps or plats indicate the presence of any structures or other potential historic resources within the project area. Further, none of the historic plats give any indication of previous land use.

Aerial photographs dated from 1939–2021 were also examined to determine if any potential historic buildings or structures were located within the project area, and to gain a better understanding of landscape change and land use practices within the project area since the early twentieth century (Figures 11–18). The earliest aerial photograph, dated

1939, shows the project area as being located within an unoccupied parcel along the northern outskirts of Early (Figure 11). This image appears to indicate the parcel at this time was in agricultural land use, possibly pasture (Figure 11). The project area appears similar and largely unchanged throughout the remainder of the historic era and early modern era (Figures 11–14). Based on aerial photographs, the first noticeable changes occurring within the project area occur sometime between 1974 and 1983, when the drainage extending through the project area appears to have been channelized (Figures 14 and 15). Between 1983 and 2002 the only noticeable changes observed in the project area are vegetative cover and the occurrence of several new trees planted throughout the area (Figures 15–17). In 2005, several small areas of potential disturbance appear to occur within the project area, one notable disturbance is an oblong area along the project area's northern boundary that corresponds with a disturbance noted on the lidar image which is likely associated with a spoil heap (Figure 18).

Archival Review Summary

Based on the review of available archival materials, there were no previous archeological surveys, recorded archeological sites, or inventoried properties within the project area. The archival review of historic maps and aerial photographs indicated there are no potential historic resources within the project area but does indicate various portions of the project area may have been differentially disturbed throughout the modern era. Specifically, post 1974 the drainage extending through the project area appears to have been channelized and there is likely a spoil heap placed along the northern project area boundary.

SURVEY RESULTS

Geomorphic Evaluation

To begin the field investigation, a geomorphic evaluation of the project area was conducted utilizing visual assessments and the extraction of six hand cores, two of which were recorded as representative soil profiles (Figure 3). The entirety of the project area was in a cover of grass with sparse tree cover with <10% ground surface visibility (GSV). Based on the landscape evaluation, the project area was comprised of various upland landform components. Specifically, the project area was comprised of a moderately well drained upland baseslope deposits transitioning to poorly drained upland drainage deposits (Figures 19–31). The location of soil cores, representative soil profiles, and approximate landform component boundaries are indicated on Figure 3. Soil Profile 1 and one additional soil core were extracted along moderately well drained upland baseslope deposits. These deposits typically displayed an intact A-AB-Bt soil horizon sequence. The baseslope component featuring well drained deposits were confined to the areas of higher elevation along the western and northwestern portion of the project area. Soil Profile 2 and three additional soil cores were extracted along poorly drained upland drainage deposits. These deposits typically displayed a soil horizon sequence of Ap/C1-Ap/C2-Ag-Abg-Bg. These poorly drained deposits were positioned along lower lying areas within the eastern- and

southernmost portions of the project area, and these areas are associated with the upper reaches of the intermittent upland drainage. The overlying Ap/C horizon associated with the upland drainage landform are interpreted as being fill and/or recently deposited local colluvium/alluvium that were unlikely to contain intact archeological materials. Further, the Ap/C horizon soils were found to mantle poorly drained gleyed deposits. This landform is prone to prolonged periods of wetness and inundation which are unsuitable for human habitation. Overall archeological potential is considered low for this landform and no further testing is merited.

DESIGNATION: Soil Profile 1
LANDSCAPE POSITION: upland base slope
PARENT MATERIAL: silt loam
SLOPE: 2–5%
METHOD: soil core
VEGETATION: grass, <10% GSV
DESCRIBED BY: J. Langseth
REMARKS: This profile was taken within the western portion of the project area along an upland baseslope. The soil profile recorded displayed a soil horizon sequence of A-AB-Bt. Based on this profile the base slope is comprised of moderately well drained deposits and there is moderate to high potential for identifying intact archeological deposits on the landform.

Depth (cm)	Soil Horizon	Description
0–29	A	Very dark brown (10YR 2/2) silt loam; weak, fine, subangular blocky structure parting to weak, fine granular structure; friable; gradual boundary.
29–56	AB	Very dark grayish brown (10YR 3/2) silt loam; weak, fine subangular blocky structure parting to weak, fine granular structure; friable; gradual boundary.
56–69	Bt	Brown (10YR 4/3) silty clay loam; weak, fine, subangular blocky structure parting to weak, very fine subangular blocky structure; friable; discontinuous dark grayish brown (10YR 4/2) silt coats on peds. End.

DESIGNATION: Soil Profile 2
LANDSCAPE POSITION: upland drainage
PARENT MATERIAL: silt loam
SLOPE: 2–5%
METHOD: soil core
VEGETATION: grass, <10% GSV
DESCRIBED BY: J. Langseth
REMARKS: This profile was taken within the eastern portion of the project area within the upper reaches of an upland drainage. The soil profile recorded displayed a soil horizon sequence of Ap/C1-Ap/C2-Ag-ABg-Bg. Based on this profile, the base slope is comprised of fill or recently deposited local colluvium/alluvium overlying poorly drained deposits and there is low potential for identifying intact archeological deposits on the landform. The fill is potentially associated with the removal of material during the channelization of the drainage extending through the project area.

Depth (cm)	Soil Horizon	Description
0–28	Ap/C1	Black (10YR 2/1) silt loam; weak, fine, subangular blocky structure, very friable; clear to abrupt boundary.
28–44	Ap/C2	Very dark brown (10YR 2/2) silt loam; weak, fine, subangular blocky structure parting to weak, fine, granular structure; friable; abrupt boundary.
44–69	Ag	Black (N 2.5/) silt loam; weak, fine and very fine, granular structure; friable; gradual boundary.

Depth (cm)	Soil Horizon	Description
69–89	ABg	Black (5Y 2.5/1) silty clay loam; weak, fine, subangular blocky structure parting to moderate, fine and very fine, granular structure; friable; common, fine, faint very dark grayish brown (2.5Y 3/2) mottles; near continuous clay skins on peds; gradual boundary.
89–102	Bg	Very dark gray (5Y 3/1) silty clay loam; weak to moderate, fine, subangular blocky structure parting to moderate, very fine granular structure; friable; common, fine, faint to distinct dark grayish brown (2.5Y 4/2) and olive brown (2.5Y 4/3) mottles; common, fine, faint to distinct brown (7.5YR 4/4) redoximorphic features, near continuous cutans. End.

Archeological Survey

Based on the geomorphic assessment, limited pedestrian survey and subsurface shovel testing were utilized as site discovery methods. Pedestrian survey was conducted along a single transect at the northern boundary of the project area that was bordered by an agricultural field with (80–90%) GSV (Figures 27 and 28). Pedestrian survey along the northern boundary of the project area resulted in negative findings for cultural material but did identify a spoil heap in tall grass cover positioned near the northern boundary of the project area (Figure 32 and 33). The field investigation continued with the excavation shovel tests along better drained upland landforms occupying the western portion of the project area. Shovel testing was conducted at 15 m (49 ft) intervals along similarly spaced transects (Figure 3). Shovel tests were a minimum of 35 cm in diameter and the excavated matrix was removed in 10 cm levels and screened through ¼" hardware mesh before being backfilled. Individual tests were excavated at least 20 cm into soil horizons determined by the geomorphic assessment to be culturally sterile. In total, five north-south oriented transects were implemented along better drained landforms and one additional shovel test was placed just east of the five main transects. In total, 30 shovel tests were excavated throughout the project area, resulting in negative findings. Based on the negative results of the pedestrian survey and subsurface testing, no further field investigations were conducted.

SUMMARY AND RECOMMENDATIONS

This Phase I cultural resources investigation was conducted for the City of Early, Early, Iowa, by Bear Creek Archeology, Inc., Cresco, Iowa, for a proposed stormwater project in the city of Early, Iowa. Occupying portions of the S½, NE¼, NW¼, SE¼ of Section 4, T88N, R37W, Boyer Valley Township, Sac County, Iowa, the project area is set north of West 4th Street between North Main Street and West Main Street and is positioned along upland baseslopes and the bottom of an unnamed intermittent drainage, flowing into the Boyer River valley to the southeast. The project area is roughly rectangular, measuring at maximum 163.1 m (535 ft) east-west and 114.3 m (375 ft) north-south and covers approximately 1.7 ha (4.2 ac).

Based on the landscape review conducted, the project area extends across and along upland baseslope and upland drainage deposits. The available soils data indicates approximately

95% of the project area is comprised of somewhat poorly drained and poorly drained soils associated with upland and upland drainage deposits, while the balance of the project area was comprised of moderate well drained upland deposits. Given this information the project area is considered to have low to moderate archeological potential, and the better drained portions of the project area will have the highest archaeological potential. Based on the review of available archival materials, there were no previous archeological surveys, recorded archeological sites, or inventoried properties within the project area. The archival review of historic maps and aerial photographs indicated there are no potential historic resources within the project area, but various portions of the project area may have been differentially disturbed throughout the modern era. Specifically, post-1974 the drainage extending through the project area appears to have been channelized and there is likely a spoil heap placed near the northern project area boundary.

The project area at the time of the survey in March of 2023 was in cover of grass and sparce trees with <10% GSV. The area immediately north of the project area was in row crop cover with 80–90% GSV. The geomorphological assessment conducted across the project area indicated the western portion, approximate half, was positioned along moderately well drained upland baseslope deposits, while the eastern portion, approximate half, was positioned along poorly drained deposits associated with the drainage extending through the project area. Based on the landscape evaluation, archival review, available GSV, and geomorphic assessment, limited pedestrian survey and subsurface testing (n = 30) was conducted across the project area. No archeological deposits were identified during the field investigation and BCA recommends no further cultural resources investigations for the project area.

No archeological investigation method can guarantee discovery of all sites or cultural resource materials. If any cultural resource materials, not found in the investigation, are encountered during implementation of the proposed construction project, the State Historic Preservation Office (SHPO) should be contacted immediately. It is the responsibility of the developer to protect cultural resources from disturbance until a professional examination can be made or until clearance to proceed is authorized by the SHPO or a designated representative.

Information contained in this report relating to the nature and location of archeological sites is considered private and confidential and not for public disclosure in accordance with Section 304 of the National Historic Preservation Act (54 U.S.C § 307103); 36 CFR Part 800.6(a)(5) of the Advisory Council on Historic Preservation's rules implementing Sections 106 and 110 of the National Historic Preservation Act; Section 9(a) of the Archaeological Resource Protection Act (54 U.S.C. § 100707), and Chapter 22.7, subsection 20 of the Iowa Code.

REFERENCES CITED

Advisory Council on Historic Preservation (ACHP)
2004 36 CFR Part 800, Protection of Historic Properties, as Amended. Electronic document, 2 .pdf, accessed January 2023.

2016 National Historic Preservation Act of 1966, as Amended. Electronic document http://www.achp.gov/sites/default/files/2018-06/nhpa.pdf, accessed January 2023.

Anderson, Mark L.
1991a *A Phase I Archaeological Survey of Primary Roads FN-20-2(43)--21-81 a.k.a. PIN 91-81030-1 Sac County, Iowa*. Project Completion Report Vol. 14, No. 131. Highway Archaeology Program, University of Iowa, Iowa City.

1991b Official Site Form for 13SA22. On file, Office of the State Archaeologist, Iowa City.

1998 *The U.S. 20 Realignment Corridor: A Phase I Archaeological Survey of Primary Roads Project NHS-20-2(48)--19-81 a.k.a. PIN 93-81500-1 Sac, Calhoun, and Webster Counties, Iowa.* Project Completion Report Vol. 21, No. 12. Highway Archaeology Program, University of Iowa, Iowa City.

2001 *Sod Dugouts and Pioneer Settlements: Phase II Test Excavations at 13SA47 Primary Roads Project NHS-20-2(48)--19-81 a.k.a. PIN 93-81500-1 Sac County, Iowa.* Highway Archaeology Program, University of Iowa, Iowa City.

2002 Official Site Form for 13SA58. On file, Office of the State Archaeologist, Iowa City.

2005 Official Site Form for 13SA98. On file, Office of the State Archaeologist, Iowa City.

Andreas, Alfred T.
1875 *Illustrated Historical Atlas of the State of Iowa.* Andreas Atlas Company, Chicago. On file, Bear Creek Archeology, Cresco, Iowa.

Artz, Joe A.
2005 Ackmore to Zwingle: Soil Series of Iowa. Electronic document, http://www.iowaisites.com/i-sites/soilseries.htm, accessed March 2023. Office of the State Archaeologist, University of Iowa, Iowa City.

Association of Iowa Archaeologists (AIA)
2022 Association of Iowa Archaeologists Guidelines. Electronic document, http://aiarchaeologist.org/guidelines/, accessed January 2023. Association of Iowa Archaeologists, Office of the State Archaeologist, University of Iowa, Iowa City.

Benn, David W.
1986 *The Western Iowa Rivers Basin: An Archaeological Overview*. CAR 677. Center for Archaeological Research, Missouri State University, Springfield.

Bettis, E. Arthur, III, and David W. Benn
1984 An Archeological and Geomorphological Survey in the Central Des Moines River Valley, Iowa. *Plains Anthropologist* 29:211–227.

1987 Overview of the Quaternary Geology in Lyon County. In *Big Sioux River Archaeological and Historical Resources Survey, Lyon County, Iowa*, edited by David W. Benn, pp. 12–23. CAR 705. Center for Archaeological Research, Missouri State University, Springfield.

Bettis, E. Arthur, III, and William Green
1991 Part I: Grandview to Kingston. In *Paleoenvironments and Archaeology of the Mississippi Valley in Southeastern Iowa*. Prepared for the Annual Meeting of the Association of Iowa Archaeologists, Burlington, Iowa.

Bettis, E. Arthur, III, and Dean M. Thompson
1981 Holocene Landscape Evolution in Western Iowa: Concepts, Methods, and Implications for Archaeology. In *Current Directions in Midwestern Archaeology: Selected Papers from the Mankato Conference*, edited by Scott Anfinson, pp. 1–14. Occasional Publications in Minnesota Anthropology No. 9. Minnesota Archeological Society, St. Paul.

Butler, Todd, L.
2010 *Phase I Archaeological Investigation of the Early Water System Improvements Project, Sac County, Iowa.* The Louis Berger Group, Marion, Iowa.

General Land Office (GLO)
1853 *Secretary of State Land Survey Records: Description of the Lands on the Interior Sectional Lines*. T88N, R37W. On file, State Historical Society Library, Iowa City.

Kapler, Todd
2007 *Results of a Phase I Cultural Resource Inventory at a Proposed New Sewage Lagoon Cell in Sac County, Iowa.* CHC-07-IA-SA-002. Cultural Heritage Consultants, Sioux City, Iowa.

Koppen, Maynard P. and John R. Worster
1979 *Soil Survey of Sac County, Iowa*. U.S. Department of Agriculture. Iowa Agriculture Experiment Station. U.S. Government Printing Office, Washington, DC.

Lueck, Edward J.
2010 *Phase I Intensive Archeological Survey/Phase I Intensive Archeological Survey of a Revision to the Proposed Highway 20 Relocation Project, Sac County, Iowa for Northern Natural Gas Company.* Archeology Laboratory, Augustana College, Sioux Falls, South Dakota.

2011 *Phase I Archeological Survey of Raccoon Valley Electric Cooperative's (RVEC) Proposed Electric Distribution Line Project in Sac County, Iowa.* Archeology Laboratory, Augustana College, Sioux Falls, South Dakota.

Midland Map Company
1912 *Atlas of Sac County, Iowa*. The Midland Map Company, Knoxville, Iowa.

National Park Service (NPS)
1983 Archeology and Historic Preservation: The Secretary of the Interior's Standards and Guidelines for Preservation Planning, Identification, Evaluation, and Registration. *Federal Register* 48:44716–44728. Electronic document, http://www.nps.gov /history/local-law/arch_stnds_0.htm, accessed January 2023.

Ogle and Company
1908 *Standard Atlas of Sac County, Iowa*. George A. Ogle and Company, Chicago, Illinois.

Prior, Jean C.
1991 *Landforms of Iowa*. University of Iowa Press, Iowa City.

Rickers, Christy S.
2010 *Phase I Intensive Archaeological Investigation of the Proposed Early Cell Tower Project (a.k.a USC #393336), Section 5, T88N-R37W, Sac County, Iowa.* Contract Completion Report 1777. Office of the State Archaeologist, University of Iowa, Iowa City.

Ruhe, Robert V.
1969 *Quaternary Landscapes in Iowa*. Iowa State University Press, Ames.

Soil Survey Staff
2021 Soil Survey Geographic (SSURGO) Database for Iowa. Natural Resources Conservation Service, US Department of Agriculture, Washington DC. Electronic document, http://datagateway.nrcs.usda.gov, downloaded July 2021.

2023 Web Soil Survey. Natural Resources Conservation Service, US Department of Agriculture, Washington DC. Electronic document, https://websoilsurvey.nrcs.usda .gov/app/, accessed January 2023.

Van Nest, Julieann
1993 *Geoarchaeology of Dissected Loess Uplands in Western Illinois.* Geoarchaeology 8:281–311.

FIGURES

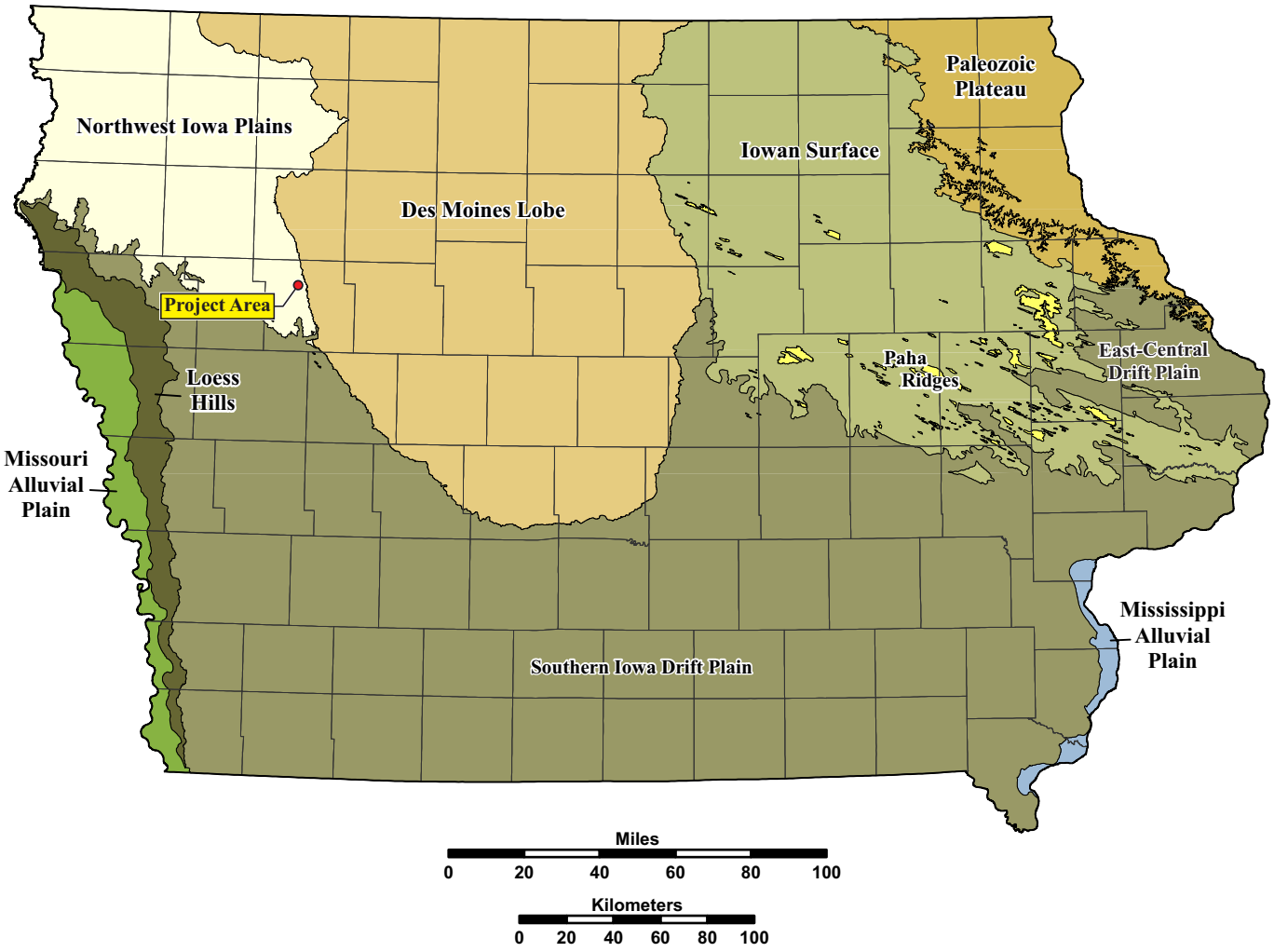


Figure 1. Physiographic location of the project area (adapted from Prior [1991:31]).

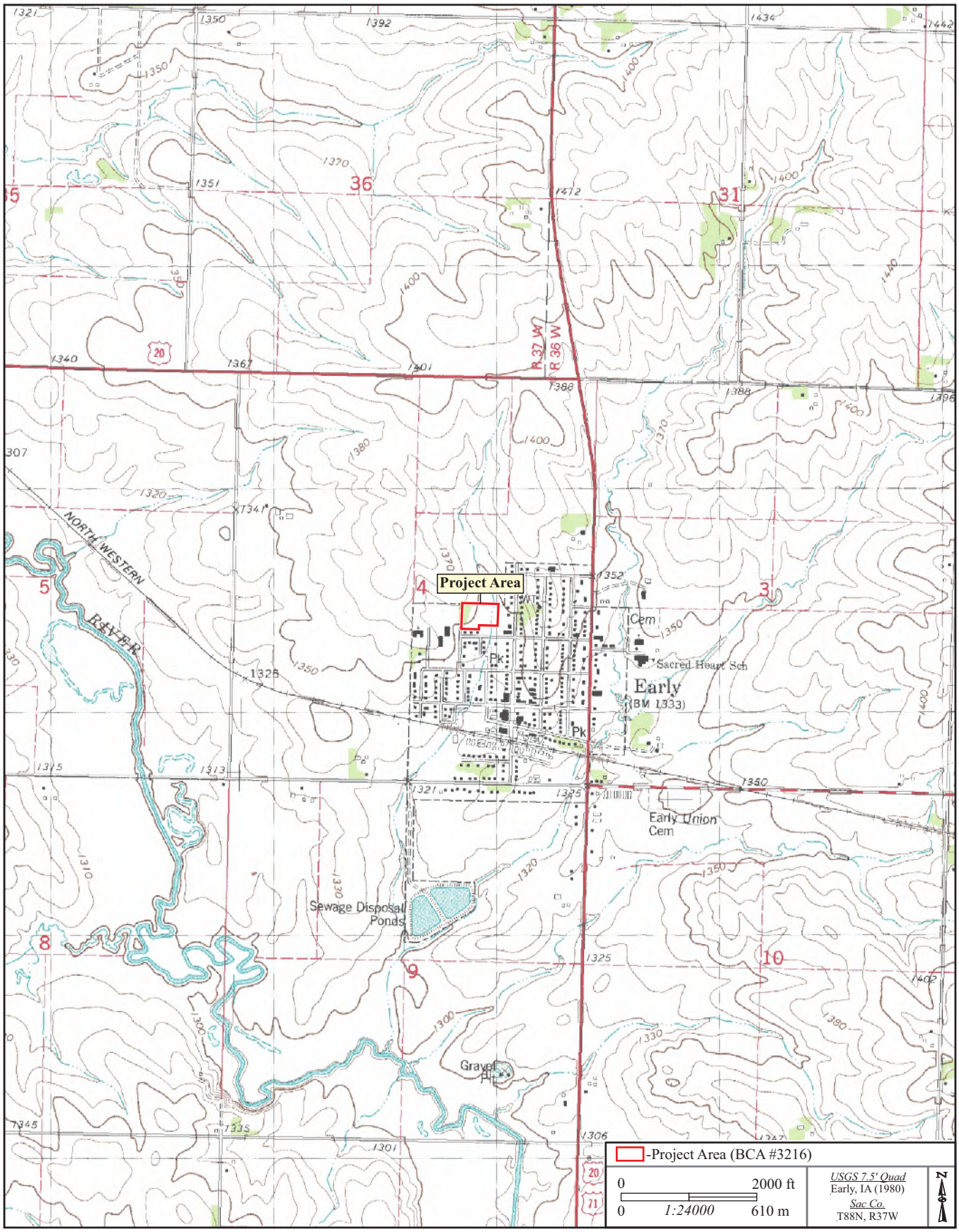


Figure 2. Topographic coverage of the project area.

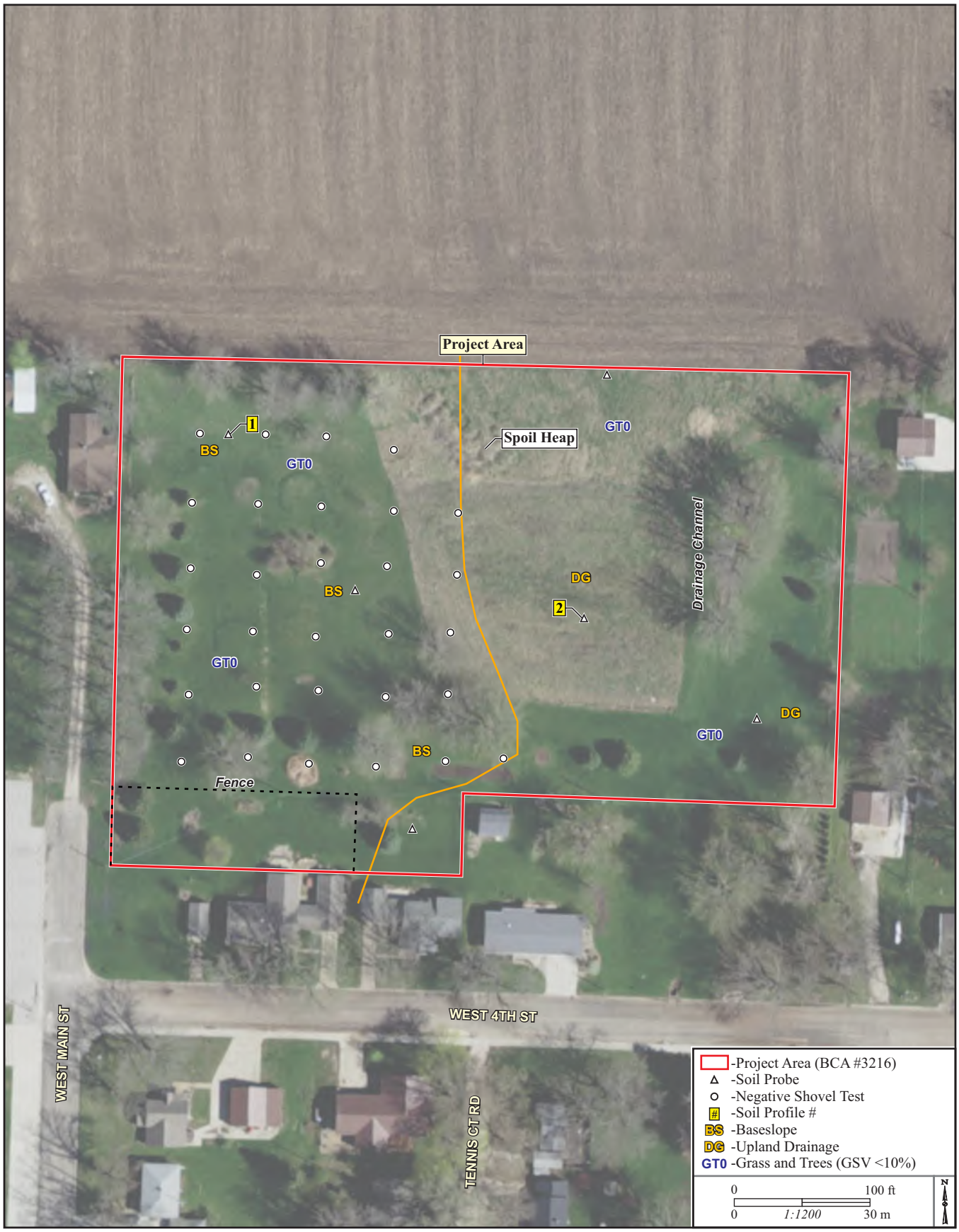


Figure 3. Scale map of the project area.

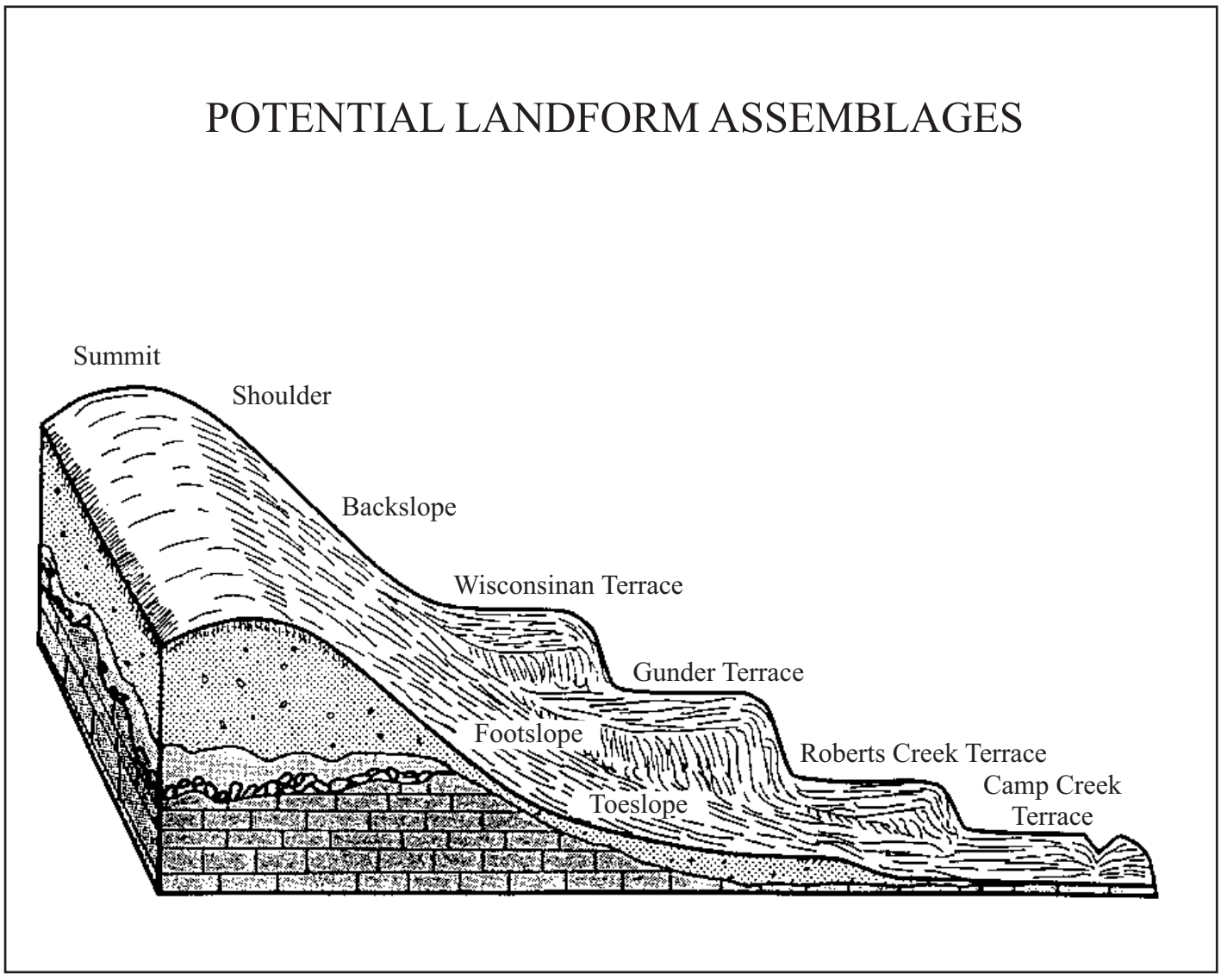


Figure 4. Diagram of potential landform components (adapted from Ruhe [1969]).

Figure 5. Soil map of the project area (Soil Survey Staff 2021).

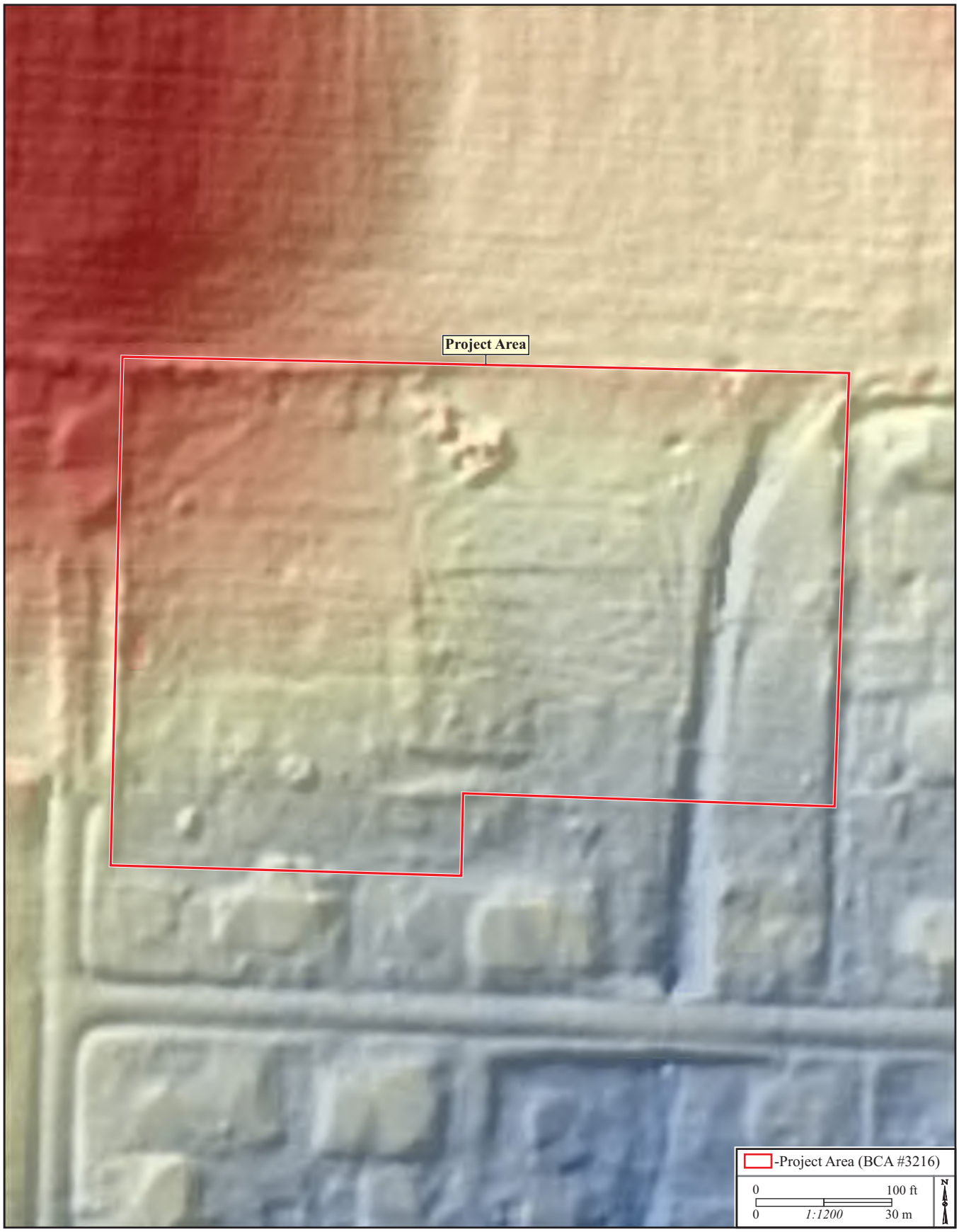


Figure 6. Lidar image of the project area.

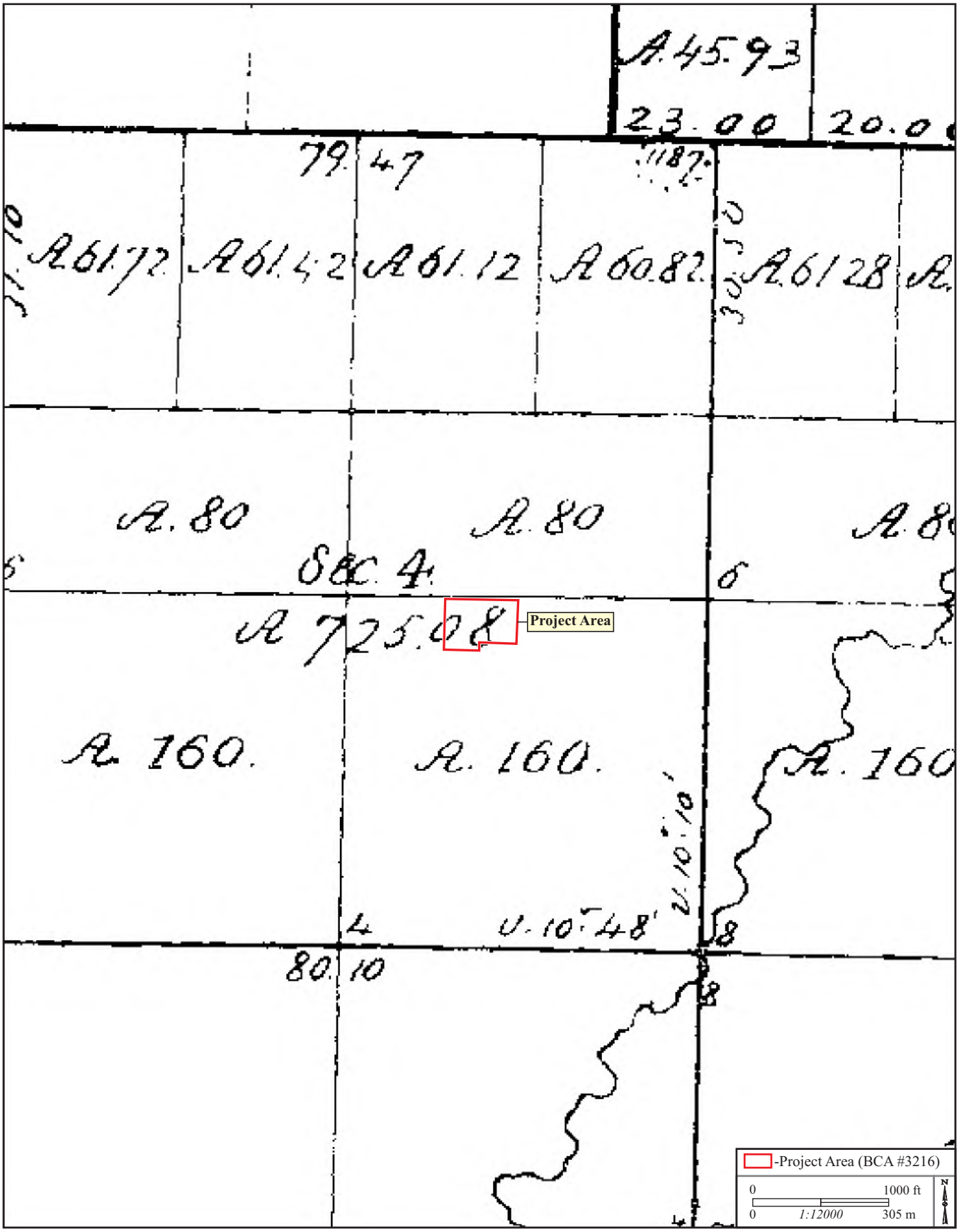


Figure 7. 1853 map of the project area (GLO).

Figure 8. 1875 map of the project area (Andreas).

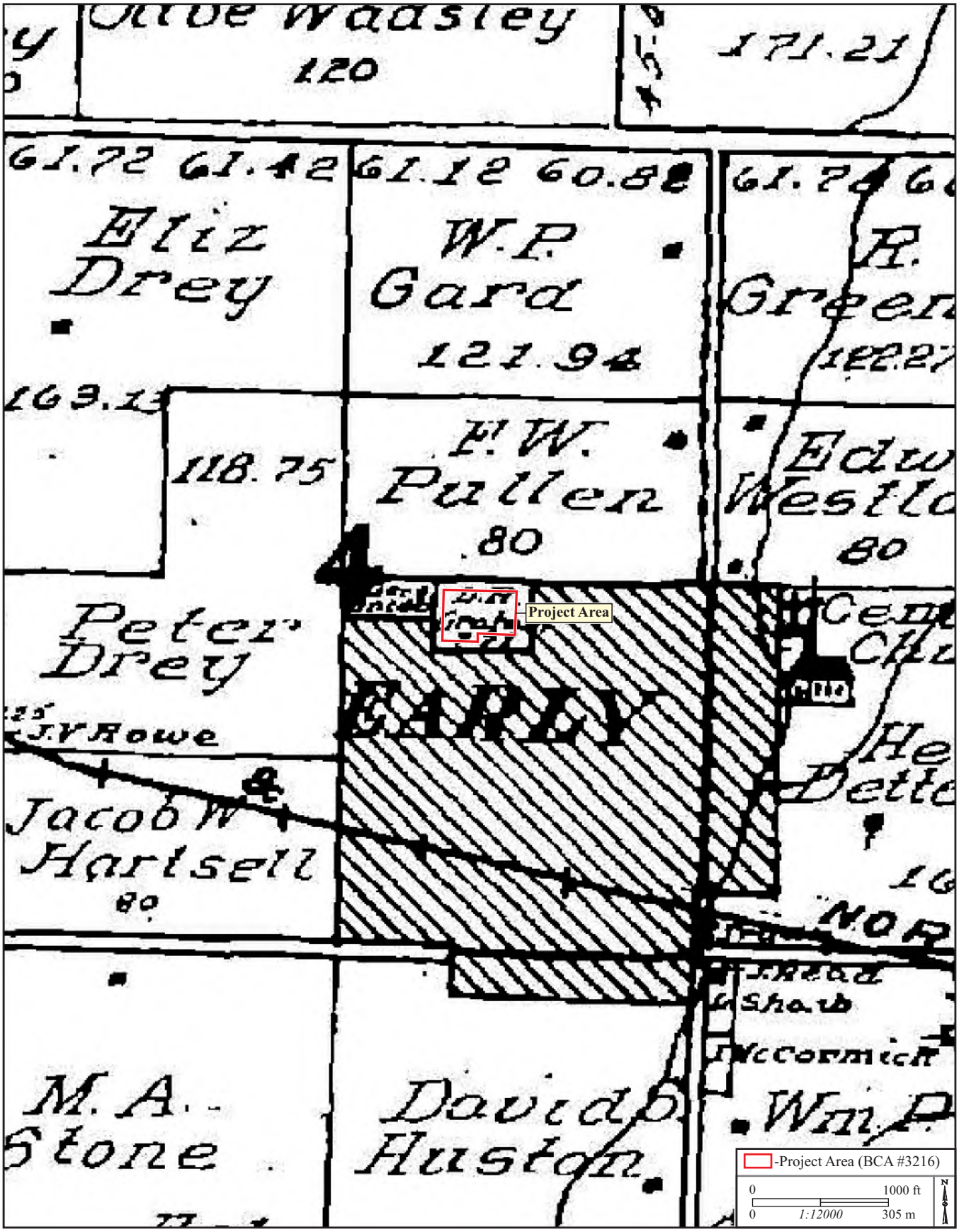


Figure 9. 1908 map of the project area (Ogle and Company).

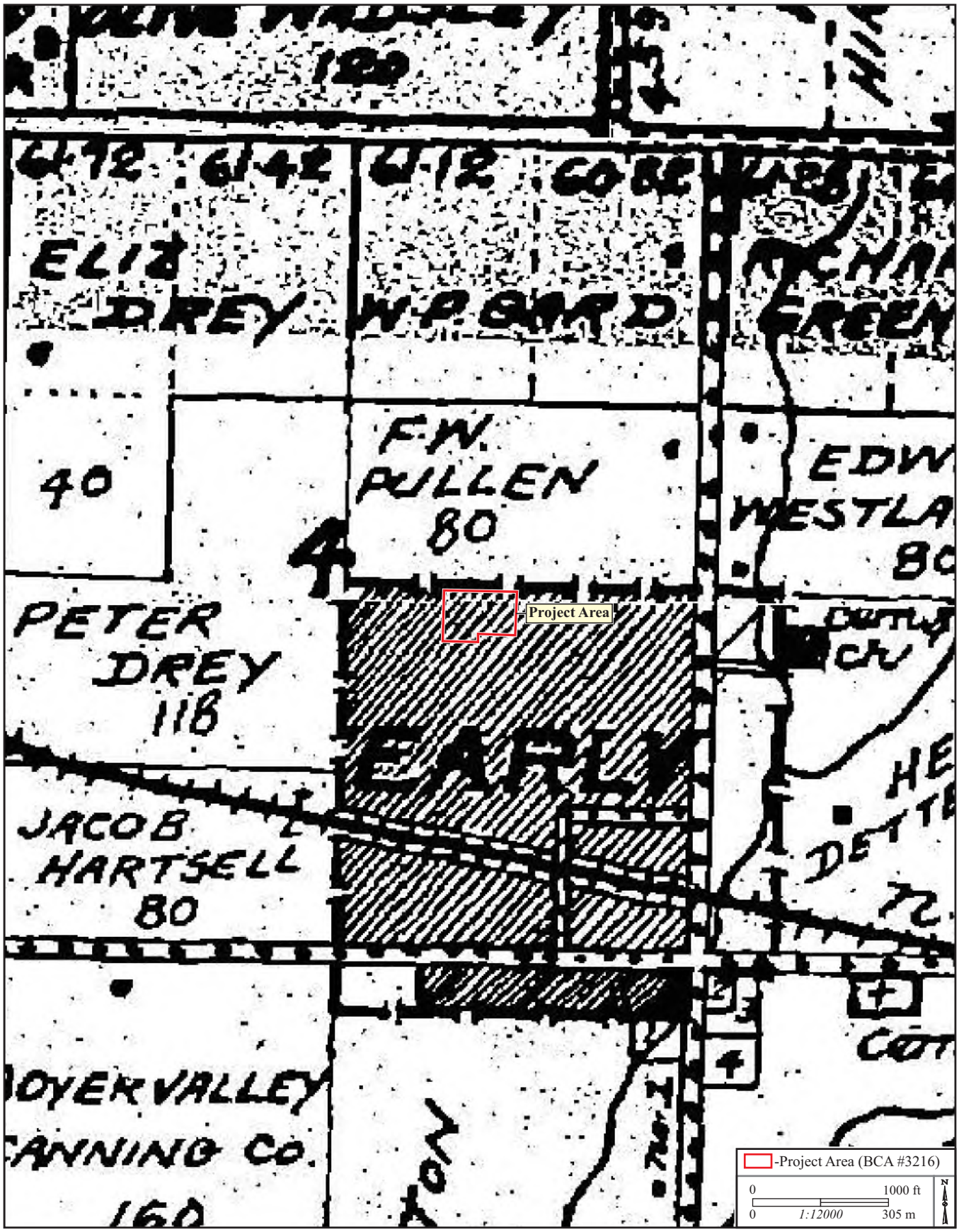


Figure 10. 1912 map of the project area (Midland Map Company).

Figure 11. 1939 aerial photograph of the project area.

Figure 12. 1949 aerial photograph of the project area.

Figure 13. 1961 aerial photograph of the project area.

Figure 14. 1974 aerial photograph of the project area.

Figure 15. 1983 aerial photograph of the project area.

Figure 16. 1994 aerial photograph of the project area.

Figure 17. 2002 aerial photograph of the project area.

Figure 18. 2005 aerial photograph of the project area.

Figure 19. Western boundary of the project area. View to the north (3/22/23).

Figure 20. Southern boundary of the project area showing a fence built in the southwestern corner. View to the east (3/22/23).

Figure 21. Southern boundary of the project area. View to the northwest (3/22/23).

Figure 22. Southern boundary of the project area. View to the northeast (3/22/23).

Figure 23. Southern boundary of the project area. View to the west (3/22/23).

Figure 24. Eastern boundary of the project area. View to the north (3/22/23).

Figure 25. Eastern boundary of the project area. View to the south (3/22/23).

Figure 26. Coverage of the project area from the northeastern corner. View to the southwest (3/22/23).

Figure 27. Northern boundary of the project area. View to the west (3/22/23).

Figure 28. Northern boundary of the project area. View to the east (3/22/23).

Figure 29. Coverage of the project area from the northwestern corner. View to the southwest (3/22/23).

Figure 30. Western boundary of the project area. View to the south (3/22/23).

Figure 31. Drainage extending through the eastern portion of the project area. View to the south (3/22/23).

Figure 32. Spoil heap near the northern boundary of the project area. View to the southwest (3/22/23).

Figure 33. Spoil heap near the northern boundary of the project area. View to the southeast (3/22/23).

APPENDIX A
National Archaeological Database Form

Database Doc Number:_____

NATIONAL ARCHAEOLOGICAL DATABASE – REPORTS; DATA ENTRY FORM

1. R and C #:_____
2. Authors: Jared A. Langseth

Year of Publication 2023

3. Title Phase I Cultural Resources Investigation for a Proposed Stormwater Project in the City of Early, Boyer Valley Township, Sac County, Iowa

---

4. Report Title: BCA Reports

Volume #: _____ Report #: 3216 NTIS: _____
Publisher: Bear Creek Archeology, Inc.
Place: Cresco, Iowa 52136

---

5. Unpublished

Sent From: _____
Sent To: _____
Contract #: _____

---

6. Federal Agency: _____

---

7. State: Iowa
County: Sac
Town: Early

---

8. Work Type: 31

9. Keyword:

0 - Types of Resources / Features		1 - Generic terms / Research Questions	
No resources	[0]		[ ]
Northwest Iowa Plains	[4]		[ ]
1.7 ha (4.2 ac)	[7]		[ ]
	[ ]		[ ]
	[ ]		[ ]
	[ ]		[ ]
	[ ]		[ ]

2 - Taxonomic Names		3 - Artifact Types / Material Classes	
	[ ]		[ ]
	[ ]		[ ]
	[ ]		[ ]
	[ ]		[ ]
	[ ]		[ ]
	[ ]		[ ]
	[ ]		[ ]

4 - Geographic Names / Locations		5 - Time Periods	
	[ ]		[ ]
	[ ]		[ ]
	[ ]		[ ]
	[ ]		[ ]
	[ ]		[ ]
	[ ]		[ ]
	[ ]		[ ]

6 - Project Names / Study Unit		7 - Other Key Words	
	[ ]		[ ]
	[ ]		[ ]
	[ ]		[ ]
	[ ]		[ ]
	[ ]		[ ]
	[ ]		[ ]
	[ ]		[ ]

---

10. UTM Zone:
15 Easting: _____ Northing: _____
15 Easting: _____ Northing: _____
15 Easting: _____ Northing: _____
15 Easting: _____ Northing: _____

---

11. Township: 88N
Range: 37W

Other Publication Types:

12. Monographs:
    Name: _____
    Place: _____

---

13. Chapter: In: _____ First: _____ Last: _____

---

14. Journal: Volume: _____ Issue: _____ First: _____ Last: _____

---

15. Dissertation:
    Degree: Ph.D. LL.D. M.A. M.S. B.A. B.S. Institute _____

---

16. Paper: Meeting: _____
    Place: _____ Date: _____

---

17. Other:
    Reference Line: _____

---

18. Site #: _____ _____ _____ _____ _____ _____

---

19. Quad Map: Name Early, Iowa Date 1980

Appendix I

ADDITIONAL INFORMATION FOR EA AND CEST PROJECTS - SHEET C

Noise Assessment Guidelines

Noise: The Quiet Communities Act (24 CFR Part 51, Subpart B):

The Act establishes specific noise control requirements for CDBG-funded projects. Grant Recipients must take into consideration the noise criteria and standards in the environmental review process and consider ameliorative actions when noise sensitive land development is proposed in noise exposed areas.

The prime concern of a CDBG environmental impact assessment for noise should be the effect of existing and projected noise levels on the proposed activities and facilities.

If your project is not noise sensitive (e.g., water & sewer projects) then you can skip this assessment and note in the environmental review that the nature of the project, as described, is not noise sensitive.

An assessment will be needed if housing and other noise sensitive uses are proposed:

1. **Document the following on a map (either your project meets this criteria or not):**

   - Existing or proposed commercial or military airports within 15 miles of the site.

   - Roadways within 1,000 feet of the site with such characteristics (e.g., high traffic levels, high speed, heavy truck/bus usage, slope gradients, etc.) that would indicate high ambient vehicular noise levels.

   - Railroads within 3,000 feet of the site.

   - Other significant noise sources (e.g., industrial/manufacturing facilities, power generating stations, firing ranges) in proximity to the site.

2. **If you project is within the distance criteria above, you must perform a noise calculation. It can be found here:** https://www.hudexchange.info/environmental-review/dnl-calculator/**.**
   a. Airports: contact Airport for noise contour maps
   b. Road data: https://iowadot.gov/maps/digital-maps/traffic-maps/county
   c. Railroads: http://safetydata.fra.dot.gov/OfficeofSafety/publicsite/crossing/xinggryloc.aspx
      i. Some defaults:
         1. Diesel Engines: # of diesel = 2, # of rail cars = 50, Average Speed = 30, nighttime of ATO = .15 or 15%
         2. Electric Engines: # of electric = 1, # of rail cars = 8, Average Speed = 30, nighttime of ATO = .15 or 15%

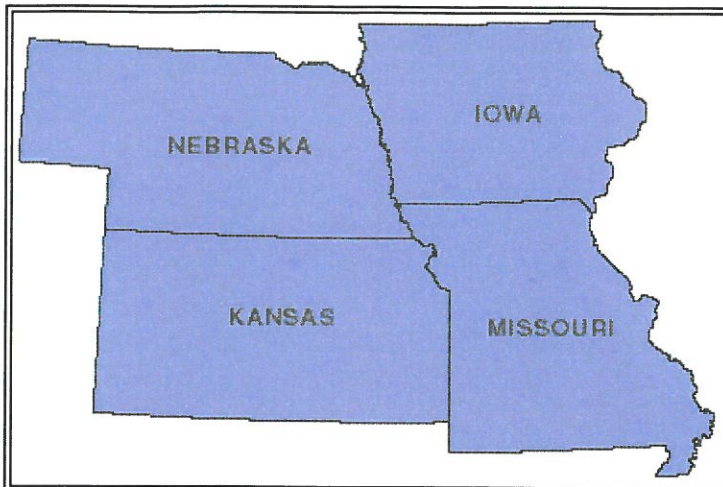
3. **If your decibel level is above 65 dB – 75 dB:**
   a. For new construction – you MUST mitigate
   b. For Rehab – you are strongly encouraged to mitigate

   However, if above 75 dB you MUST contact leslie leager at IEDA for additional instructions.

Appendix J

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

U.S. Fish and Wildlife Service

National Wetlands Inventory

City of Early Wetland Map

September 1, 2020

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

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

Project Area

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

Procedures for Making Determinations on Floodplain and Wetland Management

Floodplain and Wetland Management: Executive Order 11988 & Executive Order 11990 (24 CFR Part 55):

Recipients are required to protect the values and benefits of floodplains and wetlands. Recipients should reduce flood losses and wetlands destruction by not conducting, supporting or allowing projects to be located in floodplains or wetlands unless it is the only practicable alternative.

The HUD "8-step" decision-making process is utilized to determine if flood-free alternatives are available to meet the purpose and need of the project. If, through the 8-step process, it is determined that the proposed project must be located in the floodplain or wetland, then certain measures must be undertaken. These measures, identified in step 5 of the process, should minimize potential harm to beneficial floodplain and wetland values, reduce the hazard and the risk of flood loss; and minimize the impact of floods on human safety, health and welfare.

Prior to proceeding with a project in or effecting a floodplain or wetland a recipient must comply with the requirements of Executive Order 11988 and 11990. The recipient must complete an 8-step decision making process outlined in 24 CFR Part 55, Subpart C, Section 55.20. A summary of the 8-step process is:

1. Determine if the proposed action is in a wetland or the 100-year floodplain (or in the 500-year floodplain for a critical action i.e., actions for which even a slight chance of flooding would be too great). If the proposed action would not be conducted in these areas, then no further compliance with this part is required.

The proposed project will take place near and impact a riverine which runs through the City of Early.

2. Notify the public of the intent to locate the proposed action in the floodplain or wetland. The notice must be published at least once in a local newspaper of general circulation (in cities where there is no newspaper of general circulation, notices must be displayed in the local post office and its substations). The public must be given at least fifteen days to comment. The notice is titled *Notice of Proposed Project to be Located in a Floodplain or Wetland*. This Notice can be found in the following pages. The recipient must use this form, or its equivalent, to meet federal requirements.

The publication was published on October 27, 2022 with a comment period ending on November 14, 2022.

3. Identify and evaluate practicable alternatives to locating in the floodplain. This determination requires the recipient to consider whether the floodplain or wetland can be avoided either through selecting alternative sites, choosing alternative actions to serve the identical project objective, or taking no action. Note that specific, actual alternative site must be identified and evaluated.

The evaluated alternative is located in the letter report. The report evaluated potentially replacing a large portion of the stormwater tiles within the city which would create additional ground disturbance throughout the community and would still have the potential to effect the riverine.

4. Identify indirect or direct impacts associated with the occupancy or modification of the floodplain or wetland.
During construction, the land will be disturbed as the project requires excavation. Once the project is complete, the land will be returned to a natural state. Native flora and fauna will be able to regrow in the project location. By utilizing native flora and fauna, the overall stormwater quality within the community will be improved as filtration will be improved with the redevelopment of the project area. The land is

currently utilized as a storm basin, and therefore the occupancy status will not change after the project's completion.

5. Identify methods to minimize the potential adverse impacts within the floodplain or wetland and to restore and preserve its natural and beneficial values.

The project will utilize natural landscape enhancements that will help maintain the natural hydrology through infiltration and native plant species. This will improve overall filtration of stormwater and will reduce flooding within the community.

6. Reevaluate the alternatives, taking into account the identified impacts, the steps necessary to minimize these impacts and the opportunities to restore and preserve floodplain values.

The selected action of constructing a new storm basin and revitalization of the waterway is feasible. The impact to the riverine during construction will be minimal and after the project is completed, the riverine will run freely as before construction.

7. If the recipient determines the only practicable alternative is locating in the floodplain or wetland, a final public notice shall be published. A sample notice that is titled *Notice of a Decision Regarding Project to be Located in a Floodplain or Wetland* can be found on the following pages. The notice will include the reason for locating the project in a floodplain or wetland, the alternatives that were considered, and any mitigation measures that are planned.

This notice will be published along with the FONSI/RROF.

8. The proposed action can be implemented after steps 1 through 7 have been completed and all other requirements are met.

Sjon XII

PROOF OF PUBLICATION

The Chronicle

Odebolt, Iowa Oct. 27, 2022

STATE OF IOWA
Sac County, ss.

I, Jerry D. Wiseman, publisher of the Chronicle, a weekly newspaper published at Odebolt, Iowa, being duly sworn on oath say that the notice hereto attached was published in said newspaper for 1 ~~consecutive~~ week(s), the last publication being October 27, 2022.

Signed: Jerry D. Wiseman

I, Jerry D. Wiseman, do hereby state that I certify, under penalty of perjury, and pursuant to the laws of the State of Iowa, that the preceding is true and correct as I verily believe.

October 27, 2022.

Publication Fee: $32.32

PUBLIC NOTICE

This is to give notice that the City of Early has conducted an evaluation as required by Executive Order 11988 and/or 11990, in accordance with HUD regulations at 24 CFR 55.20 Subpart C Procedures for Making Determinations on Floodplain Management, to determine the potential affect that its activity in the floodplain and wetland will have on the human environment for CDBG Opportunities and Threats & Public Facilities Set-Aside under 22-OT-001. The City of Early is working to construct a stormwater biorentention basin to alleviate flooding within the City. The site where the basin will be located is approximately 10 acres, which includes approximately 2 acres of Riverine wetland. This project will affect approximately 2 acres or 790 feet of Riverine. The proposed project location is north of W 4th Street and between W Main Street and N Main Street in the open grassy area which contains the grass waterway/riverine which will be affected, Early, IA 50535 in Early, Sac County, Iowa.

There are three primary purposes for this notice. First, people who may be affected by activities in floodplains and those who have an interest in the protection of the natural environment should be given an opportunity to express their concerns and provide information about these areas. Second, an adequate public notice program can be an important public educational tool. The dissemination of information about floodplains can facilitate and enhance Federal efforts to reduce the risks associated with the occupancy and modification of these special areas. Third, as a matter of fairness, when the Federal government determines it will participate in actions taking place in floodplains, it must inform those who may be put at greater or continued risk.

Written comments must be received by the City of Early at the following address on or before November 14, 2022: City of Early, 107 Main Street, PO Box 411, Early, IA 50535 and 712-273-5283 Attention: Sharon Irwin, Mayor Comments may also be submitted or further information can be requested via email at cityclerk@earlyia.com. A full description of the project may also be reviewed from 8AM to12 PM M-F and 1PM to 3PM M-TH at 107 Main Street, Early, IA 50535.

Published in *The Chronicle*
Thursday, October 27,2022

Appendix L

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 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	Gutherie 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	Winneshick 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).	