

Benton County, Iowa

Project # [CDBG 13-NDRI-002](#)

Environmental Assessment For

Community Development Block Grant (CDBG) through
the Iowa Economic Development Authority (IEDA) for:
Watershed Improvements

Prepared by the East Central Iowa
Council of Governments (ECICOG)
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May 5, 2020

As Applicable to the Following Practice(s):

MC-126-DAVIS
MC-127-DAVIS
MC-085-BISTLINE
MC-166-BISTLINE

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SITE SPECIFIC ENVIRONMENTAL REVIEW

Project Location: Generally From Tier 1 Assessment, Benton, Buchanan, and Tama Counties, Iowa

Specific to this Tier 2 Review for MC-INV-008, As Cited on Prior Page

Contract Number: 13-NDRI-002

Estimated Total Project Cost (all sources): \$11,168,559 (all sources) plus 10% construction match from landowners.

Amount of HUD Assistance: \$11,168,559 **HUD Grant Program:** OMB 14.269 / CDBG B-13-DS-19-0001

Recipient Address & Phone: Benton County Courthouse
2nd Floor – 111 E. Fourth Street
Vinton, IA 52349

RE Project Contact Name & Phone: Tom Gruis, Planner @ 319-365-9941 ext. 126

Conditions for Approval: (List all mitigation and project modification measures adopted by the responsible entity to eliminate or minimize adverse environmental impacts. These conditions must be included in project contracts and other relevant documents as requirements.) [24 CFR 58.40(d), 40 CFR 1505.2(c)]

See Summary of Findings and Conclusions Section for Mitigation and Project Modification Measures Recommended.

PREPARER SIGNATURE: _____ **DATE:** _____

PREPARER NAME & TITLE: Tom Gruis, Planner

PREPARER'S AGENCY (If Different from RE): East Central Iowa Council of Governments ("ECICOG")

RE APPROVING OFFICIAL SIGNATURE: _____ **DATE:** _____

RE APPROVING OFFICIAL NAME & TITLE: Rick Primmer, Chairperson, County Board of Supervisors

Purpose of the Project: ["Statement of Purpose and Need for the Proposal" - 40 CFR 1508.9(b)]

Include all contemplated actions that are logically either geographically or functionally a composite part of the project, regardless of the source of funding. [24 CFR 58.32, 40 CFR 1508.25] As appropriate, attach maps, site plans, renderings, photographs, budgets and other descriptive information:

In January 2016, the U.S. Department of Housing and Urban Development (HUD) announced an award of nearly \$97 million to the State of Iowa for the Iowa Watershed Approach for Urban and Rural Resilience (IWA). The award was made under HUD's National Disaster Resilience Competition designed to fund cutting-edge projects addressing unmet needs from past disasters while addressing potential vulnerabilities from future disasters. From 2011 to 2013, eight Presidential Disaster Declarations (encompassing 73 of 99 Iowa counties and more than 70 percent of the state) were issued across Iowa as a result of extreme flood events. Flooding resulted in property damage and loss; temporary and permanent displacement of people and businesses; damage to roads, bridges, and other vital infrastructure; and soil loss. While notable, the 2011 to 2013-floods do not represent Iowa's worst flood years. Long-term data indicates heavy precipitation and flooding events are increasing in frequency across the Midwest, and models predict this trend will continue in the future. Responding to this trend, HUD and its various partners believed a new emphasis on flood resilience was required. This new perspective needed to decrease flood risks, improve water quality, and increase both urban and rural resilience to these events. In October 2015, the Iowa Economic Development Authority (IEDA), Iowa Department of Homeland Security (IDHS), and the Iowa Flood Center (IFC) responded to HUD National Disaster Resilience Competition with a proposal to develop the IWA. The proposed action is designed to accomplish six specific goals: 1) Reduce flood risks within the urban and rural areas; 2) Improve water quality for users within and downstream, especially in light of the Gulf of Mexico hypoxia problem – a national environmental issue; 3) Increase flood resilience for individuals and communities through conservation practices proven to reduce water quantity during high-flow events; 4) Engage stakeholders through collaboration and outreach/education through Watershed Management Authority and flood resilience action plans; 5) Improve quality of life and health, especially for susceptible populations (low- to middle income households) by improving water quality and reducing or eliminating periods of displacement due to flooding; and 6) Develop a program scalable and replicable throughout the Midwest and the United States.

Tier I and Tier II Review:

Tier 1 Environmental Review PEAs assess the individual and cumulative environmental impacts of program activities on a specific geographical area. PEAs may also be prepared when the environmental impacts are generic or common to a class of actions, or to other activities that are not location specific. The PEA can serve as a foundation and reference document to allow the efficient completion of Supplemental or Individual EAs for the individual actions described in the PEA. This PEA was specifically designed to evaluate the environmental impacts associated with the construction and implementation of structures or practices. With the PEA in place, the environmental review process required by NEPA and its associated environmental laws would be streamlined.

The Tier 1 EA for this watershed was completed on September 17, 2017. It is available as a companion to this Tier II review.

Under the previously evaluated Tier 1 EA, the following laws and authorities referenced under HUD's regulations at 24 CFR Part 58.5 have been fully considered and do not require a site-specific review:

- ☐ Safe Drinking Water Act (42 USC 201, 300(f) et seq., and 21 U.S.C. 349 – Sole Source Aquifers) as amended; particularly section 1424(e)(42 USC 300h–3(e))
- ☐ Clean Air Act (40 CFR Parts 6, 51, and 93)
- ☐ Coastal Zone Management Act of 1972
- ☐ Coastal Barrier Resources Act of 1982
- ☐ Noise Abatement and Control (24 CFR Part 51(B))
- ☐ Explosive and Flammable Operations (24 CFR Part 51(C))
- ☐ Wild and Scenic Rivers Act (16 U.S.C. 1271, Sections 7(b) and (c))
- ☐ Environmental Justice (EO 12898)

The Tier 2 Environmental Review Based on the completion of the Tier I EA, the following subject areas will be evaluated on a site-specific analysis to determine compliance. These authorities are referenced under HUD's regulations at 24 CFR Part 58.5:

- ☐ Floodplain Management (Executive Order [EO] 11988; 24 CFR Part 55)
- ☐ Excavation and Fill In Navigable Waters (Section 404; Article 15, Title 5)
- ☐ Clean Water Act Water Quality Certification (Section 401)
- ☐ Wetland Protection (EO 11990)
- ☐ National Historic Preservation Act (36 CFR Part 800)
- ☐ Endangered Species Act (50 CFR Part 402)
- ☐ Resource Conservation and Recovery Act (24 CFR Part 58, Sec 5(i)(2))
- ☐ Airport Clear Zones and Accident Potential Zones (24 CFR Part 51D)
- ☐ Farmland Protection Policy Act (7 CFR Part 658)

A site-specific ERR included a desktop evaluation of the application, the proposed site activity, and its location relative to the above compliance factors. Reviews also included direct field observation with photographs and notes for the file.

DESCRIPTION OF THE PROJECT

(types of practices, number of practices, etc.):

This Tier II review covers the proposed construction of a wetland and surrounding perennial cover, pond, and grade stabilization on three sites in Buchanan County, Iowa, comprising one environmental review inventory in the IWA project. A map of the proposed project is shown in Map 1.

Estimated Construction Cost: \$

BUCHANAN COUNTY

MC-126-DAVIS
MC-127-DAVIS

WETLAND
PERENNIAL COVER

MC-085-BISTLINE

POND

MC-166-BISTLINE

GRADE STABILIZATION

PROPOSED SITES

Buchanan County

MC-126-127-DAVIS

Project Location:

The project is proposed at a site located southeast of the intersection of 290th St. and Gabriel Ave. The legal description is SE ¼, NW ¼ of Section 12 T87N R10W. A site map, which includes the location of site photos, is shown in Map 2.

Project Description:

The proposed Area of Potential Effect (APE) is currently row crop agricultural land. The proposed project consists of constructing a wetland and perennial buffer to control gully erosion, improve water quality, and reduce flood risk in the Lime Creek watershed. Site photos are shown in Figure 1 to Figure 4. The preliminary design is shown in Figure 5.

MC-085-BISTLINE

Project Location:

The project is proposed at a site located northeast of the intersection of Benton-Buchanan Rd. and Hamilton Ave. The legal description is SW ¼ of Section 31 T87N R9W. A site map, which includes the location of site photos, is shown in Map 3.

Project Description:

The proposed Area of Potential Effect (APE) is predominately row crop agricultural land. The proposed project consists of constructing a pond to control gully erosion, improve water quality, and reduce flood risk in the Bear Creek watershed. Site photos are shown in Figure 6 to Figure 9. The preliminary design is shown in Figure 10.

MC-166-BISTLINE

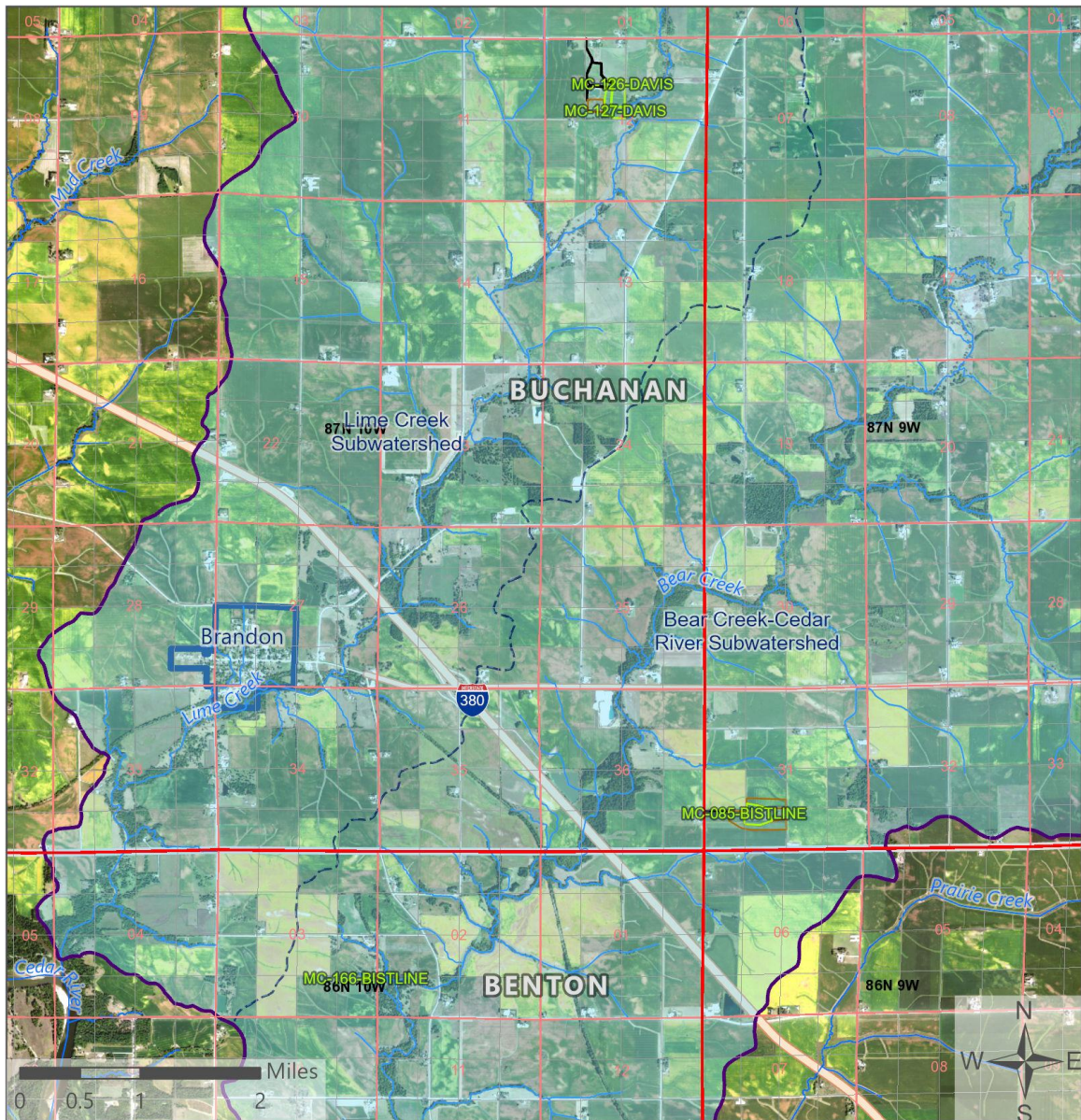
Project Location:

The project is proposed at a site located southwest of the intersection of 26th Ave. and 50th St. Dr. The legal description is SE ¼, SE ¼ of Section 3 T86N R10W. A site map, which includes the location of site photos, is shown in Map 4.

Project Description:

The proposed Area of Potential Effect (APE) is predominately row crop agricultural land. The proposed project consists of constructing a grade stabilization structure to control gully erosion, improve water quality, and reduce flood risk in the Bear Creek watershed. Site photos are shown in Figure 11 to Figure 14. The preliminary design is shown in Figure 15.

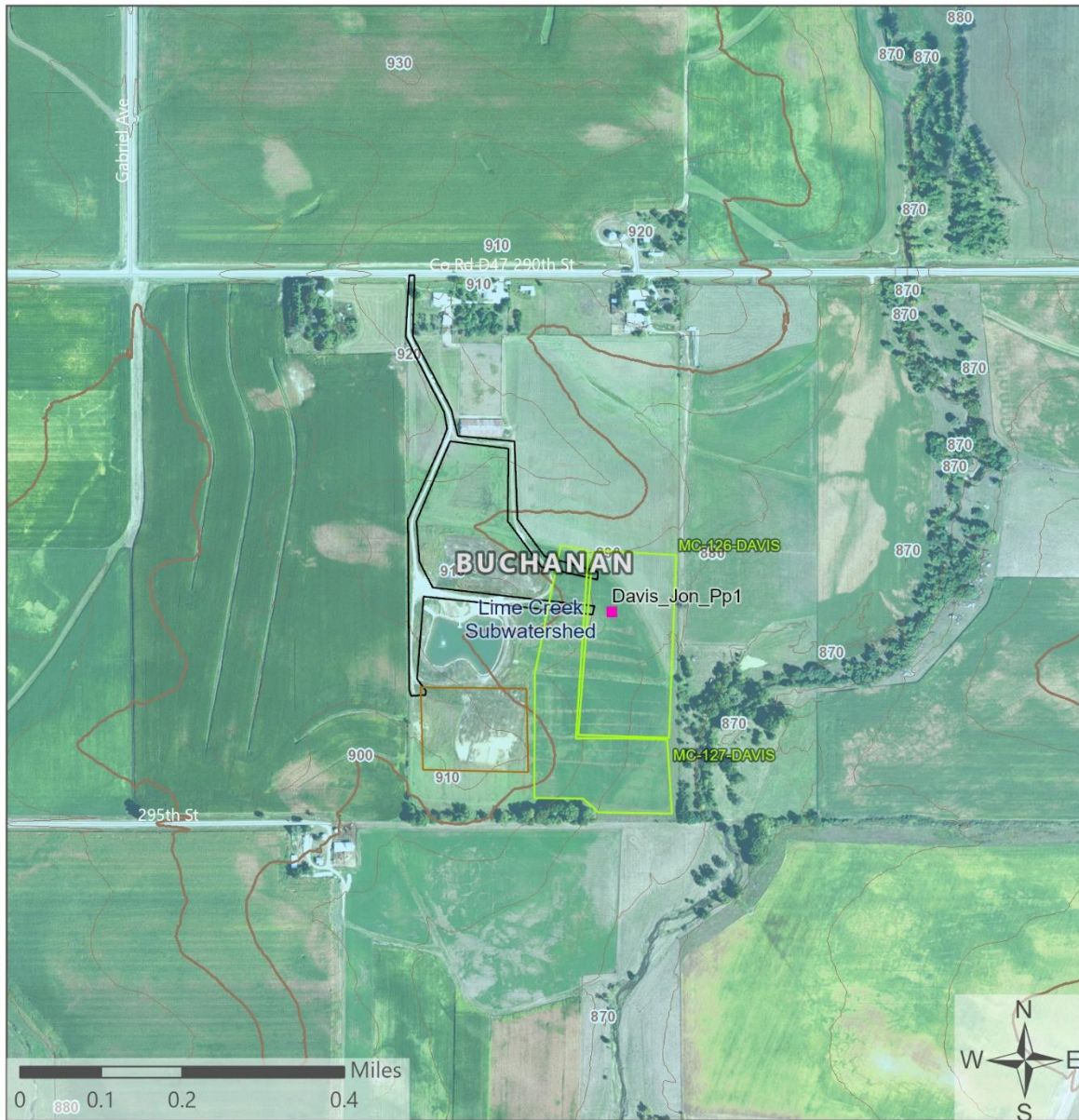
Map 1: Project Map



LEGEND

Disturbance Areas	Subwatershed	Primary Road
Access Road	BMP	Stream
Borrow Area	Implementation Area	Municipality
Estimated BMP Footprint		County Boundary

Map 2: MC-126–127-DAVIS Site Map



LEGEND

■ Photo Site	Subwatershed	County Boundary
Disturbance Areas	BMP	Contours
□ Access Road	Implementation Area	10 Foot Contours - 64k
□ Borrow Area	Stream	10 Foot 10 Foot
□ Estimated BMP Footprint	Road	100 Foot 100 Foot

Figure 1: MC-126–127-DAVIS Photo Point 1 North



Figure 2: MC-126–127-DAVIS Photo Point 1 East



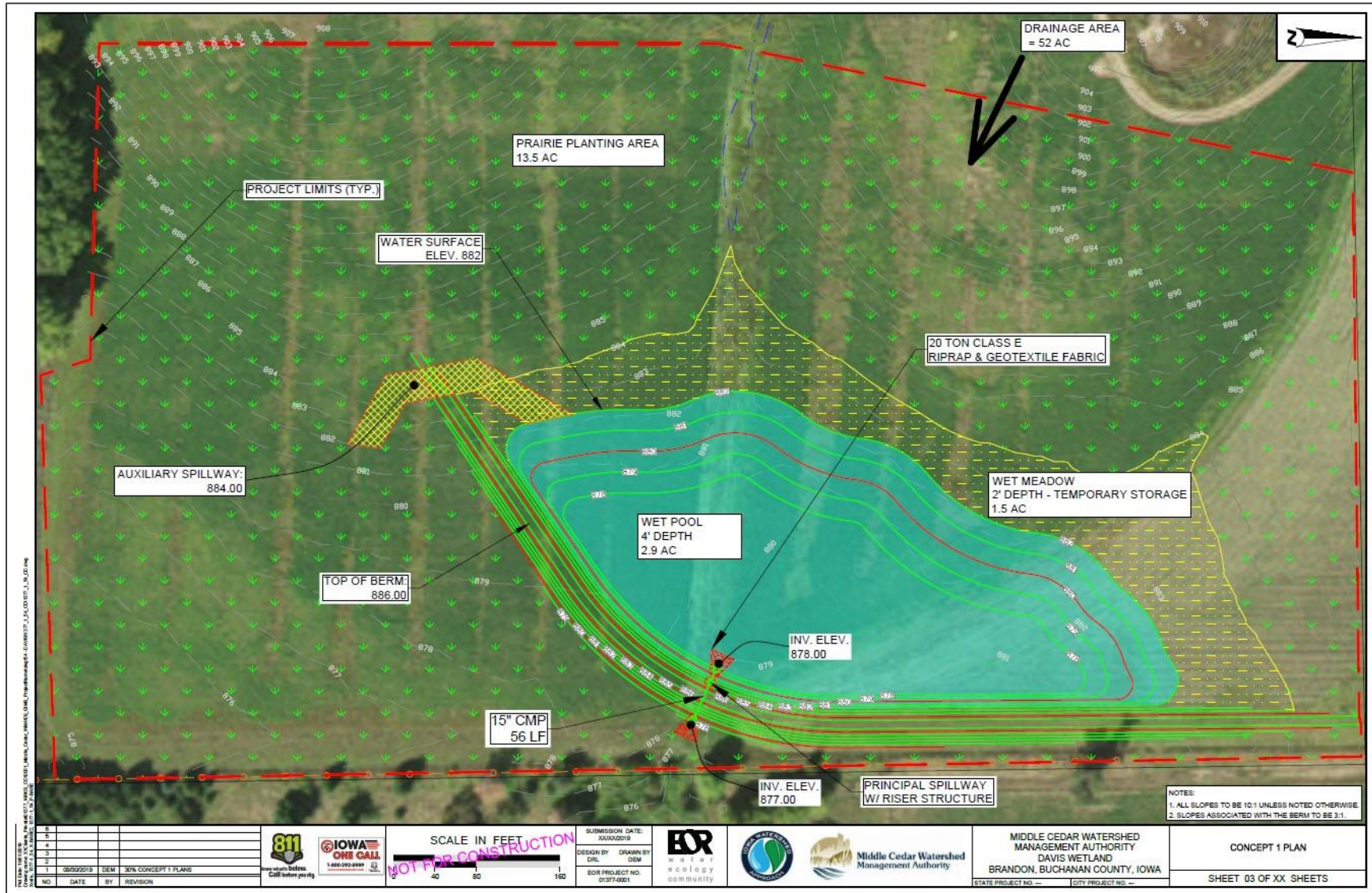
Figure 3: MC-126–127-DAVIS Photo Point 1 South



Figure 4: MC-126–127-DAVIS Photo Point 1 West



Figure 5: MC-126-127-DAVIS Preliminary Design



Map 3: MC-085-BISTLINE Site Map

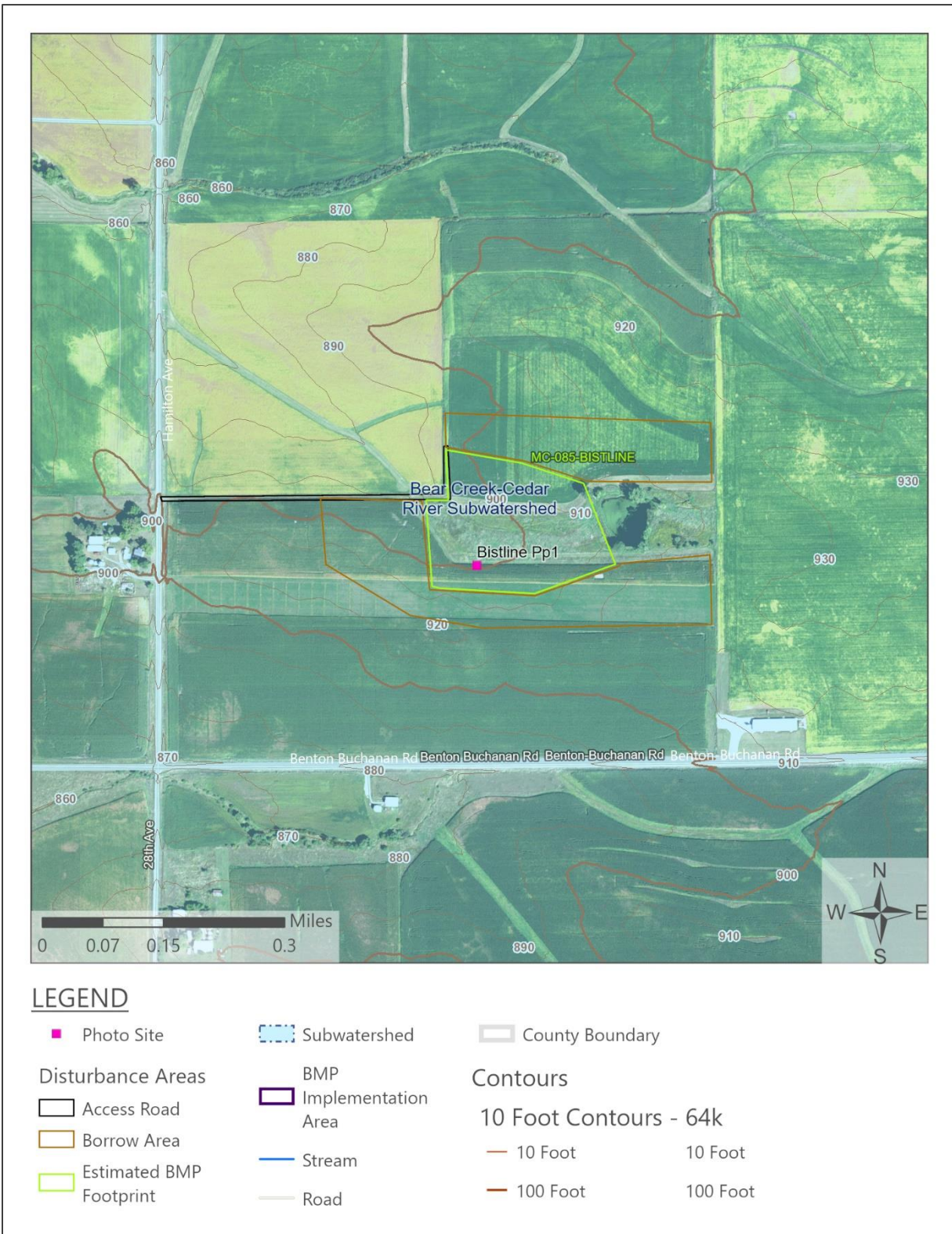


Figure 6: MC-085-BISTLINE Photo Point 1 North



Figure 7: MC-085-BISTLINE Photo Point 1 East



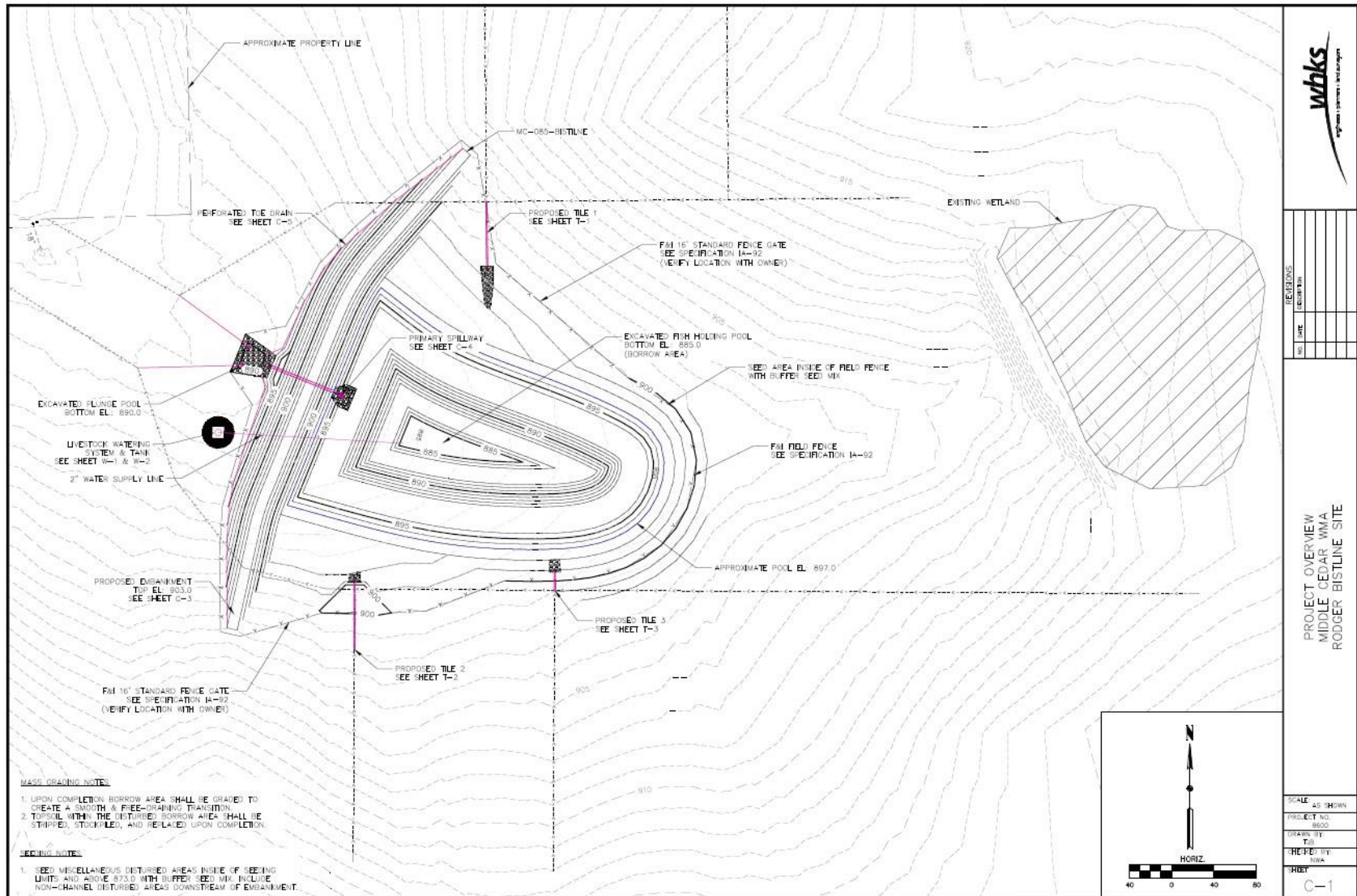
Figure 8: MC-085-BISTLINE Photo Point 1 South



Figure 9: MC-085-BISTLINE Photo Point 1 West



Figure 10: MC-085-BISTLINE Preliminary Design



Map 4: MC-166-BISTLINE Site Map

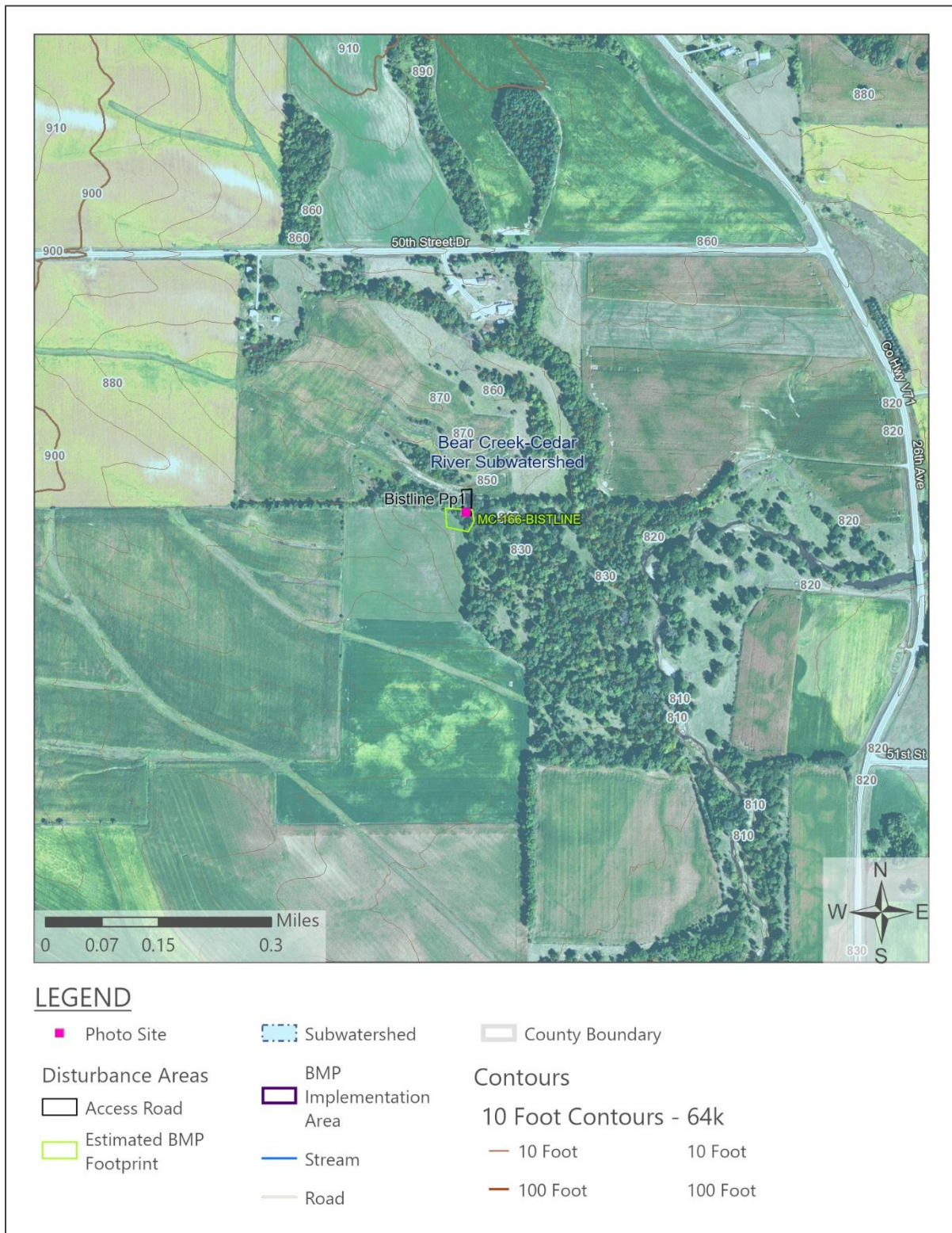


Figure 11: MC-166-BISTLINE Photo Point 1 North



Figure 12: MC-166-BISTLINE Photo Point 1 East



Figure 13: MC-166-BISTLINE Photo Point 1 South



Figure 14: MC-166-BISTLINE Photo Point 1 West



Figure 15: MC-166-BISTLINE Preliminary Design



PART I: STATUTORY CHECKLIST

[24CFR §58.5]

“A box” The project is in compliance, either because: (1) the nature of the project does not implicate the authority under consideration, or (2) supporting information documents that project compliance has been achieved. In either case, information must be provided as to **WHY the authority is not implicated, or HOW compliance is met:** OR

“B box” The project requires an additional compliance step or action, including but not limited to consultation with or approval from an oversight agency, performance of a study or analysis, completion of remediation or mitigation measure, or obtaining of license or permit.

1. Airport Hazards (Clear Zones and Accident Potential Zones) [24 CFR 51D]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>As part of the Site Specific Review, the RE will determine if a structure or practice was within 2,500 feet of a civil airport during the site-specific review.</p> <p>Proposed Action Affect: The proposed practices are not within 2,500 feet of a civil airport.</p> <p>Documents in Appendix: Map 5: Airport Map</p>
2. Contamination and Toxic Substances [24 CFR 58.5(i)(2)]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>During the initial planning, engineering review/design, and local permitting process, the RE and its consulting engineers will determine the presence of contaminants and toxic substances at each site. The review should include: 1) a physical inspection of the property to identify dump sites, abandoned storage tanks, vehicles, and other possible sources of contaminants and toxins; 2) a review of historic documentation and historic aerial imagery to identify possible sites; and 3) a review of pertinent IDNR and EPA databases.</p> <p>Proposed Action Affect: There are no IDNR or EnviroMapper contaminated or toxic sites within a half-mile of the proposed practices.</p> <p>Documents in Appendix: Map 6: Contamination and Toxic Substances Map</p>
3. Endangered Species [50 CFR 402]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>The IDNR Natural Heritage Program and the USFWS were contacted as part of the tier I assessment to initiate consultation to ensure compliance with State and Federal threatened and endangered species laws. Each project component will be reviewed to determine the level of effect for both State- and Federally protected species. Further consultation with the IDNR and USFWS will be conducted if an action may affect a listed species. Each site will be reviewed for proximity to aquatic species to determine the level of effect of project activities. Mitigation measures</p>

		<p>may include time limits for when the work may be completed. For example, tree clearing during winter may be postponed to protect potential roost trees for the federally protected Northern long-eared bats. If the installation of a structure or practice results in a “may affect” determination, Section 7 consultation must be completed for that site. The RE will ensure all structures and practices meet this requirement by including analysis of threatened and endangered species. A record check with the IDNR and USFWS would be the first step, followed by a habitat assessment for each location. If the necessary habitat is present to support a listed species, then an inventory would likely be required. If the species was found to be present, the consultation protocols outlined above would be followed.</p> <p>Proposed Action Affect:</p> <p>An official species list was obtained from the US FWS. No suitable habitat is present for the listed species. The sites are in-production cropland. Trees that could be possible bat habitat are adjacent to MC-166-BISTLINE; however, no trees are present where the practice will be installed. Because there is no suitable habitat, no FWS consultation is required. The Iowa DNR was consulted for State threatened and endangered species. They identified no concerns.</p> <p>Documents in Appendix:</p> <p>Figure 16: MC-INV-008 Official Species List Figure 17: Section 7 Decision Making Process for HUD Projects Figure 18: Section 7 Step-by-Step Instructions Figure 19: IDNR Consultation Letter Figure 20: IDNR Response</p>
4. Farmland Protection [7 CFR 658]	<input checked="" type="checkbox"/> <input type="checkbox"/>	<p>Many (if not most) of the structures and practices associated with NRRWP will be installed proximal to or within agricultural ground as defined by FPPA. However, most practices are directly related to agricultural operations and do not irreversibly convert farmland to non-agricultural uses. As part of the ERR, for each practice, an assessment will be completed on Form AD-1006, Farmland Conversion Impact Rating, and included in the ERR as part of the review (Scoping comments from NRCS personnel indicated that each location would need to be evaluated for a Farmland Conversion Impact Rating to comply with the FPPA.).</p> <p>Proposed Action Affect:</p> <p>The Natural Resources Conservation Service was</p>

			<p>consulted regarding the proposed practices. They are not considered irreversible conversion of farmland and are, therefore, not subject to FPPA review.</p> <p>Documents in Appendix: Figure 21: NRCS Consultation and Response</p>
5. Floodplain Management [24 CFR 55, Executive Order 11988]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>EO 11988 (Floodplain Management) requires a Federal agency avoid direct or indirect support of development within the 100-year floodplain whenever there is a practicable alternative. HUD has developed an Eight-step process to assess impacts to floodplains. HUD uses Flood Insurance Rate Maps (FIRM) to identify the regulatory 100-year floodplain for the National Flood Insurance Program.</p> <p>24 CFR Part 55.12(c)(3) states that compliance with floodplain management is not required for the approval of financial assistance for restoring and preserving natural and beneficial functions and values of floodplains and wetlands. There are three additional requirements associated with such a determination found at 24 CFR Part 55.12(c)(3)(i-iii): 1) the property must be cleared of all existing structures and improvements; 2) the property is dedicated for permanent use for flood control, wetland protection, park land, or open space; and 3) a permanent covenant or comparable restriction is placed on the property's continued use to preserve the floodplain and wetland from future development. However, not all of the requirements under 24 CFR Part 55.12(c)(3)(i-iii) would be met, since proposed practices will not be placed under permanent easement. Instead, the RE will follow the Eight-step process (see below) to assess floodplain impacts.</p> <p>Proposed Action Affect: No proposed practices overlap a 100-year floodplain.</p> <p>Documents in Appendix: Map 7: MC-085-BISTLINE Floodplain Map Map 8: MC-166-BISTLINE Floodplain Map Map 9: MC-126–127-DAVIS Floodplain Map</p>
6. Historic Preservation [36 CFR 800]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Section 106 of the National Historic Preservation Act (NHPA) and implementing regulations 36 CFR Part 800 require the expenditure of federal funds to take into consideration the potential effect of a project on historic and cultural resources. As part of the Tier I level, all tribes were notified of the potential for ground disturbing activities in the geographic areas of Tier 1 and an archaeological consultant was contracted by IEDA to conduct modeling of these areas.</p> <p>Once specific site locations are determined, the site information must be shared with the IEDA consulting archaeologist. The Archaeologist will determine if a Phase</p>

			<p>I Archaeological Site Investigation should be completed. If such investigation is required the RE must procure for such services. Once all investigation is completed, the RE selects their federal finding in accordance with the regulations (36 CFR Part 800), and submits the finding along with the results of all archaeological investigation and the proposed scope of work to both the Native American tribes with an interest in the geographic area, and IEDA through the Section 106 form in iowagrants.gov. No ground disturbing activities shall take place until consultation is concluded.</p> <p>Proposed Action Affect: The proposed practices were reviewed through an archeological Phase I assessment. One historical site was logged, but the portion within the APE was recommended ineligible for nomination to the NRHP. A finding of No Historic Places is recommended. Native American tribes with an interest in the area were consulted.</p> <p>Documents in Appendix: Figure 22: MC-085-BISTLINE Phase I Needs Assessment Figure 23: MC-085-BISTLINE Phase I Investigation Summary Figure 24: MC-166-BISTLINE Phase I Needs Assessment Figure 25: MC-126–127-DAVIS Phase I Investigation Summary Figure 26: Apache Tribe of Oklahoma Consultation Letter Figure 27: Menominee Indian Tribe of Wisconsin Consultation Letter Figure 28: Sac & Fox Nation of Missouri in Kansas and Nebraska Consultation Letter Figure 29: Sac & Fox Nation, Oklahoma Consultation Letter Figure 30: Sac & Fox Tribe of the Mississippi in Iowa Consultation Letter Figure 31: Consultation Letter Certified Mailing Receipts Figure 32: Miami Tribe of Oklahoma Response</p>
7. Wetland Protection [24 CFR 55, Executive Order 11990]	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>Under EO 11900—Protection of Wetlands, an agency must find “that there is no practicable alternative to such construction, and that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.” Furthermore, the “agency shall also provide opportunity for early public review of any plans or proposals for new construction in wetlands.”</p> <p>If program work on a specific site would impact a wetland, the Eight-step decision making process outlined in 24 CFR Part 55.20 (modified for wetlands) would be completed. If the wetland impacts cannot be avoided, appropriate</p>

		<p>permits would be obtained in compliance with EO 11990 and sections 401 and 404 of the CWA, as well as any applicable State permits. In instances where an Individual Permit would be required, the RE would not be required to complete the Eight-step process per 24 CFR Part 55.28. Instead, the procedures and requirements under the Individual Permit would be followed by the RE.</p> <p>Proposed Action Affect: MC-085-BISTLINE and MC-166-BISTLINE overlap a total of 0.42 acres of National Wetland Inventory-designated wetlands. The 8-Step Decision Making Process for Projects Proposed in a 100-Year Floodplain or Wetland was followed. No comments were received.</p> <p>Documents in Appendix: Figure 33: 8-Step Decision Making Process Memo</p>
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PART II: ENVIRONMENTAL ASSESSMENT CHECKLIST

[Environmental Review Guide HUD CPD-782, 24 CFR 58.40; 40 CFR 1508.8 & 1508.27]

As part of the Phased Tier 1 Environmental Assessment, impact categories were evaluated for the effects of the proposal on the character, features and resources of the project area. The Tier 1 EA completed these assessments and entered relevant base data and credible, verifiable source documentation to support the finding as well as the appropriate determination of impact: None Anticipated, Potentially Adverse or Potentially Beneficial.

Those impact categories were:

- Conformance with Comprehensive and Neighborhood plans
- Land use compatibility and conformance with zoning
- Urban Design – visual Quality and Scale
- Slope
- Erosion
- Soil suitability
- Hazards and Nuisances
- Noise
- Air Quality
- Energy Conservation
- Demographic Character changes
- Displacement
- Employment and Income patterns
- Educational Facilities
- Commercial Facilities
- Health Care
- Social Services
- Solid Waste
- Waste Water
- Storm water
- Water supply
- Public Safety – Police, Fire, and Emergency Medical
- Open Space, Recreation, and Cultural Facilities
- Transportation
- Water Resources
- Surface Water
- Unique Natural Features and Agricultural Lands
- Vegetation and Wildlife

Some impact categories will require mitigation measures (see following).

SUMMARY OF FINDINGS AND CONCLUSIONS

Project Alternatives Considered

[24 CFR 58.40(e), Ref. 40 CFR 1508.9] (As appropriate, identify other reasonable courses of action that were considered and not selected, such as other sites, design modifications, or other uses of the subject site. Describe the benefits and adverse impacts to the human environment of each alternative and the reasons for rejecting it. Include consideration of the No Action Alternative, that is, not implementing the preferred alternative).

1.5.1. No Action Alternative

Agriculture is the primary land use throughout the MCRW. The No Action Alternative would allow the continued degradation of water quality and the increase of flooding events currently resulting from poor agricultural practices and other sources to continue. Nonpoint source pollution of surface water is a widespread problem in Iowa and surrounding Midwest states. Common pollutants include excessive nutrients, sediments, pesticides, and bacteria. Many of Iowa's rivers and lakes receive direct discharge of treated effluent from municipal and industrial sources, as well as runoff from urbanized areas, construction sites, and agricultural areas. Sedimentation and nutrient enrichment are problems associated with runoff that can impact surface water quality. Nitrogen concentrations generally tend to be greatest in rivers that drain urban or heavily agricultural areas (U.S. Geological Survey, 2017a). Agricultural non-point source pollutants are a primary (but not exclusive) cause of surface water quality degradation in Iowa (NASS, 2016). With the selection of the No Action Alternative, modes of agricultural production would remain as they have for decades. There would be no incentives to construct structures or implement practices. The installation of filter strips, buffers, and other structures or practices that reduce pollutant loading and reduce flooding intensity would not be funded. High levels of nutrients would continue to periodically accumulate and pollute the watershed. The potential for negative economic impacts resulting from reduced water quality and quantity would remain present and possibly increase.

1.5.2. Proposed Action Alternative

Within the eight sub-watersheds associated with the MCRWP targeted for the installation and maintenance of selected structures, implementation of the Proposed Action Alternative would focus on approximately 323.8 square miles (207,243 acres) in the eight sub-watersheds within the MCRWP targeted for the installation and maintenance of selected structures. MCRWMA would provide the financial and technical assistance necessary to assist eligible Iowa farmers and livestock producers in voluntarily establishing structures or practices to control water runoff and nonpoint source pollution, including nutrient loading, soil erosion, and sedimentation. The landowners would be funded through a cost-sharing arrangement to install these approved structures or practices. Implementing structures associated with the MCRWP would decrease the amount of nonpoint source pollution and high-water flow, thereby reducing these factors throughout the entire MCRW. Proposed practices have been shown to decrease watershed contaminants, which would improve water quality and provide cleaner water sources for drinking and recreation (Center for Agriculture and Rural Development, 2017). Additionally, proposed structures and practices would lessen the severity of flooding (especially in low- to middle-income neighborhoods in urban areas of the watershed) by temporarily impounding water in basins, ponds, constructed wetlands, and other structures.

Recommendation

The Proposed Action Alternative is recommended because of the documented benefits similar structures have provided for other projects. The no action alternative supports the status quo, which is poor and possible degrading water and soil health and existing and possibly increasing flood hazard risk. The Tier II site-specific review resulted in the identification of no impacts or no significant impacts with the Proposed Action Alternative for all environmental factors not fully considered in the Tier I assessment.

Mitigation and Project Modification Measures Recommended

[24 CFR 58.40(d), 40 CFR 1508.20]

(Recommend feasible ways in which the proposal or its external factors should be modified in order to minimize adverse environmental impacts and restore or enhance environmental quality.)

As expansion of that stipulated within Phased Tier 1 assessment:

- Erosion – as a best management practice during construction of the practices silt fence and erosion prevention may be implemented if required by permits. All synthetic erosion control features (which are intended for temporary use during construction) should be completely removed and properly disposed of after construction is completed. Only natural fiber materials may be abandoned in place.
- Soil Suitability – as part of the design of the structures an assessment of soil suitability will be included in the engineering design plans. If necessary, the design of the structure will be relocated or soils will be amended.
- Noise - Temporary increases in noise levels due to installation of structures would be minimized through compliance with local noise ordinances (including time of day work limitations) if applicable.

6.8. Wetlands

- The Eight-Step Decision Making Process for Activities in a Floodplain or Wetland was followed.

Additional Studies Performed

(List the reports, studies or analyses performed for this assessment, and attach studies or summaries.)

Phase I Investigation, refer to Appendix B, #6—Historic Preservation

List of Agencies and Persons Consulted

[40 CFR 1508.9(b)]

(List agencies and persons consulted for this assessment.)

Agency	Representative	Purpose
Bear Creek Archeology		Phase I Investigation
Iowa Department of Natural Resources	Seth Moore	Endangered species consult
Natural Resources Conservation Service	Neil Sass	FPPA consult

APPENDIX A—GIS DATA SOURCES

Layer Link	Source
Airport Shapefile https://ais-faa.opendata.arcgis.com/datasets/e747ab91a11045e8b3f8a3efd093d3b5_0	Federal Aviation Administration
Brownfields (ACRES) https://geopub.epa.gov/myem/efmap/index.html?ve=9,42.079432,-92.065718&pText=Benton%20County,%20Iowa	EnviroMapper
Contaminated Sites https://programs.iowadnr.gov/geospatial/rest/services/	Iowa DNR REST Service
Elevation Contours https://programs.iowadnr.gov/geospatial/rest/services/	Iowa DNR REST Service
Flood Hazard Zones https://hazards.fema.gov/gis/nfhl/rest/services/public/NFHL/MapServer	FEMA REST Service
Hazardous Waste (RADInfo) https://geopub.epa.gov/myem/efmap/index.html?ve=9,42.079432,-92.065718&pText=Benton%20County,%20Iowa	EnviroMapper
HUC 12 Watersheds https://www.usgs.gov/core-science-systems/ngp/national-hydrography/access-national-hydrography-products	USGS
Iowa Counties https://www.census.gov/geo/maps-data/data/tiger-line.html	U.S. Census TIGER/Line
Leaking Underground Storage Tanks https://programs.iowadnr.gov/geospatial/rest/services/	Iowa DNR REST Service
Municipality https://www.census.gov/geo/maps-data/data/tiger-line.html	U.S. Census TIGER/Line
Orthographic Imagery https://ortho.gis.iastate.edu/arcgis/services/ortho/naip_2017_nc/ImageServer	Iowa State University Geographic Information Systems Support & Research Facility
Public Land Survey System https://gis.blm.gov/arcgis/rest/services/Cadastral/BLM_Natl_PLSS_CadNSDI/MapServer	Bureau of Land Management REST Service
Roads https://www.census.gov/geo/maps-data/data/tiger-line.html	U.S. Census TIGER/Line

Streams

Iowa GeoData

<https://geodata.iowa.gov/dataset/stream-centerlines-iowa/resource/7a3d9234-51e3-4f48-b7ac-20e00393b1f1>

Superfund Sites (NPL)

EnviroMapper

<https://geopub.epa.gov/myem/efmap/index.html?ve=9,42.079432,-92.065718&pText=Benton%20County,%20Iowa>

Toxic Releases (TRI)

EnviroMapper

<https://geopub.epa.gov/myem/efmap/index.html?ve=9,42.079432,-92.065718&pText=Benton%20County,%20Iowa>

Toxic Substances Controls Act (TSCA)

EnviroMapper

<https://geopub.epa.gov/myem/efmap/index.html?ve=9,42.079432,-92.065718&pText=Benton%20County,%20Iowa>

Wetlands

Iowa GeoData

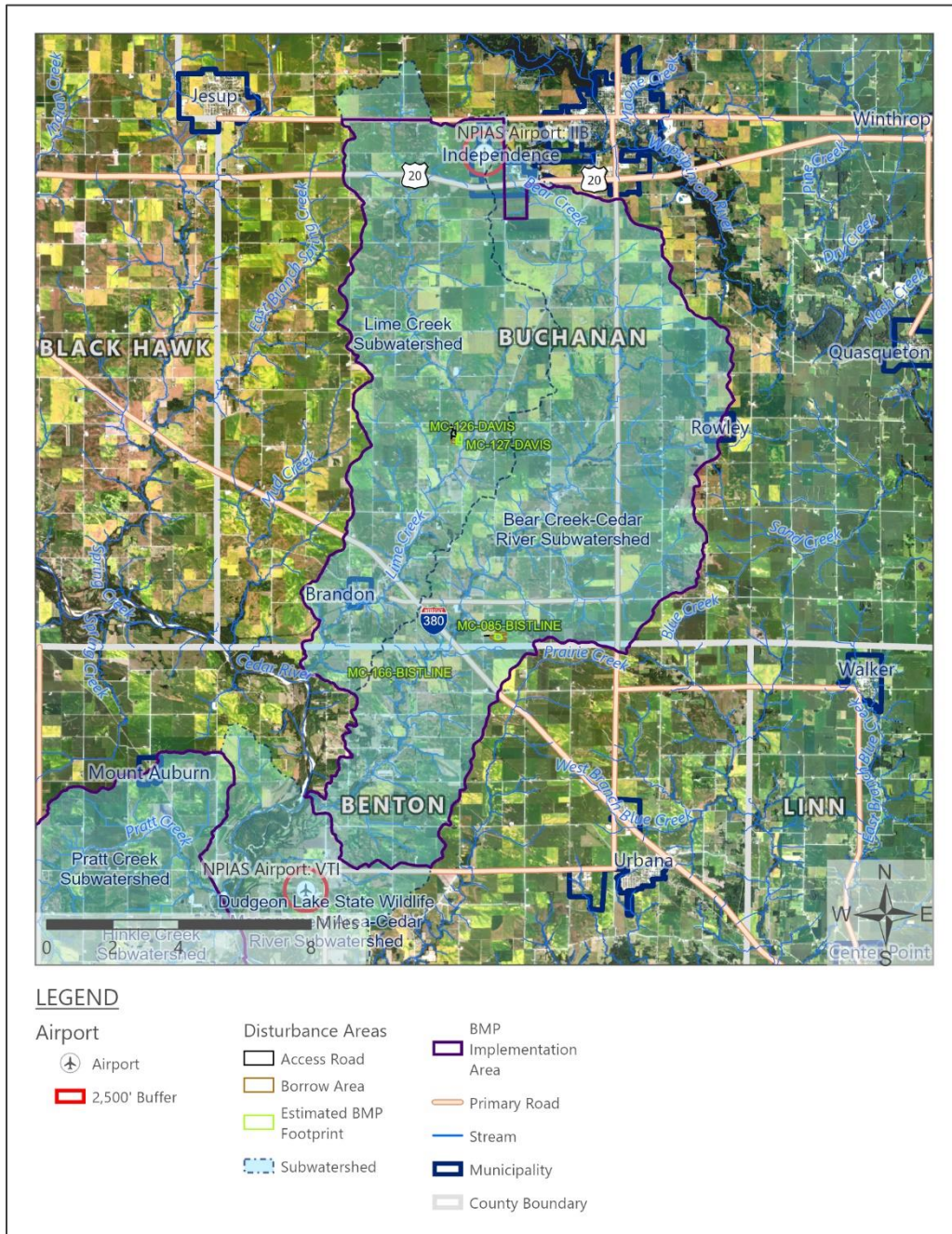
<https://geodata.iowa.gov/dataset/national-wetlands-inventory-iowa>

APPENDIX B—STATUTORY CHECKLIST SUBSTANTIATING DOCUMENTATION

1—Airport Hazards

The proposed practices are not within 2,500 feet of a civil airport. Refer to Map 5.

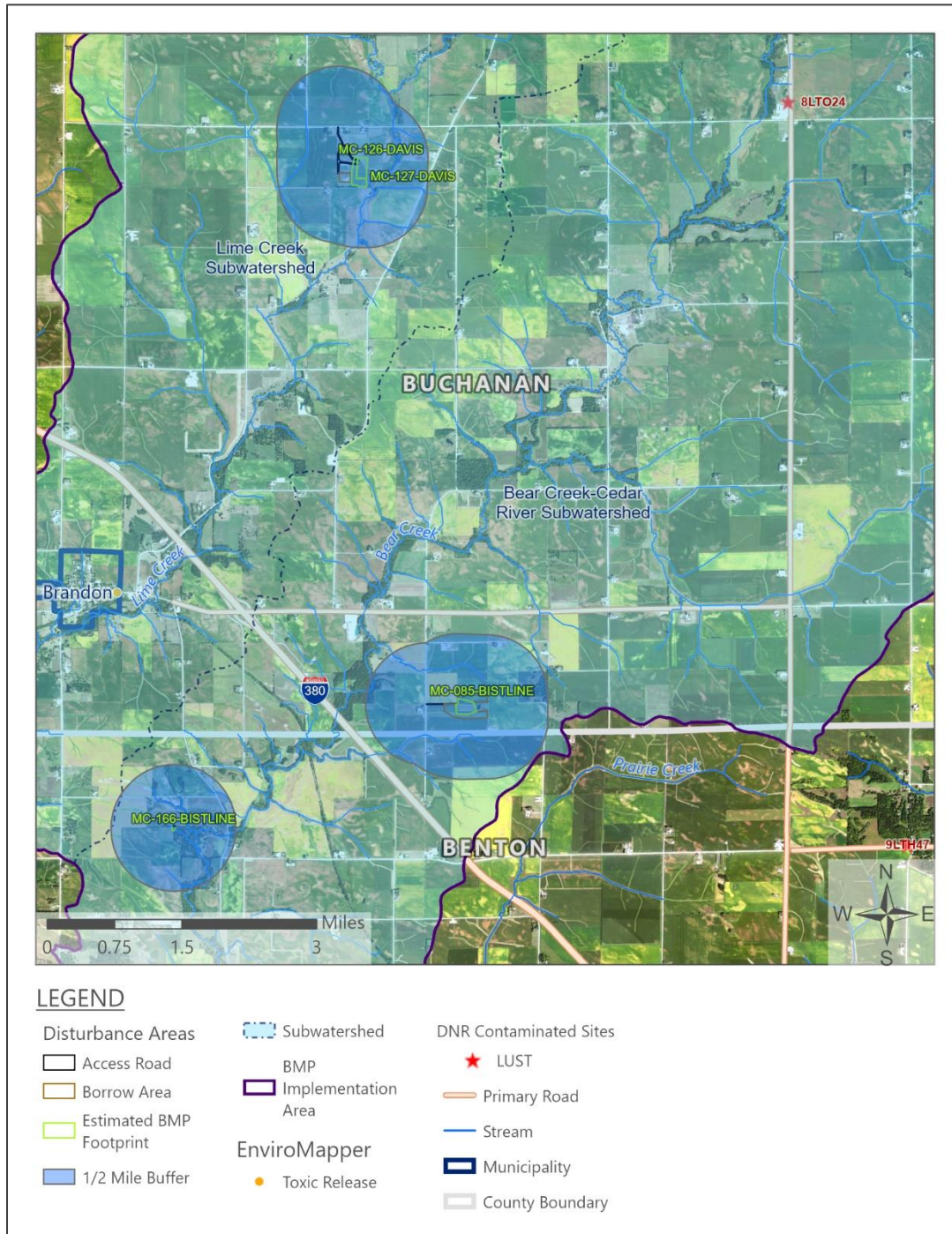
Map 5: Airport Map



2—Contamination and Toxic Substances

There are no IDNR or EnviroMapper contaminated or toxic sites within a half-mile of the proposed practices. Refer to Map 6. Only the types of IDNR and EnviroMapper sites that appear in the map frame are included in the legend.

Map 6: Contamination and Toxic Substances Map



3—Endangered Species

An official species list was obtained from the US Fish and Wildlife Service (FWS). Refer to Figure 16. No suitable habitat is present for the listed species. The sites are in-production cropland. Trees that could be possible bat habitat are adjacent to MC-166-BISTLINE; however, no trees are present where the practice will be installed. No trees will be removed. Because there is no suitable habitat, no FWS consultation is required. Refer to Figure 17 and Figure 18. The Iowa DNR was consulted for State threatened and endangered species. The first several pages of the consultation letter are included in Figure 19. The remainder of the consultation letter matches the Description of the Project section. They identified no concerns. Refer to Figure 20.

Figure 16: MC-INV-008 Official Species List



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:
Consultation Code: 03E18000-2020-SLI-1257
Event Code: 03E18000-2020-E-02942
Project Name: MC-INV-008

March 29, 2020

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

To Whom It May Concern:

The attached species list identifies any 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.

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 Service if they determine their project "may affect" listed species or critical habitat.

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 ECOS-IPaC website <http://ecos.fws.gov/ipac/> at regular intervals during project planning and implementation and completing the same process you used to receive the attached list. As an alternative, you may contact this Ecological Services Field Office for updates.

Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at - <http://www.fws.gov/midwest/endangered/section7/s7process/index.html>. This website contains step-by-step instructions which will help you

Figure 16: MC-INV-008 Official Species List, continued

03/29/2020

Event Code: 03E18000-2020-E-02942

2

determine if your project will have an adverse effect on listed species and will help lead you through the Section 7 process.

For all wind energy projects, please contact this field office directly for assistance, even if no federally listed plants, animals or critical habitat are present within your proposed project or may be affected by your proposed project.

Although no longer protected under the Endangered Species Act, be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.) and Migratory Bird Treaty Act (16 U.S.C. 703 et seq), 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, see our Eagle Permits website at <http://www.fws.gov/midwest/midwestbird/EaglePermits/index.html> to help you determine if you can avoid impacting eagles or if a permit may be necessary.

We appreciate your concern for threatened and endangered species. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Wetlands

Figure 16: MC-INV-008 Official Species List, continued

03/29/2020

Event Code: 03E18000-2020-E-02942

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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

Figure 16: MC-INV-008 Official Species List, continued

03/29/2020

Event Code: 03E18000-2020-E-02942

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Project Summary

Consultation Code: 03E18000-2020-SLI-1257

Event Code: 03E18000-2020-E-02942

Project Name: MC-INV-008

Project Type: LAND - FLOODING

Project Description: - JON DAVIS MC-126-DAVIS WETLAND
- JON DAVIS MC-127-DAVIS PERENNIAL COVER

o PROJECT DESCRIPTION: The proposed Area of Potential Effect (APE) is currently row crop agricultural land. The proposed project consists of constructing a wetland and perennial buffer to control gully erosion, improve water quality, and reduce flood risk in the Lime Creek watershed.

- ROGER BISTLINE MC-085-BISTLINE POND

o PROJECT DESCRIPTION: The proposed Area of Potential Effect (APE) is predominately row crop agricultural land. The proposed project consists of constructing a pond to control gully erosion, improve water quality, and reduce flood risk in the Bear Creek watershed.

- ROGER BISTLINE MC-166-BISTLINE GRADE STABILIZATION

o PROJECT DESCRIPTION: The proposed Area of Potential Effect (APE) is predominately row crop agricultural land. The proposed project consists of constructing a grade stabilization structure to control gully erosion, improve water quality, and reduce flood risk in the Bear Creek watershed.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/42.30075723350859N91.94175401434737W>

Figure 16: MC-INV-008 Official Species List, continued

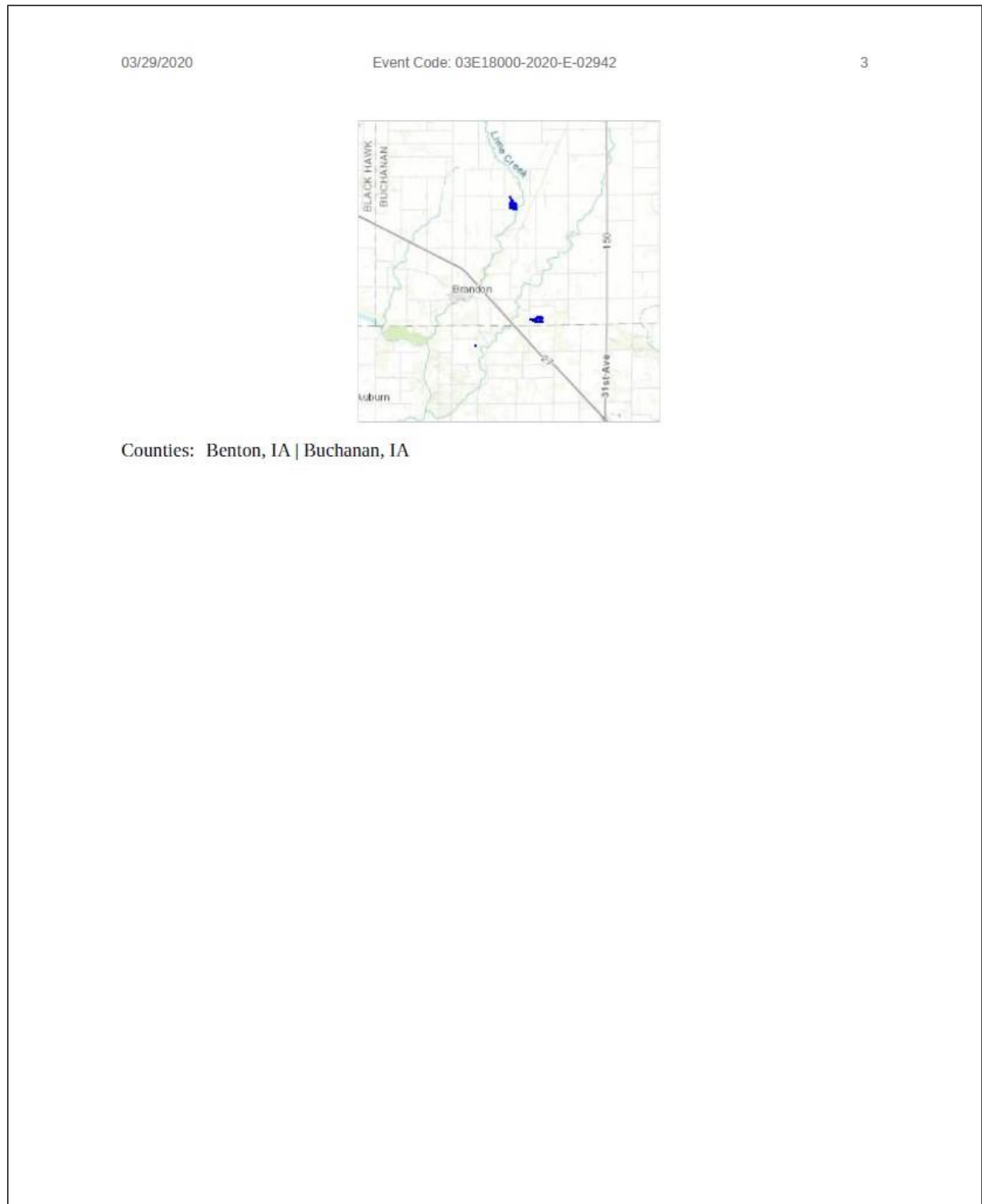


Figure 16: MC-INV-008 Official Species List, continued

03/29/2020

Event Code: 03E18000-2020-E-02942

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Endangered Species Act Species

There is a total of 3 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 Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Flowering Plants

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


Critical habitats

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

Figure 17: Section 7 Decision Making Process for HUD Projects

5/1/2020

U.S. Fish & Wildlife Service: No Effect Determinations for HUD Projects - Step 4



Conserving the nature of America

USFWS Midwest

Midwest Ecological Services

Contact Us

S7 Consultation Technical Assistance

Decision Process for "No Effect" Determinations

HUD Projects - Step 4

Step 4. Does your project meet both of the following criteria:

- located entirely within a "developed area" (an area that is already paved or supports structures and the only vegetation is limited to frequently mowed grass or conventional landscaping),

AND

- does not entail any new construction activities?

Yes - [Click here to continue with the "no effect" determination process.](#)

No - Your project requires further review. [Click here to return to Step 3 of the S7 Technical Assistance web page.](#)

[Back](#)

In the Midwest

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Section 7 Consultation

Section 7 Home

Section 7: A Brief Explanation

Section 7: Technical Assistance

Biological Assessment Guidance


Section 7 Consultation Handbook

Contact Us

Figure 18: Section 7 Step-by-Step Instructions

5/1/2020

Endangered Species Act: S7 Process - Step 2



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USFWS Midwest

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Contact Us

Section 7 Consultation Technical Assistance

Step-by-Step Instructions - Step 2

Step 2. Determine whether a listed or proposed species or designated or proposed critical habitat may be present within the action area.

A. Define the action area for your project.

B. Enter the action area location into IPaC and review the resulting Resources list (Fig. 1). The Endangered Species part of the IPaC Resources list will include endangered species, threatened species, species proposed for listing, candidate species, and critical habitats.

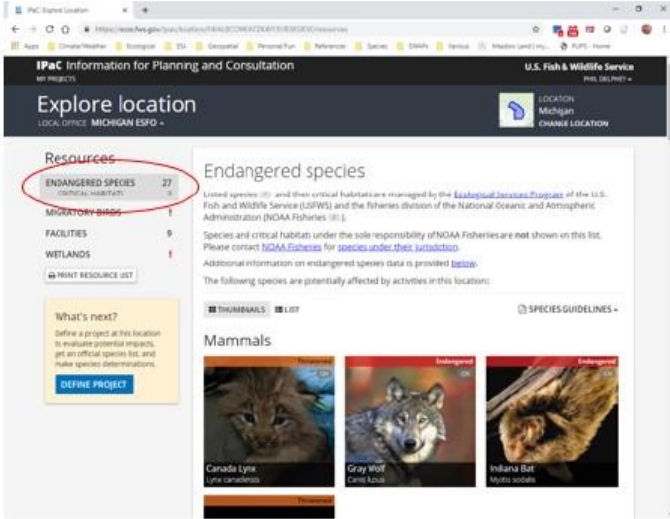


Figure 1. Part of a Resources list generated in IPaC. When in IPaC, click on Endangered Species on the left to see a list of endangered, threatened, and proposed species that may be present in the action area and any designated or proposed critical habitat that overlaps with the action area.

- If there are no species or critical habitats on the Endangered Species portion of the Resources list:
 - conclude "no species and no critical habitat present" and document your finding. No consultation under ESA section 7(a)(2) is required if the action would result in no effects to listed species or critical habitat.
- If any species or critical habitats are on the Resources list, continue to C.

C. If your project is any of the following:

- a HUD project,
- a pipeline project,
- a buried utilities project,

Figure 19: IDNR Consultation Letter



4/3/2020

Environmental Review for Natural Resources
Conservation and Recreation Division
Iowa Department of Natural Resources
502 E 9th St.
Des Moines, IA 50319-0034

To Whom It May Concern:

Subject: **Request for Endangered Species Review
Iowa Watershed Approach—CDBG 13-NDRI-002**

The purpose of this letter is to request your concurrence that a project proposed for flood mitigation and water quality best management practices by the Middle Cedar Watershed Management Authority will not have a negative impact on any federally endangered or threatened species of plants, animals, or critical habitats. This request is in regard to four proposed practices on three sites, which comprise a construction bid packet for this grant. The practices will be implemented in Buchanan County. An explanation of the project practices follows.

According to the Iowa Natural Areas Inventory there are 59 species identified as endangered, threatened, or of special concern in Buchanan County. Given these listings are county-wide, your review is requested to determine: (1) whether any identified species may have habitat which is site specific to the project; and (2) if so, whether it / they may be adversely affected (and, also if so, what mitigation measures may be taken that otherwise may allow the project to proceed).

Figure 19: IDNR Consultation Letter, continued

If you concur with a finding of no negative impact, as sustained by the attached project description and supporting information, please indicate by signing below and returning to my attention (or please respond according to other format of your agency).

- ☐ The immediate undersigned person authorized by the Iowa Department of Natural Resources finds the subject proposed project will not have a negative impact on any endangered or threatened species of plants, animals, or critical habitats.

Signed: _____ Date: _____

Otherwise, please let me know how/why you may conclude there may be a negative impact from this project. Please also let me know if you should have any questions or need additional information.

Because your review will be incorporated as part of an environmental review record being prepared in accordance with rules and regulations invoked by the injection of federal funds into the project, your determination is respectfully requested as soon as practicable within 30 days of your receipt of this conveyance.

If you should have any questions or need additional information, please call me at 319-365-9941 ext. 130. Thank you very much.

Sincerely,

Tom Gruis, Planner

Please return response to:

Tom Gruis
East Central Iowa Council Governments
700 15th St. NE, Suite 301
Cedar Rapids, IA 52402

Figure 19: IDNR Consultation Letter, continued

BUCHANAN County, IA

Summary by Species Report

Total Unique Listed Species In This County: 59

County	Common Name	Scientific Name	Class	State Status	Federal Status	Link To Species Profile
BUCHANAN	Central Newt	Notophthalmus viridescens	AMPHIBIANS	T		PDF
BUCHANAN	Mudpuppy	Necturus maculosus	AMPHIBIANS	T		PDF
BUCHANAN	Bald Eagle	Haliaeetus leucocephalus	BIRDS	S		PDF
BUCHANAN	Red-shouldered Hawk	Buteo lineatus	BIRDS	E		PDF
BUCHANAN	American Brook Lamprey	Lampetra appendix	FISH	T		PDF
BUCHANAN	Black Redhorse	Moxostoma duquesnei	FISH	T		PDF
BUCHANAN	Orangethroat Darter	Etheostoma spectabile	FISH	T		PDF
BUCHANAN	Western Sand Darter	Ammocrypta clara	FISH	T		PDF
BUCHANAN	Creek Heelsplitter	Lasmigona compressa	FRESHWATER MUSSELS	T		
BUCHANAN	Creeper	Strophitus undulatus	FRESHWATER MUSSELS	T		
BUCHANAN	Cylindrical Papershell	Anodontoides ferussacianus	FRESHWATER MUSSELS	T		
BUCHANAN	Ellipse	Venustaconcha ellipsiformis	FRESHWATER MUSSELS	T		
BUCHANAN	Slippershell Mussel	Alasmidonta viridis	FRESHWATER MUSSELS	E		
BUCHANAN	Yellow Sandshell	Lampsilis teres	FRESHWATER MUSSELS	E		
BUCHANAN	Dion Skipper	Euphyes dion	INSECTS	S		
BUCHANAN	Bog Willow	Salix pedicellaris	PLANTS (DICOTS)	T		PDF
BUCHANAN	Brittle Prickly Pear	Opuntia fragilis	PLANTS (DICOTS)	T		
BUCHANAN	Buckbean	Menyanthes trifoliata	PLANTS (DICOTS)	T		PDF
BUCHANAN	Crossleaf Milkwort	Polygala cruciata	PLANTS (DICOTS)	E		
BUCHANAN	Earleaf Foxglove	Tomanthera auriculata	PLANTS (DICOTS)	S		
BUCHANAN	Eastern Jointweed	Polygonella articulata	PLANTS (DICOTS)	E		
BUCHANAN	Hill's Thistle	Cirsium hillii	PLANTS (DICOTS)	S		

Figure 19: IDNR Consultation Letter, continued

BUCHANAN	Lance-leaved Violet	<i>Viola lanceolata</i>	PLANTS (DICOTS)	S		
BUCHANAN	Orange Grass St. John's Wort	<i>Hypericum gentianoides</i>	PLANTS (DICOTS)	E		
BUCHANAN	Pink Milkwort	<i>Polygala incarnata</i>	PLANTS (DICOTS)	T		
BUCHANAN	Purple Cress	<i>Cardamine douglassii</i>	PLANTS (DICOTS)	S		
BUCHANAN	Racemed Milkwort	<i>Polygala polygama</i>	PLANTS (DICOTS)	E		
BUCHANAN	Ragwort	<i>Senecio pseudoreus</i>	PLANTS (DICOTS)	S		
BUCHANAN	Sage Willow	<i>Salix candida</i>	PLANTS (DICOTS)	S		
BUCHANAN	Sand Cherry	<i>Prunus pumila</i>	PLANTS (DICOTS)	S		
BUCHANAN	Slender Copperleaf	<i>Acalypha gracilens</i>	PLANTS (DICOTS)	S		
BUCHANAN	Small Fringed Gentian	<i>Gentianopsis procera</i>	PLANTS (DICOTS)	S		
BUCHANAN	Valerian	<i>Valeriana edulis</i>	PLANTS (DICOTS)	S		
BUCHANAN	Water Shield	<i>Brasenia schreberi</i>	PLANTS (DICOTS)	S		
BUCHANAN	Water Starwort	<i>Callitriche heterophylla</i>	PLANTS (DICOTS)	S		
BUCHANAN	Yellow Monkey Flower	<i>Mimulus glabratus</i>	PLANTS (DICOTS)	T		
BUCHANAN	Crawe Sedge	<i>Carex crawei</i>	PLANTS (MONOCOTS)	S		
BUCHANAN	Deep Green Sedge	<i>Carex tosa</i>	PLANTS (MONOCOTS)	S		
BUCHANAN	Field Sedge	<i>Carex conoidea</i>	PLANTS (MONOCOTS)	S		
BUCHANAN	Green's Rush	<i>Juncus greenii</i>	PLANTS (MONOCOTS)	S		
BUCHANAN	Hidden Sedge	<i>Carex umbellata</i>	PLANTS (MONOCOTS)	S		
BUCHANAN	Northern Panic-grass	<i>Dichanthelium boreale</i>	PLANTS (MONOCOTS)	E		
BUCHANAN	Pale Green Orchid	<i>Platanthera flava</i>	PLANTS (MONOCOTS)	E		
BUCHANAN	Purple Fringed Orchid	<i>Platanthera psycodes</i>	PLANTS (MONOCOTS)	T		
BUCHANAN	Slender Sedge	<i>Carex leptalea</i>	PLANTS (MONOCOTS)	S		
BUCHANAN	Small White Lady's Slipper	<i>Cypripedium candidum</i>	PLANTS (MONOCOTS)	S		
BUCHANAN	Sterile Sedge	<i>Carex sterilis</i>	PLANTS (MONOCOTS)	S		
BUCHANAN	Tall Cotton Grass	<i>Eriophorum angustifolium</i>	PLANTS (MONOCOTS)	S		
BUCHANAN	Tawny Cottongrass	<i>Eriophorum virginicum</i>	PLANTS (MONOCOTS)	S		
BUCHANAN	Yellow-eyed Grass	<i>Xyris torta</i>	PLANTS (MONOCOTS)	E		
BUCHANAN	Bog Clubmoss	<i>Lycopodium inundatum</i>	PLANTS (PTERIDOPHYTES)	E		
BUCHANAN	Crowfoot Clubmoss	<i>Lycopodium digitatum</i>	PLANTS (PTERIDOPHYTES)	S		

Figure 19: IDNR Consultation Letter, continued

BUCHANAN	Leathery Grape Fern	Botrychium multifidum	PLANTS (PTERIODOPHYTES)	T		
BUCHANAN	Ledge Spikemoss	Selaginella rupestris	PLANTS (PTERIODOPHYTES)	S		
BUCHANAN	Northern Adder's-tongue	Ophioglossum pusillum	PLANTS (PTERIODOPHYTES)	S		
BUCHANAN	Woodland Horsetail	Equisetum sylvaticum	PLANTS (PTERIODOPHYTES)	T		
BUCHANAN	Blanding's Turtle	Emydoidea blandingii	REPTILES	T		PDE
BUCHANAN	Ornate Box Turtle	Terrapene ornata	REPTILES	T		PDE
BUCHANAN	Smooth Green Snake	Liophorophis vernalis	REPTILES	S		PDE

Figure 20: IDNR Response



4—Farmland Protection

The Natural Resources Conservation Service was consulted regarding the proposed practices. They are not considered irreversible conversion of farmland and are, therefore, not subject to FPPA review. Refer to Figure 21.

Figure 21: NRCS Consultation and Response

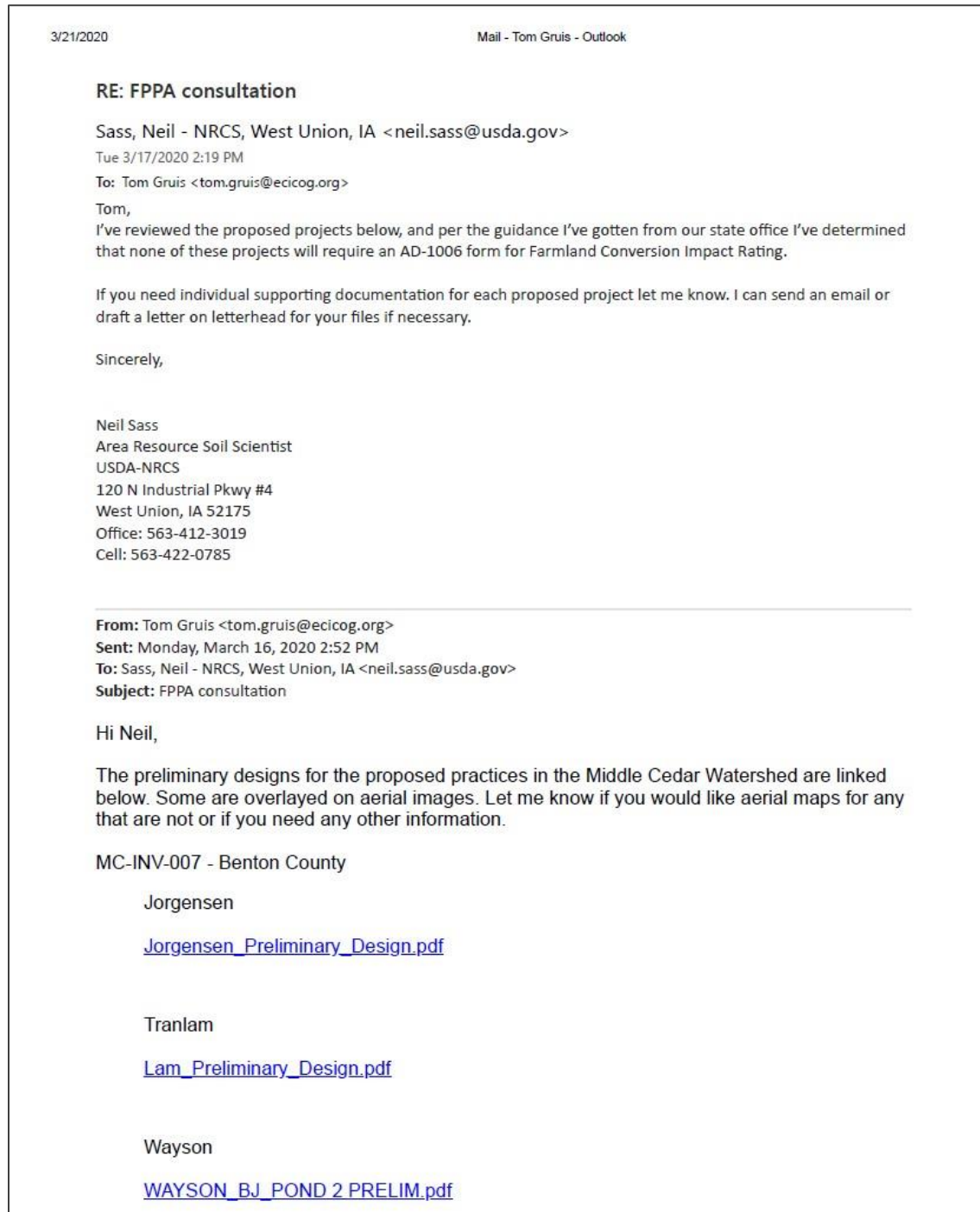


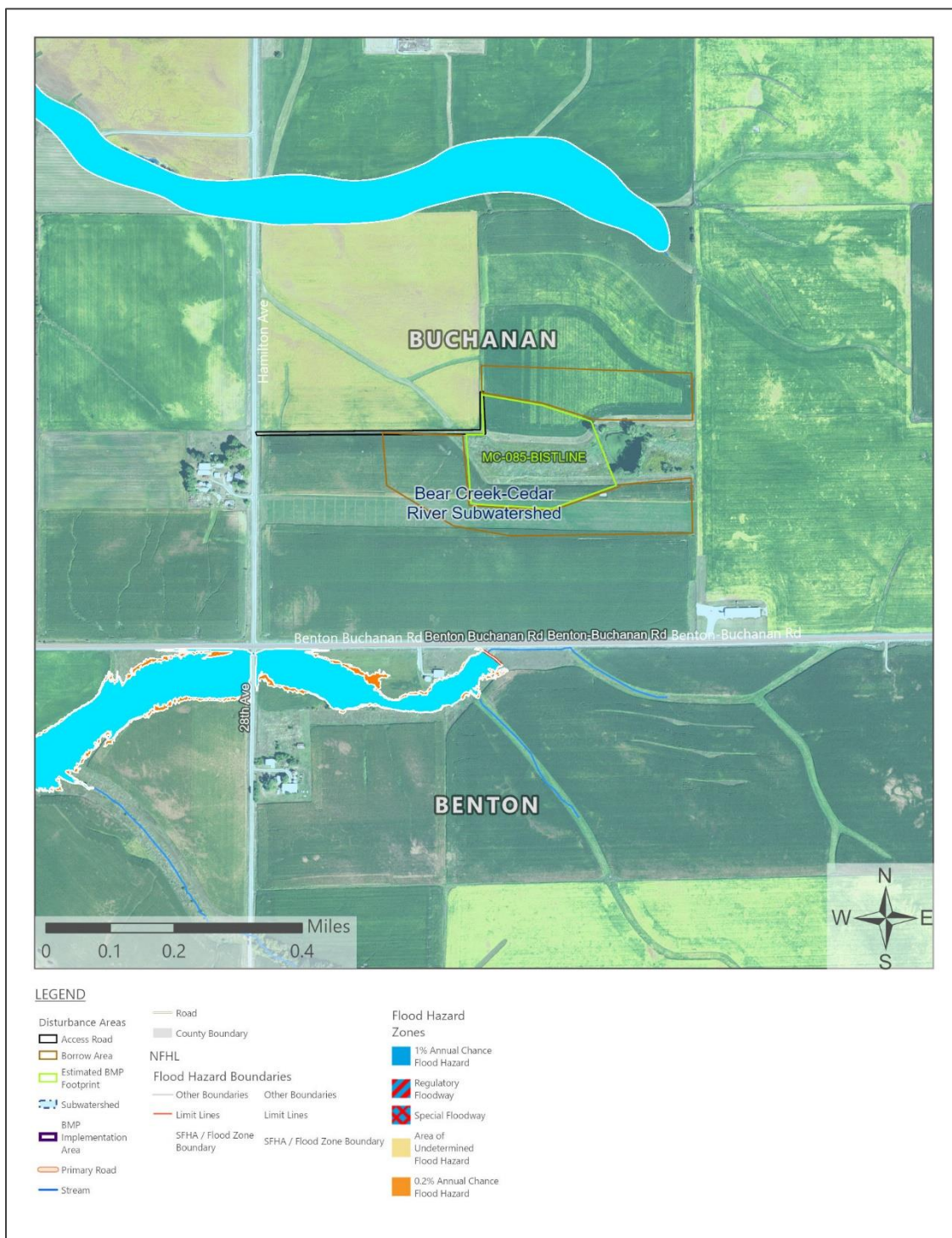
Figure 21: NRCS Consultation and Response, continued

3/21/2020	Mail - Tom Gruis - Outlook
MC-INV-008 - Buchanan County	
Bistline	
Bistline_Prefinal_Design.pdf	
Davis	
DAVIS_JON_PRELIM_PLAN.pdf	
MC-INV-009 - Tama County	
Blohm	
Blohm_Preliminary_Design.pdf	
Giesking	
1377_1_62_Giesking_Concept_Plan_R1_20191113.pdf	
Greiner	
Greiner_Design2-B-1.pdf	
Koester	
P_Koester_Preliminary_Design_Updated_Costs.pdf	
Thank you,	
Tom Gruis	
Planner	
East Central Iowa Council of Governments (ECICOG)	
Email: tom.gruis@ecicog.org	
Phone: (319) 365-9941 ext. 130	
Website: www.ecicog.org	

5—Floodplain Management

No proposed practices overlap a 100-year floodplain. Refer to Map 7 through Map 9.

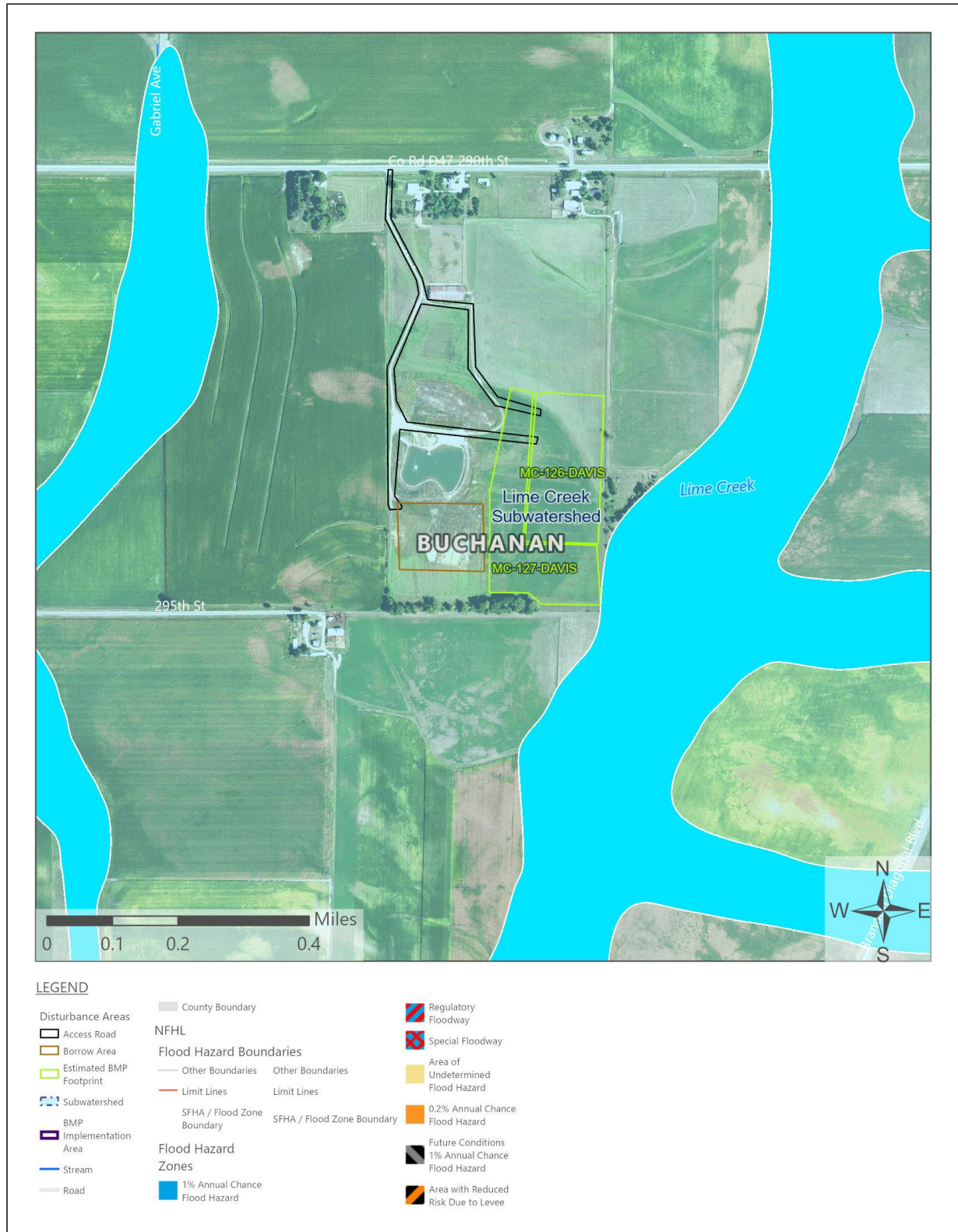
Map 7: MC-085-BISTLINE Floodplain Map



Map 8: MC-166-BISTLINE Floodplain Map



Map 9: MC-126–127-DAVIS Floodplain Map



6—Historic Preservation

The proposed practices were reviewed through an archeological Phase I assessment. One historical site, 13BC86, was logged at the DAVIS site, but the portion within the APE was recommended ineligible for nomination to the NRHP. No historic or cultural materials were found on the BISTLINE sites. A finding of No Effect to Historic Places is recommended. A summary of the findings is below, followed by excerpts from the Phase I Needs Assessments (if completed) and Phase I investigations, refer to Figure 22 through Figure 25. Native American tribes with an interest in the area were consulted. Section 106 review information for practices from three separate review inventories were sent to the tribes in this consultation letter. Copies of the Native American letters follow the review materials.

MC-085/166-BISTLINE

Maximum depth of excavation:

Phase I findings: Phase I summary: Both pedestrian survey and systematic subsurface excavations failed to identify any archeological deposits. Based on the negative results of this Phase I cultural resource survey, no further investigations are recommended for the project area proposed for a pond, borrow area, and access route (MC-085-Bistline).

MC-126–127-DAVIS

Maximum depth of excavation:

Phase I findings: In total, 179 bucket augers were excavated that proved negative for archeological deposits. However, a light scatter of historic debris was collected from the surface of deflated ridge spur during pedestrian survey corresponding with the depicted location of a former farmstead/residence and was subsequently recorded as 13BC86. A total of 64 shovel tests excavated at 10 m (32.8 ft) intervals in similarly spaced transects resulted in nine positive shovel tests for additional historic materials collected from disturbed contexts. As it exists within the project area, 13BC86 is interpreted as a mid- to late nineteenth to early twentieth century farmstead/residence that is considered to lack integrity and is recommended not eligible to the National Register of Historic Places.

Figure 22: MC-085-BISTLINE Phase I Needs Assessment

PHASE I NEEDS ASSESSMENT:

Site Specific Review MC-SSR-024
BMP IDs MC-085-BISTLINE



Prepared by: Kurtis Kettler, Impact7G
Submitted to: Adam Rodenberg, Middle Cedar Watershed Coordinator

Date: December 18, 2018

Watershed: Middle Cedar
HUC-12: Bear Creek -Cedar River (070802051004)

Identification:

BMP ID	Type	Footprint (ac)	County	Lat/Long
MC-085-BISTLINE	Pond	10.8 ac	Buchanan	42.3007, -91.9418
MC-085-BISTLINE	Borrow Area	20.0 ac	Buchanan	42.3017, -91.9404
MC-085-BISTLINE	Access Road	0.9 ac	Buchanan	42.3011, -91.9450

LANDMASS Probability Summary

Based on LANDMASS probabilities in a 700 ft radius of the practice(s), any disturbance areas over 3.2 ac will trigger a Phase I recommendation. LANDMASS probabilities are calculated based on acreages and locations of practices at the time this report was prepared. Changes in location or increases in acreage may require a supplemental SSR.

Recommendation:

BMP ID	Description	Area (ac)	Recommendation	Notes
MC-085-BISTLINE	Pond and Borrow Area	30.8 ac	<input checked="" type="checkbox"/> Phase I <input type="checkbox"/> No Phase I	Probability of at least 1 site in the 30.8 ac BMP is 32-97%, averaging 64%.
MC-085-BISTLINE	Access Road	0.9 ac	<input type="checkbox"/> Phase I <input checked="" type="checkbox"/> No Phase I Restrict all traffic to the existing road/lane.	Limited subsurface impact due to shallow/previous disturbance.

I-Sites and Historical Maps Review

Identifies known and possible sites within an Area of Potential Effect (APE) defined by Step 2 polygons

Recorded Archaeological Sites

None

Survey Areas

None

Possible historic sites from plat maps

None

(Figure 31). Through the course of close interval pedestrian survey and systematic shovel testing ($n = 13$), no cultural materials were identified, and no further work was conducted at the project area.

SUMMARY AND FINAL RECOMMENDATIONS

The preceding report presents a summary of a Phase I cultural resource survey for a proposed pond, borrow area, and access route (MC-085-Bistline) located about 4.2 km (2.6 mi) southeast of Branden along Hamilton Avenue in rural Buchanan County. The 13.1 ha (32.4 ac) project area was found to span portions of eroded upland ridge formed in Pre-Illinoian glacial drift and intermittent drainage floor of Bear Creek within the Iowan Surface physiographic region (Prior 1991). A prefield record review indicated no previously recorded archeological sites and no previous archeological investigations to exist within the project area. Historic maps did not indicate any previous documented structures to exist within the project area, although an 1886 map (Harrison and Warner; Figure 11) did depict two historic properties near the project area. Aerial photographs dating from 1936 demonstrated a project area negatively impacted by agricultural development through decades of sustained cultivation and drainageway alterations. This Phase I archeological investigation was initiated by BCA personnel on July 3, with the project area revisited and fieldwork completed on July 9, 2019.

At the time of initial survey, surface covers consisted of grass along the drainage floor and existing two-track, with the uplands actively cultivated in maturing soybeans (40–50% GSV), maturing corn (60–70% GSV), and maturing oats (10–20% GSV). However, when the project area was revisited on July 9, 2019, the oats had been harvested resulting in 50–60% GSV. Geomorphic evaluation utilizing visual assessments and the extraction of 17 hand probes identified a project area comprised of deflated upland landforms and poorly drained hydric soils displaying disturbances related to plowing. Along the uplands, which included summits, shoulders, and backslopes, multiple plowzones were routinely identified that truncate the weakly structure subsoils. Course mottling was frequently observed with the Ap2 horizon, indicative of subsoil sediment being incorporated through plowing and exemplifying the degree of agriculturally induced erosion in which glacial till was observed scattered across the surfaces. Along the intermittent drainage floor of Bear Creek, as well as within the upland side drainages, poorly drained hydric soils were recorded often buried by recently deposited colluvium that had subsequently been plowed. These hydric soils are generally assigned a low archeological potential as these surfaces are not considered conducive to human habitation due to formation in conditions of prolonged water saturation and susceptibility to localized flooding. As a result, the portions of uplands encompassed by the project area were subject to pedestrian survey at 5 m (16.4 ft) intervals given the adequate surface visibilities encountered and their eroded contexts in which any cultural materials should be on the surface or shallowly buried. This included a pedestrian survey within maturing soybeans and corn on July 3 and, later, harvested oats on July 9, 2019. Systematic shovel testing ($n = 13$) conducted at 5–10 m (16.4–32.8 ft) intervals was implemented along a portion of upland shoulder in maturing oats, and around an isolated

Figure 23: MC-085-BISTLINE Phase I Investigation Summary, continued

surface find that was later determined to be a piece of glacial till damaged by plowing and not representing an archeological deposit. As a result, both pedestrian survey and subsurface excavations failed to identify any cultural materials. Based on these negative Phase I survey results, BCA recommends no further investigations for the project area as defined on Figures 2 and 3.

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 or Adam Rodenberg, Middle Cedar Watershed project coordinator, 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 State Historic Preservation Office or a designated representative.

Information contained in this report relating to the nature and location of archeological sites is considered private and confidential and nor 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.

Figure 24: MC-166-BISTLINE Phase I Needs Assessment

PHASE I NEEDS ASSESSMENT:

Site Specific Review MC-SSR-048
BMP IDs MC-166-BISTLINE



Prepared by: Kurtis Kettler, Impact7G
Submitted to: Adam Rodenberg, Middle Cedar Watershed Coordinator

Date: December 4, 2019

Watershed: Middle Cedar
HUC-12: Bear Creek-Cedar River (070802051004)

Identification:

BMP ID	Type	Footprint (ac)*	County	Lat/Long
MC-166-BISTLINE	Grade Stabilization	0.3 ac	Benton	42.2861, -91.9887
MC-166-BISTLINE	Access Roads	0.1 ac	Benton	42.2864, -91.9886

*Footprint identifies the total acreage of the individual practice. Overlap between practice footprints only counts once towards determining the total disturbance area to avoid acreage inflation. The total disturbance area is used for recommendation purposes.

LANDMASS Probability Summary

Based on LANDMASS probabilities in a 700 ft radius of the practice(s), any disturbance areas over 1.4 ac will trigger a Phase I recommendation. LANDMASS probabilities are calculated based on acreages and locations of practices at the time this report was prepared. Changes in location or increases in acreage may require a supplemental SSR.

Recommendation:

BMP ID	Description	Area (ac)	Recommendation	Notes
MC-116-BISTLINE	Grade Stabilization and Access Road	0.4 ac	<input type="checkbox"/> Phase I <input checked="" type="checkbox"/> No Phase I	Probability of at least 1 site in the 1.4 ac BMP is 5-18%.

Figure 25: MC-126–127-DAVIS Phase I Investigation Summary

Interpretation: Site 13BC86 is a historic Euro-American mid- to late nineteenth to early twentieth century farmstead/residence. The site was originally identified from historic maps during the prefield archival review portion of this investigation and pedestrian survey implemented at 5 m (16.4 ft) intervals identified a light surface scatter ($n = 7$) of historic artifacts in the vicinity of the historically mapped location. Geomorphic assessment of the site location identified a significantly disturbed landform consisting of three distinct zones of disturbance overlying an erosional remnant of Late Wisconsinan alluvium. Given these results, there was little to no potential for encountering intact cultural deposits. Following identification of the historic surface scatter, systematic subsurface excavations consisting of shovel tests implemented at 10 m (32.8 ft) intervals in eight similarly spaced transects (Transects A–H; Figures 32 and 33), were conducted to delineate site boundary and test subsurface deposits. A total of 64 shovel tests were excavated that routinely revealed a deflated upland landform with a stratigraphy similar to that recorded during geomorphic evaluations. Nine shovel tests proved positive for additional historic artifacts ($n = 11$) collected entirely from disturbed contexts between 10 and 50 cm below ground surface, corresponding with the Ap/C1 and C2 horizons. Analysis of the artifact assemblage corresponds with a mid- to late nineteenth to early twentieth occupation as initially indicated by historic maps dating from 1886 through 1923. Site 13BC86, as it exists within the project area, is confined to a short ridge spur and restricted to disturbed contexts possibly resulting from earthmoving activities related to the construction of a nearby pond. Both geomorphic assessments and subsurface excavations failed to identify any potential for intact historic cultural deposits. Based on the above findings, and given the paucity of artifacts collected, further archeological investigations of 13BC86 would unlikely yield significant information on historic lifeways in rural Buchanan County along Lime Creek.

Recommendation: Site 13BC86 is a historic Euro-American farmstead/ residence dating to the mid- to late nineteenth to early twentieth century. Artifacts were recovered entirely from disturbed surficial contexts of a severely deflated upland ridge spur with little to no potential for intact historic cultural deposits. As a result, 13BC86 as it exists within the project area lacks sufficient enough integrity to meet eligibility requirements for nomination to the National Register of Historic Places (NRHP), and BCA recommends no further cultural resources work for the investigation site area.

SUMMARY AND FINAL RECOMMENDATIONS

The preceding report presents a summary of a Phase I cultural resources survey for a proposed wetland, borrow area, perennial grass cover, and an access road (MC-126–127-Davis) located about 5.6 km (3.5 mi) northeast of Brandon in rural Buchanan County, Iowa. The project area totals 20 ha (49.4 ac) encompassing a series of northwest-to-southeast oriented ridges set between several upland drainageways incising the valley floor along Lime Creek. The prefield record review indicated no previously recorded archeological sites and one previous archeological survey to exist within a portion of the project area. An archival review of historic maps indicated the presence of a mid- to late nineteenth to early twentieth century farmstead/residence to exist within a portion of the project area, while historic aerial photographs demonstrated negative impacts to the landforms through

decades of agricultural development such as plowing and drainageway contouring. At the time of investigation, recent disturbances to project area landforms were identified with the recent excavation of pond, adjacent spoil piles in grass (10–20% GSV), and an associated gravel drive. Project plans indicate this gravel drive to be utilized as an access road limited to surface travel for equipment transportation, with no impacts anticipated to adjacent outbuildings associated with several active farmsteads. The remaining project area landforms not immediately disturbed by pond construction were comprised of mixed grass and alfalfa that had recently been cut at the time of initial field investigations in mid-July, possessing 40–50% GSV.

Geomorphic evaluations consisting of visual assessments and the extractions of 13 hand probes identified erosional terrace remnants comprised of Late Wisconsinan alluvium mantled by eolian deposits along the more elevated upland ridges and Flack Member colluvium along the lower valley floor. Significant truncation and landform deflation was routinely identified along the upland ridges and contoured drainages, often displaying coarsely mottled/banded and very weakly to massively structured sandy loams (Ap/C1–C3 horizons) truncating the subsoil (Bw/Bg horizons) overlying coarser grained loamy sands (2BC horizons) interpreted as Late Wisconsinan alluvium. Landform disturbances identified in the project area were attributed to earthmoving activities associated with recent pond excavation and spoil placement, as well as agricultural development that includes drainageway contouring, tile installation, and plowing.

Along a portion of ridge noslope and across the well-drained portions of Late Wisconsinan terrace, a relatively intact stratigraphy of both the eolian and colluvial mantles was identified in which single or multiple plowzones truncated a sequence of A horizons transitioning to the weakly structured subsoil over erosional Late Wisconsinan terrace remnants. In some locations, these deposits were interpreted as capable of producing intact cultural materials as deep as nearly 1 m (3.3 ft) below ground surface. Given these results coupled with good GSV, the project area was initially evaluated for archeological deposits through pedestrian survey conducted at 5–10 m (16.4–32.8 ft) intervals. This was supplemented by bucket auger testing implemented at 15 m (49.2 ft) intervals in similarly spaced transects along portions of upland ridge and Late Wisconsinan terrace possessing intact profiles below plowzone contexts. In total, 179 bucket augers were excavated within the project area that proved negative for archeological deposits.

During the course of pedestrian survey, a light scatter of historic debris was observed across the surface of a short ridge spur near the southwest corner of the project area corresponding with the depicted location of a former farmstead/residence identified from historic maps during prefield archival review. Recorded as 13BC86, geomorphic evaluations revealed a significantly disturbed landform comprised of three distinct zones of coarsely mottled and very weakly to massively structured sandy loams of the eolian mantle abruptly capping Late Wisconsinan alluvium consisting of coarser grained loamy sands. Given the deflated nature of the landform, systematic shovel testing was implemented at 10 m (32.8 ft) intervals in similarly spaced transects across the surface scatter and the landform present. Of the 64 shovel tests excavated, nine proved positive for additional historic cultural materials collected from disturbed contexts. The artifact assemblage of 13BC86 consists

Figure 25: MC-126–127-DAVIS Phase I Investigation Summary, continued

primarily of common domestic and structural debris that generally correspond with the property being of a mid- to late nineteenth to early twentieth century occupation based on historic map depictions. Site boundary was established based on the presence of pond spoil and an old roadbed of 295th Street to the north and south, respectively, as well as the surface scatter and positive shovel tests which are confined to the apex of the ridge spur.

BCA concludes that 13BC86 in the project area consists of a diffuse scatter of historic artifacts originating from a mid- to late nineteenth to early twentieth century farmstead/ residence in which further archeological investigations would not yield significant information on historic lifeways in rural Buchanan County. Site 13BC86 is confined to disturbed contexts of a short ridge spur and is considered to lack sufficient enough integrity to meet eligibility requirements for nomination to the NRHP. Given these results, BCA recommends no additional archeological investigations for 13BC86.

With the above considerations in mind for 13BC86 and based on the remaining negative Phase I survey results, BCA recommends no further investigations for the project area proposed for a wetland, borrow area, perennial grass cover, and an access road (MC-SSR-037: MC-126–127-Davis) as defined on Figures 2 and 3.

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 or Adam Rodenberg, Middle Cedar Watershed project coordinator, 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 State Historic Preservation Office or a designated representative.

Information contained in this report relating to the nature and location of archeological sites is considered private and confidential and nor 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.

Native American Consultation

The findings from the Historic Preservation research conducted for this environmental review were shared with Native American tribes with an interest in the proposed project area for consultation. Copies of the consultation letters are included in Figure 26 to Figure 30. A copy of the certified mail receipts is shown in Figure 31. The letters included vicinity maps of the proposed sites and excerpts from the Phase I investigations. The vicinity maps are included in the Description of the Project section, and the Phase I excerpts are above. The Section 106 review materials for practices in three separate environmental review inventories were provided with the same letter. The finding for the most significant inventory, “No Adverse Effects to Historic Places”, was shared. The Miami Tribe of Oklahoma responded to the consultation letter, offering no objections to the proposed practices. Refer to Figure 32.

Figure 26: Apache Tribe of Oklahoma Consultation Letter



**BENTON COUNTY
BOARD OF SUPERVISORS**

111 E. 4th Street, P.O. Box 549, Vinton, IA 52349

February 25, 2020

Lyman Guy, Chairman
Apache Tribe of Oklahoma
PO Box 1330
Anadarko, OK 73005

Subject: Iowa Watershed Approach Project
Community Development Block Grant (CDBG) Program

Dear Mr. Guy:

In March 2017, a letter was sent to Mr. Bob Komardley describing activities planned through the Iowa Watershed Approach (IWA) program, funded by a National Disaster Resiliency (NDR) grant under the Community Development Block Grant (CDBG) program. Generally, the goals of the IWA are to reduce flood risks within urban and rural areas and improve water quality in Iowa and downstream. To make progress toward these goals, conservation practices, such as channel bank stabilization, perennial cover/grass, oxbow restoration, far ponds, constructed wetlands, etc., will be installed in targeted areas in select watersheds throughout the state. Benton County, Iowa, is the responsible entity for implementing a portion of the proposed activities in targeted areas within Benton, Black Hawk, Buchanan, Grundy, and Tama counties.

The March 2017 letter outlined the programmatic method for adhering to the National Environmental Policy Act (NEPA) requirements. As part of that process, Benton County has proposed several practices in Benton, Buchanan, and Tama counties, comprising three environmental review inventories. The sites and practices are being reviewed through a Tier II Environmental Assessment for several subject areas that were not determined fully considered under the Tier I, Programmatic Environmental Assessment. Site-specific review for Historic Preservation, Section 106, is being completed for the sites in these inventories.

Figure 26: Apache Tribe of Oklahoma Consultation Letter, continued

A Phase I archeological investigation, which includes an in-depth archival search of the parcel(s) and an on-site survey, including soil samples, was completed for each site. One site had a Phase I needs assessment conducted which concluded that at Phase I investigation was not recommended. Included with this letter are 1) a description of the proposed practices and locations; 2) a vicinity map of the proposed site within the areas of interest for the Apache Tribe of Oklahoma; 3) a site map; 4) the preliminary design; and 5) an excerpt from the Phase I archeological investigation (or Phase I needs assessment) for the site that states the outcome of the review. Full copies of review materials can be made available to consulting partners upon request.

Seven sites were found to contain archeological or cultural materials. Five lack integrity for nomination to the National Register for Historic Places (NRHP) either entirely or for the area of the site surveyed. One site had two archeological sites identified that are potentially eligible for listing on the NRHP. Avoidance recommendations are being provided by the contracted archeologist. Based on the findings and avoidance recommendations, the archeologist recommended a determination of No Adverse Effect within the project boundaries identified.

Should you wish to provide comments on Benton County's approach to federal compliance at this time, please provide comments to Mr. Tom Gruis, Planner, at tom.gruis@ecicog.org or by mail at the address below. Mr. Gruis can be reached by phone at 319-365-9941 ext. 130.

Tom Gruis
ECICOG
700 16th St. NE, Suite 301
Cedar Rapids, IA 52402

Sincerely,

Rick Primmer, Chairman

Benton County, Iowa, Board of Supervisors

Figure 27: Menominee Indian Tribe of Wisconsin Consultation Letter



**BENTON COUNTY
BOARD OF SUPERVISORS**

111 E. 4th Street, P.O. Box 549, Vinton, IA 52349

February 25, 2020

Joan Delabreau, Chariwoman & David Grignon, THPO
Menominee Indian Tribe of Wisconsin
PO Box 910
Keshena, WI 54135

Subject: Iowa Watershed Approach Project
Community Development Block Grant (CDBG) Program

Dear Ms. Delabreau and Mr. Grignon:

In March 2017, a letter was sent to Mr. Grignon describing activities planned through the Iowa Watershed Approach (IWA) program, funded by a National Disaster Resiliency (NDR) grant under the Community Development Block Grant (CDBG) program. Generally, the goals of the IWA are to reduce flood risks within urban and rural areas and improve water quality in Iowa and downstream. To make progress toward these goals, conservation practices, such as channel bank stabilization, perennial cover/grass, oxbow restoration, far ponds, constructed wetlands, etc., will be installed in targeted areas in select watersheds throughout the state. Benton County, Iowa, is the responsible entity for implementing a portion of the proposed activities in targeted areas within Benton, Black Hawk, Buchanan, Grundy, and Tama counties.

The March 2017 letter outlined the programmatic method for adhering to the National Environmental Policy Act (NEPA) requirements. As part of that process, Benton County has proposed several practices in Benton, Buchanan, and Tama counties, comprising three environmental review inventories. The sites and practices are being reviewed through a Tier II Environmental Assessment for several subject areas that were not determined fully considered under the Tier I, Programmatic Environmental Assessment. Site-specific review for Historic Preservation, Section 106, is being completed for the sites in these inventories.

Figure 27: Menominee Indian Tribe of Wisconsin Consultation Letter, continued

A Phase I archeological investigation, which includes an in-depth archival search of the parcel(s) and an on-site survey, including soil samples, was completed for each site. One site had a Phase I needs assessment conducted which concluded that at Phase I investigation was not recommended. Included with this letter are 1) a description of the proposed practices and locations; 2) a vicinity map of the proposed site within the areas of interest for the Menominee Indian Tribe of Wisconsin; 3) a site map; 4) the preliminary design; and 5) an excerpt from the Phase I archeological investigation (or Phase I needs assessment) for the site that states the outcome of the review. Full copies of review materials can be made available to consulting partners upon request.

Seven sites were found to contain archeological or cultural materials. Five lack integrity for nomination to the National Register for Historic Places (NRHP) either entirely or for the area of the site surveyed. One site had two archeological sites identified that are potentially eligible for listing on the NRHP. Avoidance recommendations are being provided by the contracted archeologist. Based on the findings and avoidance recommendations, the archeologist recommended a determination of No Adverse Effect within the project boundaries identified.

Should you wish to provide comments on Benton County's approach to federal compliance at this time, please provide comments to Mr. Tom Gruis, Planner, at tom.gruis@ecicog.org or by mail at the address below. Mr. Gruis can be reached by phone at 319-365-9941 ext. 130.

Tom Gruis
ECICOG
700 16th St. NE, Suite 301
Cedar Rapids, IA 52402

Sincerely,

Rick Primmer, Chairman
Benton County, Iowa, Board of Supervisors

Figure 28: Sac & Fox Nation of Missouri in Kansas and Nebraska Consultation Letter



**BENTON COUNTY
BOARD OF SUPERVISORS**

111 E. 4th Street, P.O. Box 549, Vinton, IA 52349

February 25, 2020

Edmore Green, Chairman
Sac & Fox Nation of Missouri in Kansas and Nebraska
305 N. Main St.
Reserve, KS 66434

Subject: Iowa Watershed Approach Project
Community Development Block Grant (CDBG) Program

Dear Mr. Green:

In March 2017, a letter was sent that describes activities planned through the Iowa Watershed Approach (IWA) program, funded by a National Disaster Resiliency (NDR) grant under the Community Development Block Grant (CDBG) program. Generally, the goals of the IWA are to reduce flood risks within urban and rural areas and improve water quality in Iowa and downstream. To make progress toward these goals, conservation practices, such as channel bank stabilization, perennial cover/grass, oxbow restoration, far ponds, constructed wetlands, etc., will be installed in targeted areas in select watersheds throughout the state. Benton County, Iowa, is the responsible entity for implementing a portion of the proposed activities in targeted areas within Benton, Black Hawk, Buchanan, Grundy, and Tama counties.

The March 2017 letter outlined the programmatic method for adhering to the National Environmental Policy Act (NEPA) requirements. As part of that process, Benton County has proposed several practices in Benton, Buchanan, and Tama counties, comprising three environmental review inventories. The sites and practices are being reviewed through a Tier II Environmental Assessment for several subject areas that were not determined fully considered under the Tier I, Programmatic Environmental Assessment. Site-specific review for Historic Preservation, Section 106, is being completed for the sites in these inventories.

Figure 28: Sac & Fox Nation of Missouri in Kansas and Nebraska Consultation Letter, continued

A Phase I archeological investigation, which includes an in-depth archival search of the parcel(s) and an on-site survey, including soil samples, was completed for each site. One site had a Phase I needs assessment conducted which concluded that at Phase I investigation was not recommended. Included with this letter are 1) a description of the proposed practices and locations; 2) a vicinity map of the proposed site within the areas of interest for the Sac & Fox Nation of Missouri in Kansas and Nebraska; 3) a site map; 4) the preliminary design; and 5) an excerpt from the Phase I archeological investigation (or Phase I needs assessment) for the site that states the outcome of the review. Full copies of review materials can be made available to consulting partners upon request.

Seven sites were found to contain archeological or cultural materials. Five lack integrity for nomination to the National Register for Historic Places (NRHP) either entirely or for the area of the site surveyed. One site had two archeological sites identified that are potentially eligible for listing on the NRHP. Avoidance recommendations are being provided by the contracted archeologist. Based on the findings and avoidance recommendations, the archeologist recommended a determination of No Adverse Effect within the project boundaries identified.

Should you wish to provide comments on Benton County's approach to federal compliance at this time, please provide comments to Mr. Tom Gruis, Planner, at tom.gruis@ecicog.org or by mail at the address below. Mr. Gruis can be reached by phone at 319-365-9941 ext. 130.

Tom Gruis
ECICOG
700 16th St. NE, Suite 301
Cedar Rapids, IA 52402

Sincerely,

Rick Primmer, Chairman
Benton County, Iowa, Board of Supervisors

Figure 29: Sac & Fox Nation, Oklahoma Consultation Letter



**BENTON COUNTY
BOARD OF SUPERVISORS**

111 E. 4th Street, P.O. Box 549, Vinton, IA 52349

February 25, 2020

George Thurman, Principal Chief & Sandra Massey, THPO
Sac & Fox Nation, Oklahoma
920883 S. Hwy 99, Bldg. A
Stroud, OK 74079

Subject: Iowa Watershed Approach Project
Community Development Block Grant (CDBG) Program

Dear Mr. Thurman and Ms. Massey:

In March 2017, a letter was sent to Ms. Massey describing activities planned through the Iowa Watershed Approach (IWA) program, funded by a National Disaster Resiliency (NDR) grant under the Community Development Block Grant (CDBG) program. Generally, the goals of the IWA are to reduce flood risks within urban and rural areas and improve water quality in Iowa and downstream. To make progress toward these goals, conservation practices, such as channel bank stabilization, perennial cover/grass, oxbow restoration, far ponds, constructed wetlands, etc., will be installed in targeted areas in select watersheds throughout the state. Benton County, Iowa, is the responsible entity for implementing a portion of the proposed activities in targeted areas within Benton, Black Hawk, Buchanan, Grundy, and Tama counties.

The March 2017 letter outlined the programmatic method for adhering to the National Environmental Policy Act (NEPA) requirements. As part of that process, Benton County has proposed several practices in Benton, Buchanan, and Tama counties, comprising three environmental review inventories. The sites and practices are being reviewed through a Tier II Environmental Assessment for several subject areas that were not determined fully considered under the Tier I, Programmatic Environmental Assessment. Site-specific review for Historic Preservation, Section 106, is being completed for the sites in these inventories.

Figure 29: Sac & Fox Nation, Oklahoma Consultation Letter, continued

A Phase I archeological investigation, which includes an in-depth archival search of the parcel(s) and an on-site survey, including soil samples, was completed for each site. One site had a Phase I needs assessment conducted which concluded that at Phase I investigation was not recommended. Included with this letter are 1) a description of the proposed practices and locations; 2) a vicinity map of the proposed site within the areas of interest for the Sac & Fox Nation, Oklahoma; 3) a site map; 4) the preliminary design; and 5) an excerpt from the Phase I archeological investigation (or Phase I needs assessment) for the site that states the outcome of the review. Full copies of review materials can be made available to consulting partners upon request.

Seven sites were found to contain archeological or cultural materials. Five lack integrity for nomination to the National Register for Historic Places (NRHP) either entirely or for the area of the site surveyed. One site had two archeological sites identified that are potentially eligible for listing on the NRHP. Avoidance recommendations are being provided by the contracted archeologist. Based on the findings and avoidance recommendations, the archeologist recommended a determination of No Adverse Effect within the project boundaries identified.

Should you wish to provide comments on Benton County's approach to federal compliance at this time, please provide comments to Mr. Tom Gruis, Planner, at tom.gruis@ecicog.org or by mail at the address below. Mr. Gruis can be reached by phone at 319-365-9941 ext. 130.

Tom Gruis
ECICOG
700 16th St. NE, Suite 301
Cedar Rapids, IA 52402

Sincerely,

Rick Primmer, Chairman

Benton County, Iowa, Board of Supervisors

Figure 30: Sac & Fox Tribe of the Mississippi in Iowa Consultation Letter



**BENTON COUNTY
BOARD OF SUPERVISORS**

111 E. 4th Street, P.O. Box 549, Vinton, IA 52349

February 25, 2020

Judith Bender, Chairperson
Sac & Fox Tribe of the Mississippi in Iowa
349 Meskwaki Rd.
Tama, IA 52339

Subject: Iowa Watershed Approach Project
Community Development Block Grant (CDBG) Program

Dear Ms. Bender:

In March 2017, a letter was sent to Mr. Johnathan Buffalo describing activities planned through the Iowa Watershed Approach (IWA) program, funded by a National Disaster Resiliency (NDR) grant under the Community Development Block Grant (CDBG) program. Generally, the goals of the IWA are to reduce flood risks within urban and rural areas and improve water quality in Iowa and downstream. To make progress toward these goals, conservation practices, such as channel bank stabilization, perennial cover/grass, oxbow restoration, far ponds, constructed wetlands, etc., will be installed in targeted areas in select watersheds throughout the state. Benton County, Iowa, is the responsible entity for implementing a portion of the proposed activities in targeted areas within Benton, Black Hawk, Buchanan, Grundy, and Tama counties.

The March 2017 letter outlined the programmatic method for adhering to the National Environmental Policy Act (NEPA) requirements. As part of that process, Benton County has proposed several practices in Benton, Buchanan, and Tama counties, comprising three environmental review inventories. The sites and practices are being reviewed through a Tier II Environmental Assessment for several subject areas that were not determined fully considered under the Tier I, Programmatic Environmental Assessment. Site-specific review for Historic Preservation, Section 106, is being completed for the sites in these inventories.

Figure 30: Sac & Fox Tribe of the Mississippi in Iowa Consultation Letter, consultation

A Phase I archeological investigation, which includes an in-depth archival search of the parcel(s) and an on-site survey, including soil samples, was completed for each site. One site had a Phase I needs assessment conducted which concluded that at Phase I investigation was not recommended. Included with this letter are 1) a description of the proposed practices and locations; 2) a vicinity map of the proposed site within the areas of interest for the Sac & Fox Tribe of the Mississippi in Iowa; 3) a site map; 4) the preliminary design; and 5) an excerpt from the Phase I archeological investigation (or Phase I needs assessment) for the site that states the outcome of the review. Full copies of review materials can be made available to consulting partners upon request.

Seven sites were found to contain archeological or cultural materials. Five lack integrity for nomination to the National Register for Historic Places (NRHP) either entirely or for the area of the site surveyed. One site had two archeological sites identified that are potentially eligible for listing on the NRHP. Avoidance recommendations are being provided by the contracted archeologist. Based on the findings and avoidance recommendations, the archeologist recommended a determination of No Adverse Effect within the project boundaries identified.

Should you wish to provide comments on Benton County's approach to federal compliance at this time, please provide comments to Mr. Tom Gruis, Planner, at tom.gruis@ecicog.org or by mail at the address below. Mr. Gruis can be reached by phone at 319-365-9941 ext. 130.

Tom Gruis
ECICOG
700 16th St. NE, Suite 301
Cedar Rapids, IA 52402

Sincerely,

Rick Primmer, Chairman

Benton County, Iowa, Board of Supervisors

Figure 31: Consultation Letter Certified Mailing Receipts

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<p>1. Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits.</p> <p>Article Addressed to:</p> <p>George Thurman, Principal Chief & Sandra Massey, THPO Sac & Fox Nation, Oklahoma 920883 S. Hwy 99, Bldg. A Stroud, OK 74079</p>		<p>A. Signature <u>[Signature]</u> <input type="checkbox"/> Agent</p> <p>B. Received by (Printed Name) <u>Hosha Stevens</u> <input type="checkbox"/> Addressee</p> <p>C. Date of Delivery <u>7-21-15</u></p> <p>Address different from item 1? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If delivery address below: _____</p>	
<p>2. Article Number (Transfer from service label) 7018 3090 0001 6714 2768</p> <p>PS Form 3811, July 2015 PSN 7530-02-000-9053</p>		<p>3. Service type</p> <div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Adult Signature <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Certified Mail <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Insured Mail (over \$500) <input type="checkbox"/> Registered Mail <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Return Receipt for Restricted Delivery <input type="checkbox"/> Signature Confirmation <input type="checkbox"/> Signature Confirmation Restricted Delivery </div> <div> <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Return Receipt for Restricted Delivery <input type="checkbox"/> Signature Confirmation <input type="checkbox"/> Signature Confirmation Restricted Delivery </div> </div>	
<p>1. Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits.</p> <p>Judith Bender, Chairperson Sac & Fox Tribe of the Mississippi in Iowa 349 Meskwaki Rd. Tama, IA 52339</p>		<p>A. Signature <u>[Signature]</u> <input type="checkbox"/> Agent</p> <p>B. Received by (Printed Name) <u>Judith Bender</u> <input type="checkbox"/> Addressee</p> <p>C. Date of Delivery <u>7-21-15</u></p> <p>Address different from item 1? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If delivery address below: _____</p>	
<p>2. Article Number (Transfer from service label) 7018 3090 0001 6714 2799</p> <p>PS Form 3811, July 2015 PSN 7530-02-000-9053</p>		<p>3. Service type</p> <div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Adult Signature <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Certified Mail <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Insured Mail (over \$500) <input type="checkbox"/> Registered Mail <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Return Receipt for Restricted Delivery <input type="checkbox"/> Signature Confirmation <input type="checkbox"/> Signature Confirmation Restricted Delivery </div> <div> <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Return Receipt for Restricted Delivery <input type="checkbox"/> Signature Confirmation <input type="checkbox"/> Signature Confirmation Restricted Delivery </div> </div>	

Figure 31: Consultation Letter Certified Mailing Receipts, continued

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<p>■ Complete items 1, 2, and 3.</p> <p>■ Print your name and address on the reverse so that we can return the card to you.</p> <p>■ Attach this card to the back of the mailpiece, or on the front if space permits.</p>		<p>A. Signature <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p><i>Kevin Burns</i></p> <p>B. Received by (Printed Name) C. Date of Delivery</p> <p><i>Kevin Burns</i> <i>2-28-2016</i></p> <p>Address different from item 1? <input type="checkbox"/> Yes delivery address below: <input type="checkbox"/> No</p>	
<p>Edmore Green, Chairman Sac & Fox Nation of Missouri in Kansas and Nebraska 305 N. Main St. Reserve, KS 66434</p>		<p>3. Service type</p> <p><input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express®</p> <p><input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™</p> <p><input type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Return Receipt for Merchandise</p> <p><input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation™</p> <p><input type="checkbox"/> Insured Mail <input type="checkbox"/> Signature Confirmation Restricted Delivery (over \$500)</p>	
<p>2. Article Number (Transfer from service label)</p> <p>9590 9402 5345 9154 5549 67</p>		<p>PS Form 3811, July 2015 PSN 7530-02-000-9053</p> <p>Domestic Return Receipt</p>	
SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<p>■ Complete items 1, 2, and 3.</p> <p>■ Print your name and address on the reverse so that we can return the card to you.</p> <p>■ Attach this card to the back of the mailpiece, or on the front if space permits.</p>		<p>A. Signature <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p><i>Joan Delabreau</i></p> <p>B. Received by (Printed Name) C. Date of Delivery</p> <p><i>Koshkeshquon</i> <i>2-27-2016</i></p> <p>Address different from item 1? <input type="checkbox"/> Yes delivery address below: <input type="checkbox"/> No</p>	
<p>Lyman Guy, Chairman Apache Tribe of Oklahoma PO Box 1330 Anadarko, OK 73005</p>		<p>3. Service type</p> <p><input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express®</p> <p><input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™</p> <p><input type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Return Receipt for Merchandise</p> <p><input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation™</p> <p><input type="checkbox"/> Insured Mail <input type="checkbox"/> Signature Confirmation Restricted Delivery (over \$500)</p>	
<p>2. Article Number (Transfer from service label)</p> <p>9590 9402 5345 9154 5549 98</p>		<p>PS Form 3811, July 2015 PSN 7530-02-000-9053</p> <p>Domestic Return Receipt</p>	

Figure 32: Miami Tribe of Oklahoma Response



Miami Tribe of Oklahoma

3410 P St. NW, Miami, OK 74354 • P.O. Box 1326, Miami, OK 74355
Ph: (918) 541-1300 • Fax: (918) 542-7260
www.miamination.com



Via email: tom.gruisecicog.org

March 20, 2020

Tom Gruis
ECICOG
700 16th St. NE, Suite 301
Cedar Rapids, IA 52402

Re: Iowa Watershed Approach Project – Comments of the Miami Tribe of Oklahoma

Dear Mr. Gruis:

Aya, kikwehsitoole – I show you respect. My name is Diane Hunter, and I am the Tribal Historic Preservation Officer for the Federally Recognized Miami Tribe of Oklahoma. In this capacity, I am the Miami Tribe's point of contact for all Section 106 issues.

The Miami Tribe offers no objection to the above-referenced project at this time, as we are not currently aware of existing documentation directly linking a specific Miami cultural or historic site to the project sites. However, as this project is within the aboriginal homelands of the Miami Tribe, if any human remains or Native American cultural items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) or archaeological evidence is discovered during any phase of this project, the Miami Tribe requests immediate consultation with the entity of jurisdiction for the location of discovery. In such a case, please contact me at 918-541-8966 or by email at dhunter@miamination.com to initiate consultation.

The Miami Tribe accepts the invitation to serve as a consulting party to the proposed project. In my capacity as Tribal Historic Preservation Officer I am the point of contact for consultation.


Respectfully,

Diane Hunter
Tribal Historic Preservation Officer

7—Wetland Protection

MC-085-BISTLINE and MC-166-BISTLINE overlap a total of 0.42 acres of National Wetland Inventory-designated wetlands. The 8-Step Decision Making Process for Projects Proposed in a 100-Year Floodplain or Wetland was followed. No comments were received. A copy of the memo documenting the 8-Step Process and wetland maps is shown in Figure 33. The early and final notices and publication affidavits are shown in through .

Figure 33: 8-Step Decision Making Process Memo



Project File Memorandum
From: Tom Gruis
3/21/2020

Subject: **Iowa Watershed Approach: Benton County Program Area—CDBG 13-NDRI-002
Environmental Review/Floodplain and Wetlands (8-Step Process)**

This Eight-Step Decision Making Process for floodplain and wetlands evaluation is prepared for four proposed practices to be installed at two sites within the Middle Cedar Watershed as part of the Iowa Watershed Approach project, funded through the U.S. Department of Housing and Urban Development's (HUD) National Disaster Resilience Competition. The practices implemented will provide flood hazard mitigation or nutrient removal benefits.

The Eight-Step Decision Making Process is comprised of the following actions:

1. Determine if the proposal is located 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 proposal will not be conducted in these areas, then no further compliance with this part is required.
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*.
3. Identify and evaluate practicable alternatives to locating in the floodplain. This requires the applicant 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.
4. Identify potential direct or indirect impacts associated with the occupancy or modification of the floodplain or wetland.
5. Identify methods where practicable, to design or modify the proposal to minimize the potential adverse impacts within the floodplain or wetland and restore and preserve its natural and beneficial value.
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.
7. If the recipient determines the only practicable alternative is locating in the floodplain or wetland, a final public notice shall be published. This public notice MUST be published at

Figure 33: 8-Step Decision Making Process Memo, continued

least 8 days before the Notice of Intent to Request Release of Funds (NOI/RROF) or Concurrent Notice whichever is applicable. 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.

8. The proposed action can be implemented after steps 1 through 7 have been completed and all other requirements are met. There is a continuing responsibility to ensure that any mitigation measures identified in Step 7 are implemented.

Proposal

Below is a summary of the proposed projects, organized by county, that includes the practice ID, type, and footprint within a National Wetland Inventory-designated wetland. Locations of the proposed projects are shown in Map 1. Site maps indicating the locations of wetlands are shown for each site in Map 2 to Map 3.

Buchanan County

<u>Project ID</u>	<u>Project Type</u>	<u>Wetland</u>
MC-126-DAVIS	Wetland	0.0
MC-127-DAVIS	Perennial Cover	0.0
MC-085-BISTLINE	Pond	0.4
MC-166-BISTLINE	Grade Stabilization	0.02

Determination (Step 1)

Using Geographic Information System (GIS) data provided by the Federal Emergency Management Agency (FEMA) and the U.S. Fish and Wildlife Service (FWS), it has been determined the above proposed project sites are located in a 100-year floodplain or designated wetland.

Preliminary Notice (Step 2)

Notice of Proposed Project to be Located in a Floodplain or Wetland was published February 22, 2020 providing local opportunity for 15-day (minimum) review and comment, to end March 9, 2020.

Identify and Evaluate Practicable Alternatives (Step 3)

Due to the nature of these practices, which restore or enhance floodplains or wetlands and rely on voluntary participation from landowners, identifying alternative locations is infeasible. As part of the Tier I environmental review, *CDBG-NDR Phased Programmatic Environmental Assessment for Practices Associated with the Middle Cedar River Watershed Project – Benton, Buchanan, Marshall, and Tama Counties*, for the Middle Cedar River Watershed Project (MCRWP), two

Figure 33: 8-Step Decision Making Process Memo, continued

implementation actions were considered: 1) No Action Alternative and 2) Proposed Action Alternative. The following summary of each alternative was provided in the Tier I review:

1.5. Alternative Development

NEPA [National Environmental Policy Act] requires the investigation and evaluation of a range of reasonable project alternatives as part of the project environmental review process. This PEA [Programmatic Environmental Assessment] addresses two alternatives: the No Action Alternative (where no HUD grant funding is applied toward construction of structures or implementation of practices) and the Proposed Action (where HUD grant funding is applied toward construction of structures and implementation of practices in the targeted sub-watersheds).

1.5.1. No Action Alternative

Agriculture is the primary land use throughout the MCRW [Middle Cedar River Watershed]. The No Action Alternative would allow the continued degradation of water quality and the increase of flooding events currently resulting from poor agricultural practices and other sources to continue. Nonpoint source pollution of surface water is a widespread problem in Iowa and surrounding Midwest states. Common pollutants include excessive nutrients, sediments, pesticides, and bacteria. Many of Iowa's rivers and lakes receive direct discharge of treated effluent from municipal and industrial sources, as well as runoff from urbanized areas, construction sites, and agricultural areas. Sedimentation and nutrient enrichment are problems associated with runoff that can impact surface water quality. Nitrogen concentrations generally tend to be greatest in rivers that drain urban or heavily agricultural areas (U.S. Geological Survey, 2017a). Agricultural non-point source pollutants are a primary (but not exclusive) cause of surface water quality degradation in Iowa (NASS, 2016). With the selection of the No Action Alternative, modes of agricultural production would remain as they have for decades. There would be no incentives to construct structures or implement practices. The installation of filter strips, buffers, and other structures or practices that reduce pollutant loading and reduce flooding intensity would not be funded. High levels of nutrients would continue to periodically accumulate and pollute the watershed. The potential for negative economic impacts resulting from reduced water quality and quantity would remain present and possibly increase.

1.5.2. Proposed Action Alternative

Figure 33: 8-Step Decision Making Process Memo, continued

Within the eight sub-watersheds associated with the MCRWP targeted for the installation and maintenance of selected structures, implementation of the Proposed Action Alternative would focus on approximately 323.8 square miles (207,243 acres) in the eight sub-watersheds within the MCRWP targeted for the installation and maintenance of selected structures. MCRWMA [Middle Cedar River Watershed Management Authority] would provide the financial and technical assistance necessary to assist eligible Iowa farmers and livestock producers in voluntarily establishing structures or practices to control water runoff and nonpoint source pollution, including nutrient loading, soil erosion, and sedimentation. The landowners would be funded through a cost-sharing arrangement to install these approved structures or practices. Implementing structures associated with the MCRWP would decrease the amount of nonpoint source pollution and high-water flow, thereby reducing these factors throughout the entire MCRW. Proposed practices have been shown to decrease watershed contaminants, which would improve water quality and provide cleaner water sources for drinking and recreation (Center for Agriculture and Rural Development, 2017). Additionally, proposed structures and practices would lessen the severity of flooding (especially in low- to middle-income neighborhoods in urban areas of the watershed) by temporarily impounding water in basins, ponds, constructed wetlands, and other structures.

Identify Potential Direct or Indirect Impacts (Step 4)

Potential direct impacts include restoring wetlands and/or reducing the rate at which water enters the floodplain and reducing nutrients and soil entering streams and rivers.

The reduction of water flow from the site could lead to lower stream elevations in areas near the project sites during rain events. The reduction in nutrients and soil entering streams and rivers would also have indirect effects outside of the project sites.

Identify Mitigating Features (Step 5)

These proposed practices are mitigation features for nutrient and soil loading and flood hazards.

Reevaluate Alternatives (Step 6)

Following the 15-day public comment period, Benton County, Iowa, will conduct a proposed project re-evaluation and, if it is determined that the only practicable alternative is locating in the proposed project in the floodplain or wetland, a 7-day final public notice shall be published that includes the reasoning for locating the proposal in a floodplain or wetland, the alternatives that were considered, and any mitigation measures that are planned.

Figure 33: 8-Step Decision Making Process Memo, continued

Benton County, Iowa, received no comments following the Preliminary Notice. Its initial evaluation of the alternatives remains valid. The nature of these structures, which restore wetlands and/or enhance the floodplain, will make locations within or overlapping floodplains or designated wetlands inherently suitable. Alternative locations are not practical because landowner participation in the project is voluntary. Furthermore, the projects are mitigating actions, and they are intended to provide direct and indirect benefits.

Final Notice (Step 7)

Final Notice and Public Explanation of a Proposed Activity in a 100-Year Floodplain or Wetland was published March 21, 2020 providing local opportunity for 7-day (minimum) review and comment, to end March 30, 2020.

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

Figure 33: 8-Step Decision Making Process Memo, continued

Map 1: Project Map

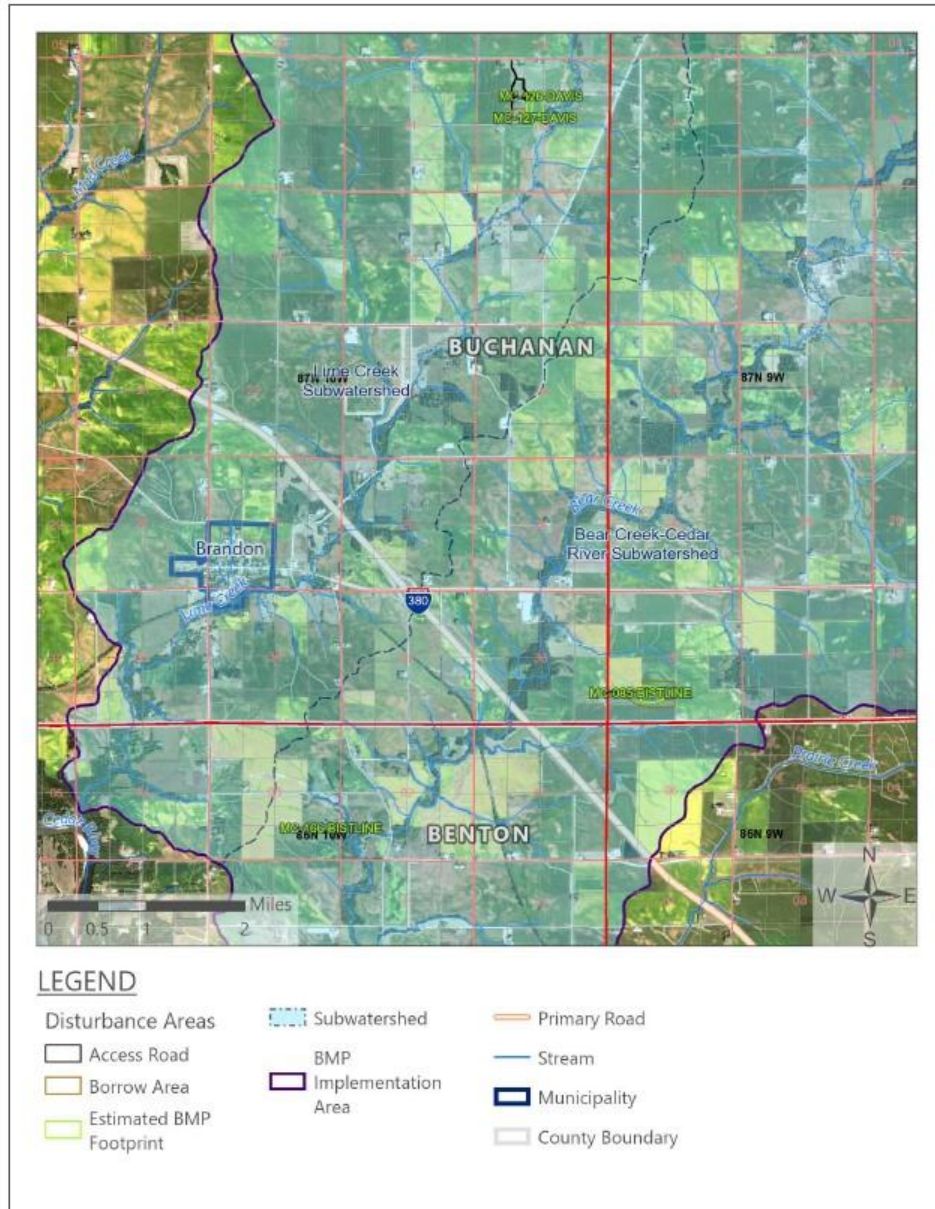


Figure 33: 8-Step Decision Making Process Memo, continued

Map 2: MC-085-BISTLINE Wetland Map

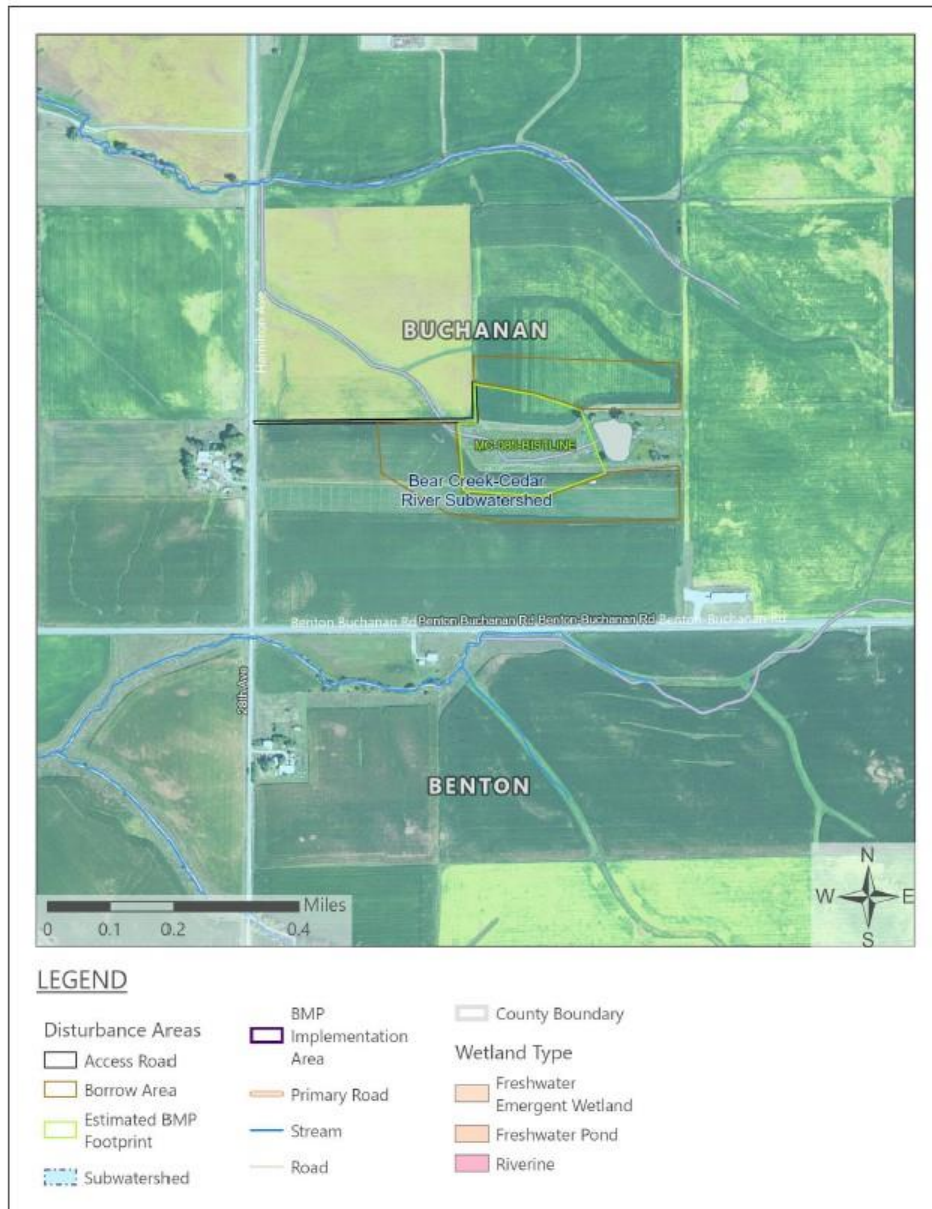


Figure 33: 8-Step Decision Making Process Memo, continued

Map 3: MC-166-BISTLINE Wetland Map

