

U.S. 63 NW OSKALOOSA BYPASS - FROM IA 163 TO U.S. 63
MAHASKA COUNTY, IOWA
NHSX-063-3(93)--3H-62

ENVIRONMENTAL ASSESSMENT

Submitted Pursuant to 42 USC 4332(2)(c)

By The

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
And
IOWA DEPARTMENT OF TRANSPORTATION
OFFICE OF LOCATION AND ENVIRONMENT

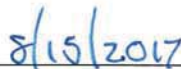
The signatures are considered acceptance of the general project location and concepts described in the environmental document unless otherwise specified by the approving officials. However, such approval does not commit to approve any future grant requests to fund the preferred alternative.



For the Iowa Division Administrator
Federal Highway Administration



For the Office of Location and Environment
Iowa Department of Transportation



Date of Approval for Public Availability

The following persons may be contacted for additional information:

Karen Bobo
Iowa Division Administrator
Federal Highway Administration
105 6th Street
Ames, Iowa 50010
Telephone: 515-233-7300

Tamara Nicholson
Office of Location and Environment
Iowa Department of Transportation
800 Lincoln Way
Ames, Iowa 50010
Telephone: 515-239-1225

PREFACE

The Transportation Equity Act of the 21st Century (TEA-21) (23 CFR) mandated environmental streamlining in order to improve transportation project delivery without compromising environmental protection. In accordance with TEA-21, the environmental review process for this project has been documented as a Streamlined Environmental Assessment (EA). This document addresses only those resources or features that apply to the project. This allowed study and discussion of resources present in the study area, rather than expend effort on resources that were either not present or not impacted. Although not all resources are discussed in the EA, they were considered during the planning process and are documented in the Streamlined Resource Summary, shown in Appendix A.

The following table shows the resources considered during the environmental review for this project. The first column with a check means the resource is present in the project area. The second column with a check means the impact to the resource warrants more discussion in this document. The other listed resources have been reviewed and are included in the Streamlined Resource Summary.

Resources Considered

SOCIOECONOMIC	NATURAL ENVIRONMENT
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Land Use <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Community Cohesion <input type="checkbox"/> <input type="checkbox"/> Churches and Schools <input type="checkbox"/> <input type="checkbox"/> Environmental Justice <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Economic <input type="checkbox"/> <input type="checkbox"/> Joint Development <input type="checkbox"/> <input type="checkbox"/> Parklands and Recreational Areas <input type="checkbox"/> <input type="checkbox"/> Bicycle and Pedestrian Facilities <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Right-of-Way <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Relocation Potential <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Construction and Emergency Routes <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Transportation	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Wetlands <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Surface Waters and Water Quality <input type="checkbox"/> <input type="checkbox"/> Wild and Scenic Rivers <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Floodplains <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Wildlife and Habitat <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Threatened and Endangered Species <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Woodlands <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Farmlands
CULTURAL	PHYSICAL
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Historical Sites or Districts <input checked="" type="checkbox"/> <input type="checkbox"/> Archaeological Sites <input checked="" type="checkbox"/> <input type="checkbox"/> Cemeteries	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Noise <input checked="" type="checkbox"/> <input type="checkbox"/> Air Quality <input checked="" type="checkbox"/> <input type="checkbox"/> Mobile Source Air Toxics (MSATs) <input checked="" type="checkbox"/> <input type="checkbox"/> Energy <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Contaminated and Regulated Materials Sites <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Visual <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Utilities
<input type="checkbox"/> CONTROVERSY POTENTIAL	
<input type="checkbox"/> Section 4(f): Specify details	

TABLE OF CONTENTS

1.0	Description of the Proposed Action.....	5
2.0	Project History	7
3.0	Purpose and Need for Action.....	9
3.1	Improve Safety.....	9
3.2	Improve Traffic Operations	9
4.0	Alternatives.....	10
4.1	No Build Alternative.....	10
4.2	Alternatives Considered but Dismissed	10
4.3	Proposed Alternatives	11
4.4	Preferred Alternative.....	12
5.0	Environmental Analysis.....	15
5.1	Socioeconomic Impacts	15
5.1.1	Land Use	15
5.1.2	Community Cohesion	17
5.1.3	Economic	18
5.1.4	Right-of-Way and Relocation Potential.....	19
5.1.5	Construction and Emergency Routes.....	19
5.1.6	Transportation.....	22
5.2	Natural Environment Impacts	22
5.2.1	Wetlands	23
5.2.2	Surface Waters and Water Quality.....	25
5.2.3	Floodplains.....	28
5.2.4	Wildlife and Habitat.....	29
5.2.5	Threatened and Endangered Species.....	29
5.2.6	Woodlands	33
5.2.7	Farmlands.....	33
5.3	Cultural	34
5.3.1	Historic Sites or Districts	34
5.4	Physical Impacts	35
5.4.1	Noise	35
5.4.2	Contaminated and Regulated Materials Sites	40
5.4.3	Visual	40
5.4.4	Utilities.....	41
5.5	Cumulative.....	42
5.6	Streamlined Resource Summary.....	43
6.0	Disposition.....	44
7.0	Comments and Coordination	46
7.1	Agency and Tribal Coordination	46
7.2	NEPA/404 Merge Coordination	48
7.3	Public Involvement	49
8.0	References.....	50

LIST OF FIGURES

Figure 1: Project Location	6
Figure 2: Alternatives Considered	13
Figure 3: Preferred Alternative	14
Figure 4: Existing Land Use	16
Figure 5: Potential Right of Way Impacts	21
Figure 6: Environmental Constraints Map.....	26
Figure 7: Physical Constraints	38

LIST OF TABLES

Table 1: Preliminary Comparison of Alternative Impacts	11
Table 2: Land Use in the Study Area.....	17
Table 3: Wetland Locations	23
Table 4: Streams Located Within Study Area	27
Table 5: Federally Listed Species Habitat	30
Table 6: State Listed Species	31
Table 7: Historic Sites Within the Study Area.....	35
Table 8: Summary of Predicted Traffic Noise Levels – Alternative 1A.....	36
Table 9: Regulated Material Sites of Concern	40
Table 10: Summary of Impacts.....	43
Table 11: Agency Coordination.....	46

APPENDICES

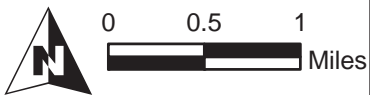
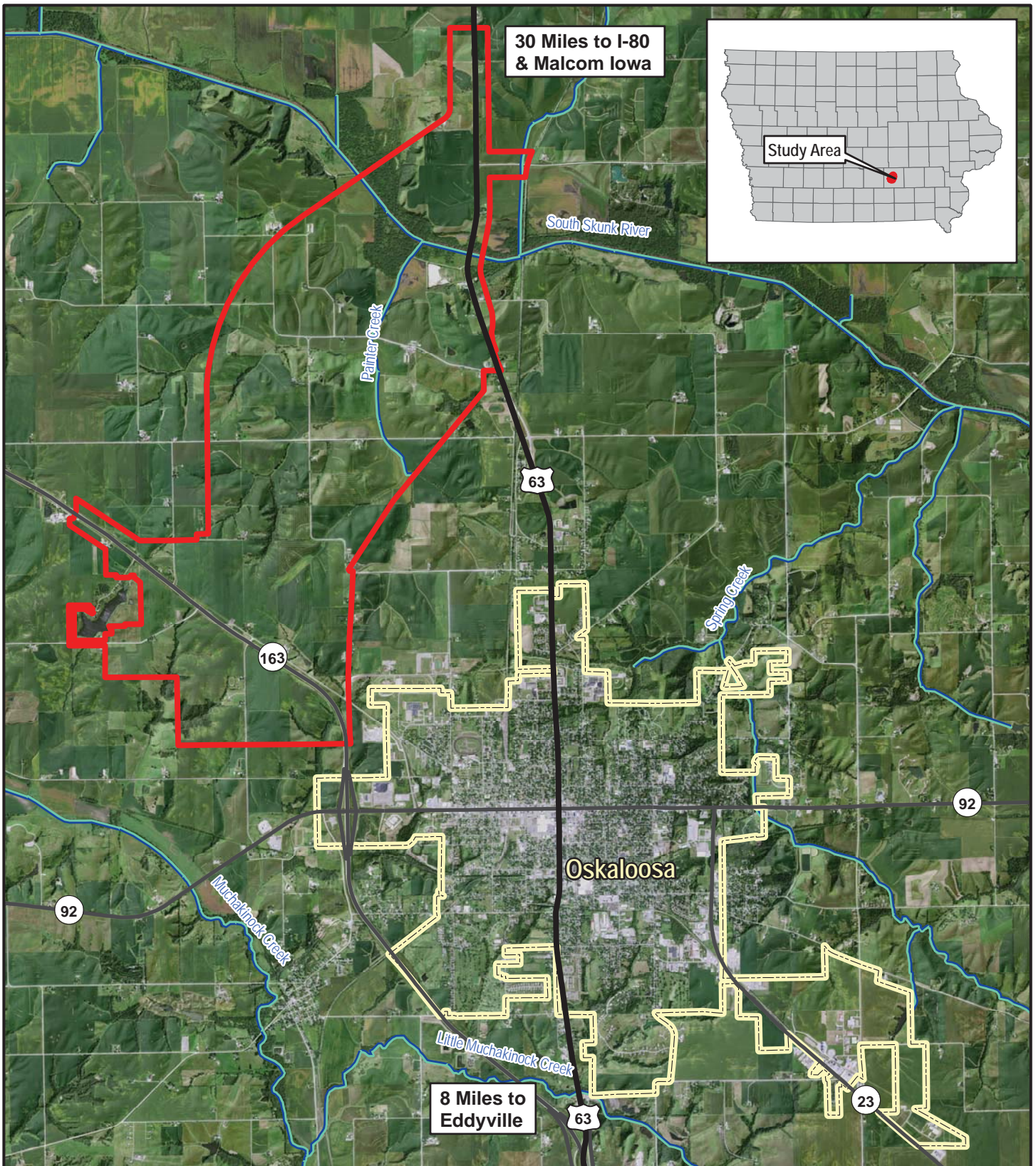
- Appendix A - Streamlined Resource Summary
- Appendix B - Agency and Tribal Coordination
- Appendix C - Farmland Protection Form

1.0 Description of the Proposed Action

This Environmental Assessment (EA) has been prepared in compliance with the requirements of the National Environmental Policy Act of 1969 (NEPA). This EA informs the public and interested agencies of the proposed action and alternatives to the proposed action in order to gather feedback on the improvements under consideration.

The Iowa Department of Transportation (Iowa DOT) and the Federal Highway Administration (FHWA) are proposing to construct a two lane bypass north and west of the City of Oskaloosa in Mahaska County, Iowa. The proposed improvements include the construction or replacement of highway travel lanes, bridges, local roadways, intersections and an interchange. The proposed action will connect to U.S. 63 north of the corporate limits of Oskaloosa and to a new interchange at IA 163 west of Oskaloosa.

Figure 1 shows the location of the proposed project and project study area in relationship to Oskaloosa. In general, the study area is approximately 1 to 1.5 miles wide connecting U.S. 63 diagonally northeast to southwest with IA 163. The northern boundary of the study area is located about 1,300 feet north of 193rd Street & U.S 63 and is approximately 1,500 feet wide. The eastern boundary of the study area follows U.S. 63 from north of 193rd Street to 210th Street. Then the eastern boundary of the study area crosses farmland diagonally to 230th Street before heading south and ending about 1,500 feet south of Old Hwy 163. From this southern boundary the study area crosses IA 163 where IA 163's alignment becomes north-south. The southern boundary follows due west about 1.25 miles to the western edge. The western boundary in general crosses farmland diagonally from about 200th Street to 210th Street and then heads south to 228th Street where it generally ties into IA 163 approximately 2.5 miles west of the Oskaloosa corporate limits.



Legend:

- ▭ Study Area
- Oskaloosa Corporate Limits
- Rivers

FIGURE 1
Project Location

US 63 NW Oskaloosa Bypass
Environmental Assessment

Mahaska County, Iowa

2.0 Project History

In 2009, the East Central Iowa Transportation Coalition (Coalition) was formed as a coordinating entity between counties, cities, private agencies, and the Iowa DOT. The Coalition's purpose was to identify and put into action transportation goals that would promote a safe and dependable transportation system that also stimulates growth. One of the Coalition's objectives is to make available a north-south corridor, which could include U.S. 63, to greatly improve regional and local travel.

The Coalition had Snyder & Associates, Inc. (Snyder) complete a Phase I Needs Assessment (2009) to assess the need for further and more detailed studies along U.S. 63 and Iowa 146 between Interstate 80 (I-80) and Oskaloosa. The following are the results of the study completed by Snyder:

- The vertical and horizontal alignment of the analyzed section of U.S. 63 does not meet current primary road design standards.
- The pavement conditions for the analyzed section U.S. 63 were poor.
- The crash rates that are above the statewide averages include multiple sections of U.S. 63 and Iowa 146, including U.S. 63 through Oskaloosa and U.S. 63 between New Sharon and Oskaloosa.
- A contributing factor to the high crash rates on U.S. 63 is the existing vertical and horizontal alignments.

The Coalition found that U.S. 63 needed to be reprogrammed for reconstruction and recommended an additional transportation study be completed to identify potential solutions to the previously identified problems.

Following the assessment study completed in 2009 the Coalition kicked off the U.S. 63 Area Transportation Study later in 2009 and was completed in 2011. The end goal of the U.S. 63 Area Transportation Study was to recommend which specific transportation improvements in their project area to further develop, identify possible environmental constraints, and to outline a path for local and state agencies to follow in order to improve the East Central Iowa transportation system, which included the U.S. 63 corridor.

Fifteen potential projects were identified with their project study area and compared against the three following identified transportation needs:

- Upgrade deficient or obsolete transportation facilities per the State Transportation Plan.
- Improve north-south regional interstate travel.
- Improve regional transportation for economic development.

Improvements of U.S. 63 from Oskaloosa to I-80 were found to most adequately address the three outlined transportation needs. It was recommended that additional studies be conducted to determine preferred U.S. 63 corridor alternatives before any improvements would be constructed.

In July of 2013 the Coalition completed a U.S. Highway 63 Corridor Location Study. This study was conducted to document an initial route alternative analysis for the U.S. 63 corridor. Various alternatives were compared and ranked based on how they met a developed purpose and need. The alternative that received the number one priority status was the U.S. Highway 63 Oskaloosa NW Bypass for which this Environmental Assessment (EA) is being written. The corridor study showed U.S. 63 crash rates within the City of Oskaloosa were 20 percent higher than the statewide average for urban areas. Additionally, the Oskaloosa to New Sharon segment of U.S. 63 had crash rates from 2007-2011 that were also higher than the statewide average for rural segments.

Three public information meetings have occurred for this project. The first public meeting was held on August 15, 2013 at the Oskaloosa Middle School to discuss the U.S. 63 bypass study area. The second public meeting was held on April 16, 2014 to describe a range of alternatives being considered for the project. The third public meeting was held on December 16, 2014; further detail to the alternatives being considered was given at that time.

3.0 Purpose and Need for Action

The purpose of the proposed action is to provide safe and efficient travel for through-truck and vehicle traffic currently passing through the Oskaloosa corporate limits on U.S. 63, which is a part of Iowa's commercial and industrial network (CIN)¹. This bypass route around Oskaloosa will improve safety and traffic operations of U.S. 63 between its existing interchange with IA 163 south of Oskaloosa and the existing alignment of U.S. 63 north of Oskaloosa.

Need for Action

- Improve Safety
- Improve Traffic Operations

3.1 Improve Safety

A crash analysis was performed for the study area along U.S. 63 using the Iowa DOT software Safety Analysis, Visualization and Exploration Resource (SAVER). Between 2010 and 2014 there were a total of 171 crashes on U.S. 63 within the Oskaloosa corporate limits. The total number of crashes reflects a crash rate of 451 crashes per 100 million vehicle miles traveled, which is approximately 1.8 times the 5 year statewide crash rates for similar roadways. The length of the route within the corporate limits is 3.1 miles.

3.2 Improve Traffic Operations

Currently, all through traffic on U.S. 63 in the study area must travel through the city of Oskaloosa, through its busiest intersection at U.S. 63 and IA 92 located along the west side of City Square Park in downtown. Travel through the city increases travel time due to stop and go conditions and speed constraints, resulting in inefficient travel for through traffic. This through traffic includes grain trucks and other freight traffic traveling to growing industrial facilities near Eddyville, Iowa and other areas south of Oskaloosa. U.S. 63 is also a regional north-south connection to I-80. IA 163 is a four-lane access restricted highway west of Oskaloosa that becomes U.S. 63 south of Oskaloosa.

2014 traffic volumes on existing U.S. 63 through Oskaloosa ranged from 5,300 to 7,600 vehicles per day (vpd) with 7 to 11 percent trucks. On existing U.S. 63 north of Oskaloosa, the volumes ranged from 3,500 to 4,500 vpd with 12 to 16 percent trucks.

By 2040, traffic volumes on these same segments are projected to reach between 5,200 and 8,800 vpd with 8 to 13 percent trucks and 4,200 to 6,700 vpd with 12 to 20 percent trucks, respectively. The 2040 projections assume that U.S. 63 will pass through Oskaloosa on its existing alignment.

¹ The Commercial and Industrial Network (CIN) is a designated road system of primary highways, not including the interstate system, which connects the state's regional growth areas and carries a significant amount of the state's commercial traffic.

4.0 Alternatives

This section will discuss the alternatives considered to address the project's purpose and need. A range of alternatives was developed that include a new two lane highway on new alignment located north and west of Oskaloosa with an interchange at IA 163 and an at grade intersection with existing U.S. 63. The alternatives are presented in Figure 2. The No Build Alternative, the Alternatives Considered but Dismissed, and the Preferred Alternative are discussed below.

4.1 No Build Alternative

The No Build Alternative takes no action to include a bypass to the northwest of Oskaloosa. U.S. 63 would remain as it currently exists where vehicles travel through Oskaloosa using the existing at grade intersections. No interchange or intersection improvements would be constructed at the U.S. 63 and IA 163 intersection. Routine maintenance would occur on both the existing alignments of U.S. 63 and IA 163 as part of the No Build Alternative.

4.2 Alternatives Considered but Dismissed

Alternative 1

Alternative 1 begins with an interchange at IA 163 at 235th Street. The interchange includes an access road for connections to Independence Avenue and Old Highway 163 on the north side of the interchange and a connection from Jewell Avenue to 235th Street on the south side of the interchange. The alignment for Alternative 1 travels in a northeasterly direction from the proposed interchange with IA 163. It crosses Kirby Avenue, 220th Street, and 210th Street before reconnecting with existing U.S. 63 south of the Oskaloosa water treatment plant and the South Skunk River.

Old Alternative 2

Old Alternative 2 is similar to Alternative 1 except it uses a portion of Kirby Avenue as its alignment and connects to existing U.S. 63 at a different location than Alternative 1. After crossing 210th Street, Old Alternative 2 begins to curve northeast to cross the South Skunk River west of the existing U.S. 63 river crossing. After crossing the river, Old Alternative 2 curves to the north and reconnects with existing U.S. 63 north of the South Skunk River.

Alternative 2

Alternative 2 is similar to Old Alternative 2 except it uses north/south property lines located approximately 0.5 miles east of Kirby Avenue as its alignment and has a different connection point to existing U.S. 63 than Old Alternative 2. After crossing 210th Street the alignment curves to the northeast crossing the South Skunk River west of the existing U.S. 63 river crossing. Alternative 2 continues northeast to connect with existing U.S. 63 near the intersection of 200th Street.

Alternative 3

Alternative 3 is similar to Alternatives 1 and 2 and has the same interchange location with IA 163 on the south and the same connection point with existing U.S. 63 on the north. Alternative 3 is different from Alternatives 1 and 2 because it uses north/south property lines located approximately 0.25 miles west of Kirby Avenue for its alignment.

Alternative 4

Alternative 4 is similar to Alternative 1 but the interchange location with IA 163 is shifted to the east to connect with Jewell Avenue which shifts the crossing of Kirby Avenue slightly to the east as compared with Alternative 1. The location of this interchange and the crossing of Kirby Avenue are the only differences between Alternatives 1 and 4.

Alternative 5

Alternative 5 is similar to Alternative 2 but the interchange location with IA 163 is at Jewell Avenue instead of 235th Street which shifts the crossing of Kirby Avenue slightly as compared to Alternative 2. The location of the interchange and the crossing of Kirby Avenue are the only differences between Alternatives 2 and 5.

4.3 Proposed Alternatives

A comparison of the preliminary impacts that the No Build Alternative and the seven different build alternatives would have on resources in the study area are included in Table 1. These impacts are based on a review of available desktop level data and preliminary NEPA impact areas at the time the alternatives were developed.

Table 1: Preliminary Comparison of Alternative Impacts

Resource	No Build	Build Alternatives						
		1	1A	2	Old 2	3	4	5
Total Acres (acres)	0	392	391	494	444	498	377	427
Historic Properties	0	0	1	0	0	0	0	0
Floodplains (acres)	0	13	12	32	66	21	14	69
Prairies (acres)	0	0	0	0	0	0	0	0
Recreational / Wildlife Areas (acres)	0	0	0	0	0	0	0	0
Regulated Materials (parcels, acres)	0	2, 5	2, 2	0	2, 18	0	2, 5	2, 5
Sovereign Lands (acres)	0	0	0	0	0	0	0	0
Special Rivers (linear feet)	0	0	0	0	0	0	0	0
Waters of the U.S. (linear feet)	0	3,214	3,690	3,165	2,849	7,040	2,849	7,469
Indiana Bat Habitat (acres)	0	1	0	7	15	10	1	15
Unique Land Forms	0	0	0	0	0	0	0	0
Wetlands (acres)	0	0.5	5.86	10	17	6.3	0.4	17.8
Woodlands (acres)	0	6	6	11	18	24	5	17
Businesses	0	0	0	0	0	0	0	0
Churches/ Cemetery	0	0	0	0	0	0	0	0
Farmland (acres)	0	206	252	322	275	319	161	230
Homes	0	0	5	4	5	7	6	5
Utilities	0	2	2	2	2	2	2	2

The Iowa DOT's Project Management Team (PMT) reviewed the build alternatives and decided to dismiss the following alternatives in this order:

- Alternative 3 was dismissed due to its alignment location being closer to the proposed airport located just west of Independence Avenue and the exiting terrain which would require more grading and earthwork than the other alternatives. Therefore Alternative 3 was dismissed.
- Alternative 2 was dismissed due to its use of Kirby Avenue alignment which would allow too many access points or driveways for the proposed bypass roadway to function as intended. Access points off of Kirby Avenue would need to be limited or the classification of Kirby Avenue changed in order for the bypass to successfully use this alignment. This was not an issue with the other alternatives and therefore Alternative 2 was dismissed.
- Alternatives 2A and 5 were dismissed due to their impacts on Waters of the U.S./Streams, environmental impacts, and the additional added miles and bridges that would require additional maintenance to the roadway system as compared with the other alternatives. Additional river crossings would be needed under these two alternatives that could impact potential sites of cultural significances near the river bank. Therefore, Alternatives 2A and 4 were dismissed.
- Alternative 1 was dismissed because it impacts a pipeline valve field, resulting in the development of Alternative 1A.
- Alternative 4 was dismissed because it impacts the pipeline valve field and impacts 6 homes compared to Alternative 1A.

4.4 Preferred Alternative

Alternative 1A

Alternative 1A is similar to Alternative 1 but the shape and location of the interchange with IA 163 at 235th Street was modified to avoid impacting a pipeline valve field located just north of IA 163. Alternative 1A connects to existing U.S. 63 in the same location as Alternative 1 as shown in Figure 3.

Compared to the other build alternatives (2 through 5), with the exception of Alternative 1, Alternative 1A has the lowest impact on floodplains, regulated materials acres, Indiana bat habitat, and the impacts the least number of homes.

The Iowa DOT has identified Alternative 1A as the Preferred Alternative and it is referred to as the Preferred Alternative throughout the remainder of this document. This alternative is the preferred because it meets the purpose and need offering fewer impacts to homes, utilities, and environmental resources such as floodplains and Indiana bat habitat. The Preferred Alternative is carried forward and refined as further detailed evaluation of the environmental impacts occurs.

Final selection of the Preferred Alternative will not occur until FHWA and Iowa DOT evaluate comments received as a result of their review of this document and the public hearing. Following the public and agency review of this EA, FHWA and Iowa DOT will determine if an EIS is required. If one is not required, the selected alternative will be identified in the Finding of No Significant Impact (FONSI) document. If an EIS is required, then a preferred alternative would be selected through that process.

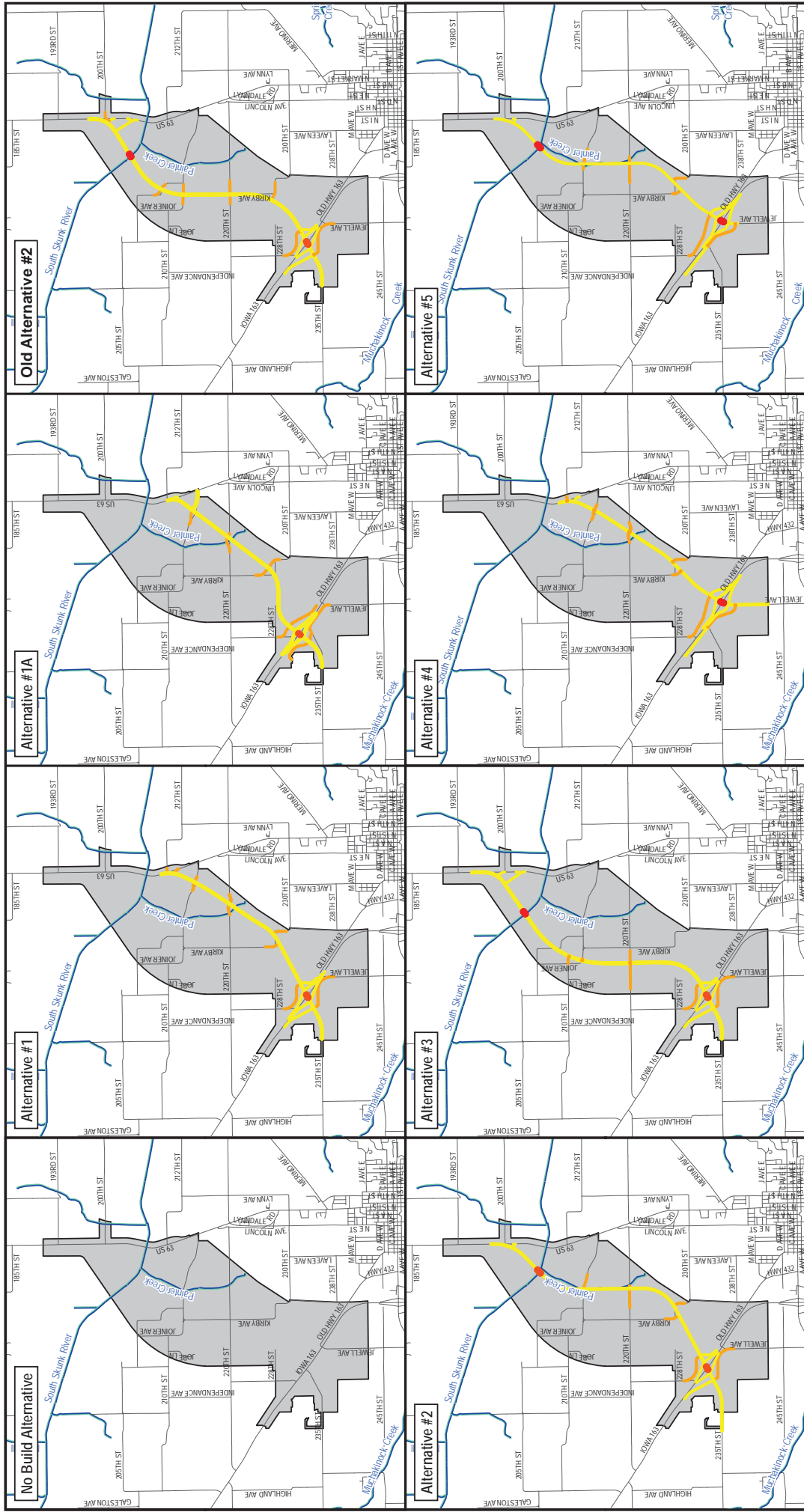


FIGURE 2
 Alternatives Considered
 US 63 NW Oskaloosa Bypass
 Environmental Assessment
 Mahaska County, Iowa

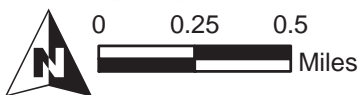
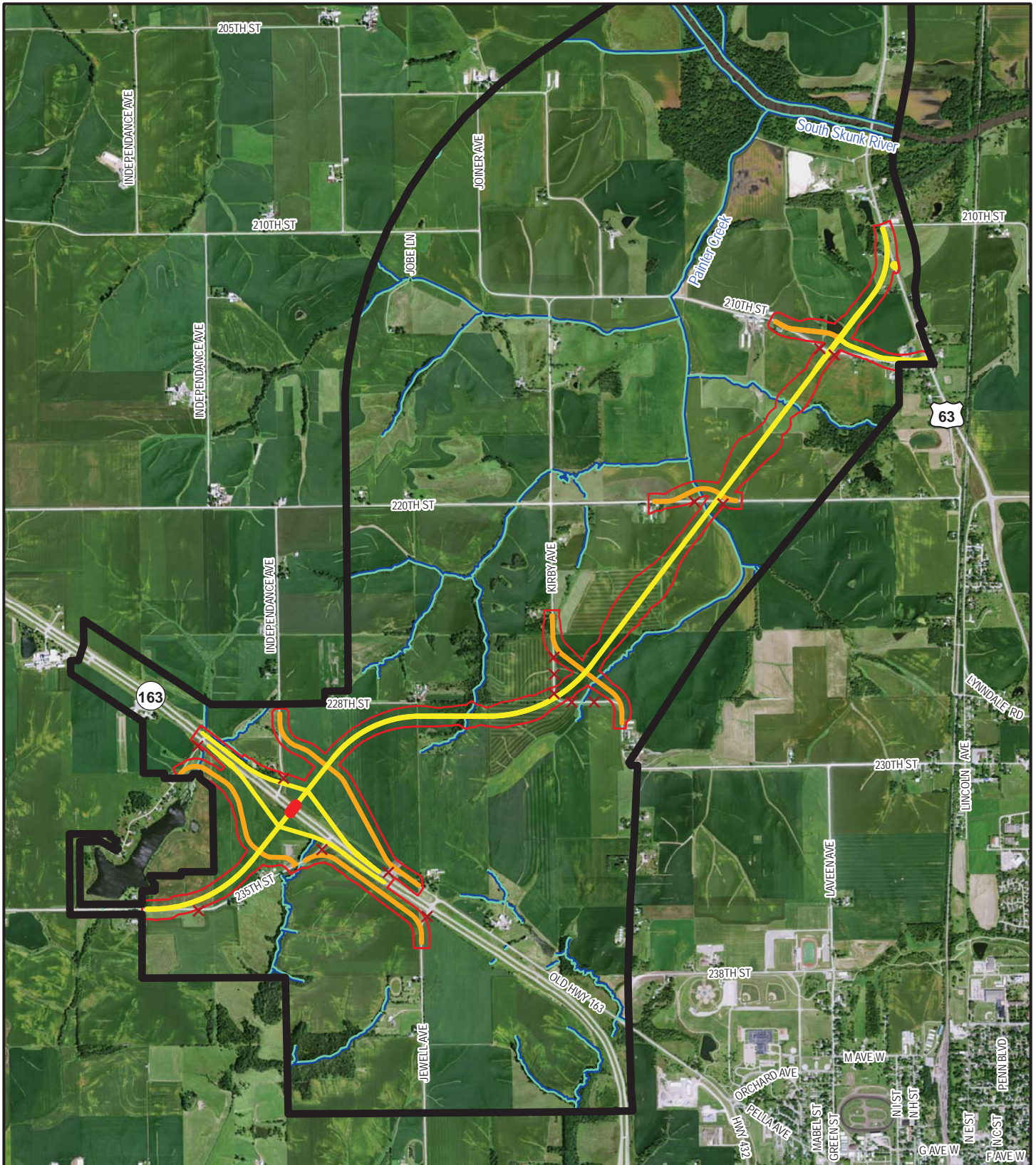
Legend:

- █ Proposed Structure
- █ Proposed Pavement
- █ Proposed Gravel
- Roads
- Rivers
- Project Study Area

IOWA DOT
 SMARTER | SIMPLER | CUSTOMER DRIVEN

0 1.5 3 Miles

\\PDCORAS02\Draw\107207187\GIS\WORK\ENR\Fig_02_X\AlternativesAnalysis2.mxd



Legend:

- Study
- Proposed Structure
- Proposed Gravel
- Proposed Pavement
- Potential Impact
- Rivers/Streams
- Potential Road Closure

FIGURE 3
Preferred Alternative
US 63 NW Oskaloosa Bypass
Environmental Assessment
 Mahaska County, Iowa

5.0 Environmental Analysis

This section describes the existing socioeconomic, cultural, natural, and physical environments in the project corridor that would be impacted by the Preferred Alternative. The resources with a check in the second column of the Resources Considered table located in the Preface to this document warrant further discussion and are discussed below.

Each resource section includes an analysis of the impacts of the No Build Alternative and the Preferred Alternative. Because it is early in the design process, a preliminary NEPA impact area was used for estimating direct and indirect impacts on the evaluated environmental resources. The preliminary NEPA impact area includes roadway right-of-way needs and the area where construction could occur. The area actually impacted by the Project will likely be less than what is portrayed within the preliminary NEPA impact area, and some impacts to resources are expected to be minimized or avoided as the Project design is refined. Consequently, the potential impacts discussed in this section of the EA are conservative, as efforts to minimize direct and indirect impacts will be made during final design.

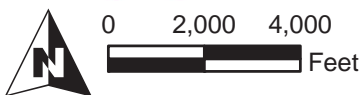
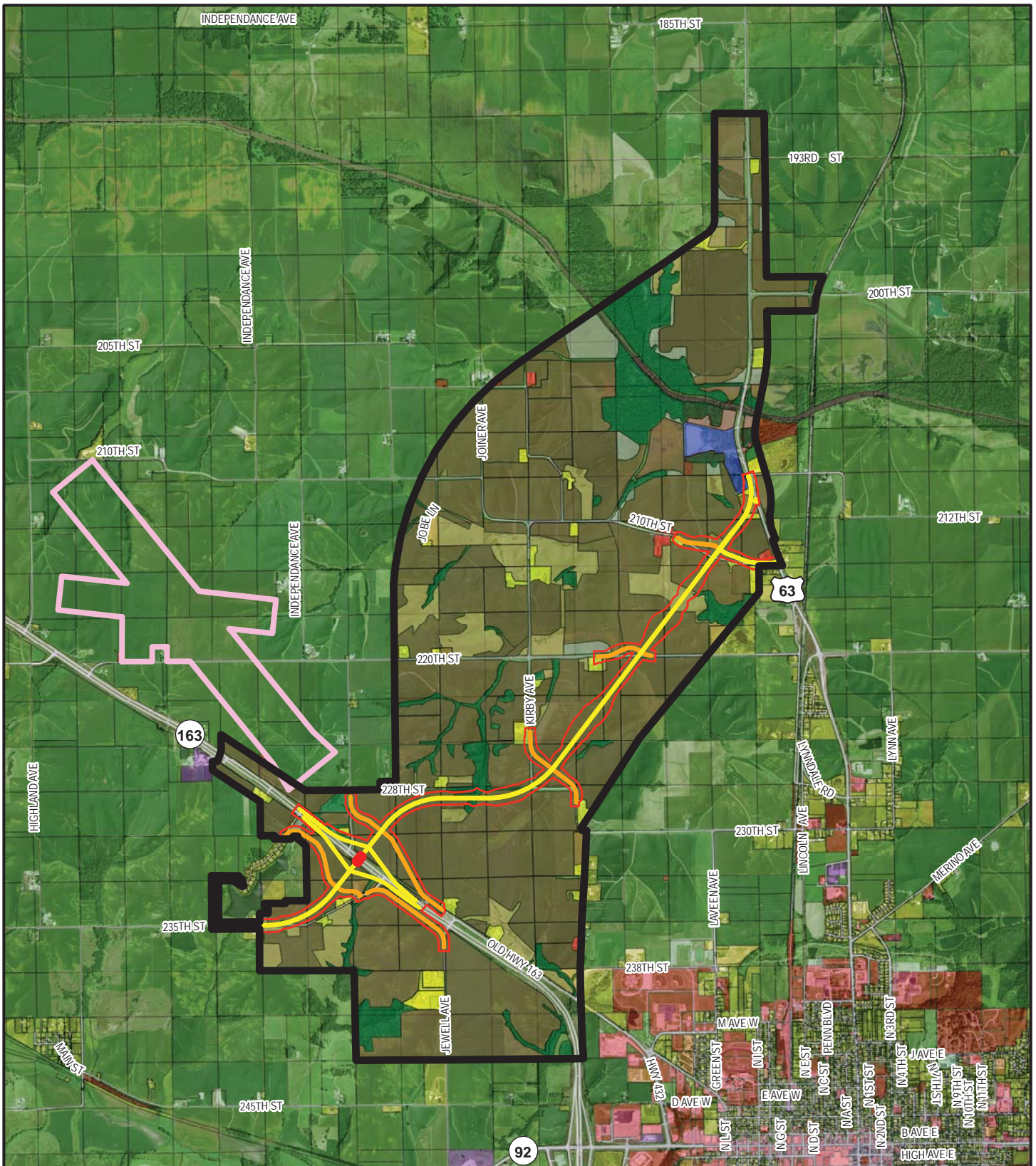
5.1 Socioeconomic Impacts

Evaluating the direct and indirect impacts that a transportation project has on socioeconomic resources requires consideration of impacts on land use as well as the project's consistency with development and planning by a city or other public entity.

5.1.1 Land Use

The project study area is approximately 4,702 acres and located to the north-west of the City of Oskaloosa in Mahaska County. The City currently has a small portion of the study area designated as an Urban Development Zone in its Comprehensive plan. The zone extends along existing Kirby Avenue north of the southwest bypass interchange and curves towards where 220th Street crosses existing U.S. 63. The affected parts of the study area are likely to become high-density residential or single family housing. Mahaska County does not have a published plan with any restrictions to land use or development within the study area. The western end of the study area neighbors a proposed regional airport location. The proposed airport's primary runway is located near IA 163 and a small portion lies within the study area. The existing land use and proposed airport location is shown in Figure 4.

The study area consists primarily of agricultural uses (77.6 percent) and also contains a substantial proportion of undeveloped land (12.4 percent). Roughly 2.7 percent of the study area belongs to single-family residential uses; clustered primarily towards U.S. 63, Kirby Avenue, and IA 163. The few isolated commercial properties amount to less than 0.4 percent of the study area. The remaining land is publically owned which includes a water-treatment-plant, located off of U.S. 63, and 290 acres dedicated for public roadway right-of-way. Table 2 includes more detailed description of land uses and their contributing proportions to the study area.



Legend:

- Study Area
- Proposed Structure
- Proposed Gravel
- Proposed Pavement
- Potential Impact Area
- Proposed Airport Location
- Agriculture - Pasture
- Agriculture - Crop
- Residential
- Residential - Multi-Family
- Industrial
- Commercial
- Municipal
- Woodland
- Undeveloped

FIGURE 4
Existing Land-Use
US 63 NW Oskaloosa Bypass
Environmental Assessment
Mahaska County, Iowa

Table 2: Land Use in the Study Area

Land Use	Acres	Percent
Agricultural - Pasture	370.2	7.9
Agricultural - Cropland	3,278.8	69.7
Undeveloped	139.5	3.0
Undeveloped - Woodland	414.1	8.8
Undeveloped - Open Water	26.9	0.6
Residential	126.9	2.7
Commercial	16.6	0.4
Municipal	38.8	0.8
Right-of-Way	290.1	6.2
Total	4,701.9	100.0
Source: Review of naip-ortho aerial imagery and field visit on 12/22/15		

Preferred Alternative

The Preferred Alternative would require the acquisition of lands consisting primarily of agricultural uses and undeveloped land, some of which are woodlands. The existing and proposed residential uses would be unaffected. Otherwise, existing land use within the area is not likely to be significantly impacted.

No Build Alternative

The No Build Alternative would not construct the bypass project, and the area would remain primarily as agricultural and undeveloped land only until imminent development converts it to other land use types. Developmental momentum within the city will likely still exist, and development may proceed in a less coordinated manner than what is planned in the City’s Comprehensive Plan.

5.1.2 Community Cohesion

The study area is primarily rural agricultural land and as such has few community characteristics of its own. There are residential developments near the southern termini of the study area as well as around the intersection of U.S. 63 and 210th Street. The largest and most meaningful community in relation to this project is the City of Oskaloosa immediately to the southeast of the study area. Oskaloosa is home to approximately 11,600 people.

Oskaloosa has a mixture of residential, commercial, and industrial land uses. It is a strong employment center in the area as well as a focus of historical conservation. The area along existing U.S. 63 through town has been dedicated as an “Urban Corridor” to achieve a mixture of land uses and concentrate activity on the downtown area. Notable features within or near the corridor are the Oskaloosa High School, William Penn University, the Penn Central Mall, City Hall, the City Library, City Square Park, the Historical District, and a number of businesses and religious institutions. U.S. 63 through Oskaloosa comprises the community’s backbone, so to speak, and the community is actively reinvesting in the corridor to preserve/increase its positive impacts.

U.S. 63 through town, however, is a major thoroughfare for large trucks and inter-regional traffic. The intersection of IA 92 with U.S. 63 is heavily traveled with approximately 21,000² vehicles per day using the intersection. This area of U.S. 63 is also the center of downtown and located in a historical district. The reduced traffic safety and inefficient operations along the U.S. 63 corridor within Oskaloosa are not conducive for the kind of community that the City is trying to build around the Urban Corridor concept.

Preferred Alternative

The preferred alternative would divert traffic, including trucks, around the City of Oskaloosa, rather than through it. The increased safety and efficiency of the existing U.S. 63 corridor would benefit residents, businesses, and institutions reliant on the community. Access to the schools, city facilities, and parks would be both easier and safer within Oskaloosa. Continued focus on the Urban Corridor along existing U.S. 63 would be more viable as additional capacity and accessibility would be freed up from no longer needing to serve the large amounts of through traffic as well as local needs.

No Build Alternative

Under the no build alternative, no immediate changes to the community within or around Oskaloosa would occur. The U.S. 63 corridor's traffic volumes would continue to appreciate and it would further reduce the safety and operational efficiency of the corridor. The additional traffic loading could negatively impact the community development being done in Oskaloosa and substantially affect the community's ease of access to the amenities already along the corridor.

5.1.3 Economic

The study area consists primarily of agricultural and undeveloped lands. There are three animal feed operations (>1,500 pigs each) and a privately owned stable within the study area, as well.

The average land value in Mahaska County for farmland is \$6,912 per acre and is declining. The average acre of farmland in Mahaska County produced 190.3 bushels of corn during 2015, and was sold at a price of \$3.50 per bushel. The study area contains approximately 4,702 acres of land of which approximately 3,279 acres are currently used for crop production purposes as shown in Figure 4.

Existing U.S. 63 cuts right through downtown Oskaloosa, located southeast of the study area. The majority of its commercial development is centered along U.S. 63 and IA 92 through town. Excessive amounts of through trips, particularly trucks, reduces safety, operational efficiency and accessibility of local businesses along the urbanized corridors of Oskaloosa.

Preferred Alternative

The preferred alternative will not displace or impact any existing businesses, including the feed lots and stable. It will, however, take approximately 252 acres of farmland out of production. The gross revenue from this farmland would average \$157,000 per year based on United State Department of Agriculture (USDA) estimating procedures.

Businesses within Oskaloosa are likely to see some effect from the diversion of traffic to a new bypass. Local traffic as well as bicyclists and pedestrians will have an easier time accessing business located on or along the highway corridors within Oskaloosa. As such, businesses relying on local traffic may

² Source: http://www.iowadot.gov/gis/downloads/zipped_files/GIMS_History/2015/MAHASKA_2015.zip

experience increased viability. On the other hand, businesses reliant on “drive-by sales” may experience substantial decreases in sales as the majority of throughput trips are diverted around the city. Highway-oriented businesses near the southern termini of the preferred alternative may see an increase in sales, though.

No Build Alternative

The No Build Alternative would not construct the bypass project and the area would remain as agricultural land until development would convert it to another land use type. No change would occur to existing traffic flows in or around Oskaloosa, but the continued increase of traffic volumes and higher proportion of truck traffic along existing U.S. 63 may hurt existing businesses due to congestion, reduced safety, and related challenges around ease of access to businesses.

5.1.4 Right-of-Way and Relocation Potential

To assess the potential impacts associated with the alternatives, right of way acquisition and property relocations were evaluated based on existing right of way, private and public property boundaries, and future right of way needs.

The project study area includes 4,702 acres containing 302 parcels. Of the 302 parcels, 292 are privately owned and 10 are publicly owned.

Preferred Alternative

The Preferred Alternative would require the acquisition of 391 acres of land to be converted to roadway right-of-way. The majority of this land is actively used as farmland which is discussed in Section 5.2.7 Farmland. There is the potential for up to five homes to be displaced if the Preferred Alternative is constructed. No businesses would be displaced if the Preferred Alternative is constructed.

Of the 302 parcels located within the study area, 78 parcels are impacted by the Preferred Alternative as shown on Figure 5. Of the 78 impacted parcels, 75 are private and 3 are public. Farmland severances and access to parcels are discussed in Section 5.2.7 Farmland.

No Build Alternative

The No Build Alternative would not require the acquisition of land for roadway right-of-way or require any relocation of homes or businesses.

5.1.5 Construction and Emergency Routes

Emergency services including fire, ambulance, and police are provided by the City of Oskaloosa and are stationed within the city limits. Primary emergency routes would likely include U.S. 63 and IA 163 should emergency response be needed outside the city limits.

Preferred Alternative

Much of the construction activities should have a minimal impact to traffic as the proposed roadway is off-alignment from any paved roads. Both U.S. 63 and IA 163 would remain open for the majority of the construction period, though temporary lane closures would likely be needed on both these routes for connecting the new bypass to the existing routes.

Additionally, when overhead work is needed for various bridge construction activities, there may be a need to implement a detour or the need to stop traffic for short periods of time on IA 163 at the location of the new interchange. Traffic would likely encounter minor traffic delays at times where these closures are in place and could result in delays for emergency services. If detour routes are needed, they will be coordinated with the necessary local entities and notification of these temporary closures to emergency services should be done. The impacts to traffic of these closures will be minimized where feasible by construction staging and by scheduling construction activities during times where traffic volumes are lower.

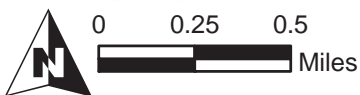
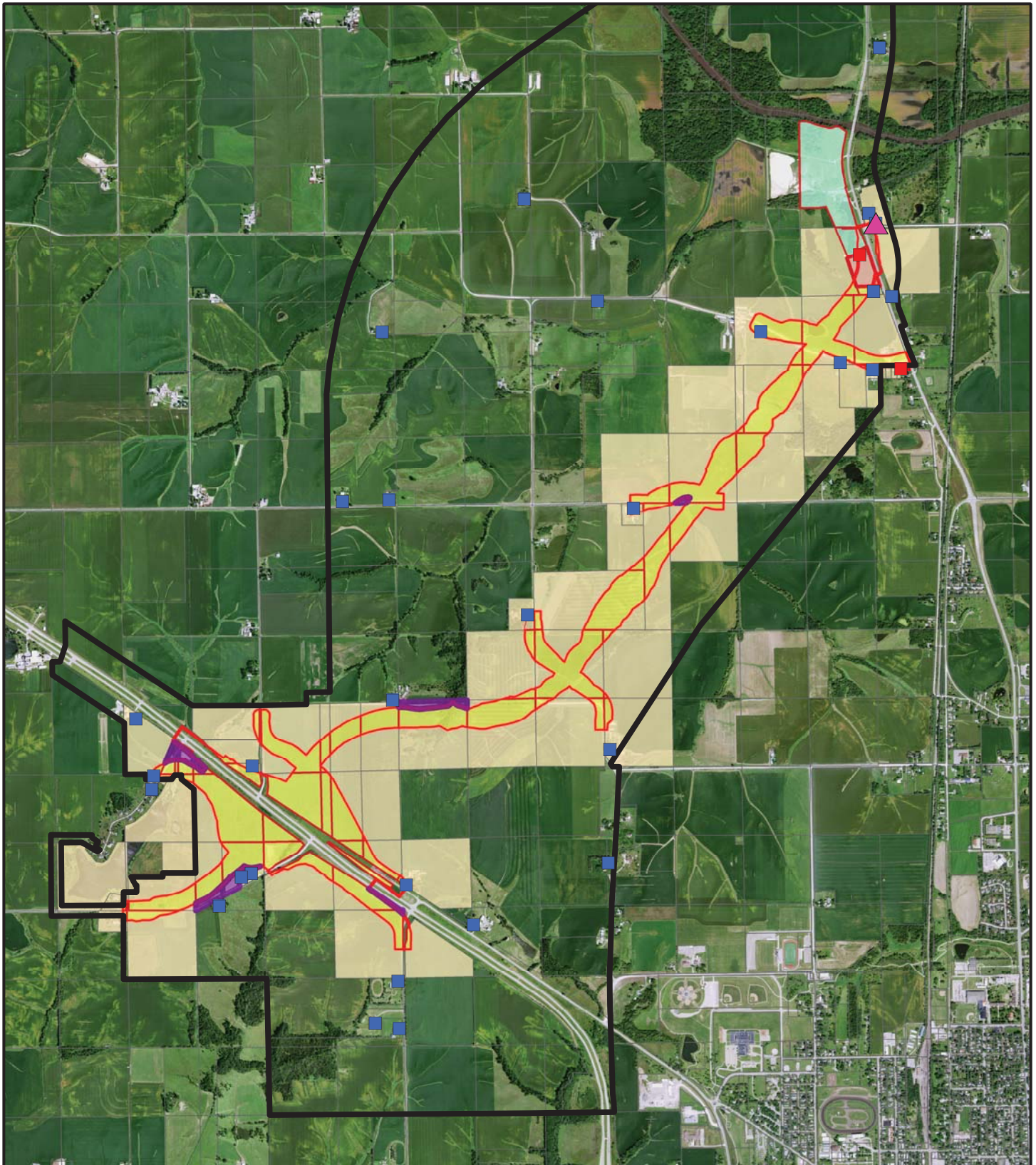
Access to local roads along where the new bypass would intersect them would either need to be closed and detoured, or provided temporary access during the construction to allow for emergency vehicle access. These local routes would entail, but may not be limited to, Independence Avenue, Kirby Avenue, 235th Street, 220th Street, 210th Street and Jewell Avenue. Access to property owners and businesses will need to be provided at all times during the construction period. Property owners within the study area may experience out of distance travel during the construction of this bypass and it is expected that emergency response times will be negatively affected with the construction of the road.

Notification of impacts to traffic to emergency responders, local residents, local agencies, businesses, along with the traveling public would be done periodically so changes to local access and traffic control can be communicated with impacted patrons throughout construction. Communication will be done with property owners when it relates to how they access their property, homes, or businesses. Coordination with emergency services should be done as often as necessary to maintain these services to property owners during the construction process.

As access to residents, businesses and properties is going to be permanently modified, emergency services should be notified of the final configuration of the system prior to the completion of construction.

No Build Alternative

No changes in existing emergency routes would be made with the No Build Alternative and construction routes would not be required. Emergency services may experience an increase in response time as traffic volumes increase and traffic operations deteriorate if the bypass is not available as an alternative route for vehicles or emergency services.



Legend:

- Impact Area
- Parcel
- Full Acquisition
- Partially Impacted - City Owned
- Partially Impacted Parcel
- New ROW
- Potential Severance
- Study Area
- House
- Potentially Impacted House
- Business

FIGURE 5

Potential ROW Impacts

**US 63 NW Oskaloosa Bypass
Environmental Assessment**

Mahaska County, Iowa

5.1.6 Transportation

The City of Oskaloosa operates a bus service (Oskaloosa Rides) on Monday, Wednesday and Friday from 9:00 am to 5:30 pm. There is an established route within the city limits that uses many city streets and portions of U.S. 63 and avoids the main intersection of U.S. 63 and IA 92 in downtown Oskaloosa.

U.S. 63 provides the main north-south route to and from the City of Oskaloosa. IA 92 is an east-west route intersecting U.S. 63 in downtown Oskaloosa. IA 163 is a diagonal route connecting the City of Oskaloosa to Des Moines, Iowa. Both U.S. 63 and IA 163 are designated CIN routes while IA 92 does not have this designation. Truck freight transportation would likely use these three major routes through the study area.

The nearest existing airport is the Oskaloosa Municipal Airport located approximately eight miles southeast of the City of Oskaloosa. The airport is publically owned and operates two runways. The South Central Regional Airport Agency (SCRAA) is proposing a new airport identified as the South Central Regional Airport. This proposed airport is in the planning phases and was presented to the public at a public hearing on November 22, 2016. The airport will be approximately 580 acres with a terminal that will accommodate 18 airplanes. The proposed location of the airport is north of IA 163 and west of Independence Avenue as shown in Figures 4 and 7. Access to the airport will be provided off of IA 163 via 220th Street. However, 220th Street will be disconnected west of Independence Avenue.

Preferred Alternative

The Oskaloosa Rides bus route is generally within the city limits and is not crossed by the Preferred Alternative. The closest point of the bus route to the Preferred Alternative is at Old Highway 63 and Orchard Avenue.

The Preferred Alternative will however, provide an alternative route between U.S. 63 and IA 163, providing an alternative to the through-town route connecting the two CIN routes. Vehicles using the Preferred Alternative that want to go westbound on IA 92 would no longer need to go through Downtown Oskaloosa. Drivers would instead head south on IA 163 to the IA 92/IA 163 Interchange. However, vehicles using the Preferred Alternative that want to go eastbound on IA 92 would end up driving through Downtown after driving south on IA 163 and using the IA 92/IA 163 Interchange.

The Preferred Alternative will connect to IA 163 at Independence Avenue, which is approximately the eastern limit of the proposed airport. The Preferred Alternative will not directly impact the proposed airport plan.

No Build Alternative

The No Build Alternative would not improve traffic operations or safety within the study area. As traffic volumes increase over time, this may cause delays to truck freight transportation moving through the area.

5.2 Natural Environment Impacts

This section characterizes the natural resources in the study area and addresses potential impacts of the No Build Alternative and the Preferred Alternative. The resources discussed are wetlands, surface waters and water quality, floodplains, wildlife and habitat, threatened and endangered species, woodlands, and farmlands.

5.2.1 Wetlands

Waters of the U.S., including wetlands, waterways, lakes, natural ponds, and impoundments, are regulated by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act, which requires a permit to authorize the discharge of dredged or fill materials into waters of the U.S. (33 USC 121 et seq.). Executive Order 11990, Protection of Wetlands, requires Federal agencies, including FHWA, to implement “no net loss” measures for wetlands (42 Federal Register (FR) 26951). These no net loss measures include a phased approach to wetland impact avoidance, then minimization of impacts if wetlands cannot be avoided, and finally mitigation to compensate for impacts.

A wetland delineation was completed in July 2015 to identify and map wetlands located within the project study area. According to the *Wetland Delineation Report*, 48 wetlands, 8 farmed wetlands, and 33 streams were identified within the study area. Most wetland features are associated with the South Skunk River or adjacent to creeks in the rolling terrain of much of the project area. Table 3 describes the wetlands and Figure 6 shows the locations of wetlands within the study area. The 33 streams are described in more detail in Section 5.2.2 Surface Water and Water Quality.

The eight farmed wetlands range in size from 0.3 to 23.6 acres and were identified through a review of aerial photography for indicators of prolonged saturation or inundation including: crop stress, drown out, areas not cropped, standing water, and altered crop pattern. Farm wetlands in the project study area are located in the floodplain of the South Skunk River or are immediately adjacent to Painter Creek. Figure 6 shows the location of farmed wetlands.

Table 3: Wetland Locations

Wetland ID	Description	Acres	Impacted by Preferred Alternative
A2-Forested	Forested draw with saturated sandy soils. Drains to stream outside of project area.	0.241	No
B1-East Forest	Forested floodplain of South Skunk River in northeast quadrant of bridge/U.S. 63.	3.690	No
B1-West Forest	Forested floodplain in northwest quadrant of bridge/U.S. 63.	66.971	No
B3	Saturated floodplain with reed canary grass (RCG), occasionally flooded.	1.570	No
B4-Field	Seasonally flooded agricultural field in floodplain.	7.384	No
C1-Wet Meadow	Constructed basin with levees on two sides near the South Skunk River.	30.758	No
C2-Forested	Forested floodplain wetland inside of levee near Wetland C1.	4.846	No
C3-Field	Farmed saturated field edge, occasionally flooded. Abuts Painter Creek.	0.135	No
C3-Forested	Large floodplain forest on south side of South Skunk River.	78.161	No
C3-Pond	Small pond within forested wetland.	0.073	No
C4-Wet Meadow	Wet meadow in floodplain, occasionally flooded.	13.065	No
C5-Basin	Settling basin for Oskaloosa water plant.	19.160	No
C5-Wet Fringe	Forested fringe of settling basin.	0.200	No

Wetland ID	Description	Acres	Impacted by Preferred Alternative
C6-Forested	Forested floodplain in southeast quadrant of bridge. Wetland changes abruptly to upland.	4.523	No
C7-Perched	Saturated perched hillslope wetland. Diverse native hydrophytic vegetation observed.	0.125	No
C9-Pond	Impoundment at water plant.	1.915	No
D1-Forested	Saturated creek bench along stream.	0.302	No
D2-Pond	Small farm pond in agricultural field, isolated.	0.946	No
D5-Pond	Small farm pond in agricultural field, isolated.	2.149	Yes
D6-Pond	Small farm pond in agricultural field, isolated.	1.725	No
E1-Forested	Forested creek bench along stream.	2.068	No
E4-Pond	Small cattle pond.	0.370	No
E6-Forested	Saturated creek bench along stream. Influence from grazing, but diverse native community observed.	0.934	No
G3-Wet Meadow	Saturated meadow at headwaters of stream.	1.144	No
G6-Wet Meadow	Saturated meadow at base of long watershed.	0.817	No
H1-Wet Meadow	Patch of RCG near culvert on IA 163.	0.031	Yes
H2-Forested	Narrow saturated bench near stream.	0.065	Yes
H2-Pond	Small pond in pasture/forest area.	0.490	Yes
H2-Scrub	Saturated scrub-shrub willow along streams.	1.939	Yes
H3-Ditch	Saturated wetland in ditch between 163/Old163.	0.281	No
H3-Draw	Wet drainageway with cattails/RCG.	0.436	No
H3-Impoundment	Larger farm pond in agricultural field, recently constructed.	2.006	No
H3-Pond	Small farm pond.	0.449	No
H6-Bench	Wet creek bench adjacent to stream.	0.490	No
H6-Forested	Saturated creek bench in forested area.	0.130	No
H6-Pond	Vegetated bottom of old farm pond.	0.262	No
H6-Pool	Open water pool along stream in forest area.	0.040	No
H7-Wet Meadow	Saturated Meadow between IA 163/Old 163.	0.543	No
I-6 Forested	Wet forest south of 235th near spillway.	0.098	No
I-8 Pond	Impoundment in forested area.	0.713	No
I-9 Bench	Forested creek bench area. Temporarily flooded.	0.116	No
I1-Bench	Wet creek bench above lake.	0.925	No
I1-Scrub	Saturated area with willows along creek.	0.262	Yes
I3-Wet Draw	Saturated wet field draw. Recent excavation apparent.	0.029	Yes
I6-Wet Meadow	Saturated RCG meadow on slope behind dam.	0.298	No
I8-Emergent	Saturated wet meadow/RCG. Vegetated bottom of old farm pond.	0.359	No

Wetland ID	Description	Acres	Impacted by Preferred Alternative
I8-Forested	Forested wet creek bench, saturated.	0.440	No
I8-Perched	Scrub-shrub along wet field edge.	0.023	No
Total		253.697	No
Source: HR Green, Inc., <i>Wetland Delineation Report U.S. 63 Bypass Oskaloosa, Iowa</i> , July 2105			

Preferred Alternative

The Preferred Alternative would impact 5.86 acres of the 254 acres of wetlands located within the study area. Impacts are concentrated near the proposed interchanged with IA 163. The actual wetland impact acreage could change as a result of the final design process.

No Build Alternative

The No Build Alternative would not impact wetland resources found within the project study area.

5.2.2 Surface Waters and Water Quality

A total of 33 streams, totaling 82,688 linear feet, were observed within the study area. The study area includes two named streams – the South Skunk River and Painter Creek. Ground water is likely an influence on most of these streams due the loamy, rolling terrain over much of the project area. The 33 streams are listed and described by type in Table 4 and shown in Figure 6. Stream types are classified as ephemeral, intermittent, or intermittent/perennial, or perennial. Ephemeral streams are narrow, shallow streams likely fed only by overland flow. Intermittent streams are larger and likely receive groundwater and/or drain tile flow. Intermittent/perennial streams are likely intermittent higher up in a watershed and likely perennial lower downstream. Perennial streams normally have flow year round. All streams show at least one of the following indicators: ordinary high water marks, running water, absence of vegetation along linear wetlands, active sediment sorting, bank erosion, or bank filling.

For unavoidable stream impacts, a State 401 Water Quality Certification issued by the Iowa Department of Natural Resources (DNR) pursuant to Section 401 of the Clean Water Act would be required. This state certification is required by the USACE before a Section 404 permit can be issued for impacts to waters of the United States, including wetlands. Section 401 Certification represents the Iowa DNR’s concurrence that the project certified is consistent with Iowa’s water quality standards as set forth in Chapter 61, Iowa Administrative Code 567. In addition, unavoidable stream impacts as a result of this project would need to be authorized by the USACE Section 404 permit.

Construction would require minimization of temporary impacts to water quality during construction. Iowa DNR administers the Federal National Pollutant Discharge Elimination System (NPDES) program and issues general permits for construction stormwater discharge. The NPDES construction stormwater permit requires preparation of a Stormwater Pollution Prevention Plan (SWPPP) for construction sites of more than 1 acre. Specific sediment, erosion control, and spill prevention measures would be developed during the detailed design phase and would be included in the plans and specifications. The SWPPP is likely to include installation of silt fences, buffer strips, or other erosion control measures to be used in various combinations.

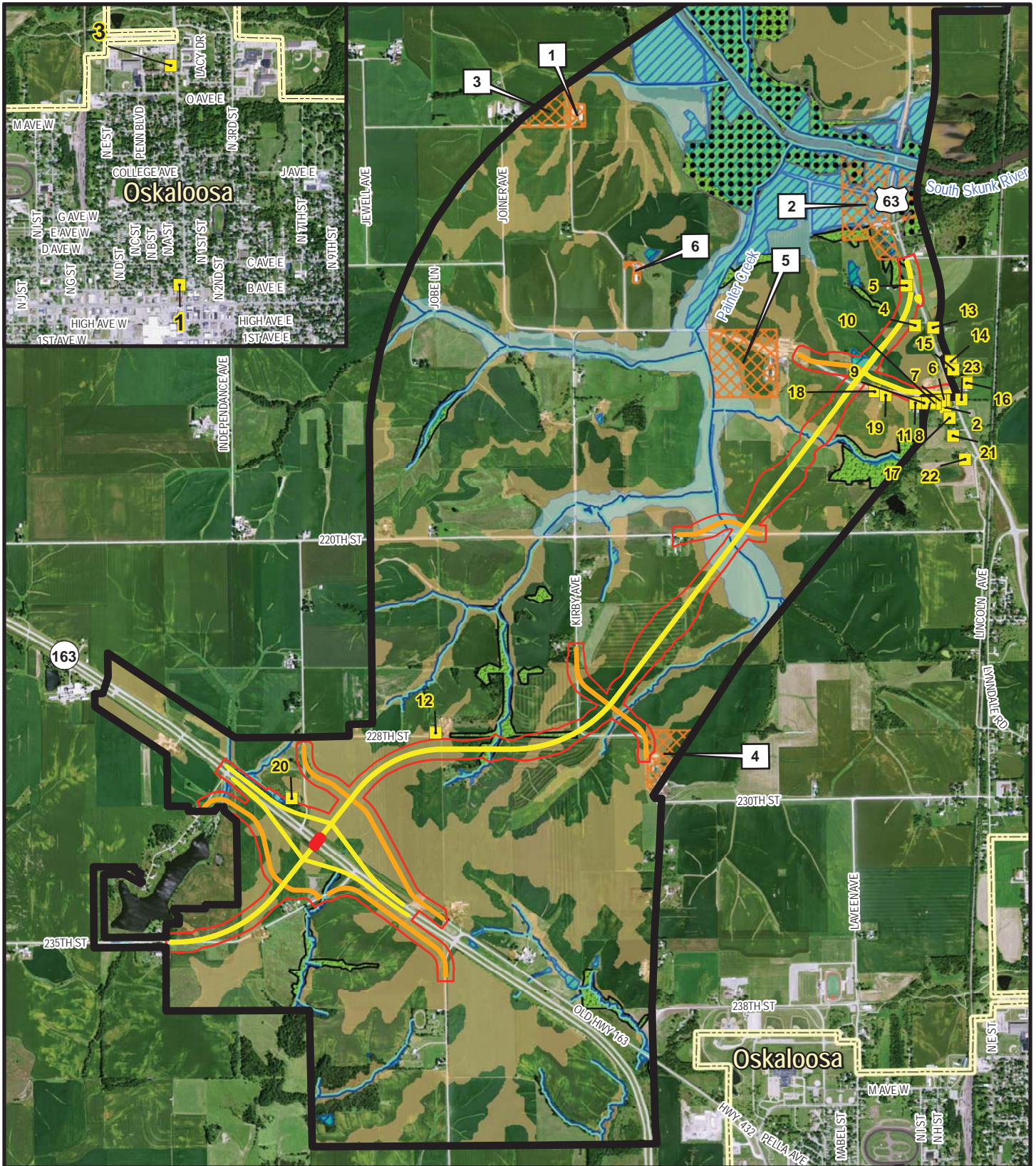
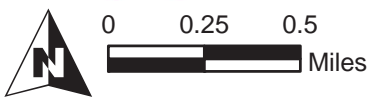


FIGURE 6
Environmental Constraints
US 63 NW Oskaloosa Bypass
Environmental Assessment
 Mahaska County, Iowa



- Legend:**
- NoiseReceptors
 - Proposed Structure
 - Proposed Gravel
 - Proposed Pavement
 - Potential Impact Area
 - Rivers/Streams
 - Study Area
 - Bat Habitat
 - Regulated Materials Sites
 - Wetlands
 - Woodlands
 - Floodplains
 - Prime Farmland
 - Oskaloosa Corporate Limits

Table 4: Streams Located Within Study Area

Stream Name	Linear Feet in Project Area	Stream Type
South Skunk River	5,925	Perennial
Painter Creek	14,482	Perennial
A4	788	Intermittent
A5	946	Perennial
B1	2,405	Perennial
C1	2,912	Intermittent
D1	535	Intermittent
E	6,575	Perennial
E'	840	Intermittent
E1	3,187	Intermittent
E6	4,519	Intermittent
G	747	Intermittent
G1	2,021	Intermittent
G2	9,728	Intermittent/Perennial
G3	4,271	Intermittent
G6	1,657	Intermittent
H1	1,061	Ephemeral
H2	2,239	Intermittent
H3	1,286	Intermittent
H3-A	824	Ephemeral
H4	182	Ephemeral
H6	3,003	Intermittent/Perennial
H6-A	274	Ephemeral
H6-B	315	Ephemeral
I3	3,262	Perennial
I3-A	146	Ephemeral
I3-B	293	Ephemeral
I3-C	655	Intermittent
I6	95	Perennial
I8	2,757	Perennial
I8-A	351	Intermittent
I9	2,466	Perennial
I9-A	1,941	Intermittent
Total	82,688	

Source: HR Green, *Wetland Delineation Report U.S. 63 Bypass Oskaloosa, Iowa*, July 2015.

Preferred Alternative

The Preferred Alternative would impact 3,690 linear feet of intermittent and perennial streams of the 82,688 linear feet of streams located within the study area. Stream impacts would likely decrease as the project proceeds through final design. During the design process, drainage structures would be designed to maintain the existing waterways and surface drainage patterns to adequately convey surface waters as much as practical.

No Build Alternative

The No Build Alternative would not impact surface water resources found within the project study area.

5.2.3 Floodplains

The regulatory framework pertaining to floodplains is Executive Order (EO) 11988, Floodplain Management (42 FR 26951), which affords avoidance and minimization considerations to floodplains. As stated in this policy, federal agencies are required "...to avoid, to the extent possible, the long- and short-term adverse impacts associated with the occupancy and modification of floodplains, and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative". In addition, EO 13990, Establishing a Federal Flood Risk Management Standard and Process for Further Solicit and Considering Stakeholder Input, amends EO 11988 and states "Where possible, an agency shall use natural systems, ecosystem processes, and nature-based approaches when developing alternatives for consideration".

Floodplain information was obtained from the Federal Emergency Management Agency (FEMA) online database for the project study area. Approximately 603 acres of the Skunk Creek, Painter Creek, and Painter Creek Trib 1 are within Zone A of 100-year floodplain as shown on FEMA Flood Insurance Rate Map 19123C0250C are located within project study area. No floodplain is mapped for the smaller unnamed streams within the project study area.

During final design, a Flood Plain Development Permit from the Mahaska County and Iowa DNR Floodplain Construction Permit may be required. The proposed action's design will adhere to effective Federal Emergency Management Agency's (FEMA) National Flood Insurance Program's (NFIP) and the State of Iowa's regulations and Mahaska County's Flood Plain Management Ordinance for allowable fill in the floodway fringe.

Agency coordination letters were sent to the Iowa DNR, FEMA, and EPA regarding floodplain issues. No response was received from FEMA or EPA regarding the project. The Iowa DNR provided a response on August 6, 2014, but it did not have comments regarding floodplains. This letter is included in Appendix B.

Preferred Alternative

The Preferred Alternative footprint impacts 12 acres of the 100-year floodplain as shown in Figure 6. The actual floodplain impact acreage could change as a result of the final design process.

No Build Alternative

The No Build Alternative would not impact floodplains within the project study area.

5.2.4 Wildlife and Habitat

The study area was evaluated for potential habitats during a field investigation by a qualified biologist in 2015. The results are summarized in the July 2015 *Habitat Assessment*. Project study area land use is dominated by agricultural uses. It is 70 percent row crop agriculture and 8 percent is pasture. The remaining land use is woodland (9 percent), road right of way (7 percent), residential (3 percent), and the remaining land is vacant, institutional or open water. No unusual or rare land forms were observed within the project study area. Two concentrations of native plant communities were observed among the agricultural land uses – 1) the E6 Habitat Assessment area is located north of 220th Street, south of 210th Street and west of U.S. 63 and included a diverse mix of mature native trees, spring woodland ephemerals, and native herbaceous plants; and 2) the Mahaska County Roads Planting is located mainly within Kirby Avenue right of way and included a diverse mix of native prairie plants. It was determined that the Mahaska County Roads Department had seeded the area in November 2006.

The 4,700 acre study area contains a number of habitat resources for common wildlife in woodlands, wetlands, and along stream corridors despite intensive row crop agricultural use throughout. In particular, the South Skunk River floodplain area includes large, contiguous woodlands on both sides of the river that harbors whitetail deer, great horned owls, coyotes, and the similar wildlife. Cliff swallow nests were observed on both sides of the South Skunk River Bridge. Additionally, up to 125 nests were observed within a culvert under 200th Street near the eastern limits of the study area.

Preferred Alternative

The Preferred Alternative would impact wildlife and habitat at woodland, stream and wetland crossings. Concentrations of native plant communities; large, contiguous wildlife habitat areas; and swallow nest concentrations appear to be avoided by the preferred alternative.

No Build Alternative

The No Build Alternative would not impact wildlife and habitat within the project study area.

5.2.5 Threatened and Endangered Species

The U.S. Fish and Wildlife Service (USFWS) Section 7 Technical Assistance website was reviewed to identify potential threatened and endangered listed species known to occur in Mahaska County. A field study was completed in July 2015 to identify potential endangered species habitat in the study area.

According to the July 2015 *Habitat Assessment* report, the study area contains habitat for two federally listed species including the Indiana bat and the northern long-eared bat. While conducting the site visit, two state listed species were observed including the endangered northern harrier and special concern bullsnake. No species or rare habitats such as fens, rock outcrops, or sandy soils were identified that could harbor a number of listed species. However, several areas of high quality native plant communities were observed. The large project area contains a number of habitat resources despite the intensive row crop agricultural use. Table 5 summarizes the federally listed species habitat and Table 6 summarizes the state listed species habitat occurring within the study area. Figure 6 shows the locations of these habitats.

Preferred Alternative

The Preferred Alternative would not impact federally listed species habitat. No bullsnake or northern harrier habitat would be impacted. No Indiana bat or northern long-eared bat habitat would be impacted by the Preferred Alternative.

Based on literature and data reviews for the Project, field surveys, reviews of historic aerial photography, and coordination with USFWS and Iowa DNR, Iowa DOT has determined, under the delegated authority provided by the FHWA, that the project may affect, but is not likely to adversely affect federally or state listed species and project will not result in the destruction or adverse modification of federally designated critical habitat. Consultation with the USFWS has been initiated.

No Build Alternative

The No Build Alternative would not impact threatened and endangered species habitat or species.

Table 5: Federally Listed Species Habitat

Common Name	Scientific Name	Listing Status	Habitat	Habitat in Study Area
Indiana bat	<i>Myotis sodalis</i>	Endangered	Caves, mines (hibernacula); small stream corridors with well-developed riparian woods; upland forests (foraging)	Yes. Abundant summer foraging habitat radiating from South Skunk River and some upland roosting habitat present.
Northern long-eared bat	<i>Myotis septentrionalis</i>	Threatened	Hibernates in caves and mines - swarming in surrounding wooded areas in autumn. Roosts and forages in upland forests during late spring and summer.	Yes. Abundant summer foraging habitat radiating from South Skunk River and some upland roosting habitat present.
Prairie bush clover	<i>Lespedeza leptostachya</i>	Threatened	Dry to mesic prairies with gravelly soil	No. No prairie remnants observed. Most of the study area shows prior disturbance from agricultural use.
Western prairie fringed orchid	<i>Platanthera praeclara</i>	Threatened	Wet prairies and sedge meadows	Possibly. No prairie remnants observed. However, wet prairie and sedge meadow is present.

Table 6: State Listed Species

Common Name	Scientific Name	Listing Status	Habitat	Habitat in Study Area?
Bald Eagle	<i>Haliaeetus leucocephalus</i>	Special Concern	Found near water such as rivers, reservoirs and lakes.	Yes. No eagles observed, but South Skunk River is a large river.
Barn Owl	<i>Tyto alba</i>	Endangered	Secluded areas, nests in cavities in trees, barns.	Yes. Older farm buildings and cavities observed in woodland areas..
Henslow's Sparrow	<i>Ammodramus henslowii</i>	Threatened	Tall, dense grass with a well-developed litter layer with little to no woody vegetation	Yes. Some larger pasture areas are present .
Northern Harrier	<i>Circus cyaneus</i>	Endangered	Large tracts of undisturbed, open grasslands with thatch used for nesting cover.	Yes. One male northern harrier observed foraging over Jobe Lane in western project limits.
Regal Fritillary	<i>Speyeria idalia</i>	Special Concern	Native prairies	Yes. Limited restored native prairie is present in project area.
Indiana bat	<i>Myotis sodalis</i>	Endangered	Caves, mines (hibernacula); small stream corridors with well-developed riparian woods; upland forests (foraging)	Yes. Abundant summer foraging habitat radiating from South Skunk River and some upland roosting habitat present.
Southern bog lemming	<i>Synaptomys cooperi</i>	Threatened	Tallgrass prairie	No. No prairie tallgrass prairie observed..
Creeping bush clover	<i>Lespedeza repens</i>	Special Concern	Native prairies	Yes. Limited restored native prairie is present in project area.
Curved-pod corydalis	<i>Corydalis curvisilqua</i> <i>ssp grandicacteat a</i>	Endangered	Sand prairies, sandy fallow fields, and sandy or gravelly areas along roads and railroads	No. No sand prairies observed.
Downy woodmint	<i>Blephilia ciliata</i>	Threatened	Prairies, thickets, savannas, limestone bluffs, and limestone glades.	No. No limestone bluffs or glades observed.
Earleaf Foxglove	<i>Tomanthera auriculata</i>	Special Concern	Mesic prairie. Intolerant of mowing	No. No unmaintained native prairie observed.
Frost grape	<i>Vitis vulpine</i>	Special concern	Floodplain woodlands, banks of rivers and streams, woodland openings, woodland borders, thickets	Yes. Abundant habitat, none observed.

Common Name	Scientific Name	Listing Status	Habitat	Habitat in Study Area?
Hill's Thistle	<i>Cirsium hillii</i>	Special Concern	Sandy soils, dry savannah	No. No sand prairies observed.
Larkspur	<i>Delphinium carolinianum</i>	Special Concern	Prairies, upland sand prairies, rocky glades, barren savannas, and rocky openings	No. No sand prairies observed.
Paw paw	<i>Asimina triloba</i>	Special Concern	Forest understory	Yes. Abundant habitat observed, especially in south half of project area. None observed.
Rough bedstraw	<i>Galium asprellum</i>	Special Concern	Rough Bedstraw is found in moist grounds in meadows, thickets, wet disturbed areas and riparian edges	Yes. Habitat present along moist creek banks
Roundstem foxglove	<i>Agalinis gattingeri</i>	Threatened	Sandy prairie	No. No sand prairies observed.
Spring avens	<i>Geum vernum</i>	Special concern	Woodlands, open woodlands, areas along woodland paths, shaped seeps, woodland borders	Yes. Abundant woodlands present, none observed.
Winged monkey flower	<i>Mimulus alatus</i>	Threatened	Floodplain and bottomland forests, swamps, seeps, edges of small rivers and roadside ditches.	Yes. One hillslope wetland observed (C7)
Glomerate sedge	<i>Carex aggregate</i>	Special concern	Disturbed areas	Yes.
Meadow bluegrass	<i>Poa wolfii</i>	Special Concern	Variety of forest habitats	Yes. Highest potential in E6 woodland
Oval ladies'-tresses	<i>Spiranthes ovalis</i>	Threatened	Mesic woodlands, rocky upland woodlands, open woodlands, paths in woodlands, edges of swamps, and abandoned fields.	Yes. Generalist species.
Pale Green Orchid	<i>Platantheea flava</i>	Endangered	Margins of lakes, rivers and ponds, and in moist meadows or prairies	Yes. Abundant habitat present in wetlands and woodlands.
Slender ladies' tresses	<i>Spiranthes lacera</i>	Threatened	Moist to dry, typically sandy, acidic soil	Possibly. Limited mesic to sandy habitat present in unfarmed areas.
Soft rush	<i>Juncus effusus</i>	Special concern	Stream margins, sloughs, ponds, wet depressions	Yes.

Common Name	Scientific Name	Listing Status	Habitat	Habitat in Study Area?
Virginia spiderwort	<i>Tradescantia virginiana</i>	Special concern	Open wooded slopes and moist shaded bluff ledges in	Yes. Potential along hillslopes downs to South Skunk River.
Crowfoot clubmoss	<i>Lycopodium digitatum</i>	Special concern	Upland woodlands, bluffs, sandstone cliffs, and abandoned sandy fields.	No. No habitat observed.
Bullsnake	<i>Pituophis catenifer sayi</i>	Special concern	Open tracts of native grassland and sand prairies.	Yes. One bullsnake observed in B2.
Smooth Green Snake	<i>Liochlorophis vernalis</i>	Special Concern	Moist native prairies or prairie marshes,	No. No moist native prairie observed.

5.2.6 Woodlands

The Iowa DOT considers woodland impacts to occur under the following circumstances: The area to be impacted consists of two acres or greater of forested land having at least 200 trees with three inch diameter or greater per acre. The study area has approximately 269 acres of woodlands meeting this definition. Patches of woodlands are located throughout the study area along unnamed streams. Larger areas of woodlands are located along Skunk Creek and Painter Creek.

Preferred Alternative

The Preferred Alternative would impact six acres of woodland. The impacted woodlands are located throughout the study area along unnamed streams. As design advances, efforts will be made to reduce the impact on the woodland. Mitigation will be required because the Iowa DOT standard for woodland impacts is two acres or more. Per Iowa Code 314.23, woodland removed shall be replaced by plantings as close as possible to the initial site, or by acquisition of an equal amount of woodland in the general vicinity for public ownership and preservation, or by other mitigation deemed to be comparable to the woodland removed, including, but not limited to, the improvement, development, or preservation of woodland under public ownership.

No Build Alternative

The No Build Alternative would not impact woodlands within the project study area.

5.2.7 Farmlands

The Farmland Protection Policy Act of 1981 (7 CFR 658) is intended to minimize the extent to which federal activities, such as highway and road projects, contribute to the conversion of agricultural land to non-agricultural uses.

The study area is approximately 70 percent agricultural land used primarily for growing row crops like corn and soybeans. The study area is approximately 4,702 acres in size of which 3,649 acres are considered to be agricultural farmland. Of the 3,649 acres 1,621 acres, about 44 percent, of farmland are considered prime farmland and 2,802 acres, about 77 percent, are considered soils of statewide importance.

Some of the impacted parcels may be severed by the proposed roadway. The final design process will attempt to minimize these issues. Property access may also be interrupted by the proposed alternative causing permanent changes to access points. However, all private properties will maintain access to public roadways.

Additionally, Iowa Code 6B provides authority to condemn agricultural land (defined under Iowa Code 6A.21) for right-of-way purposes. The code helps protect agricultural land and facilitates early coordination with potentially affected landowners. Notification is required if an agricultural parcel ten acres or larger would require any land acquisition, regardless of the total area needed.

A National Resources Conservation Service (NRCS) Farmland Conversion Impact Rating Form for Corridor Type Projects (NRCS-CPA-106) was completed for the Preferred Alternative and submitted to NRCS. Farmland, as defined by the NRCS, exists within the study area. The completed form is included in Appendix C. Alternatives receiving a total score of less than 160 need not be given further consideration for protection.

Preferred Alternative

The Preferred Alternative impacts 252 acres of farmland. Of the 252 acres, 87.8 acres are considered prime farmland and 129.6 acres are considered soils of statewide importance as shown in Figure 6. The Preferred Alternative received a score of 136.9 out of 260 points on the NRCS Farmland Conversion Impact Rating Form. Based on this score, the alternative would not warrant an in-depth site review, and the proposed project would be cleared from significant concerns in conjunction with the Farmland Protection Policy Act. The Farmland Conversion Form is included in Appendix C. Landowners with agricultural land, as classified by Iowa Code 6A.21, would be notified of the potential acquisition of their property and of the upcoming public hearing to be held after distribution of the EA.

No Build Alternative

The No Build Alternative would not impact farmland. Farming operations would continue on the land as they are currently conducted.

5.3 Cultural

This section characterizes the cultural resources including archaeological and historic properties in the study area and addresses potential impacts of the Preferred Alternative and the No Build Alternative. Archeology sites and cemeteries were found within the study area but are not impacted and therefore are not discussed below.

5.3.1 Historic Sites or Districts

A *Phase I Intensive Architectural Resource* Survey was conducted in July 2015. The survey included the evaluation of 4,702 acres within the study area. A total of 38 historic sites were recorded. Of these 38 sites six were recommended as potentially eligible for listing on the National Register of Historic Places (NRHP). These sites are described in Table 7. The State Historic Preservation Office (SHPO) concurred with these findings on March 30, 2015. This correspondence is included in Appendix B.

Table 7: Historic Sites Within the Study Area

Site ID Number	Address	Site Type	Recommendation
62-03538	2155 Kirby Ave	House – Brandstra Farmstead	Avoidance
62-03554	2104 210 th St	House – Debruin Farmstead	Avoidance
62-03559	2102 Kirby Ave	House – Derooi Farmstead	Avoidance
62-03557	2087 Kirby Ave	House – Drost Farmstead	Avoidance
62-00153	2075 Hwy 63	Oskaloosa Water Works	Avoidance
62-03578	1856 Hwy 163	Barn – Grandview Farm	Avoidance

Preferred Alternative

Of the six historic sites that are potentially eligible for listing on the NRHP, one, the Debruin Farmstead house, is located in close proximity to the Preferred Alternative. The Debruin property is located just south of the Preferred Alternative’s footprint and would not be impacted by the Preferred Alternative. The other five sites are located within the study area but not within close proximity to the Preferred Alternative’s footprint.

No Build Alternative

The No Build Alternative would not impact historic sites or properties.

5.4 Physical Impacts

This section characterizes physical resources in the study area and addresses potential impacts of the No Build Alternative and the Preferred Alternative. The resources discussed are noise, contaminated and regulated materials sites, visual, and utilities.

5.4.1 Noise

Federal Regulations and State Policy

Iowa DOT Policy and Procedures Manual 500.07, “Highway Traffic Noise Analysis and Abatement” is the approved Iowa DOT noise policy and procedures for the purpose of meeting the requirements of 23 CFR 772 and applicable state laws for conducting noise analyses. The traffic noise study conducted for this proposed project conforms to these laws and regulations. This project is defined as a Type I based on new alignment (bypass) and the replacement of an at-grade intersection with a ramped interchange.

In analyzing traffic noise levels, two main noise criteria are used to identify traffic noise impact as set forth in 23 CFR 772. A comparison will be made between the predicted traffic noise and the noise abatement criteria (NAC) to determine if a traffic noise impact exists due to the noise levels approaching or exceeding the criteria. Also, a comparison will be made between existing noise levels and future predicted traffic noise levels to determine if a noise impact occurs due to a substantial increase in noise. The Iowa DOT generally considers that an impact occurs and abatement measures will be considered for the impacts if:

1. The predicted design year noise levels approach or exceed the NAC. Iowa DOT has established that a noise level of one (1) decibel less than the NAC in the FHWA noise standards constitutes “approaching” the NAC. For example, 66 dB(A) is considered approaching the residential NAC of 67 dB(A).

2. Predicted future noise levels are 10 dB(A) or more above existing levels. The 10 dB(A) predicted increase would be considered a “substantial increase” in the predicted noise level.

Preferred Alternative

Traffic noise levels representing the “peak hour” noise levels were predicted for the *Existing Conditions Scenario* (2015) and the *2042 Build Year Scenario* using the FHWA Traffic Noise Model (TNM) Version 2.5. Twenty-three (23) representative receptor locations were used for both the existing and future build conditions to evaluate potential traffic noise impacts. These include receptor locations to evaluate traffic noise conditions through-town using predicted general noise levels. Table 8 presents the representative receptor locations and the predicted traffic noise levels. Figure 6 depicts the receptor locations.

Table 8: Summary of Predicted Traffic Noise Levels – Alternative 1A

ID	Receptor Address	Activity Category	Land Use	Existing (2015), dB(A)	Future Build Alt. (2042), dB(A)	Future Build vs. Existing Difference, dB(A)	Leq Noise Abatement Criteria (NAC), dB(A)	Build Approaches or Exceeds Leq Criteria
1	301 N. Market	E	Com	69.4	45 [#]	-24.4	71	No
2	2157 HWY 63	B	Res	58.5	58.2	-0.3	66	No
3	201 Trueblood	C	School	58.9	45 [#]	-13.9	66	No
4	2115 Hwy 63	B	Res	57.8	59	1.2	66	No
5	2103 HWY 63	B	Res	62.8	68.1	5.3	66	Yes/Acquire
6	2132 210th	B	Res	61.4	61.4	0.0	66	No
7	2128 210th	B	Res	56.6	59.1	2.5	66	No
8	2120 210th	B	Res	52.8	57.6	4.8	66	No
9	2116 210th	B	Res	50.6	56.7	6.1	66	No
10	2124 210th	B	Res	54.5	57.8	3.3	66	No
11	2112 210th	B	Res	51.0	58.1	7.1	66	No
12	1951 228 th St.	B	Res	45 [*]	52	7	66	No
13	2118 HWY 63	B	Res	65.1	52.7	-12.4	66	No
14	2126 HWY 63	B	Res	58.0	51.2	-6.8	66	No
15	2134 HWY 63	B	Res	58.4	52.5	-5.9	66	No
16	2140 HWY 63	B	Res	54.5	53.5	-1.0	66	No
17	2163 HWY 63	B	Res	57.7	57.2	-0.5	66	No
18	2082 210 th	B	Res	49.0	58.0	9.0	66	No
19	2082 210 th _2	B	Res	51.8	58.5	6.7	66	No
20	2295 Independence	B	Res	57.3	62.8	5.5	66	No
21	2167 HWY 63	B	Res	55.8	55.2	-0.6	66	No
22	2173 HWY 63	B	Res	56.4	54.8	-1.6	66	No
23	2140_2 HWY 63	B	Res	61.0	59.9	-1.1	66	No

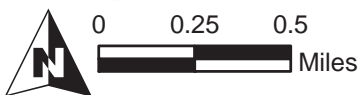
Source: Iowa DOT, *Noise Analysis Summary for the US NW Oskaloosa Bypass*, August 2016

*The current estimated ambient background sound level was used for this receiver because there is currently no highway traffic.

Predicting future build condition noise levels for these receivers is challenging because with low traffic volumes TNM can underestimate real world sound levels. However, sound levels are expected to drop significantly for through-town receivers because of the proposed bypass. Instead of using TNM modeled results, the current estimated ambient background sound level was used.

The noise level results are summarized as follows:

- Even though the receiver for the 2103 HWY 63 residence shows a predicted future build condition noise level of 68.1 dB(A), for purposes of this noise study it is considered a full acquisition and therefore cannot be impacted for year 2042.
- There are no instances or predicted build condition noise levels substantially exceeding existing condition noise levels in the study area.
- 2042 build noise levels were predicted to be between 7.1 dB(A) decibels higher and 12.4 dB(A) lower than the existing noise levels. (Note: Estimated sound levels for receivers 201 Trueblood Avenue and 301 North Market not included because of the difficulty in estimating these sound levels.)



Legend:

- Proposed Structure
- Proposed Gravel
- Proposed Pavement
- Potential Impact Area
- Rivers/Streams
- Proposed Airport Location
- Valve Field
- - - Pipeline
- Cemetery
- ▨ Water Treatment Plant
- Study Area

FIGURE 7
Physical Constraints

US 63 NW Oskaloosa Bypass
Environmental Assessment

Mahaska County, Iowa

Because none of the receivers, besides the residence at 2103 HWY 63 (ID #5), have predicted noise levels that approach the NAC and there are no instances of a 10 dB(A) increase when comparing the Future Build noise levels with the Existing (2015) noise levels, there are no traffic noise impacts. Field noise monitoring was conducted at locations along U.S. 63 and IA 163 near Oskaloosa and compared with Existing (2015) TNM estimates. The monitoring results were within 3 dB(A) for the TNM Existing modeled results and therefore the overall traffic model can be considered validated.

The one traffic noise impact identified as a result of the proposed project represents the area of frequent human use for the residence at 2103 HWY 63 (ID #5). The residence is considered an acquisition because it is within the proposed right-of-way of the proposed alignment; therefore, noise abatement measures were not evaluated. Further evaluation of noise abatement measures is not needed at this time. If the alignment shifts significantly from what is currently proposed, additional TNM modeling may need to be completed and the results evaluated based on the FHWA NAC for the traffic noise impact determination. If noise impacts are identified at that time, then noise abatement will be evaluated for feasibility and reasonableness.

No Build Alternative

The Iowa DOT policy does not require the evaluation of the No Build Alternative for traffic noise. However, traffic noise levels at receptor locations located along U.S. 63 and IA 163 would be anticipated to increase due to the normal growth in traffic volumes with time.

Construction Noise Analysis

In addition to the operational traffic noise levels, construction noise must also be identified and an effort made to minimize its effects. The project corridor consists mostly of residential land use. The noise sensitive land uses that are located directly adjacent to this project are those most directly affected by construction noise. These same sensitive land uses were also the focus of concern in the traffic noise study. The basic categories of construction noise mitigation measures include the following:

- Design considerations
- Community awareness
- Source control
- Site control
- Time activity constraints

Public Coordination

Iowa DOT shall inform the appropriate local government officials within whose jurisdiction the highway project is located of the distances from the roadway at which Future Build noise levels become acceptable for various types of land uses. After the “Date of Public Knowledge”, the Iowa DOT is not responsible for providing noise abatement for new development which occurs adjacent to the proposed highway project.

Generalized noise contours were developed based on TNM run results. Predicted noise levels are based on estimated traffic volumes for the 2042 Future Build scenario. The 66 dB(A) contour is predicted to be approximately 50 feet and the 71 dB(A) contour is predicted to be approximately 20 feet from the mainline U.S. 63. It is recommended that future noise sensitive land uses adjacent to U.S. 63 be located beyond these distances.

5.4.2 Contaminated and Regulated Materials Sites

A review of the potential contaminated and regulated material sites within the City of Oskaloosa area. Six of the sites of concern were identified within the study area. Table 9 lists the sites within the study area. All of the sites were identified as “Low Risk” sites. These locations are depicted on the Environmental Constraints Map.

Table 9: Regulated Material Sites of Concern

Map ID	Site Name	Property Address	Site Type	Risk Level
1	Jerry Debruin I	2050 Kirby Ave	Animal Confinement	Low
2	Oskaloosa Municipal Water Dept	2075 Hwy 63 N	Air Emissions	Low
3	Wayne Debruin Farm	1971 205th St	Animal Confinement	Low
4	Donald Vos Feedlot	2292 Kirby Ave	Animal Confinement	Low
5	RSD Farms - Randy Debruin	2082 210th St	Animal Confinement	Low
6	Kent DeRooi	2102 Kirby Ave	Animal Confinement	Low

Source: Iowa DOT, *Mahaska U.S. 63 Oskaloosa Bypass Regulated Materials Sites*, October 2016.

Preferred Alternative

Based on Preferred Alternative, two of the sites are within or adjacent to the proposed right-of-way: the Oskaloosa Municipal Water Department (Map ID #2) and an animal feedlot (Map ID #4). Both sites present a low risk for encountering contaminated or regulated materials.

No Build Alternative

Under the No Build Alternative, no contaminated or regulated materials would be encountered.

5.4.3 Visual

Currently, the study area generally consists of a common Iowa rural agricultural landscape. Actively farmed properties including row crops, hay fields, and pastures exist throughout the study area. The study area also contains gently rolling terrain, streams, and some wooded areas.

A person driving along any of the rural gravel roads within the study area, like 210th Street, 220th Street or Kirby Avenue, sees a similar rural farm scene. This consists mainly of gently rolling farm fields with the occasional streams or pond with trees growing along these water features. In addition, farmsteads with houses, outbuildings, silos, and feedlots and rural residential acreages are located along the existing roadways within the study area.

Preferred Alternative

Construction of the Preferred Alternative would change the visual nature of the existing rural landscape by adding a paved two lane, north/south roadway and interchange with IA 163 into the project study area. The biggest visual change would come to those living and driving in the study area since the Preferred Alternative would be visible from some of the residential homes and farmsteads.

A person driving on the Preferred Alternative would see a similar view of what exists in the study area today. This includes a rural farm scene consisting of gently rolling farm fields with the occasional stream or ponds, farmsteads, and rural residential acreages located on gravel roads.

No Build Alternative

The No Build Alternative would not impact the visual characteristics of the area. The area would remain a typical Iowa rural farm scene.

5.4.4 Utilities

Two major utilities are located within the study area including a water treatment plant and a pipeline. The City of Oskaloosa Water Treatment Plant is located in the northern portion of the study area just west of existing U.S. 63. This facility is publicly owned and operated by the City of Oskaloosa.

There are three underground pipelines running generally east/west through southern portion of the study area as shown in Figure 7. The three pipelines converge at a valve field located on the northerly side of IA 163, just east of the proposed U.S. 63 and IA 163 interchange.

Preferred Alternative

The Preferred Alternative would impact a portion of the land owned by the City of Oskaloosa located at the Water Treatment Plant. The proposed bypass ties into the existing U.S. 63 alignment near the Water Treatment Plant but would not impact the operations or infrastructure of the treatment facility.

The Preferred Alternative would cross the three underground pipelines but would not impact the valve field. Construction of the Preferred Alternative will need to be coordinated with the pipeline utility company as potential easements or permits may be needed.

No Build Alternative

The No Build Alternative would not impact utilities in the study area. Regular maintenance of the existing utilizes would occur under the No Build Alternative.

5.5 Cumulative

Cumulative impacts are those that result from past, present, and reasonably foreseeable actions, combined with the potential impacts of the proposed improvements. Cumulative impacts can result from individually minor, but collectively substantial impacts taking place over a period of time. A cumulative impact assessment looks at the collective effects imposed by individual land use plans and projects in the same vicinity of the proposed project.

Recently completed projects include the following:

- IA 163 four lane projects was completed in 1998.
- U.S. 63 from IA 92 north to north city limit of Oskaloosa was resurfaced in 2005.
- U.S. 63 Bridge over the Union Pacific Railroad was reconstructed in 2007.
- U.S. 63 from 2nd Avenue in Oskaloosa north to the Union Pacific Railroad was resurfaced in 2008.

Current projects include the following:

- U.S. 63 pavement rehabilitation from Mahaska/Poweshiek County line to Montezuma city limits programmed for 2017.

Reasonably foreseeable projects include the following:

- U.S. 63 Bridge over South Skunk River – Deck joint repair project is programmed for 2018.
- South Central Regional Airport – An Environmental Assessment was completed for the proposed airport for the Federal Aviation Administration in October 2016. The location of the proposed airport is just west of proposed interchange of the U.S. 63 Oskaloosa Bypass and IA 163. A public hearing was held on November 22, 2016 at the Oskaloosa High School.

The proposed South Central Regional Airport is located immediately west of the proposed interchange of U.S. 63 with IA 163. The close proximity of the interchange and the proposed airport could make the proposed interchange even more attractive for development than with just the interchange itself. There are no known plans for development in the area of the interchange or around the airport.

Resources potentially experiencing cumulative impacts include land use, right-of-way, and farmland. The construction of the Preferred Alternative in conjunction with past, present, and future projects mentioned above would:

- Have a minor impact on land use as the existing agricultural land around the proposed interchange of U.S. 63 and IA 163 could have some potential for development.
- Have minor impacts on the amount of land being converted to roadway right of way including farmland.

In summary, the overall cumulative impacts of the Preferred Alternative are not considered to be collectively significant.

5.6 Streamlined Resource Summary

Table 10 includes a summary of the resources discussed in the body of the EA. Resources not discussed in the body of the EA are located in the Streamlined Resource Summary, Appendix A. The summary includes information about the resources, the method used to evaluate them, and when the evaluation was completed.

Table 10: Summary of Impacts

Resource	No Build Alternative	Preferred Alternative
Right-of-Way (acres)	0	391
Displacements (number of displacements)	0	5
Wetlands (acres)	0	5.86
Surface Waters (linear feet)	0	3,690
Floodplains (acres)	0	12
Threatened and Endangered Species (acres)	0	0
Woodlands (acres)	0	6
Farmland (acres)	0	252
Historic Sites (number of sites)	0	0
Noise (number of sites)	0	0
Regulated Materials (number of sites / number of acres)	0	2 / 2
Utilities (number of crossings)	0	2

6.0 Disposition

This Streamlined EA concludes that the proposed project is necessary for safe and efficient travel within the project corridor and that the proposed project meets the purpose and need. The project will have no significant adverse social, economic, or environmental impacts of a level that would warrant an environmental impact statement. Alternative selection will occur following completion of the public review period and public hearing.

This EA is being distributed to the agencies and organizations listed. Individuals receiving this EA are not listed for privacy reasons.

Federal Agencies

- Army Corps of Engineers – Rock Island District (Regulatory)
- Department of the Interior – Office of Environmental Policy and Compliance
- Environmental Protection Agency – Region 7, National Environmental Policy Act Team
- Federal Aviation Administration
- Federal Emergency Management Agency
- Federal Rail Administration
- Federal Transit Administration
- Fish & Wildlife Service – Rock Island Field Office
- Housing and Urban Development
- National Park Service
- Natural Resources Conservation Service

State Agencies

- Iowa Department of Natural Resources – Environmental Services Division, Conservation & Recreation Division, Section 6(f) Funds Coordinator
- State Historical Society of Iowa

Local/Regional Units of Government

- Mahaska County Ag & Rural Development
- Mahaska County Board of Supervisors
- Mahaska County Conservation Center
- Mahaska County Development Group – East Central Iowa Transportation Coalition
- Mahaska County Environmental Services
- Mahaska County Secondary Roads
- City of Pella – City Administrator
- City of Oskaloosa – City Engineer, City Manager
- Oskaloosa Area Chamber & Development Group
- Oskaloosa Historic Preservation Commission

Locations Where this Document is Available for Public Review

- Federal Highway Administration, 105 6th Street, Ames, IA 50010
- Iowa Department of Transportation, Central Office, 800 Lincoln Way, Ames, IA 50010
- Iowa Department of Transportation, District 5 Office, 807 W Briggs, Fairfield, IA 52556
- Oskaloosa Public Library, 301 South Market Street, Oskaloosa, IA 52577

The following permits may be required for this project

- Department of the Army Permit from the U.S. Army Corps of Engineers, Rock Island District (Section 404 Wetland Permit)
- Water Quality Certification from Iowa DNR (Section 401 Water Quality Certification)
- Iowa DNR National Pollutant Discharge Elimination System General Permit No. 2 for Storm Water Discharge Associated with Construction Activities (NPDES Storm Water Permit)

The Iowa Department of Transportation has \$200,000 in the approved FY2019 Transportation Improvement Plan (TIP) for design work. The estimated cost of construction of the preferred alternative is \$35 million. The project is not currently in the five-year construction program, and the anticipated construction timeframe is currently unknown. Finally, the project is consistent with Area 15 Regional Planning Association's long range transportation plan.

Unless significant impacts are identified as a result of the public review or at the public hearing, a Finding of No Significant Impact (FONSI) would be prepared for the proposed action as a basis for federal-aid corridor location approval.

7.0 Comments and Coordination

7.1 Agency and Tribal Coordination

Early agency coordination letters were sent to resource agencies July 31, 2014. Table 11 provides the list of agencies contacted for coordination on the U.S. 63 Oskaloosa Bypass project; those agencies that provided a response are indicated with the date the response was received.

Table 11: Agency Coordination

Agency Type	Agency	Date of Response
Federal	U.S. Environmental Protection Agency	None
Federal	Federal Emergency Management Agency	None
Federal	U.S. Fish and Wildlife Service	None
Federal	U.S. Department of Interior	None
Federal	U.S. Army Corps of Engineers	8/19/2014
Federal	U.S. Department of Agriculture	None
Federal	U.S. Department of Housing and Urban Development	8/27/2014
State	Iowa Department of Natural Resources	8/6/2014
State	Iowa Department of Natural Resources	8/7/2014
State	Iowa Department of Natural Resources	9/19/2014
State	State Historic Preservation Office	8/18/2014
State	Iowa Interstate Railroad, Limited	None
State	Iowa Department of Natural Resources	None
Regional	South Central Regional Airport Agency	None
Regional	East Central Iowa Transportation Coalition	9/5/2014
County	Mahaska County Conservation Center	None
County	Mahaska County Environmental Services	None
County	Mahaska County Secondary Roads Office	None
County	Mahaska Community Development Group	None
County	Mahaska County Ag & Rural Development	None
County	Mahaska County Board of Supervisors	None
Local	City of Oskaloosa – City Engineer	None
Local	City of Oskaloosa – City Manager	None
Local	City of Pella	None
Local	Oskaloosa Historic Preservation Commission	None
Local	Oskaloosa Area Chamber & Development Group	None

The response letter from the U.S. Army Corps of Engineers (USACE) provided the following comments and recommendations:

- Appears project will impact waters of the United States and will require a Department of the Army Section 404 permit.
- Complete application must include a wetland delineation covering the project’s area of Potential Effect.

The response letter from the U.S. Department of Housing and Urban Development (HUD) provided the following comments and recommendations:

- No known HUD-assisted projects within the project study area.
- Recommend efforts be made to avoid direct or indirect impact to the wetlands in conformance with Executive Order 11990, "Protection of Wetlands."

The response letter from the Iowa Department of Natural Resources (Iowa DNR) Environmental Services Division provided the following comments and recommendations:

- Waters of the U.S. (including wetlands) should not be disturbed if a less environmentally damaging alternative exists.
- Unavoidable adverse impacts should be minimized; remaining impacts should be compensated for through restoration.
- Proposed placement of dredged or fill material into waters of the U.S. (including jurisdictional wetlands) requires Department of the Army authorization.

The response letter from the Iowa DNR Budget & Finance Bureau provided the following comments and recommendations:

- Does not appear there are any federal program conflicts within the area of potential effect.
- No conflicts with Resource Enhancement & Protection Fund (REAP), Recreation Infrastructure Fund grants, and Fish & Wildlife Habitat grants.

The response letter from the Iowa DNR Conservation and Recreation Division provided the following comments and recommendations:

- List of state-listed plants located in the project area.
- Recommend a floristic survey of undeveloped lands within the project area with report of any of Endangered, Threatened, or Special Concern species encountered.
- If listed species or rare communities are found during the planning or construction phases, additional studies and/or mitigation may be required.
- The Indiana bat is known to inhabit this area of the state and may occur in the area of the project.
- Suggest contacting U.S. Fish and Wildlife Service.

The response letter from the State Historic Preservation Office provided the following comments and recommendations:

- Project will need to comply with Section 106 of the National Historic Preservation Act (NHPA) of 1966 and its implementing regulations, 36 CFR Part 800 (revised, effective August 5, 2004) and with the National Environmental Policy Act (NEPA).
- Office understands the appropriate cultural resources investigations will be implemented and conducted to determine whether any historic properties will be affected by the proposed undertaking.

- Office will be a consulting party to the responsible federal agency and your agency acting on behalf of FHWA in accordance with the Programmatic Agreement as part of the Section 106 consultation process.

The response letter from the East Central Iowa Transportation Coalition provided the following comments and recommendations:

- Organizations generally agree with the alignments being studied by the Iowa DOT through the NEPA process, but provided several recommendations for the study, including:
 - Local public officials and businesses are supportive of the improvements being evaluated to accommodate current traffic flow and manufacturing business needs, but also strongly encourage additional capacity improvements be considered including but not limited to additional right-of-way acquisition and lane widening improvements.
 - Officials and businesses strongly encourage the Iowa DOT to engage in dialogue with local and regional businesses to fully understand current and future business plan/expansions and the demand that growth will place on the U.S. 63 corridor.
 - Officials and businesses would also like the Iowa DOT to include a review of long distance traffic that utilizes U.S. 63 for commodity transport through the corridor and connecting to other destination/termination points in the planning and design of the bypass.
- Review and include the many studies already completed for this corridor, including:
 - *U.S. 63 Area Transportation Study* (2011)
 - *U.S. Highway 63 Corridor Location Study* (2013)

Tribal coordination letters were sent on March 30, 2015. One response from the Peoria Tribe of Indians of Oklahoma was received on April 9, 2015 indicating they did not have a comment at this time but request continued notification on the project. This correspondence is included in Appendix B. No other responses from tribes were received.

7.2 NEPA/404 Merge Coordination

The FHWA and Iowa DOT coordinated with resource agencies using the Iowa DOT concurrence point process. The process incorporates planning, design, agency coordination, public involvement elements, and integrates compliance with NEPA and Section 404 of the Clean Water Act. The transportation agencies request agency concurrence regarding four points in the NEPA process:

- Concurrence Point 1 – Purpose and Need
- Concurrence Point 2 – Alternatives to be Considered
- Concurrence Point 3 – Alternatives to be Carried Forward
- Concurrence Point 4 – Preferred Alternative

Representatives from USACE, FWS, EPA, Iowa DNR, and the Iowa DOT discussed Concurrence Points 1 and 2 in a face to face meeting with Internet and web connections on October 8, 2014. An overview of the project's purpose and need and alternatives being considered were discussed. At this time, three build alternatives including Alternatives #1, #2, and #3 and the no build alternative were developed and presented to the agencies. All agencies concurred with Concurrence Point 1. All of the agencies but the EPA concurred with Concurrence Point 2.

On April 7, 2015, representatives from USACE, USFWS, EPA, FHWA, Iowa DNR, and Iowa DOT met in a face to face meeting with Internet and web connections to revisit Concurrence Point 2. The purpose and need was reviewed. Three new build alternatives were introduced including Alternatives #2A, #4, and #5. Alternative #3 was dismissed from consideration. All agencies concurred with Concurrence Point 2.

Concurrence Point 3 occurred on February 16, 2016. Representatives from USACE, USFWS, EPA, FHWA, Iowa DNR, and the Iowa DOT met face to face with Internet and web connections to discuss the alternatives carried forward for further consideration. A revised Alternative #1 (1A) was introduced. Alternatives #4 and #5 were dismissed from further consideration. Alternatives #1A and #4 were carried forward. All agencies concurred with Concurrence Point 3.

The Concurrence Point 4 process will discuss and document the selection of the Preferred Alternative. This information will be developed after this EA is completed and submitted for agency and public review. The comments received from agencies and the public will help determine and select the Preferred Alternative or the No Build Alternative option. The Selected Alternative will be documented in the FONSI if a FONSI is the appropriate NEPA decision document.

7.3 Public Involvement

The first public information meeting for the project was held August 15, 2013 from 5:00 P.M. to 7:00 P.M. at the Oskaloosa Middle School, 1704 N. Third Street, Oskaloosa, Iowa. The meeting was attended by 58 people. At the meeting, attendees were able to review the proposed study area and were provided material on the purpose of the study, background, project schedule, field studies, and right-of-way.

A second public information meeting for the project was held April 16, 2014 from 5:00 P.M. to 7:00 P.M. at the Oskaloosa Middle School, 1704 N. Third Street, Oskaloosa, Iowa. The meeting was attended by 100 people. At the meeting, attendees were provided material on the project history, existing facility, project description, alternatives, project schedule, environmental considerations, and right-of-way.

A third public information meeting for the project was held December 16, 2014 from 5:00 P.M. to 7:00 P.M. at the Oskaloosa High School, 1816 N. Third Street, Oskaloosa, Iowa. The meeting was attended by 88 people. At the meeting, attendees were provided material on the project history, existing facility, project description, alternatives, project schedule, environmental considerations, and right-of-way.

8.0 References

Bear Creek Archeology, *Intensive Phase I Cultural Resources Survey for Three Parcels Associated with the U.S. 63 NW Bypass of Oskaloosa, Garfield and Lincoln Townships, Mahaska County, Iowa*, July 2015.

City of Oskaloosa, Oskaloosa Rides - <http://www.oskaloosaiowa.org/DocumentCenter/View/513>

HR Green, Inc., *Habitat Assessment, US 63 Oskaloosa Bypass*, Mahaska County, Iowa, July 2015.

HR Green, Inc., *Wetland Delineation Report U.S. 63 Bypass Oskaloosa, Iowa*, July 2105.

Iowa DOT, *Commercial and Industrial Network Map*, January 1, 2012,
http://www.iowadot.gov/systems_planning/pdf/rca000012.PDF

Iowa DOT, “Mahaska US 63 – Oskaloosa Bypass Regulated Materials Sites Spreadsheet”, October 2016.

Iowa DOT, “NW Oskaloosa Bypass on U.S. 63”, Iowa DOT State Utility Engineer to Iowa DOT Office of Location and Environment, Email dated December 22, 2016.

Iowa DOT, *Noise Analysis Summary for the US NW Oskaloosa Bypass*, Project No. NHSX-063-3(93)—3H-62, Mahaska County, Iowa, August 2016.

Louis Berger, *Phase I Archeological Survey, Proposed U.S. Highway 63 Bypass*, Mahaska County, Iowa, Project No. NHS-063-3(93)-3H-62 / SHPO Review and Compliance No. 201408622010, September 2015.

Louis Berger, *Phase I Intensive Architecture Resource Surrey, Proposed U.S. Highway 63 Bypass*, Project No. NHS-063-3(93)-3H-62 / SHPO Review and Compliance No. 201408622010, July 2015.

South Central Regional Airport Agency, “Notice of Public Hearing for Proposed Improvements at South Central Regional Airport”, Mahaska County, Iowa.

Snyder & Associates, *U.S. Highway 63 Corridor Location Study, Final Report*, East Central Iowa Transportation Coalition, July 2013.

South Central Regional Airport Agency, *Environmental Assessment for Replacement Airport*, AIP Number 3-19-0136-001-2013, October 2016.

APPENDIX A

STREAMLINED RESOURCE SUMMARY

SOCIOECONOMIC IMPACTS SECTION:

Land Use	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Field Review/Field Study
Completed by and Date:	IA DOT NEPA Manager, 12/22/2015
Community Cohesion	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 11/1/2016
Churches and Schools	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 9/20/2016
Environmental Justice	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 9/20/2016
Economic	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 11/1/2016
Joint Development	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 9/20/2016
Parklands and Recreational Areas	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 9/20/2016
Bicycle and Pedestrian Facilities	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 9/20/2016
Right-of-Way	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 11/1/2016
Relocation Potential	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 11/1/2016

SOCIOECONOMIC IMPACTS SECTION Continued:

Construction and Emergency Routes	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 11/1/2016

Transportation	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 11/1/2016

CULTURAL IMPACTS SECTION:

Historic Sites or Districts	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	Consultant, 7/22/2015

Archaeological Sites	
Evaluation:	Resource is in the study area but will not be impacted
Method of Evaluation:	Report
Completed by and Date:	Consultant, 9/28/2015

Cemeteries	
Evaluation:	Resource is in the study area but will not be impacted
Method of Evaluation:	Report
Completed by and Date:	Consultant, 9/28/2015

NATURAL ENVIRONMENT IMPACTS SECTION:

Wetlands	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	Consultant, 7/17/2015
Surface Waters and Water Quality	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Field Review/Field Study
Completed by and Date:	Consultant, 7/17/2015
Wild and Scenic Rivers	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 9/20/2016
Floodplains	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 11/1/2016
Wildlife and Habitat	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	Consultant, 7/27/2015
Threatened and Endangered Species	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 7/27/2015
Woodlands	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	Consultant, 7/27/2015
Farmlands	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	IA DOT NEPA Manager, 12/8/2016

PHYSICAL IMPACTS SECTION:

Noise	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	IA DOT NEPA Manager, 8/30/2016
Air Quality	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 9/20/2016
MSATs	
Evaluation:	<p>This project has been determined to generate minimal air quality impacts for CAAA criteria pollutants and has not been linked with any special MSAT concerns. As such, this project will not result in changes in traffic volumes, vehicle mix, basic project location, or any other factor that would cause an increase in MSAT impacts of the project from that of the no-build alternative.</p> <p>Moreover, EPA regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. Based on regulations now in effect, an analysis of national trends with EPA's MOBILE6.2 model forecasts a combined reduction of 72 percent in the total annual emission rate for the priority MSAT from 1999 to 2050 while vehicle-miles of travel are projected to increase by 145 percent. This will both reduce the background level of MSAT as well as the possibility of even minor MSAT emissions from this project.</p>
Method of Evaluation:	FHWA Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documents, September 30, 2009
Completed by and Date:	IA DOT NEPA Manager, 9/20/2016
Energy	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Other
Completed by and Date:	Consultant, 9/20/2016
Contaminated and Regulated Materials Sites	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	IA DOT NEPA Manager, 10/27/2016
Visual	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 11/1/2016
Utilities	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	IA DOT NEPA Manager, 12/1/2016

APPENDIX B

AGENCY AND TRIBAL COORDINATION



STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR
KIM REYNOLDS, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
CHUCK GIPP, DIRECTOR

August 6, 2014

RECEIVED

AUG 07 2014

MS JANET VINE
IOWA DEPARTMENT OF TRANSPORTATION
800 LINCOLN WAY
AMES IA 50010

Office of Location & Environment

RE: US 63 Oskaloosa Bypass
Mahaska County
NHSX-063-3(93)—3H-62

Dear Ms. Vine:

This letter is in response to your letter dated July 31, 2014 concerning the preparation of an Environmental Assessment for the US 63 Oskaloosa Bypass project. Thank you for inviting our comments on the impact of this project.

As you know, waters of the United States (includes wetlands) should not be disturbed if a less environmentally damaging alternative exists. Unavoidable adverse impacts should be minimized to the extent practicable. Any remaining adverse impacts should be compensated for through restoration and creation activities (enhancement and/or preservation may be in addition to the restoration/creation). We would ask that Best Management Practices be used to control erosion and protect water quality near the project.

Any proposed placement of dredged or fill material into waters of the United States (including jurisdictional wetlands) requires Department of the Army authorization. When detailed plans are available, please complete and submit the joint application form to the Rock Island District Corps of Engineers (1 copy) and Iowa Department of Natural Resources (2 copies) for processing. The application form may be obtained at <http://www.iowadnr.gov/InsideDNR/RegulatoryLand/FloodPlainManagement/FloodPlainDevPermits.aspx>.

An electronic copy of the application form and instructions may also be obtained on the Corps' website: <http://www.mvr.usace.army.mil>.

If you have any questions, please call me at (515) 281-6615.

Sincerely,

A handwritten signature in cursive script that reads "Christine M. Schwake".

Christine Schwake
Environmental Specialist



STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR
KIM REYNOLDS, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
CHUCK GIPP, DIRECTOR

August 7, 2014

Janet Vine
IDOT - NEPA Section
Office of Location & Environment
800 Lincoln Way
Ames, IA 50010

RE: US 63 Oskaloosa Bypass, Mahaska County, Iowa
Environmental Assessment - Project NHSX-063-3(93)—3H-62

Dear Ms. Vine:

This letter is in response to your request for information on potential impacts to US 63 Oskaloosa Bypass project in Mahaska County, Iowa, as they relate to the Federal Land & Water Conservation Fund (LWCF).

After review of the Federal LWCF projects awarded to Mahaska County and the City of Oskaloosa, it does not appear that there are any federal program conflicts within the area of potential effect. I have also checked for projects that were awarded a Resource Enhancement & Protection Fund (REAP), Recreation Infrastructure Fund grants and Fish & Wildlife Habitat grants. Again, I do not find any potential conflicts.

Your early coordination process is very helpful to our office and the National Park Service as we both are responsible for ensuring LWCF projects remain in outdoor recreation.

If our department or the Park Service discovers a potential conflict with the bypass project, we will be in contact with your office right away. If you have any questions, I can be reached at 515-281-3013.

Sincerely,

Kathleen Moench

Kathleen Moench
Budget & Finance Bureau

Enclosures

Newell, Deeann [DOT]

From: Jones, Doug [DCA]
Sent: Monday, August 18, 2014 5:44 PM
To: Newell, Deeann [DOT]
Subject: FW: 140862010 NHSX-063-3(93)-3H-62 US 63 Oskaloosa Bypass EA Prep

Follow Up Flag: Follow up
Flag Status: Flagged

FYI

From: Jones, Doug [DCA]
Sent: Monday, August 18, 2014 5:43 PM
To: Vine, Janet [DOT]
Cc: Jones, Doug [DCA]; SHPO106; Gourley, Kathy [DCA]; Dolan, Brennan [DOT]; Mike.LaPietra@dot.gov
Subject: 140862010 NHSX-063-3(93)-3H-62 US 63 Oskaloosa Bypass EA Prep

August 18, 2014

Dear Ms. Vine,

Thank you for notifying our office about the above referenced proposed project. We understand that this project will be a federal undertaking for the Federal Highway Administration (FHWA) and will need to comply with Section 106 of the National Historic Preservation Act (NHPA) of 1966 and its implementing regulations, 36 CFR Part 800 (revised, effective August 5, 2004) and with the National Environmental Policy Act (NEPA).

It is our understanding that cultural resource studies have not yet been completed for this undertaking and it is currently unknown whether any significant historic properties will be affected by the proposed undertaking. Per our programmatic agreement, our office understands that the appropriate cultural resources investigations will be implemented and conducted to determine whether any historic properties will be affected by the proposed undertaking. If during your scoping process, a cultural resource issue is identified, our agency can provide further technical assistance to your agency.

Our office will be a consulting party to the responsible federal agency and your agency acting on behalf of FHWA in accordance with our Programmatic Agreement as part of the Section 106 consultation process. We request that all correspondence related to this undertaking for Section 106 consultation be provided to our office through the Office of Location and Environment at the Iowa Department of Transportation in accordance with our Programmatic Agreement.

We look forward to consulting with your office and the Federal Highway Administration on the Area of Potential Effect for this proposed project and whether this project will affect any significant historic properties under 36 CFR Part 800.4. We will need the following types of information for our review:

- The Area of Potential Effect (APE) for this project needs to be adequately defined (36 CFR Part 800.16 (d)).
- Information on what types of cultural resources are or may be located in the APE (36 CFR Part 800.4).
- The significance of the historic properties in the APE in consideration of the National Register of Historic Places Criteria.

- A determination from the responsible federal agency of the undertaking's effects on historical properties within the APE (36 CFR Part 800.5).

Also, the responsible federal agency will need to identify and contact all potential consulting parties that may have an interest in historic properties within the project APE (36 CFR 36 Part 800.2 (c)).

Please reference the Review and Compliance Number provided above in all future submitted correspondence to our office for this project. We look forward to further consulting with your agency and the Federal Highway Administration on this project. Should you have any questions please contact me at the number below.

Douglas W. Jones, Archaeologist and
Review and Compliance Program Manager
State Historical Society of Iowa
600 East Locust
Des Moines, Iowa 50319
(515) 281-4358
Doug.jones@iowa.gov



REPLY TO
ATTENTION OF

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

RECEIVED

August 19, 2014

AUG 21 2014

CEMVR-OD-P-2014-1247

Office of Location & Environment

Ms. Janet Vine
NEPA Document Manager
Office of Location and Environment
Iowa Department of Transportation
800 Lincoln Way
Ames, Iowa 50010

Dear Ms. Vine:

Our office reviewed your letter dated July 31, 2014 concerning the proposed U.S. Highway 63 realignment and Oskaloosa By-Pass in Mahaska County, Iowa.

It appears your project will impact waters of the United States (including wetlands), and will require a Department of the Army (DA) Section 404 permit. Additional information will be required before we can determine the need for, and what form of Section 404 authorization will be needed to cover your project. Please submit a complete application for DA authorization as early as possible. Your complete application must include a wetland delineation covering your project's area of Potential Effect and a discussion of all impacts to the nation's waters.

Should you have any questions, please contact our Regulatory Branch by letter, or telephone me at 309/794-5367.

Sincerely,

Michael D. Hayes
Project Manager
Iowa Section



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

REGION VII

Gateway Tower II, Room 200
400 State Avenue
Kansas City, KS 66101-2406
HUD Home Page: www.hud.gov

RECEIVED

SEP 02 2014

Office of Location & Environment

August 27, 2014

Ms. Janet Vine
NEPA Document Manager
Iowa Dept. of Transportation
800 Lincoln Way
Ames, IA 50010

Subject: US 63 Oskaloosa Bypass Environmental Assessment
Project NHSX-063-3(93)-3H-62

Dear Ms. Vine:

This responds to your request for review and comment on the subject highway project proposed in Oskaloosa, Iowa. Our office has not identified any known HUD-assisted projects within the Project Study Area and, therefore, does not anticipate any impacts, adverse or beneficial, related to HUD assets.

We did identify potential wetlands near the South Skunk River within the Project Study Area. As a result, we recommend that efforts be made to avoid direct or indirect impact to the wetlands in conformance with Executive Order 11990, "Protection of Wetlands."

Thank you for conducting this interagency review. If you have any questions, please do not hesitate to contact me at 913-551-5818 or paul.f.mohr@hud.gov.

Sincerely,

A handwritten signature in blue ink that reads "Paul F. Mohr".

Paul F. Mohr
Regional Environmental Officer



September 5, 2014

Office of Location and Environment
Iowa Department of Transportation
800 Lincoln Way
Ames, IA 50010

RE: US 63 Oskaloosa Bypass
Mahaska County, Iowa
Environmental Assessment
Project NHSZ-063-3(93)-3H-62

Iowa DOT,

This letter is in response to a request for comments regarding the new US 63 alignment bypassing the city of Oskaloosa. As the Iowa DOT is well aware, the East Central Iowa Transportation Coalition (ECITC) and its member organizations have been heavily involved in studying and proposing improvements to the US 63 corridor. Through many extensive studies, the ECITC and its member organizations became proponents and supporters of the proposed bypass around Oskaloosa. The bypass will address many safety hazards along the existing alignment and will facilitate the efficient movement of goods through the region to support the many major manufacturers located along this corridor.

These organizations generally agree with the alignments being studied by the Iowa DOT through the NEPA process, but would like to make several recommendations for the study, including:

- Local public officials and businesses are supportive of the improvements being evaluated to accommodate current traffic flow and manufacturing business needs, but also strongly encourage additional capacity improvements be considered including but not limited to additional right-of-way acquisition and lane widening improvements.
- Officials and businesses strongly encourage the Iowa DOT to engage in dialogue with local and regional businesses to fully understand current and future business plan/expansions and the demands that growth will place on the US 63 corridor.
- Officials and businesses would also like the Iowa DOT to include a review of long distance traffic that utilizes US 63 for commodity transport through the corridor and connecting to other destination/termination points in the planning and design of the bypass.

In addition to the points stated in the previous paragraph, the ECITC and its member organization encourage the Iowa DOT to review and include in their NEPA analysis the many studies already completed for this corridor. Two specific studies that should be included are the 2011 *U.S. 63 Area Transportation Study* and the 2013 *U.S. Highway 63 Corridor Location Study*. Both of these documents have been previously submitted in full to the Iowa DOT Office of Location and Environment, and include extensive traffic, environmental, design, and other existing condition and projection analysis. We would be happy to provide additional copies if needed.

We are pleased that the Iowa DOT is pursuing this project in earnest, given the corridor's importance to the region, and would offer any assistance to the Iowa DOT during this NEPA process.

Sincerely,



Beth Danowsky
President
ECITC
Group



Michael Schrock
City Manager
City of Oskaloosa



Andrew Jensen
Executive Director
Mahaska Community Development



STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR
KIM REYNOLDS, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
CHUCK GIPP, DIRECTOR

RECEIVED

September 19, 2014

SEP 24 2014

Iowa Department of Transportation
Attn: Janet Vine
800 Lincolnway
Ames, IA 50010

Office of Location & Environment

RE: Environmental Review for Natural Resources
US 63 Oskaloosa Bypass
Mahaska County
PROJECT: NHSX-063-3(93)-3H-62

Dear Ms. Vine:

Thank you for inviting Department comment on the impact of this project. There are records of the following state-listed plants in project area.

Table with 3 sections: ENDANGERED (Racemed Milkwort), THREATENED (False Hellebore, Slender Ladies'-tresses, Winged Monkey Flower, Prairie Bush Clover, Slim-leaved Panic-grass, Downy Woodmint), and SPECIAL CONCERN (Virginia Spiderwort, Rough Buttonweed, Spring Avens, Broom Sedge).

Therefore, the Department recommends a floristic survey of undeveloped lands within the project area with report of any of Endangered, Threatened, or Special Concern species encountered.

rare communities are found during the planning or construction phases, additional studies and/or mitigation may be required.

The Indiana bat (*Myotis sodalis*), a state- and federally-endangered species, is known to inhabit this area of the state and may occur in the area of this project. Indiana bats are found in areas of mature upland forest and along wooded corridors of small streams. The bats forage for insects beneath the canopy. Female Indiana bats form maternity colonies under loose tree bark.

The enclosed guidelines provide information about the habitat requirements and survey methods for Indiana bat summer habitat. If it appears that you will disturb potential Indiana bat summer habitat, we suggest that you contact the U.S. Fish and Wildlife Service regarding this project. The Rock Island Field Office may be reached at (309) 757-5800 or 1511 47th Ave. Moline, IL, 61265-7022

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

Please reference the following DNR Environmental Review/Sovereign Land Program tracking number assigned to this project in all future correspondence related to this project: 10616.

If you have questions about this letter or require further information, please contact John Pearson at (515) 281-3891.

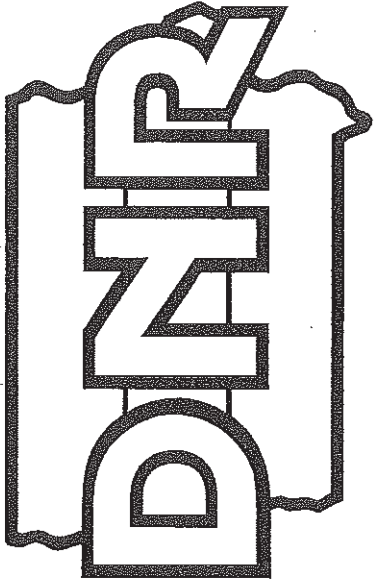
Sincerely,



Kelly Poole
Environmental Specialist
Conservation and Recreation Division

FILE COPY: Kelly Poole

Tracking Number: 10616



Counties Affected:

Adair, Appanoose, Boone, Cedar, Clarke, Dallas, Davis, Decatur, Des Moines, Guthrie, Henry, Iowa, Jasper, Jefferson, Johnson, Keokuk, Lee, Louisa, Lucas, Madison, Mahaska, Marion, Marshall, Monroe, Muscatine, Polk, Poweshiek, Ringgold, Scott, Story, Tama, Taylor, Union, Van Buren, Wapello, Warren, Washington, and Wayne

These guidelines were prepared to provide information about the Indiana bat and its summer habitat requirements in Iowa and to prevent inadvertent harm to the species through various human activities. This update of the guidelines is in response to changes in the US Fish and Wildlife Service requirements for protecting this endangered species. The changes include:

- No cut dates changed to April 1 through September 30
- Updated US Fish and Wildlife Service guidelines for mist net surveys

The Indiana bat is a federal (50 CFR Part 17) and state (Code of Iowa, Chapter 481B) endangered species that occurs in southern Iowa from April through September.

Female Indiana bats (*Myotis sodalis*) have their young beneath loose or peeling tree bark. Most nursery colonies have been found on the trunk or large branches beneath the bark of standing dead trees. The nursery colonies are located along streams and rivers or in upland forest areas.

Trees that retain sheets or plates of bark that provide space beneath the bark when dead, such as red oak, post oak, and cottonwood, are potential roost trees. Live trees such as shagbark and shellbark hickory are also occasionally used as roosts.

Indiana bats have also been captured on the edge of urban areas. It is likely that the bats would use areas on the edge of urban areas only if there is suitable habitat such as a greenbelt or a large park with a natural forest component. This would exclude city parks that are maintained as mowed areas.

Additional Information

The Iowa Department of Natural Resources is available to identify qualified professionals who conduct habitat surveys and bat surveys.

Please contact the US Fish and Wildlife Service for information about the most current federal guidelines for the Indiana bat.

These guidelines may be revised based on the availability of new research or management information or to clarify particular points in the guidelines.

US Fish and Wildlife Service

Rock Island Field Office
1511 47th Ave
Moline IL 61266-7022

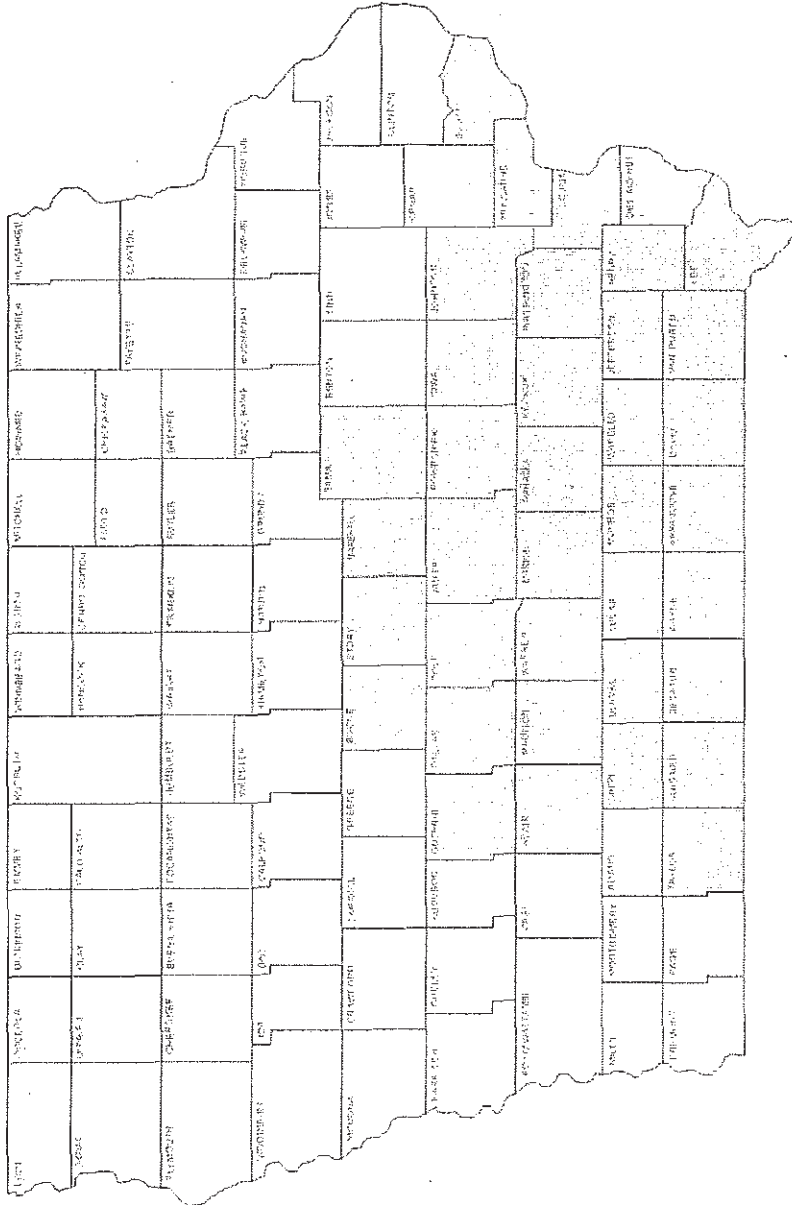
Phone: (309) 757-5800

Iowa Department of Natural Resources

Endangered Species Coordinator
Wallace State Office Building
502 E 9th St
Des Moines IA 50319-0034

Phone: (515) 281-5918
Fax: (515) 281-6794

Indiana Bat Summer Habitat in Iowa



Counties Affected

Adair, Appanoose, Boone, Cedar, Clarke, Dallas, Davis, Decatur, Des Moines, Guthrie, Henry, Iowa, Jasper, Jefferson, Johnson, Keokuk, Lee, Louisa, Lucas, Madison, Mahaska, Marion, Marshall, Monroe, Muscatine, Polk, Poweshiek, Ringgold, Scott, Story, Tama, Taylor, Union, Van Buren, Wapello, Warren, Washington, and Wayne

The US Fish and Wildlife Service considers these counties, as being within the potential range of the species in Iowa.

Summer Habitat Requirements

In Iowa, records for the Indiana bat have occurred in areas of 10% or greater forest cover and near permanent water. Trees with slabs or plates of loose bark are considered suitable as summer roosts.

Suitable summer habitat in Iowa is considered to have the following within a one-half or one mile radius of a location:

- Forest cover of 10% or greater within one-half mile.
- Permanent water within one-half mile.
- The potential roost trees ranked as moderate or high for peeling or loose bark within one mile.

Survey Methods for Indiana Bat Summer Habitat

Step 1:

Determine if there is 10% or greater forest cover or if a 10 acre block of forest that is connected to another forest area and permanent water is within 1/2 mile of the project site go to Step 2.

If forest area is less than 10 acres and isolated by 1/4 mile or more from other forest, then there is no need to continue survey efforts.

Step 2:

Conduct a survey of the project area that will be cleared or cut to determine if standing trees that have 10% or greater loose or peeling bark on the trunks and main limbs are present. The amount of loose or peeling bark is based on visual estimation. This will include both upland and floodplain forests. Areas that are too large for complete counts may be sampled using techniques such as point-quarter, tenth-hectare quadrats or other acceptable forest sampling techniques.

If clearing and grubbing activities will not begin until after April 1, the survey should extend 50 yards beyond the area to be cleared. This buffer will reduce the potential for harm to roosting bats near the edge of the area to be disturbed.

If a survey of the habitat within the project area finds that suitable summer habitat for the Indiana Bat, as defined above, is present then there are two options available:

Option 1:

Conduct a mist net survey of the project area for the presence Indiana bats. The US Fish and Wildlife Service has guidelines for conducting mist net surveys. You may request a copy of the survey guidelines from the Rock Island Field office at the address listed on the back of this document. Submit results to the Rock Island Field Office and the Iowa Department of Natural Resources.

If Indiana bats are found during the survey then no removal of trees will be allowed between April 1 and September 30.

Option 2:

If the proposed project will disturb or remove less than 2-acres of forest, tree clearing and cutting may be done after September 30 and before April 1.

Office of Location & Environment

800 Lincoln Way, Ames, IA 50010

Phone: 515-239-1795 | Email: brennan.dolan@dot.iowa.gov

October 4, 2016

Ref No: NHSX-063-3(93)--3H-62

Mahaska County

Primary

LBG 2001796.012

R&C: 20140862010

Mr. Doug Jones and Ms. Sara André
State Historical Society of Iowa
600 East Locust
Des Moines, IA 50319-0290

RECEIVED

OCT 07 2016

by SHPO

Dear Doug and Sara:

RE: U.S. 63 NW Oskaloosa Bypass; Preferred Alternative; **No Adverse Effect**

As you will recall our offices have been consulting on this project for a couple of years now. In that time we have held a number of public meetings and taken into consideration the views of a number of stakeholders, including comments offered by your office. This project proposes to construct a two-lane highway on new alignment north and west of the city of Oskaloosa, with an interchange at Iowa 163 and an interchange at U.S. 63 in Mahaska County. Enclosed for your review are a series of maps identifying our preferred alternative for this project as well as historic properties identified near the proposed alignment.

As you can see our design team has worked hard to deliver this project and develop an alternative that does not require an adverse effect to any historic properties. For that effort we commend them for their consideration of various alternatives for this project.

As you will see from the enclosed maps the preferred alternative avoids the following archaeological sites 13MK384, 13MK599, 13MK600, 16MK604, 13MK607, and 13MK608. In earlier correspondence your office agreed that these sites should be avoided. You'll note the preferred alternative is not located near any of these six sites.

Additionally, the enclosed maps identify the preferred alternative and the six standing structures (built environment) that we have previously consulted on. All six properties 62-00153, 62-03538, 62-03554, 62-03557, 62-03559, and 62-03578 will be avoided by direct impacts from the project. Property 62-03554, the DeBruin House, is located immediately adjacent to the existing alignment of 210th Street. Our earlier study recommended the DeBruin Farmstead (62-03553) not eligible for National Register listing, however, the house (62-03554) within the farmstead remains eligible. Currently, we expect limited grading of the existing backslope of 210th Street in front of the DeBruin Farmstead. To avoid any potential for adverse effects from project vibration we will place the following note in the project plans:

- The De Bruin residence (62-03554) is eligible for listing on the National Register of Historic Places. The contractor shall be achieve low project vibration when working in this area.

At this time we request your collective concurrence with our determination of **No Adverse Effect** for this undertaking. If you concur please sign the line below, add your comments, and return this letter.

If you have any questions, please contact me at 515-239-1795 or brennan.dolan@dot.iowa.gov.

Sincerely,



Brennan J. Dolan
Office of Location and Environment

BD: Enclosure

- cc: Tribal Consulting Parties - Mahaska County Interest
- Jim Armstrong – District 5 Engineer
- Mark Van Dyke – Assistant District 5 Engineer
- Shelby Ebel – NEPA Lead
- Dan Zeimen – Location Lead
- Jacob Woodcock – Location and Environment
- Camilla Deiber – Louis Berger Group Lead

Concur:  Date: 10/12/2016
SHPO Archaeologist

Comments:

Concur:  Date: 10/12/2016
SHPO Historian

Comments:

Office of Location & Environment

800 Lincoln Way, Ames, IA 50010

Phone: 515-239-1795 | Email: brennan.dolan@dot.iowa.gov

December 22, 2015

Ref No: NHSX-063-3(93)--3H-62

Mahaska County

Primary

LBG 2001796.012

R&C: 20140862010

RECEIVED

DEC 24 2015

by SHPO

Mr. Doug Jones
State Historical Society of Iowa
600 East Locust
Des Moines, IA 50319-0290

Dear Doug:

RE: Revised Phase I Archaeological Investigation for U.S. 63 NW Oskaloosa Bypass; **No Determination of Effect**

As you will recall you were first asked to review this investigation in June of this year. Since that time your office and our office have had numerous discussions about this study. It is my hope that your concerns are addressed in the enclosed volume. At this time we ask that you review and comment on this phase I archaeological investigation for the above referenced federally funded project. This project is proposing to construct a two-lane highway on new alignment north and west of the city of Oskaloosa, with an interchange at Iowa 163 and an interchange at U.S. 63 in Mahaska County.

The enclosed archaeological investigation consists of an archival and site records search, landowner interviews, geomorphic assessment, pedestrian survey, and subsurface test excavations. A total of 4,385 acres (1,774 ha) were surveyed as part of this investigation. Table 1 below addresses the National Register eligibility recommendations for 45 previously and newly recorded sites within and near this project area. As you will read six of these sites are recommended for avoidance. No further work is recommended for the remaining 39 sites discussed in this report.

In previous communications your office had identified two areas of concern. The first was for Sites 13MK580, 13MK584, 13MK590, 13MK593, 13MK594, and 13MK595, namely because an earlier draft of this report did not specifically identify some of the historic ceramics as early for Iowa. These sites have been reassessed; however the National Register recommendations made for these sites have not changed. The reason for all six of these sites relates to site integrity and research potential. Four (13MK580, 13MK590, 13MK593, and 13MK2594) of the six sites yielded material from only the Ap horizon, and the remaining two sites (13MK584 and 13MK595) revealed material from single fill layers attributed to razing activities. In short, no context driven research appears likely for some of these early (possibly pre-Civil War) ceramics, leaving the eligibility recommendations for these sites as not eligible. If you'd like to talk in depth about these sites and these assemblages please let me know and we can schedule a meeting between your office, our office and the archaeological consultant. The second concern was over previously recorded sites, some of which had unclear National Register standing. Those sites are addressed in this report.

Table 1

Site	Cultural Affiliation	National Register Status	Recommendations
13MK273*	Multi-Component	Not Eligible	No further work
13MK275*	Historic	Not Eligible	No further work
13MK276*	Historic	Not Eligible	No further work
13MK380*	Historic	Not Eligible	No further work
13MK381	Historic	Not Eligible	No further work
13MK382*	Historic	Not Eligible	No further work
13MK383*	Historic	Not Eligible	No further work
13MK384*	Historic	Unevaluated	Avoidance or NR Evaluation
13MK385*	Prehistoric	Not Eligible	No further work
13MK386*	Historic	Not Eligible	No further work
13MK387*	Historic	Not Eligible	No further work
13MK419*	Prehistoric	Not Eligible	No further work
13MK570	Prehistoric	Not Eligible	No further work
13MK571	Historic	Not Eligible	No further work
13MK572	Historic	Not Eligible	No further work
13MK573	Prehistoric	Not Eligible	No further work
13MK574	Historic	Not Eligible	No further work
13MK575	Prehistoric	Not Eligible	No further work
13MK576	Prehistoric	Not Eligible	No further work
13MK577	Prehistoric	Not Eligible	No further work
13MK578	Prehistoric	Not Eligible	No further work
13MK579	Prehistoric	Not Eligible	No further work
13MK580	Historic	Not Eligible	No further work
13MK581	Historic	Not Eligible	No further work
13MK582	Prehistoric	Not Eligible	No further work
13MK583	Prehistoric	Not Eligible	No further work
13MK584	Historic	Not Eligible	No further work
13MK585	Historic	Not Eligible	No further work
13MK586	Prehistoric	Not Eligible	No further work
13MK587	Prehistoric	Not Eligible	No further work
13MK588	Prehistoric	Not Eligible	No further work
13MK589	Prehistoric	Not Eligible	No further work
13MK590	Historic	Not Eligible	No further work
13MK591	Prehistoric	Not Eligible	No further work
13MK592	Prehistoric	Not Eligible	No further work
13MK593	Multi-Component	Not Eligible	No further work
13MK594	Historic	Not Eligible	No further work
13MK595	Multi-Component	Not Eligible	No further work
13MK597	Prehistoric	Not Eligible	No further work

Table 1 Continued

Site	Cultural Affiliation	National Register Status	Recommendations
13MK598	Prehistoric	Not Eligible	No further work
13MK599	Prehistoric	Potentially Eligible	Avoidance or NR Evaluation
13MK600	Prehistoric	Potentially Eligible	Avoidance or NR Evaluation
13MK604	Prehistoric	Unevaluated	Avoidance or NR Evaluation
13MK607	Historic; Prine Cemetery	Not Determined	Avoidance
13MK608**	Historic; Center Grove Cemetery	Not Determined	Avoidance

*Previously Recorded

**Outside Study Area

As you know a project determination of effect will be established after project alignment information becomes available, the Area of Potential Effect (APE) has been determined, and consultation regarding all historic properties has occurred. If you concur with the results of this archaeological investigation, please sign the concurrence line below, add your comments, and return this letter. If you have any questions, please contact me at 515-239-1795 or brennan.dolan@dot.iowa.gov.

Sincerely,



Brennan J. Dolan
Office of Location and Environment

LW

Enclosure

cc: Jim Armstrong – District 5 Engineer
Mark Van Dyke – Assistant District 5 Engineer
Shelby Ebel – NEPA Lead
Dan Zeimen – Location Lead
Camilla Deiber – Louis Berger Group Lead

Concur: Douglas W. Jones Date: 2/1/2016
SHPO Archaeologist

Comments:

APPENDIX C

FARMLAND PROTECTION FORM

**FARMLAND CONVERSION IMPACT RATING
FOR CORRIDOR TYPE PROJECTS**

PART I (To be completed by Federal Agency)		3. Date of Land Evaluation Request 11/30/16	4. Sheet 1 of 2
1. Name of Project NW Oskaloosa Bypass- U.S. 63		5. Federal Agency Involved FHWA	
2. Type of Project New Pavement		6. County and State Mahaska County, IA	
PART II (To be completed by NRCS)		1. Date Request Received by NRCS 11/30/16	2. Person Completing Form Jason Steele
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		4. Acres Irrigated 00	Average Farm Size 380
5. Major Crop(s) Corn	6. Farmable Land in Government Jurisdiction Acres: 339,172 % 90	7. Amount of Farmland As Defined in FPPA Acres: 146,299 % 39	
8. Name Of Land Evaluation System Used Poweshiek County, Iowa	9. Name of Local Site Assessment System N/A - FPPA	10. Date Land Evaluation Returned by NRCS 12/7/16	

PART III (To be completed by Federal Agency)	Alternative Corridor For Segment			
	Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly	236			
B. Total Acres To Be Converted Indirectly, Or To Receive Services	0			
C. Total Acres In Corridor	366			

PART IV (To be completed by NRCS) Land Evaluation Information	
A. Total Acres Prime And Unique Farmland	87.8
B. Total Acres Statewide And Local Important Farmland	129.6
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.0001
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	64

PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)	63.9
--	-------------

PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))	Maximum Points				
1. Area in Nonurban Use	15	12			
2. Perimeter in Nonurban Use	10	9			
3. Percent Of Corridor Being Farmed	20	20			
4. Protection Provided By State And Local Government	20	20			
5. Size of Present Farm Unit Compared To Average	10	4			
6. Creation Of Nonfarmable Farmland	25	0			
7. Availability Of Farm Support Services	5	5			
8. On-Farm Investments	20	0			
9. Effects Of Conversion On Farm Support Services	25	0			
10. Compatibility With Existing Agricultural Use	10	3			
TOTAL CORRIDOR ASSESSMENT POINTS	160	73	0	0	0

PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)	100	63.9	0	0	0
Total Corridor Assessment (From Part VI above or a local site assessment)	160	73	0	0	0
TOTAL POINTS (Total of above 2 lines)	260	136.9	0	0	0

1. Corridor Selected: A	2. Total Acres of Farmlands to be Converted by Project: 236	3. Date Of Selection: 8/5/16	4. Was A Local Site Assessment Used? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
-----------------------------------	---	--	---

5. Reason For Selection:
This alternative was selected because it utilizes the existing bridge over South Skunk River which avoided impacts to natural resources around the river at the north end of the study area. Furthermore, it was the only alternative where the new interchange with Iowa 163 avoided a large valve field on the easterly side of IA 163 between Jewell Avenue and 235th Street which would have been very costly and difficult to relocate. Finally, this alternative best met the purpose and need that was established for the bypass and had the fewest impacts to floodplains, streams, historic properties and homes.

Signature of Person Completing this Part: _____ DATE _____

NOTE: Complete a form for each segment with more than one Alternate Corridor

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor - type site or design alternative for protection as farmland along with the land evaluation information.

(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?

More than 90 percent - 15 points
90 to 20 percent - 14 to 1 point(s)
Less than 20 percent - 0 points

(2) How much of the perimeter of the site borders on land in nonurban use?

More than 90 percent - 10 points
90 to 20 percent - 9 to 1 point(s)
Less than 20 percent - 0 points

(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?

More than 90 percent - 20 points
90 to 20 percent - 19 to 1 point(s)
Less than 20 percent - 0 points

(4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?

Site is protected - 20 points
Site is not protected - 0 points

(5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County ?

(Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with \$1,000 or more in sales.)

As large or larger - 10 points
Below average - deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average - 9 to 0 points

(6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?

Acreage equal to more than 25 percent of acres directly converted by the project - 25 points
Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)
Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points

(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?

All required services are available - 5 points
Some required services are available - 4 to 1 point(s)
No required services are available - 0 points

(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?

High amount of on-farm investment - 20 points
Moderate amount of on-farm investment - 19 to 1 point(s)
No on-farm investment - 0 points

(9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?

Substantial reduction in demand for support services if the site is converted - 25 points
Some reduction in demand for support services if the site is converted - 1 to 24 point(s)
No significant reduction in demand for support services if the site is converted - 0 points

(10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?

Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points
Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points
