

CATEGORICAL EXCLUSION (d-list)
FEDERAL TRANSIT ADMINISTRATION, REGION VII

Project Name Siouxland Regional Transit System Operations and Bus Storage Facility Project

Grant No. (if available)

STIP/TIP Item Number: 5127

STIP/TIP Approval Date: 05/24/2018

Proposed Action

Siouxland Regional Transit System (SRTS) proposes to construct an approximately 48,800 sq. ft. operations and bus storage facility with parking in the front and paving around the facility totaling approximately 104,832 sq. ft. Anticipated future expansion includes additional parking lots in front of the office and paving around the facility for a total build out of 414' x 504' (208,656 sq. ft.), situated on five acres in the Northeast corner of the Highway 75 and Highway 20 interchange, and that fronts along Hwy 20, as a small tract of land within a previously disturbed borrow site of approximately 61-acres currently owned by Iowa Department of Transportation (DOT). This will be a joint use site that will include a proposed new construction Iowa DOT regional operations facility (non-FTA funds), in order to utilize shared costs for site development, utilities and access roads. SRTS will lease the land necessary to construct their facility with Federal Transit Administration (FTA) funds.

SRTS currently operates 50 buses in a 6-county region with 35 buses in the immediate service area. The existing facility has no parking for buses, which are parked offsite at various public and private facilities throughout the service area or taken home by drivers. The largest parking location is part of the Sioux City Public works facility which only provides outdoor parking in a gravel parking lot. Buses are parked in unsecured lots overnight, which have resulted in vandalism and theft of bus equipment. Currently SRTS shares office space with Siouxland Interstate Metropolitan Planning Council (SIMPCO) in a small building (5124 sq. ft.) that was originally constructed in 1967 as a restaurant. Due to the current facility not meeting many of the basic needs of SRTS and SIMPCO operations, SRTS requested assistance to complete an initial assessment of need for a new transit facility. Findings of the assessment identified the current facility is significantly inadequate for SRTS transit operations. The current facility was not designed to serve a transit program and cannot be configured to efficiently support scheduling, dispatch, finance, management, drivers and buses. SRTS does not have any current bus storage or maintenance facility, so all of the vehicles are stored outside in the inclement weather.

The scope of work involves: slab on grade building construction, 35-stall bus garage, maintenance bays, and general office space that includes dispatch and conference rooms. The project will provide enough indoor storage for 35 buses with additional storage for buses that are brought to Sioux City for maintenance, and provide outdoor parking for drivers and employees, with added parking for buses during driver meetings and training. Future phases of the project will include expansion of the office area to accommodate up to 8 more employees, expansion of the bus storage area to include up to 14 more buses based on 2% growth per year over the next 20 years, and expansion of the bus maintenance area to include up to 5 maintenance stalls to accommodate adding in house maintenance for buses. This location is the preferred site to allow for low cost access to land with more funding available for building the facility and minimizing deadhead distance for buses serving the metro area and rural counties in the SRTS service area. If cost estimates allow, it would be beneficial to have the facility LEED certified, and or incorporate sustainable design standards for the building that include the latest in energy conservation, solar or wind energy practices, as many of these improvements are common in urban areas, but are very limited or non-existent in rural areas. By introducing sustainable technologies to rural areas, SRTS hopes to educate the public and generate new interest at the local level to incorporate new technology in future building projects.

Categorical Exclusion Determination

The project is categorically excluded from further NEPA review under 23 CFR 771.118 (d):

- activity category _____, or
- general exclusion (no specific activity category applies, but the project is still exempt per the conditions of 23 CFR 771.118(a) and (b))

Environmental Evaluation Summary

Land Acquisition: No land acquisition or relocations of the existing occupant at this location is required. The proposed facility will be located on a 61-acre tract of land currently owned by the Iowa Department of Transportation. SRTS proposes to lease approximately 5 acres from the Iowa DOT for facility construction. The land is located in the Northeast corner of Hwy 75 and Hwy 20, in Woodbury County. The proposed 5-acre site would be located along Hwy 20 on the south side of the tract of land. The Iowa DOT plans to build a

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regional facility to house their road maintenance and regional engineers on the remaining 56-acre portion of the land. SRTS and the Iowa DOT would share access to Hwy 20, and would share water and sewer utilities furnished by the City of Sioux City. The site has been used as a dirt borrow pit by the Iowa DOT for multiple highway projects and has had significant excavation and grading completed. The site was previously used as farmland and has not had any past development. The location is considered a rural area and lies outside the urbanized area in the unincorporated section of the County as determined by the last census.

Noise: The general area adjacent to the proposed site is zoned as rural residential to the north, with commercial and agriculture zoning to the east, west and south. A GIS desktop review for noise-sensitive receptors near the proposed project site indicates there are rural residential lots near the proposed project site of which only three or four existing acreages with residential houses are in close proximity to the parcel, with the closest residence approximately 1000 feet from the facility. Furthermore, vehicles used by SRTS will be compatible with existing vehicle traffic when exiting and entering the facility from the Hwy 20 access road and will not contribute to the current noise level in the area. Based on FTA's Noise and Vibration Manual, it was determined that none of the noise sensitive listed land uses are within the distances noted in Table 4-1 of the manual for bus facility projects, therefore no further noise analysis is needed.

Farmland Protection Policy Act (FPPA): The FPPA is intended to minimize the impact Federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses, and assures that to the extent possible, federal programs are administered to be compatible with state, local units of government, and private programs and policies to protect farmland for the purpose of FPPA. Farmland includes prime farmland, unique farmland, and land of statewide or local importance as designated by the U.S Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS). A soil survey was completed for the site located in the NE corner of Hwy 75 & 20, and consisting of approximately 61-acres of previously borrowed soil. The site has been utilized predominately as a borrow site since approximately 2007 following the completion of the Federal Highway Administration (FHWA) – Iowa Department of Transportation (DOT) Environmental Impact Statement for the I-29 Corridor Improvements in Sioux City, Iowa. The FTA has consulted with the NRCS and prepared a Farmland Conversion Impact Rating for the potential conversion of farmland of Statewide Importance and concluded that there would be no impact from the conversion of the borrow site to the new construction of the SRTS operations facility and received compliance approval from NRCS dated Sept 5, 2019.

Biological Resources/Threatened and Endangered Species – The Endangered Species Act (16 U.S.C. --1531 to 1544) requires federal agencies to determine the effects of their actions on Federally-listed threatened and endangered species of fish, wildlife, and plants, and their critical habitats and to take steps to conserve and protect these species. The U.S. Fish and Wildlife Service (USFWS) has the responsibility for conservation and management of fish and wildlife resources. Section 7 of the Endangered Species Act of 1973 outlines procedures for interagency consultations on the effects of Federal actions on federally listed threatened and endangered species. A review was completed with the USFWS ECOS Information for Planning and Consultation (IPaC) system on October 3, 2019 for the identification of species within the target area. The review identified six (6) threatened, endangered, or candidate species that may or may not occur within the boundary of the proposed project. Upon review of the official species list report, FTA determined that Section 7 consultation is not required with USFWS for there is no designated critical habitat for the listed species, as the site has been used as a borrow site, and or the project location is outside of any identified critical habitat. Consequently, no impact is anticipated.

Executive Order 11990, Protection of Wetlands, requires federal agencies to take action to avoid or minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands. The USFWS National Wetland Inventory (NWI) identified no presence of wetlands on the 61-acre site nor during the Phase I ESA conducted in September 2019.

Water Quality: If more than one acre of ground is disturbed during construction, the project will require compliance with the provisions of the Iowa Water Quality Standards found in Chapter 61 of the Iowa Administrative Code, administered by the Iowa Department of Natural Resources (IDNR). This includes applying for the Iowa Water Pollution Control General Permit and Authorization to Discharge, also referred to as a stormwater discharge or NPDES permit. The regulations and permit procedures require utilization of erosion controls that limit the amount of pollutants that leave a job site. Implementation of temporary erosion controls, best management practices, and compliance with permit limits will help prevent adverse impacts to water quality and decrease the amount of sediment leaving the project site. Water quality is not anticipated to be negatively impacted by the proposed project.

Jurisdictional Waters: There are no anticipated impacts to Federally jurisdictional waters, including wetlands or other waterways, associated with the proposed project. Wetland location data was obtained from the U.S. Fish and Wildlife Service (USFWS) National

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Wetlands Inventory (NWI) and used to evaluate the potential presence of wetlands on or near the project site. No wetlands were found in the NWI database on or near the project site. The project will not cause impacts to any jurisdictional waters, including wetlands, and therefore, will not require authorization under Section 404 of the Clean Water Act. Likewise, water quality certification under Section 401 of the Clean Water Act will not be required. The site is not located near any bodies of water and would not involve displacing or demolition of any structures.

Air Quality: The Clean Air Act (CAA) requires states to take actions to reduce air pollution in nonattainment areas and to provide control measures in maintenance areas. The framework for meeting these goals is the State Implementation Plan (SIP). The City of Sioux City is in attainment per the current SIP Revision Approval. The CAA and its amendments require that federal agencies and Metropolitan Planning Organizations (MPOs) only approve a transportation project, program, or plan, if it conforms to the approved SIP. Because no adverse local air quality impacts would occur as a result of the proposed project, no mitigation is warranted. The project is not anticipated to have an adverse impact on air quality and will comply with all Federal, State and local guidelines, including the Clean Air Act.

Floodplain Management: According to the FEMA Flood Insurance Rate Map (FIRM) Panel 19193C0202D, effective 09/29/2011, the property is located in a Zone X, outside of the special flood hazard area as shown in the FIRMette in Appendix A. There will be no anticipated floodplain impacts associated with this proposed project, therefore no further compliance is required.

Cultural Resources: Section 106 of the National Historic Preservation Act of 1966, as amended, requires federal agencies to assess the effects of their undertaking on historic resources listed or eligible for listing in the National Register of Historic Places (NRHP), including impacts to districts, sites, buildings, structures, objects, archeological and cultural resources. Federal agencies must coordinate with the State Historic Preservation Office (SHPO) and potentially affected Federally Recognized Tribes to make this determination. The Advisory Council on Historic Preservation (ACHP) has established procedures for the protection of historic and cultural properties in, or eligible for, the National Register (36 CFR Part 800). In accordance with 36 CFR Part 800, FTA defined the Area of Potential Effect (APE) for indirect effects to consist of a 61-acre parcel in the Northeast corner of the Highway 75 and Highway 20 interchange. The proposed project consists of the new construction of an approximately 48,730 square foot operations and bus storage facility, with anticipated future expansion that includes paved parking in front of the office and around the facility for a total footprint of 414' x 504' (208,656sf), situated on five acres, and as a smaller tract of land within a previously disturbed borrow site of approximately 61-acres currently owned by Iowa DOT. This will be a joint use site that will include a new construction Iowa DOT regional operations facility (non-FTA funds), in order to utilize shared costs for site development, utilities and access roads. SRTS will lease the land to construct their facility with FTA funds.

FTA defines the Area of Potential Effect (APE) for direct effects as all areas subject to potential direct impacts from the proposed project site and part of the shared approximate 25-acre site, including temporary construction and staging areas as shown on the APE Map (Appendix A). The APE for indirect effects includes the approximate 61-acre site, as part of the joint use with Iowa DOT, and which includes the SRTS project footprint. The APE was reviewed for archaeological resources and historic properties listed or eligible for listing in the NRHP through record searches and the NRHP online database, and revealed no historic properties near the proposed site. Initial archaeological survey efforts for this parcel began in 1993 and was the subject of two previous archaeological surveys, as part of the Federal Highway Administration (FHWA)-Iowa DOT I-29 Sioux City Interstate Study Environmental Impact Statement. The first was completed by the Iowa DOT/FHWA for US Highway 75. No sites were recorded on or near (within one mile) of the subject parcel. The second survey was completed in 2007 for use of the parcel as a borrow, and no sites were recorded within or near the parcel. Both surveys received concurrence from the Iowa SHPO, and were completed with methods consistent with Association of Iowa Archaeologist guidelines. Based on the previous SHPO concurrences, archaeological surveys, and desktop review, FTA determined that this proposed undertaking has no potential to cause effects on historic properties and therefore would result in a finding of **"No Historic Properties Affected"**. FTA prepared a Section 106 consultation letter to the Iowa SHPO dated August 19, 2019. The SHPO concurred with FTA's finding on September 3, 2019. The signed Sec 106 Letter from the SHPO is provided in Appendix A, Agency Correspondence.

Environmental Justice: Executive Order 12898 provides that "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations." The U.S Department of Transportation (USDOT) similarly requires FTA to explicitly consider human health and environmental effects related to transit projects that may have a disproportionately high and adverse effect on minority and low-income populations. The proposed project will not require land

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acquisition or relocation. However, SRTS intends to lease the land from Iowa DOT for the construction of the bus facility. The site is located in Census Tract 43580. The project site does not suffer from adverse health or environmental effects which may disproportionately impact a minority or low-income population relative to the surrounding area. The proposed project development would positively impact the community by providing employment and an increase of quality public transportation services. The site is in an undeveloped rural area and will not displace any residential or commercial land uses. Its location will also enhance transit services provided to customers within the community and surrounding region. No negative impacts are anticipated.

Hazardous Materials: The methodology used to identify the presence of sites within the project footprint which have the potential to impact the project included the following steps: Review of readily available local, state, and federal environmental agency databases to identify sources including EPA's Enviromapper and Iowa Department of Natural Resources (IDNR) databases.

A Phase I Environmental Site Assessment (ESA) was performed on the 61.6-acre site and completed September 25, 2019 by HR Green Consultants. The ESA was conducted in accordance with American Society for Testing and Materials (ASTM) E1527-13 Standard Practice for Environmental Site Assessments: Phase I ESA Process, including field assessments, interviews, hazardous waste records and historical resources review. The assessment revealed no evidence of Recognized Environmental Conditions (RECs) in connection with the subject property. HR Green does not recommend further investigation based on data gathered in accordance with ASTM Practice E 1527-13 for completion of this Phase I ESA.

Project Commitments

The following project conditions and/or mitigation measures are not subject to change without prior written approval from FTA. If there is any change in the scope of work or project footprint, the project sponsor must contact FTA to evaluate potential impacts.

- A Geotechnical Investigation will be performed on the site prior to start of construction.
- Development sites with more than one acre of ground disturbed during construction are required to prepare and implement a storm water pollution prevention plan, and shall file a notice of intent under the provisions of the National Pollutant Discharge Elimination System (NPDES) general permit filed with the Iowa Department of Natural Resources found in Chapter 61 of the Iowa Administrative Code.
- All land use development and building permits must be obtained prior to start of construction with the Woodbury County Community and Economic Development Office for any ground disturbance occurring within the unincorporated section of the county. Site plan approval with the County has to occur prior to compliance with all applicable zoning regulations.
- Potential water quality impacts from soil erosion during construction will be controlled through the implementation of approved Best Management Practices for erosion and sediment control and compliance with County and State Code.

Attachments (list)

- Appendix A: Agency Correspondence & Maps (SHPO Letter; Agency Emails, Site Map, APE Map, FEMA FIRMette)
- Appendix B: Phase I ESA

Submitted By: Curtis Miller Date: 10/7/19

Title: Transit Director

Project Sponsor/Grantee: Sixland Regional Transit System



FTA Findings For Siouxland Regional Transit System Operations and Bus Storage Facility Project Sioux City, Iowa

FTA determines that the Siouxland Regional Transit System (SRTS) Operations and Bus Storage Facility Project meets the criteria for a Documented Categorical Exclusion (dCE) in accordance with **23 CFR 771.118(d)**. The proposed new facility includes an approximately 48,800 sq. ft. operations and bus storage facility with parking in the front and paving around the facility totaling approximately 104,832 sq.ft. Anticipated future expansion includes additional parking lots in front of the office and paving around the facility for a total build out of 414' x 504' (208,656 sq ft), situated on five acres in the Northeast corner of the Highway 75 and Highway 20 Interchange, and that fronts along Hwy 20, as a small tract of land within a previously disturbed borrow site of approximately 61-acres currently owned by Iowa Department of Transportation (DOT) within the unincorporated section of the county. This will be a joint use site that will include a proposed new construction Iowa DOT regional operations facility (non-FTA funds), in order to utilize shared costs for site development, utilities and access roads. SRTS will lease the land necessary to construct their facility with Federal Transit Administration (FTA) funds. The attached CE documentation provides sufficient environmental analyses for the proposed project and no further environmental review is required.

The scope of work involves: slab on grade building construction, 35-stall bus garage, maintenance bays, and general office space that includes dispatch and conference rooms. The project will provide enough indoor storage for 35 buses with additional storage for buses that are brought to Sioux City for maintenance, and provide outdoor parking for drivers and employees, with added parking for buses during driver meetings and training. Future phases of the project will include expansion of the office area to accommodate up to 8 more employees, expansion of the bus storage area to include up to 14 more buses based on 2% growth per year over the next 20 years, and expansion of the bus maintenance area to include up to 5 maintenance stalls to accommodate adding in house maintenance for buses. This location is the preferred site to allow for low cost access to land with more funding available for building the facility and minimizing deadhead distance for buses serving the metro area and rural counties in the SRTS service area. If cost estimates allow, SRTS will pursue LEED certification, and or incorporate sustainable design standards for the building that include the latest in energy conservation, solar or wind energy practices.

Pursuant to Section 106 of the National Historic Preservation Act, 36 CFR Part 800, FTA determines a finding of “**No Historic Properties Affected**” as a result of the project. The SHPO concurred with this determination on September 3, 2019.

Pursuant to 23 CFR Part 774, FTA determines that no land, feature, or attribute from a Section 4(f) resource will be acquired or substantially impaired by the project; therefore, there is no use of Section 4(f) property associated with the project.

The following project commitments/mitigation measures are not subject to change without prior written approval from FTA. If there is any change in the scope of work or project footprint, SRTS must contact FTA to evaluate potential impacts.

- **SRTS will include provisions in the construction contract to minimize construction noise impact through regular work-hour controls, along with requirements for maintaining equipment and exhaust mufflers to manufacturer’s specifications.**
- **SRTS will ensure that a Geotechnical Investigation will be performed on the site during the design and engineering phase and prior to start of construction.**



U.S. Department
of Transportation
**Federal Transit
Administration**

REGION VII
Iowa, Kansas,
Missouri, Nebraska

901 Locust Street
Suite 404
Kansas City, MO 64106
816-329-3920
816-329-3921 (fax)

- If more than one acre of ground is disturbed during construction, SRTS will fulfill compliance with the provisions of the National Pollutant Discharge Elimination System (NPDES) and file for a general permit with the Iowa Department of Natural Resources found in Chapter 61 of the Iowa Administrative Code for development of sites that are required to prepare and implement a storm water pollution prevention plan.
- All land use development, building and grading permits must be obtained prior to start of construction with the Woodbury County Community and Economic Development Office for any ground disturbance occurring within the unincorporated section of the county. Site plan approval with the County has to occur prior to compliance with all applicable zoning regulations.
- SRTS will ensure that potential water quality impacts from soil erosion and runoff during construction will be controlled through the implementation of approved Best Management Practices for erosion and sediment control and compliance with County and State Code.

Prepared By

Beth Held

Beth Held
Environmental Specialist, FTA Region VII

Date:

10/7/19

Approved By

Mokhtee Ahmad

Mokhtee Ahmad
Regional Administrator, FTA Region VII

Date:

10/7/2019

PHASE I ENVIRONMENTAL SITE ASSESSMENT

**PROPOSED COMBINED DOT FACILITY SITE
NE QUADRANT OF US 20/75 INTERCHANGE
WOODBURY COUNTY
SIOUX CITY, IOWA**



HR GREEN, INC. PROJECT NO. 171630.02

**September 25, 2019
Viability of Environmental Site Assessment Expiration Date: February 24, 2020**

**PREPARED FOR:
IOWA DEPARTMENT OF TRANSPORTATION**

PREPARED BY:



Appendix A – Agency Correspondence and Maps



U.S. Department
of Transportation
**Federal Transit
Administration**

REGION VII
Iowa, Kansas,
Missouri, Nebraska

901 Locust Street
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190897095

August 19, 2019

Mr. Steve King
Deputy State Historic Preservation Officer
State Historic Preservation Office
State Historical Building – 3rd Floor
600 East Locust Street
Des Moines, Iowa 50319

RECEIVED
AUG 30 2019
by SHPO

RE: Section 106 Consultation
Siouxland Regional Transit Operations and Bus Storage Facility - Sioux City, Iowa

Dear Mr. King:

The Siouxland Regional Transit System (SRTS), in cooperation with the Federal Transit Administration (FTA), is planning to construct a new operations and bus storage facility in Sioux City, Iowa. SRTS proposes to lease the land from the current owner, Iowa DOT, and use FTA funds for the facility construction. The FTA is considering providing grant assistance for the proposed project located in the northeast corner of the Highway 75 and Highway 20 interchange, east of the Sioux City urban area. In accordance with Section 106 of the National Historic Preservation Act of 1996, as amended (16 U.S.C. 470f) and its implementing regulation, 36 CFR Part 800, the FTA is initiating consultation with your office for the identified federal undertaking. In fulfilling our Section 106 responsibilities, we have enclosed all pertinent documentation for your review that will substantiate our determination of eligibility for this undertaking.

The proposed project consists of the new construction of an approximately 48,730 square foot operations and bus storage facility, with anticipated future expansion that includes paved parking in front of the office and around the facility for a total footprint of 414' x 504' (208,656sf), situated on five acres, in close proximity to Hwy 20, and as a smaller tract of land within a previously disturbed borrow site of approximately 55-acres currently owned by Iowa DOT. This will be a joint use site that will include a new construction Iowa DOT regional operations facility (non-FTA funds), in order to utilize shared costs for site development, utilities and access roads. SRTS will lease the land to construct their facility with FTA funds. The scope of work involves: slab on grade construction, 35-stall bus garage, maintenance bays, and general office space that includes dispatch and conference rooms. If cost estimates permit, there are plans to have the facility LEED certified, and or incorporate sustainable standards including solar, wind technology.

Area of Potential Effect

FTA defines the Area of Potential Effect (APE) for direct effects as all areas subject to potential direct impacts from the proposed project site and part of the shared approximate 25-acre site, including temporary construction and staging areas as shown on the APE Map (See attached map).

The APE for indirect effects includes the approximate 55-acre site, as part of the joint use with Iowa DOT, and which includes the SRTS project footprint.

Methodology

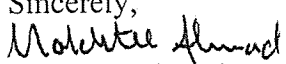
Initial archaeological survey efforts for this parcel began in 1993 and has been the subject of two previous archaeological surveys. The first was completed by the Iowa DOT/FHWA for US Highway 75. Mark Anderson, formerly with the University of Iowa Office of the State Archaeologist, completed a substantial identification effort for this road project (see R&C 19920897030; Anderson 1993). No sites were recorded on or near (within one mile) the subject parcel. The second professional survey was completed in 2007 for use of the parcel as a borrow (see R&C 20041197039; Scott 2007). Again, no sites were recorded within or near the parcel. Both of these surveys received concurrence from the Iowa SHPO under the above referenced R&C numbers, and were completed with methods consistent with Association of Iowa Archaeologist guidelines (AIA 2018:45). Iowa DOT has reviewed the Iowa SHPO standing structure inventory near the subject parcel and found no undetermined, eligible, or listed historic properties. A desktop review revealed the area possesses low to no potential for historically significant built environment standing structures. Further, the vertical profile of the proposed FTA facility, is anticipated to not exceed 35-feet, making the potential for visual impacts low. Therefore, it is our assessment that no further cultural resource investigations are needed for this project.

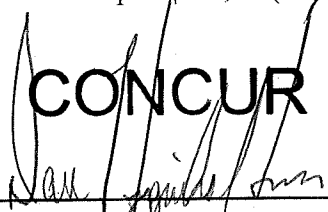
Determinations of Effect

The APE was previously evaluated for archaeological resources during the Phase I Cultural Resources Investigation in a letter to your office dated November 16, 2007 (see attached), as part of the Federal Highway Administration (FHWA)-Iowa DOT I-29 Sioux City Interstate Study Environmental Impact Statement. There were no archaeological or cultural resources identified, and the Iowa SHPO concurred with FHWA's finding of *No Historic Properties Affected* in a letter dated August 18, 2008. Based on the previous SHPO concurrences and the above desktop review, FTA has determined that this undertaking would result in a finding of "*No Historic Properties Affected*" under Section 106.

We respectfully request your concurrence with this finding and appreciate your cooperation in commenting on this project. If you do not concur with this finding, please respond to our office within thirty (30) days of the date of receipt of this letter. Should you require additional information or have any questions, please contact Beth Held, Environmental Specialist, at (816) 329-3934 or email beth.held@dot.gov.

Thank you for your assistance.

Sincerely,

Mokhtee Ahmad
Regional Administrator

CONCUR
NAME 
DATE 9/3/2019

Enclosure: APE Map, Project Exhibit, 2007 SHPO Phase I Letter, Archaeological Survey Maps

Cc: (Electronic): Heather Gibb, Historic Preservation Specialist, Iowa SHPO
Daniel Higginbottom, Archaeologist, Iowa SHPO
Curt Miller, Transit Director, Siouxland Regional Transit
Stuart Anderson, Director, Planning, Programming and Modal Div.- Iowa DOT

From: [Moran, Louis - NRCS, Sioux City, IA](#)
To: [Held, Beth \(FTA\)](#)
Subject: Siouxland Regional Transit Bus Facility
Date: Thursday, September 05, 2019 1:18:53 PM
Attachments: [image001.png](#)
[Siouxland Regional Bus Transit Authority.pdf](#)

Hi Ms. Held,

I am the Area Resource Soil Scientist for Area 1 and have been handling the FPPA compliance requests after Rick Bednarek's retirement for the area. Attached is the AD-1006 Form for the area of interest in Woodbury County that you provided to Luis. NRCS fills only Part II and IV. Please review and let me know if it is fine so I can go ahead let Luis know this has been completed. Thanks.

Louis Moran, Ph.D.
Area 1 Resource Soil Scientist
NRCS Area Office
3539 Southern Hills Drive, Suite 3
Sioux City, IA 51106

Phone 712-276-2539, ext 3568 (Sioux City)
Phone (Cell): 712-870-4373

Hi Louis,

Can you take care of this? She has been emailing Rick Bednarek and apparently not getting an email notification back that the email is no longer in service since he retired.

Thanks,

Luis

Luis A. Cruz-Arroyo
ASTC-FO | USDA-NRCS
Office. 712-454-3556
3539 Southern Hills Drive, Ste 3
Sioux City, IA 51106

From: Held, Beth (FTA) <beth.held@dot.gov>

Sent: Thursday, September 5, 2019 9:47 AM

To: Cruz-Arroyo, Luis - NRCS, Sioux City, IA <luis.cruz-arroyo@usda.gov>

Subject: Siouxland Regional Transit Bus Facility

Good morning Luis,

This is a follow-up to our discussion this morning on obtaining an FPPA compliance review on the above new construction transit facility located in the northeast corner of the interchange of Hwy 70 & Hwy 20. I am the regional environmental specialist for the Federal Transit Administration in Region 7, Kansas City, and we're considering funding a new construction transit operations at the above location in conjunction with Iowa DOT's new regional operations center planned for the same parcel. This site has been previously used by Iowa DOT, and recently purchased by them, as one of their borrow sites for the I-29 corridor improvements in Sioux City since about 2007 if not earlier, so want to clarify with NRCS on whether a borrow site is still considered an irreversible conversion similar to urban development, and or if I should proceed to send you the AD 1006 for a rating for FPPA compliance?

I've attached the site map and conceptual plan for the site, so please let me know if you need any additional information for your review.

Thanks & have a great day!

Beth

Beth Held

Regional Environmental Specialist

Federal Transit Administration - Region VII

901 Locust Street, Suite 404 || Kansas City, Missouri || 64106

816-329-3934 || beth.held@dot.gov

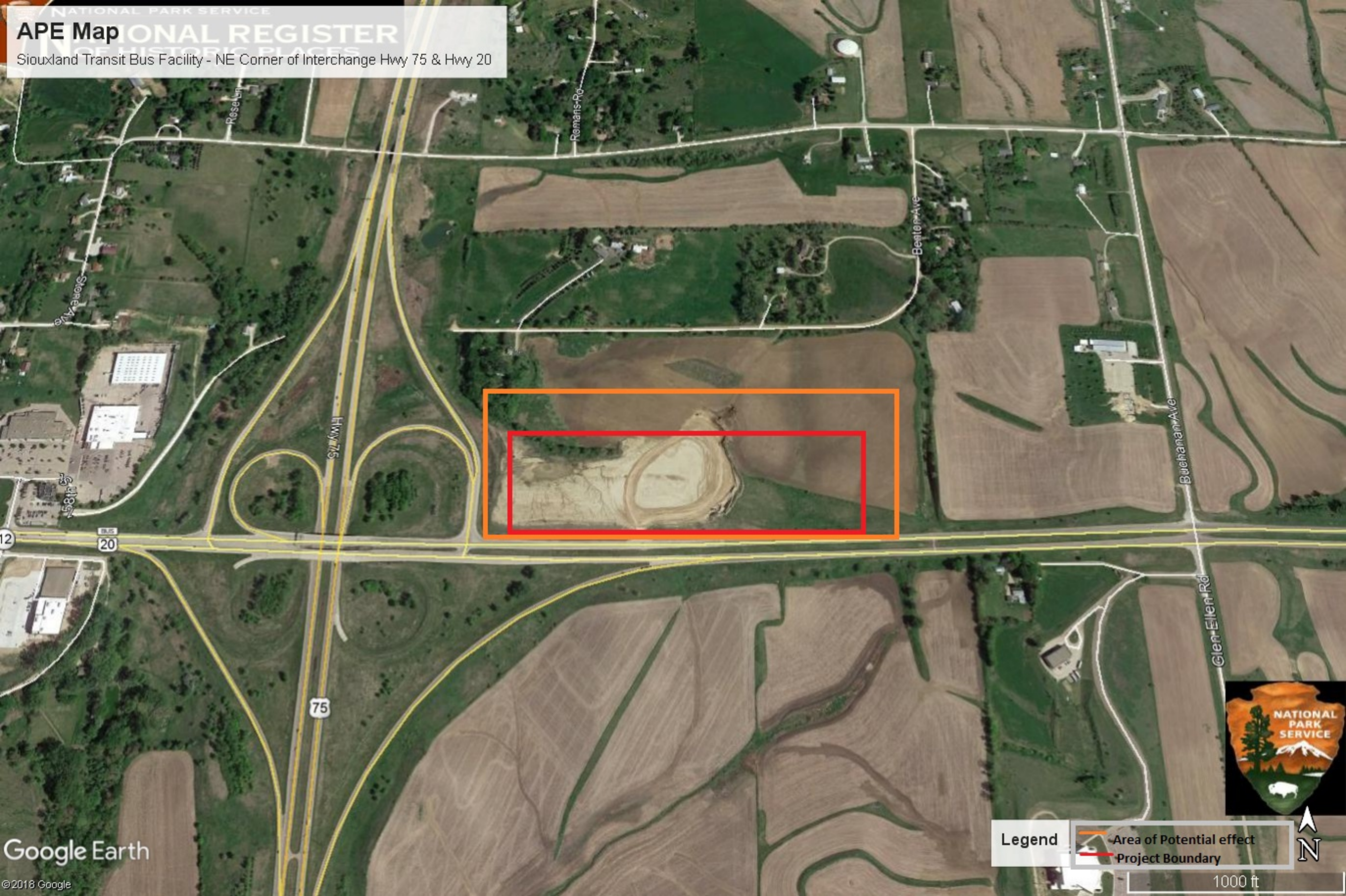


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NATIONAL PARK SERVICE
APE Map
National Register
of Historic Places
Siouxland Transit Bus Facility - NE Corner of Interchange Hwy 75 & Hwy 20



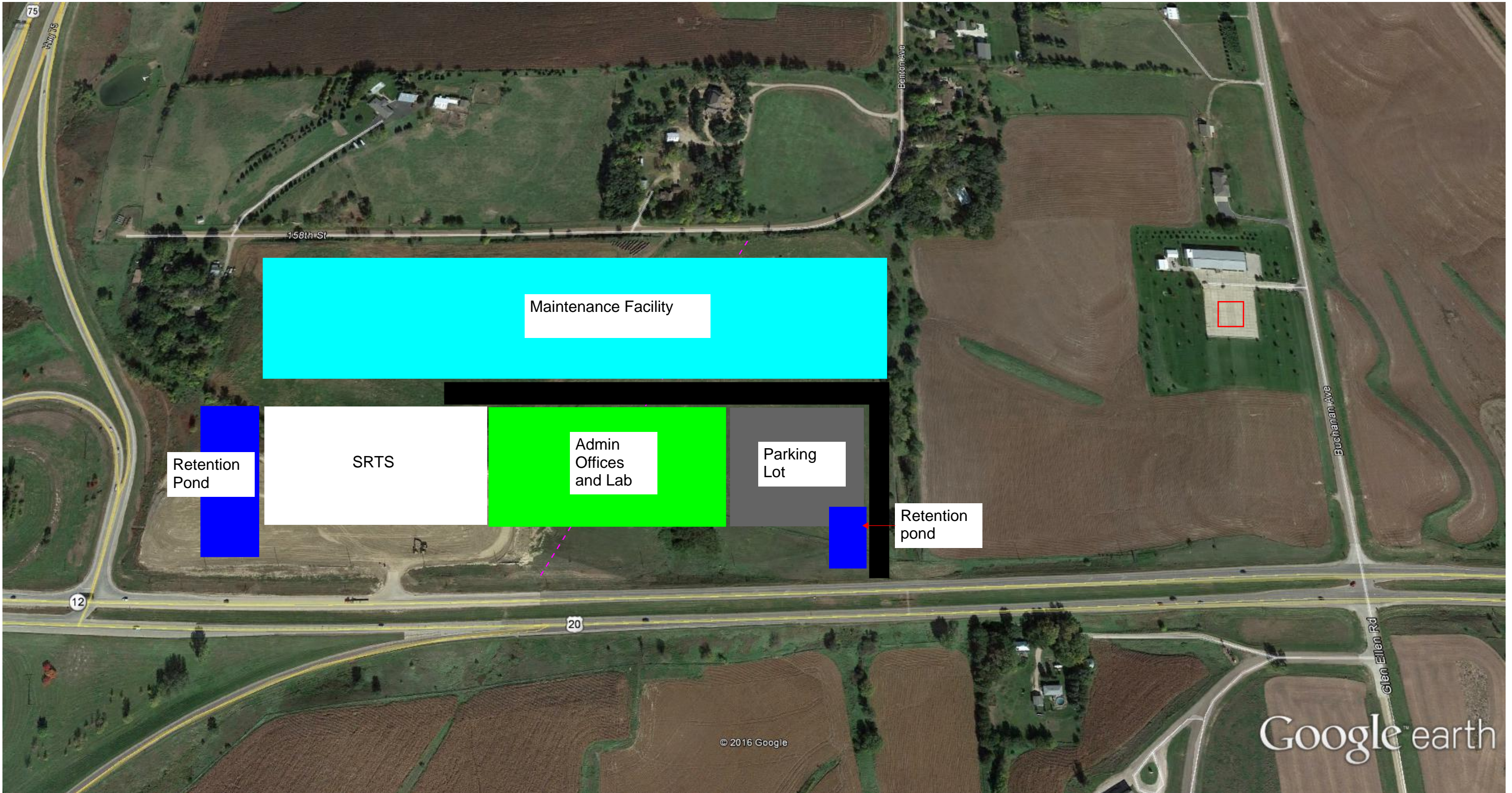
Google Earth

©2018 Google

Legend

- Area of Potential effect
- Project Boundary

1000 ft



Maintenance Facility

Retention Pond

SRTS

Admin Offices and Lab

Parking Lot

Retention pond

© 2016 Google

Google earth

Appendix B – Phase I Environmental Site Assessment

PHASE I ENVIRONMENTAL SITE ASSESSMENT

**Proposed Combined DOT Facility Site
Northeast Quadrant of US 75/US20 Interchange
Woodbury County, Iowa**

September 25, 2019

HR GREEN PROJECT NO. 171630.02

Prepared for:

**Iowa Department of Transportation
800 Lincoln Way
Ames, IA 50010**

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GLOSSARY OF TERMS

AAI – All Appropriate Inquiries	Tank
AST – Aboveground Storage Tank	LLP - Landowner Liability Protection
ASTM – American Society of Testing and Materials	LQG – Large Quantity Generator
BGS – Below Ground Surface	LRP - Land Recycling Program
BTEX – Benzene, Toluene, Ethylbenzene and Xylene	LUST – Leaking Underground Storage Tank
CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act	MGP – Manufactured Gas Plant
CERCLIS – Comprehensive Environmental Response, Compensation, and Liability Inventory System	MSL – Mean Sea Level
CESQG – Conditionally Exempt Small Quantity Generator	NAR – No Action Required
COR ACT – Corrective Action Site	NFA – No Further Action
EDR – Environmental Data Resources, Inc.	NFRAP – No Further Remedial Action is Planned
EPA – Environmental Protection Agency	NPL – National Priorities List
ERNS – Emergency Response Notification System	PAH – Polycyclic Aromatic Hydrocarbon
ESA – Environmental Site Assessment	PCB – Polychlorinated Biphenyls
GEN – Generator Site	PIN – Parcel Identification Number
GPR – Groundwater Penetrating Radar	PIISP – Phase II Sampling Plan
HR Green – HR Green, Inc.	RCRA – Resource Conservation and Recovery Act
HREC – Historical Recognized Environmental Condition	REC – Recognized Environmental Condition
HRHR – High Risk Historical Records	R/F – Removed/Filled
HRS – Hazard Ranking System	ROW – Public Right-Of-Way
IAC – Iowa Administrative Code	SEMS – Superfund Enterprise Management System
IC/EC – Institutional/Engineering Control	Spills – Spills - 1990 Site
IGS – Iowa Geological Survey	SQG – Small Quantity Generator
IDNR – Iowa Department of Natural Resources	SHWS – State Hazardous Waste Site
Iowa DOT – Iowa Department of Transportation	SWL – Solid Waste Landfills
LAST – Leaking Aboveground Storage	SWS – Statewide Standard(s)
	TEH – Total Extractable Hydrocarbon
	TSD – Treatment, Storage, and Disposal
	UST - Underground Storage Tank
	VCP – Voluntary Cleanup Program
	VOC - Volatile Organic Compound

1.0 EXECUTIVE SUMMARY

1.1 Investigative Findings

The Iowa DOT (Client) retained HR Green to conduct a Phase I ESA on three (3) adjoining parcels totaling approximately 61.6-acres owned by the State of Iowa. The parcels are generally located in the northeast quadrant of the US 20/US 75 interchange just outside of Sioux City municipal limits in Woodbury County, Iowa (Figure 1 in Appendix A). The parcel is hereinafter referred to as the “subject property.”

Adjacent parcels to the north/northwest, north, southeast, and west of the subject property contain residential development while parcels to the east and south are used for agricultural production. A vacant lot and the US 20/US 75 interchange are located to the northeast and west/southwest, respectively. See Figure 2 in Appendix A for specific use information.

HR Green has performed a Phase I ESA at the subject property in Woodbury County, Iowa in conformance with the scope and limitations of ASTM Practice E 1527-13. Any exceptions to, or deletions from, this practice are described in Sections 2.4, 6.1 and 10.0 of this report. This assessment revealed no evidence of RECs in connection with the subject property.

1.2 Recommendations

HR Green does not recommend further investigation based on data gathered in accordance with ASTM Practice E 1527-13 for completion of this Phase I ESA.

Radon is a non-scope consideration beyond this Phase I ESA; however, Woodbury County is classified as a Radon Zone 1 (indoor average level > 4 pCi/L) and approximately 75% of the reported radon tests collected in the zip code of the subject property report radon levels greater than EPA’s indoor action level of 4 pCi/L. As such, radon testing and the installation of radon mitigation systems should be considered for the subject property.

2.0 INTRODUCTION

2.1 Purpose

The purpose of this Phase I ESA is to identify, to the extent feasible pursuant to the process adopted by the ASTM, described in the Standard Practice for Environmental Site Assessments (ASTM E 1527-13), RECs (see Section 2.4) in connection with the subject property. In addition, the intention of this Phase I ESA is to permit the User to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations of CERCLA liability (hereinafter referred to as the “landowner liability protections” or “LLPs”): that is, the practice that constitutes “all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice” as defined in 42 USC §9601(35)(B).

2.2 Detailed Scope of Services

The approved scope of work for conducting Phase I ESAs under the Agreement was limited to meeting the requirements established in the ASTM E 1527-13 standard.

The Phase I ESA of the subject property was conducted for the Client during the months of August and September 2019. The assessment consisted of four components including:

- Visual inspection of the subject property and adjoining properties
- Interview with present owners/operator
- Reviews of historical sources
- Reviews of federal, state, tribal, and local government records

2.3 Significant Assumptions

HR Green used the following assumptions in determining potential RECs at the subject property:

- The Missouri River is located approximately 3.3 miles west of the subject property and generally flows southerly. Topography on the subject property also appears to slope southerly with contours sloping to the south-southwest generally south of the subject property. Therefore, groundwater at the subject property and adjacent properties is assumed to flow westerly-southwesterly in the general direction of the Missouri River.

2.4 Limitations and Exceptions

Any conclusions regarding potential environmental risks or particular events and practices are limited by the quality and quantity of information provided by available historical documents; the visual site inspection; and interviews with site owners, site operators, former site owners and residents.

“*Recognized Environmental Conditions*” are defined in ASTM E 1527-13 as: “the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not recognized environmental conditions.”

“*Controlled Recognized Environmental Conditions*” are defined in ASTM E 1527-13 as: “recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).”

“*Historical Recognized Environmental Conditions*” are defined in ASTM E 1527-13 as: “a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).”

Pursuant to Section 13.1.5 of ASTM Standard Practice, the following is a list of non-scope considerations the User may want to assess in connection with commercial real estate transactions. No implication is intended as to the relative importance of inquiry into such non-scope considerations, and this list is not intended to be all-inclusive:

- Asbestos Containing Materials
- Radon
- Lead-Based Paint
- Lead in Drinking Water
- Wetlands
- Regulatory Compliance
- Cultural and Historic Resources
- Industrial Hygiene
- Health and Safety
- Ecological Resources
- Endangered Species
- Indoor Air Quality
- Biological Agents
- Mold

Any consideration of non-scope items, such as those listed previously, is included in Section 11 of this report.

The information and conclusions presented in this report are based solely on the observations made during the site assessment evaluation and on data provided by others (individuals – entities). Thus, the accuracy of the resulting reporting and conclusions drawn from this information is inherently based on the accuracy of the information obtained and provided. The conclusions and opinions stated herein do not represent or warrant the property is free from contamination, pollution, or environmental problems. In summary, there is always a possibility some contamination may be present on the property of interest which was not discovered or noted during the Phase I ESA activities (walkover inspection, records review) conducted by HR Green.

THEREFORE, NO GUARANTEES OR WARRANTIES AS TO THE CONDITION OF THE PROPERTY OF INTEREST OR SUITABILITY OF PROPERTY USE FOR ANY PARTICULAR PURPOSE ARE MADE OR IMPLIED BY HR GREEN.

2.5 Special Terms and Conditions

It should be noted Phase I ESAs do not include any testing or sampling of materials such as soil, water, air, or building materials. Contractual terms, conditions, and liability limitations are specified in the Scope of Services Agreement and Contract between HR Green and the Client.

Information used to prepare this report was provided by a number of parties including government agencies, third party vendors, and persons familiar with the subject property. All information reviewed was not independently verified unless actual knowledge of subject property conditions or history indicated obvious inconsistencies or errors.

2.6 User Reliance

This report has been prepared on behalf of and for the exclusive use of the Client solely for use in evaluating the potential “recognized environmental conditions” and is not intended for any other purpose nor the benefit or use of any other person. This report and the findings contained herein shall not in whole or in part, be disseminated or conveyed to any other party, nor used by any other person, in whole or in part, without the prior written consent of HR Green. **If the party seeking AAI protection is one other than the User of this report, that party should contact HR Green for a reliance letter. A user questionnaire must be also completed by this party in order to be eligible for AAI protection using this report.**

3.0 SITE DESCRIPTION

3.1 Location and Legal Description

The subject property is located within the SE ¼ of Section 31, Township 89 North, Range 46 West in Woodbury County, Iowa, and is further located by the latitude 42.4773° North and longitude - 96.3166° West. Figure 1 in Appendix A shows the location of the subject property.

According to information recorded on the Woodbury County Assessor’s Office website, the subject property is described by the following PINs, acreages, and brief legal descriptions:

PIN	Acreage	Brief Legal Description
894631400007	17.53	E 30 A SWSE 31-89-46 EX PART TO STATE
894631400008	28.72	SESE 31-89-46 EX PART TO STATE
None Assigned	~15.35	None available*

*Portion of the larger highway corridor ROW parcel.

3.2 Site and Vicinity General Characteristics

Adjacent parcels to the north/northwest, north, southeast, and west of the subject property contain residential development while parcels to the east and south are used for agricultural production. A vacant lot and the US 20/US 75 interchange are located to the northeast and west/southwest, respectively. See Figure 2 in Appendix A for specific use information.

The subject property and adjoining parcels to the north/northwest, north, northeast, east, and west are zoned AE (Agricultural Estates) while those to the southeast and south are zoned AP (Agricultural Preservation). The adjacent parcel to the west/southwest that contains the US 20/US 75 interchange does not have a zoning designation. See Appendix G for Woodbury County’s Zoning Map.

3.3 Current Use of the Property

The subject property is undeveloped. The western portion of the subject property is used as a borrow location for Iowa DOT projects.

3.4 Descriptions of Structures, Roads, Other Improvements on the Site

3.4.1 Descriptions of Structures. The subject property does not contain any structures.

3.4.2 Descriptions of Roads. The subject property does not contain any roads other than informal dirt roads that provide access to the borrow locations on the western portion of the subject property (refer to photograph #4 in Appendix B). 158th Street/Benton Avenue and US 20 border the subject property to the north and south, respectively. The US 20/US 75 interchange is located immediately west of the subject property.

3.4.3 Heating/Cooling System. The subject property does not contain any structures.

3.4.4 Sewage Disposal. The subject property does not generate any waste water.

3.4.5 Source of Potable Water. The subject property does not have a source of potable water.

3.5 Current Uses of the Adjoining Properties

Direction From Subject Property	Property Address and Parcel ID	Description and Deed Holder
North/northwest	1461 158 th Street (894631400002)	Single-family home (Marx Grady)
North	1487 158 th Street (894631400011)	Single-family home (Dillon Zimmer)
North	1569 Benton Avenue (894631400010)	Single-family home (Jeffrey L. Crull)
Northeast	None assigned (894631400004)	Vacant lot (Steven M. Hoelker)
East	None assigned (894632300015)	Agricultural production land (Jennie Marie Thomas-Orr)
Southeast	1601 Glen Ellen Road (884703100001)	Single-family home (David A. and Susan M. Dziurawiec)
South	None assigned (884704200002)	Agricultural production land (Long Lines LTD)
South	None assigned (884704200001)	Agricultural production land (Clarence M. and Herthel C. Uhl Revocable Trust)
West/southwest	None assigned (None Assigned)	US 20/US 75 interchange (State of Iowa)
West	1458 West 158 th Street (894631400006)	Single-family home (Duane L. Thompson)

4.0 USER PROVIDED INFORMATION

4.1 Title Records

The User did not provide HR Green with a recorded land title search; however, Mr. Marty Sankey, Right of Way Bureau Director for the Iowa DOT, indicated his staff reviewed the title work that was completed when the agency acquired the subject property in 2007 (see Section 4.2 of this report).

4.2 Environmental Liens or Activity and Use Limitations

Mr. Sankey indicated that the search of recorded land title records did not identify any environmental liens filed or recorded against the subject property under federal, tribal, state or local law. Further, the search did not identify any activity and use limitations, such as engineering controls, land use restrictions, or institutional controls that are in place at the subject property or that have been filed or recorded against the subject property under federal, tribal, state or local law.

4.3 Specialized Knowledge

Mr. Brad Azeltine, Iowa DOT Location and Environmental Bureau and user representative of the report, stated that he previously conducted an in-house regulated materials investigation (i.e. limited Phase I ESA) on the subject property which included a review of IDNR and EPA on-line databases, geographic imagery, historical aerial photographs, and the Woodbury County Assessor's Office website.

4.4 Commonly Known or Reasonably Ascertainable Information

Mr. Azeltine indicated the subject property previously contained agricultural/vacant land. It was most recently used as a borrow location to provide soil fill for highway construction projects.

4.5 Valuation Reduction for Environmental Issues

Mr. Azeltine stated the Iowa DOT acquired the subject property at a fair market value and that no known contamination exists.

4.6 Owner, Property Manager, and Occupant Information

The State of Iowa owns the subject property and Mr. Azeltine serves as the property manager. The subject property does not have any occupants.

4.7 Reason for Performing Phase I

The Client is proposing to construct a combined Iowa DOT facility on the subject property.

4.8 Other

HR Green did not review any other User-provided information.

5.0 RECORDS REVIEW

5.1 Standard Environmental Record Sources

The purpose of the records search is to obtain and review data and information to aid in identifying RECs in connection with the subject property. EDR reviewed Federal and State environmental record sources to at least the minimum search distances established in ASTM E 1527-13. EDR specializes in the retrieval of such information and the EDR Report is presented in Appendix D. HR Green also completed a search of the IDNR databases for the project area to verify the results of the report. Information from the federal and state record sources search is included in Sections 5.1.1 through 5.1.19. The EDR report was generated for the subject property. For the purpose of this report, the following table summarizes the results of the EDR report.

EDR Report Summary

SEARCH LISTS	RADIUS	SITES
Federal ASTM Standard Records		
NPL	1.00 mile	0
NPL Delisted	1.00 mile	0
SEMS - Active Sites - Archive	0.50 mile 0.50 mile	0 0
RCRIS - COR ACT - TSD - GEN	1.00 mile 0.50 mile 0.25 mile	0 0 0
Federal IC/EC	0.50 mile	0/0
Federal Brownfield	0.50 mile	0
ERNS	0.001 mile	0
State of Iowa ASTM Standard Records		
State/Tribal Equivalent CERCLIS SHWS	1.00 mile	0
State/Tribal Spills	0.001 mile	0
State/Tribal SWF/LF Facilities	0.50 mile	1
State/Tribal LUST/LAST List	0.50 mile	0/1
State/Tribal UST/AST List	0.25 mile	0/0
State/Tribal IC/EC	0.50 mile	0/0
State/Tribal VCP	0.50 mile	0
State/Tribal Brownfields	0.50 mile	0
EDR High Risk Historical Records		
EDR MGP	1.00 mile	0
EDR Hist Auto	0.125 mile	0
EDR Hist Cleaner	0.125 mile	0

5.1.1 NPL Facilities. The NPL is a list of the worst hazardous waste sites identified by Superfund. Sites are put on the list after being scored using the HRS and subjected to public comment. Any site on the NPL is eligible for cleanup using Superfund Trust money. A Superfund site is any land in the United States contaminated by hazardous waste and identified by the EPA as a candidate for cleanup because it poses a risk to human health and/or the environment. The EDR report did not identify any NPL sites within the specified search radius.

5.1.2 SEMS. The SEMS (formerly CERCLIS) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program. The list contains data on potentially hazardous waste sites reported to the EPA pursuant to Section 103 of CERCLA. This dataset also contains sites proposed for or on the NPL and sites in the screening and assessment phase for possible inclusion on the NPL. SEMS-Archive (formerly CERCLIS-NFRAP) tracks sites that have no further interest under the Federal Superfund Program based on available information. Archived status indicates assessment has been completed at a site and the EPA has determined no further steps will be taken to list the site on the NPL. The EDR report did not identify any SEMS sites within the specified search radius.

5.1.3 RCRIS. The RCRIS lists sites that treat, store, dispose, or incinerate hazardous waste. This database tracks events and activities that fall under RCRA. The database is separated into TSD, LQG, SQG, CESQG, and COR ACT facilities. While these facilities represent some form of hazardous waste activity, they are most significant if determined to be out of compliance or to have violations. RCRA-COR ACT is a list of facilities that have had hazardous waste releases and require RCRA corrective action activity, which can range from property investigations to remediation. RCRA-NLR is a list of facilities included in the RCRA Info database, but not classified by the EPA. Reasons for non-classification include, but are not limited to: the facility is no longer in business, or no longer generating hazardous waste. The EDR report did not identify any RCRIS sites within the specified search radius.

5.1.4 Federal IC/EC Sites. The Federal IC/EC database contains information regarding Superfund sites with either an engineering or institutional control, and maintains records of the control method and the media contaminated. The EDR report did not identify any Federal IC/EC sites within the specified search radius.

5.1.5 Federal Brownfield. ASTM E 1527-13 requires listing all brownfields facilities within 0.5-miles of the subject property. The EPA Brownfield Management System database contains information on the major activities and accomplishments of various brownfield grant programs. This database also includes Cleanups in my Community including sites, facilities and properties that have been contaminated by hazardous materials and are being, or have been, cleaned up under EPA's brownfield program. The EDR report did not identify any Federal Brownfield sites within the specified search radius.

5.1.6 ERNS. The ERNS contains information on specific notification of releases of oil and hazardous substances to the environment. The EDR report did not identify any ERNS sites within the specified search radius.

5.1.7 State/Tribal Equivalent CERCLIS SHWS. The EDR report did not identify any State/Tribal Equivalent CERCLIS SHWS sites within the specified search radius.

5.1.8 Spills Sites. The Spills-1990 Sites contains information provided by the IDNR database, which lists all reported spills since 1990. Spills data includes initial cause, initial source, material spilled and quantity; however, ASTM E 1527-13 does not require a search for Spills sites. The EDR report did not identify any Spills sites within the specified search radius.

5.1.9 State/Tribal Solid Waste Landfill Facilities. The State of Iowa maintains a database of all SWLs within the state of Iowa and the facilities are permitted by the IDNR. The EDR report identified one (1) State/Tribal SWL site within the specified search radius.

SWL Site Information				
Property Name	ID No.	Distance/Direction		Status
Goodwill- Gordon Sioux City	97-CRT-03-07	0.381 miles west	Downgradient	CRT Collection Permit Permit: None

5.1.10 LUST. The IDNR Bureau of Land Quality LUST Program maintains a database of LUSTs. ASTM E-1527-13 requires listing all state registered LUST sites within 0.50 miles of the subject property. The EDR report did not identify any LUST sites located within the specified search radius.

5.1.11 LAST. ASTM E-1527-13 requires listing all state registered LAST sites within 0.50 miles of the subject property. The EDR report identified one (1) LAST site located within the specified search radius.

LAST Site Information			
Property Name	ID No.	Distance/Direction	Status
Sunrise Manor	947	0.462 miles west Downgradient	Closed

5.1.12 UST/AST. The IDNR UST and AST database lists all registered USTs and ASTs. ASTM E-1527-13 requires listing all UST and AST sites on or adjoining the subject property. The EDR report did not identify any UST or AST sites located within the specified search radius.

5.1.13 State IC/EC Sites. The IDNR maintains a summary of the nature of contamination found at several types of cleanup sites with institutional controls, restrictive covenants, and deed notices throughout the state. The EDR report did not identify any State IC/EC sites within the specified search radius.

5.1.14 VCP - Land Recycling Program. The IDNR database contains sites enrolled in the LRP. The LRP allows owners or other stakeholders of a property to voluntarily assess and implement remedial actions at a site that is contaminated or is perceived to be contaminated. The EDR report did not identify any VCP sites within the specified search radius.

5.1.15 State/Tribal Brownfields. ASTM E 1527-13 requires listing all brownfields facilities within 0.5-miles of the subject property. The EDR report did not identify any State/Tribal Brownfield sites within the specified search radius.

5.1.16 EDR MGP. The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800s to 1950s to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination. The EDR report did not identify any MGP sites within the specified search radius.

5.1.17 EDR Historical Auto. EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches. The EDR report did not identify any historical auto sites within the specified search radius.

5.1.18 EDR Historial Cleaner. EDR has searched selected national collections of business directories and collected listings of potential dry cleaner sites that were available to EDR

researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry, etc. This database falls within a category of information EDR classifies as HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches. The EDR report did not identify any historical cleaner sites within the specified search radius.

5.1.19 Unmapped Sites. EDR did not identify any sites that could not be located.

5.2 Additional Environmental Record Sources

The following list contains information on additional individuals interviewed or sources consulted for this assessment.

- Mr. Brad Azeltine, Location and Environmental Bureau, Iowa DOT
- Ms. Michelle Clausen-Rosendahl, Director of Environmental Health, Siouxland District Health Department
- Ms. Jennifer Lowell, IATF 1 USAR, City of Sioux City Fire Department
- Mr. Marty Sankey, Right of Way Bureau Director, Iowa DOT
- Woodbury County Assessor's Office website

Records of all interviews are included in Appendix E. A copy of information obtained from the Woodbury County Assessor's Office is included in Appendix G.

5.3 Physical Setting Source(s)

The subject property is located at an approximate elevation of 1,320 feet above msl. Information on the topographic gradient is included in Figure 1 of Appendix A.

HR Green conducted a Natural Resources Conservation Service Web Soil Survey on August 28, 2019 to obtain a depiction of subject property soil. The survey classified 23.6% of the soil as Ida silt loam found on 5 to 9 percent slopes; 34.5% as Ida silt loam found on 9 to 14 percent slopes; 12.5% as Ida silt loam found on 14 to 20 percent slopes; 4.9% as Monona silt loam found on 9 to 14 percent slopes; 16.7% as Napier silt loam found on 5 to 9 percent slopes; 2.3% as Napier-Castana silt loams found on 9 to 20 percent slopes; and 5.4% as Udorthents. A copy of the report is available in Appendix G.

HR Green reviewed the IDNR Well Search database on August 28, 2019. The search identified six (6) records within 1,500 feet of the approximate center of the subject property including three (3) private well tracking system wells and three (3) wells registered for testing. Three (3) of the identified wells appear to be located on the subject property including one (1) private well tracking system well on the northern portion of the subject property and two (2) wells registered for testing located on the western portion of the subject property. Appendix G includes a copy of the IDNR Well Search report.

5.4 Historical Use Information of the Property

Historical information for the subject property and surrounding area was based on review of aerial photographs, city directories, and topographical maps provided by EDR; information obtained from the Woodbury County Assessor's office; and the site reconnaissance. Appendix C contains the historical research documentation.

The following table summarizes the past uses of the subject property.

Date(s)	Source(s)	Property Use(s)
1938-present	Historical aerial photographs and topographical maps, Woodbury County Assessor's Office website, and site reconnaissance	Undeveloped <ul style="list-style-type: none"> Aerial photographs dated 1938, 1949, 1950, 1953, 1962, 1973, and 1990 depict the entire subject property being used for agricultural production. Aerial photographs dated 2005 and 2008 depict the entire subject property, excluding the southwestern portion, being used for agricultural production. Aerial photographs dated 2011 and 2017 depict the southwestern portion of the subject property being used as a borrow location while the remainder is undeveloped land. A historical topographical map dated 1994 depicts a pipeline traversing the subject property.

5.5 Historical Use Information on Adjoining Properties

The following table summarizes past uses of parcels adjoining the subject property.

Date(s)	Source(s)	Property Use(s)
North/northwest		
1938-1962	Historical aerial photographs and topographical maps	Agricultural production land
1973	Historical aerial photograph	Agricultural production land/potential salvage yard <ul style="list-style-type: none"> An aerial photograph dated 1973 depicts the outside storage of unknown materials.
1980s-present	Historical aerial photographs, city directories, and topographical maps, Woodbury County Assessor's Office website, and site reconnaissance	Residential development
North		
1900-present	Historical aerial photographs, city directories, and topographical maps, Woodbury County Assessor's Office website, and site reconnaissance	Residential development A historical topographical map dated 1994 depicts a pipeline traversing the subject property.
Northeast		
1938-present	Historical aerial photographs, Woodbury County Assessor's Office website, and site reconnaissance	Vacant lot associated with adjoining residential development
East		
1938-present	Historical aerial photographs and topographical maps, Woodbury County Assessor's Office website, and site reconnaissance	Agricultural production land <ul style="list-style-type: none"> A historical topographical map dated 1994 depicts a pipeline traversing the subject property.

Date(s)	Source(s)	Property Use(s)
Southeast		
1938-present	Historical aerial photographs and topographical maps, Woodbury County Assessor's Office website, and site reconnaissance	Residential development
South		
1938-present	Historical aerial photographs and topographical maps, Woodbury County Assessor's Office website, and site reconnaissance	Agricultural production land <ul style="list-style-type: none"> A historical topographical map dated 1994 depicts a pipeline traversing the subject property.
West/southwest		
1938-1953	Historical aerial photographs	Agricultural production land
1962-1976	Historical aerial photographs and topographical maps	Salvage yard <ul style="list-style-type: none"> Aerial photographs dated 1962 and 1973 depict the outside storage of unknown materials.
1980s-present	Historical aerial photographs and topographical maps, Woodbury County Assessor's Office website, and site reconnaissance	US 20/US 75 interchange
West		
1900-present	Historical aerial photographs, city directories, and topographical maps, Woodbury County Assessor's Office website, and site reconnaissance	Residential development

6.0 SITE RECONNAISSANCE

6.1 Methodology and Limiting Conditions

Mr. Steve Prideaux of HR Green conducted the site reconnaissance on September 3, 2019. Thick vegetation overgrowth prevented HR Green from making unobstructed ground observations. Refer to Appendix B for photographs of the site reconnaissance.

6.2 General Site Setting

The subject property is located just outside and east of the City of Sioux City limits. Adjacent parcels to the north/northwest, north, southeast, and west of the subject property contain residential development while parcels to the east and south are used for agricultural production. A vacant lot and the US 20/US 75 interchange are located to the northeast and west/southwest, respectively. See Figure 2 in Appendix A for specific use information.

6.3 Interior and Exterior Observations at Property

6.3.1 Hazardous Substances or Petroleum Products In Connection With Identified Uses.

HR Green did not observe any hazardous substances or petroleum products in connection with identified uses on the subject property.

6.3.2 Storage Tanks. HR Green identified a poly-tote near an informal driveway access off 158th Street on the northern portion of the subject property (see photographs #7 and #8 in

Appendix B). The storage tank contained chain-link fencing, metal piping, and other miscellaneous debris.

6.3.3 Odors. HR Green did not observe any unusual odors in connection with the subject property.

6.3.4 Pools of Liquid. HR Green did not observe any pools of liquid on the subject property.

6.3.5 Drums. HR Green did not observe any drums on the subject property.

6.3.6 Hazardous Substances or Petroleum Products Containers (Not Necessarily in Connection With Identified Uses). HR Green did not observe any hazardous substances or petroleum products on the subject property.

6.3.7 Unidentified Substance Containers. HR Green did not observe any unidentified substance containers on the subject property.

6.3.8 PCBs. HR Green did not observe any evidence of equipment likely to contain PCBs on the subject property.

6.3.9 Pits, Ponds, or Lagoons. HR Green did not observe any pits, ponds, or lagoons on the subject property.

6.3.10 Stained Soil or Pavement. HR Green did not observe any stained soil or pavement on the exterior of the subject property.

6.3.11 Stressed Vegetation. HR Green did not observe any instances of stressed vegetation on the subject property.

6.3.12 Solid Waste. HR Green observed de-minimis solid waste on the southwestern portion of the subject property (refer to photograph #13 in Appendix B).

6.3.13 Waste Water. HR Green did not observe any source of waste water on the subject property.

6.3.14 Wells. HR Green did not observe any wells on the subject property.

6.3.15 Septic Systems. HR Green did not observe any evidence of a septic system on the subject property.

6.3.16 Stains and Corrosion. HR Green did not observe any stains or corrosion on the subject property.

6.3.17 Drains and Sumps. HR Green did not observe any drains or sumps on the subject property.

7.0 INTERVIEWS

7.1 Interviews with Owners

HR Green interviewed Mr. Azeltine as an owner representative of the subject property. He has been familiar with the subject property since the Iowa DOT acquired it in 2008. Mr. Azeltine indicated the following:

- The subject property consists of former agricultural/vacant ground acquired by the Iowa DOT to provide soil borrow material for highway construction projects.
- No structures have ever been located on the subject property so no utility connections exist. A six-inch natural gas pipeline owned by Magellan Pipeline Company crosses the subject property but it has been abandoned and will be removed as part of future site improvements.
- Iowa DOT conducted a regulated materials investigation that included the review of Iowa DNR and US EPA on-line databases, geographical imagery, historical aerial photographs, and the Woodbury County Assessor's webpage as part of an environmental review for the proposed construction of a new DOT facility. No contamination concerns were identified.

7.2 Interviews with Site Manager

Mr. Azeltine also serves as the site manager of the subject property.

7.3 Interviews with Occupants

The subject property does not include any occupants.

7.4 Interviews with Local Government Officials

HR Green contacted Ms. Jennifer Lowell, IATF 1 USAR for the City of Sioux City Fire Department, to obtain information regarding any spills, storage tanks, hazardous substances storage, or emergency responses at the subject property. Ms. Lowell stated the department does not have any records of hazardous storage tanks, removals, spills or responses related to the subject property.

HR Green contacted Ms. Michelle Clausen-Rosendahl, Director of Environmental Health for the Siouxland District Health Department, to obtain information regarding any spills, storage tanks, hazardous substances storage, or emergency responses at the subject property. Ms. Clausen-Rosendahl stated she was unable to locate any records for the subject property.

Copies of interview documentation are included in Appendix E.

7.5 Interviews with Others

HR Green did not interview any other sources as part of this report.

8.0 FINDINGS AND OPINION

This section identifies the findings from Sections 4.0, 5.0, 6.0, and 7.0 of this report. Findings include known or suspect recognized environmental conditions, controlled recognized environmental conditions, historical recognized environmental conditions, and de minimis conditions. HR Green's opinion of each finding's impact on the subject property is also discussed, including the rationale as to why each finding is or is not considered a REC.

8.1 User Provided Information

The User did not provide HR Green with a recorded land title search per the Professional Services Agreement.

8.2 Records Review

8.2.1 EDR Report Summary

SWL/LF- The EDR report identified one (1) SWL/LF site within the specified search radius.

- The Goodwill-Gordon Sioux City facility is located 0.381 miles to the west of the subject property. It is the opinion of HR Green that this finding does not constitute a REC based on its distance from the subject property and its hydrological relationship with the subject property with regards to groundwater flow.

LAST- The EDR report identified one (1) LAST site within the specified search radius.

- The Sunrise Manor facility is located 0.462 miles to the west of the subject property. It is the opinion of HR Green that this finding does not constitute a REC based on its distance from the subject property and its hydrological relationship with the subject property with regards to groundwater flow.

8.2.2 Historical Use Information

Subject Property - It is the opinion of HR Green that the historical use of the subject property does not constitute a finding with respect to the subject property.

Adjacent Properties - It is the opinion of HR Green that historical uses of the properties adjoining the subject property constitute a finding with respect to the subject property.

- The historical use of the adjacent parcel to the north/northwest of the subject property. An available historical aerial photograph dated 1973 depicts the outdoor storage of unknown materials. It is the opinion of HR Green that this finding does not constitute a REC with respect to the subject property based on it being a de minimis condition.
- The historical use of the adjacent parcel to the west/southwest of the subject property. Available historical aerial photographs dated 1962 and 1973 depict the outdoor storage of unknown materials that appear to potentially be associated with a salvage yard. It is the opinion of HR Green that this finding does not constitute a REC with respect to the subject property based on its hydrological relationship with the subject property with regards to groundwater flow.

Additional Proximate Properties - It is the opinion of HR Green that the historical uses of proximate properties do not constitute a finding with respect to the subject property.

8.3 Site Reconnaissance

HR Green did not make any observations during the site reconnaissance that constituted a finding.

8.4 Interviews

HR Green conducted interviews with an owner representative and local officials familiar with the subject property. Mr. Azeltine stated a six-inch natural gas pipeline owned by Magellan Pipeline Company crosses the subject property but it has been abandoned and will be removed as part of future site improvements. As such, it is the opinion of HR Green that this finding does not constitute a REC with respect to the subject property. No other information provided to HR Green represented a finding.

9.0 CONCLUSIONS

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527 of the subject property generally described as an approximate 61.1-acre portion of the northeast quadrant of the US 20/US 75 interchange, Woodbury County, Iowa. This assessment has revealed no evidence of RECs in connection with the subject property.

Radon is a non-scope consideration beyond this Phase I ESA; however, Woodbury County is classified as a Radon Zone 1 (indoor average level > 4 pCi/L) and approximately 75% of the reported radon tests collected in the zip code of the subject property report radon levels greater than EPA's indoor action level of 4 pCi/L. As such, radon testing and the installation of radon mitigation systems should be considered for the subject property.

10.0 DEVIATIONS

10.1 Data Failure

HR Green did not experience any data failures during the preparation of this report.

10.2 Data Gaps

HR Green experienced the following data gaps during the preparation of this report:

- HR Green was unable to determine the specific uses of the adjacent parcel to the west/southwest of the subject property from 1953-1962 and 1976-1980s.
- HR Green was unable to determine the specific uses of the adjacent parcel to the north/northwest of the subject property from 1963-1973 and 1973-1980s.
- HR Green did not receive a recorded land title search from the User; however, Mr. Sankey indicated his staff reviewed the title work that was completed when the agency acquired the subject property in 2007 and did not find any environmental liens filed or recorded against the subject property under federal, tribal, state or local law. Further, the search did not identify any activity and use limitations, such as engineering controls, land use restrictions, or institutional controls that are in place at the subject property or that have been filed or recorded against the subject property under federal, tribal, state or local law.

11.0 ADDITIONAL SERVICES

Pursuant to Section 13.1.5 of ASTM Standard Practice, the following is a list of non-scope considerations the User may want to assess in connection with commercial real estate transactions. No implication is intended as to the relative importance of inquiry into such non-scope considerations, and this list is not intended to be all-inclusive:

- Asbestos Containing Materials
- Radon
- Lead-Based Paint
- Lead in Drinking Water
- Wetlands
- Regulatory Compliance
- Cultural and Historic Resources
- Industrial Hygiene
- Health and Safety
- Ecological Resources
- Endangered Species
- Indoor Air Quality
- Biological Agents
- Mold

12.0 REFERENCES

ASTM E 1527-13. Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. ASTM International. 100 Barr Harbor Drive. P.O. Box C700. West Conshohocken, PA.

40 CFR Part 312 – Standards and Practices for All Appropriate Inquiries; Final Rule. Federal Register Vol. 70, No. 210. Tuesday, November 1, 2005.

Aerial Photographs. Environmental Data Resources, Inc. 1938, 1949, 1950, 1953, 1962, 1973, 1990, 2005, 2008, 2011, and 2017.

Aerial Photographs. Iowa Geographic Map Webserver. 1980s. Performed September 23, 2019. www.ortho.gis.iastate.edu

City Directories. Environmental Data Resources, Inc. 1992, 1995, 2000, 2005, 2010 and 2014.

EDR Radius Map Report, Environmental Data Resources, Inc., Combined IA DOT Facility Site-Sioux City, Sioux City, IA 51106. Inquiry Number: 5769033.2s, August 28, 2019.

IDNR Well Search. Performed August 28, 2019, <https://facilityexplorer.iowadnr.gov/FacilityExplorer/Default.aspx>.

United States Geological Survey 7.5 Minute Series (Topographic) Quadrangle Maps, Sergeant Bluff, IA, 1964, 1971, 1976, 1994, and 2013.

Web Soil Survey, Natural Resources Conservation Service. Performed August 28, 2019, <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>.

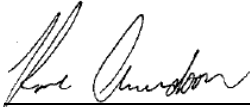
Woodbury County Assessor's Office Website – Parcel Search. Performed August 28, 2019, <https://beacon.schneidercorp.com/?site=WoodburyCountyIA>.

Zoning Map, Woodbury County Assessor's Office Website. Performed August 28, 2019, <https://beacon.schneidercorp.com/?site=WoodburyCountyIA>.

13.0 SIGNATURE(S) OF ENVIRONMENTAL PROFESSIONAL(S)

We declare, to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312 and we have the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the *subject site*. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Signatures of the environmental professionals responsible for this report:



Rose Amundson, Project Scientist II, Technical Review and Quality Control and Assurance

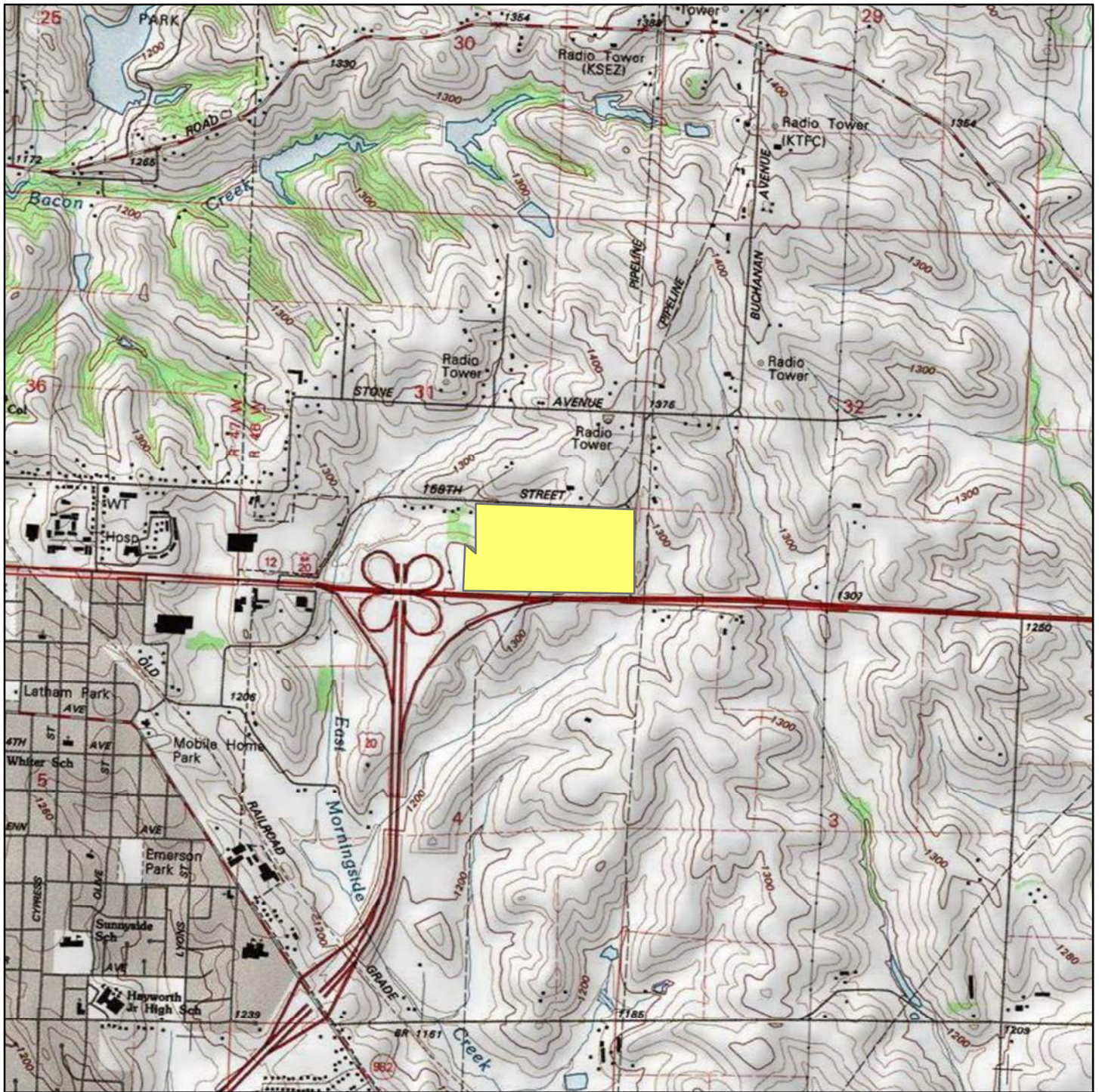


Stephen Prideaux, Project Planner II, Report Preparer

APPENDIX A

FIGURES

Figure 1 – Site Vicinity Map
Figure 2 – Site Location Map



Legend


 Approx. Subject Property Extent


FIGURE 1

Site Vicinity Map

Proposed Combined
DOT Facility Site

Woodbury County, Iowa



0  2,000
Feet
1 inch = 2,000 feet





Legend


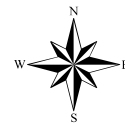
 Approx. Subject Property Extent

FIGURE 2

Site Location Map

Proposed Combined
DOT Facility Site

Woodbury County, Iowa



0 500
Feet
1 inch = 500 feet



APPENDIX B
PROPERTY PHOTOGRAPHS



Photo 1 – View looking north across the subject property from the driveway off US 20.



Photo 2 – View looking northeast across the subject property from the driveway off US 20.

Photographs

Proposed Combined DOT Facility Site
Woodbury, Iowa

Photographed:

09-03-19





Photo 3 – View looking east across the southern portion of the subject property from the driveway off US 20.



Photo 4 – View looking north of the informal road serving borrow locations on western portion of the subject property.

Photographs

Proposed Combined DOT Facility Site
Woodbury, Iowa

Photographed:

09-03-19





Photo 5 – View of a borrow location on western portion of the subject property.



Photo 6 – View looking south from the northern portion of the subject property.

Photographs

Proposed Combined DOT Facility Site
Woodbury, Iowa

Photographed:

09-03-19





Photo 7 – Poly-tote located near the informal driveway off 158th Street on the northern portion of the subject property.



Photo 8 – Poly-tote contents.

Photographs

Proposed Combined DOT Facility Site
Woodbury, Iowa

Photographed:

09-03-19





Photo 9 – Petroleum pipeline marker located on northern portion of subject property.



Photo 10 – View looking southwest from the northeastern portion of the subject property.

Photographs

Proposed Combined DOT Facility Site
Woodbury, Iowa

Photographed:

09-03-19





Photo 11 – View looking southeast from the northeastern portion of the subject property.



Photo 12 – Ridge located in the west-central portion of the subject property.

Photographs

Proposed Combined DOT Facility Site
Woodbury, Iowa

Photographed:

09-03-19





Photo 13 – De-mimimis trash located in southwestern portion of the subject property.



Photo 14 – View looking southeast from southwestern portion of the subject property.

Photographs

Proposed Combined DOT Facility Site
Woodbury, Iowa

Photographed:

09-03-19





Photo 15 – Adjacent parcel to the north/northwest of the subject property.



Photo 16 – Adjacent parcels to the north of the subject property.

Photographs

Proposed Combined DOT Facility Site
Woodbury, Iowa

Photographed:

09-03-19





Photo 17 – Adjacent parcel to the northeast of the subject property.



Photo 18 – Adjacent parcels to the south of the subject property.

Photographs

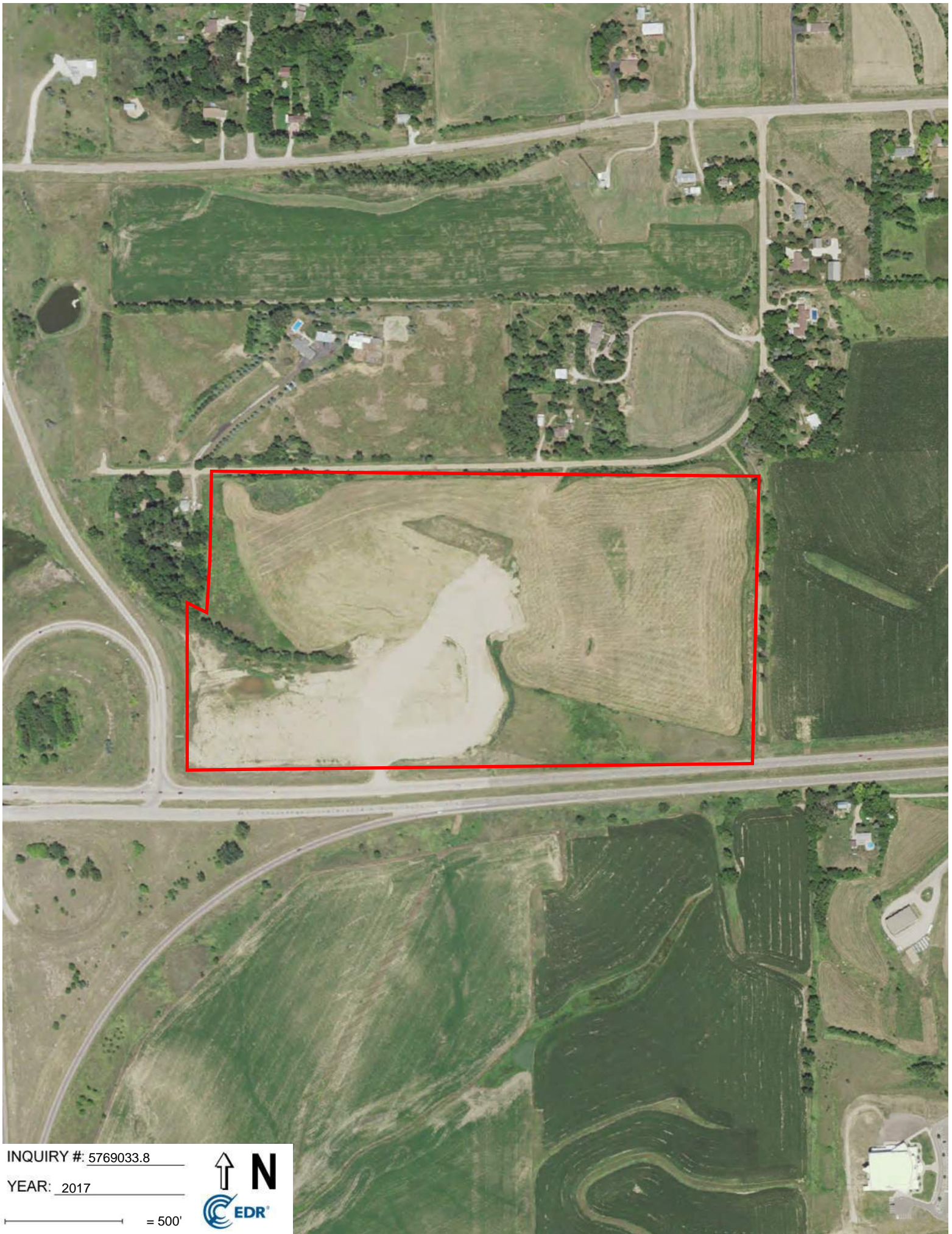
Proposed Combined DOT Facility Site
Woodbury, Iowa

Photographed:

09-03-19



APPENDIX C
HISTORICAL RESEARCH DOCUMENTATION



INQUIRY #: 5769033.8

YEAR: 2017

— = 500'





INQUIRY #: 5769033.8

YEAR: 2011

— = 500'





INQUIRY #: 5769033.8

YEAR: 2008

— = 500'





INQUIRY #: 5769033.8

YEAR: 2005

— = 500'



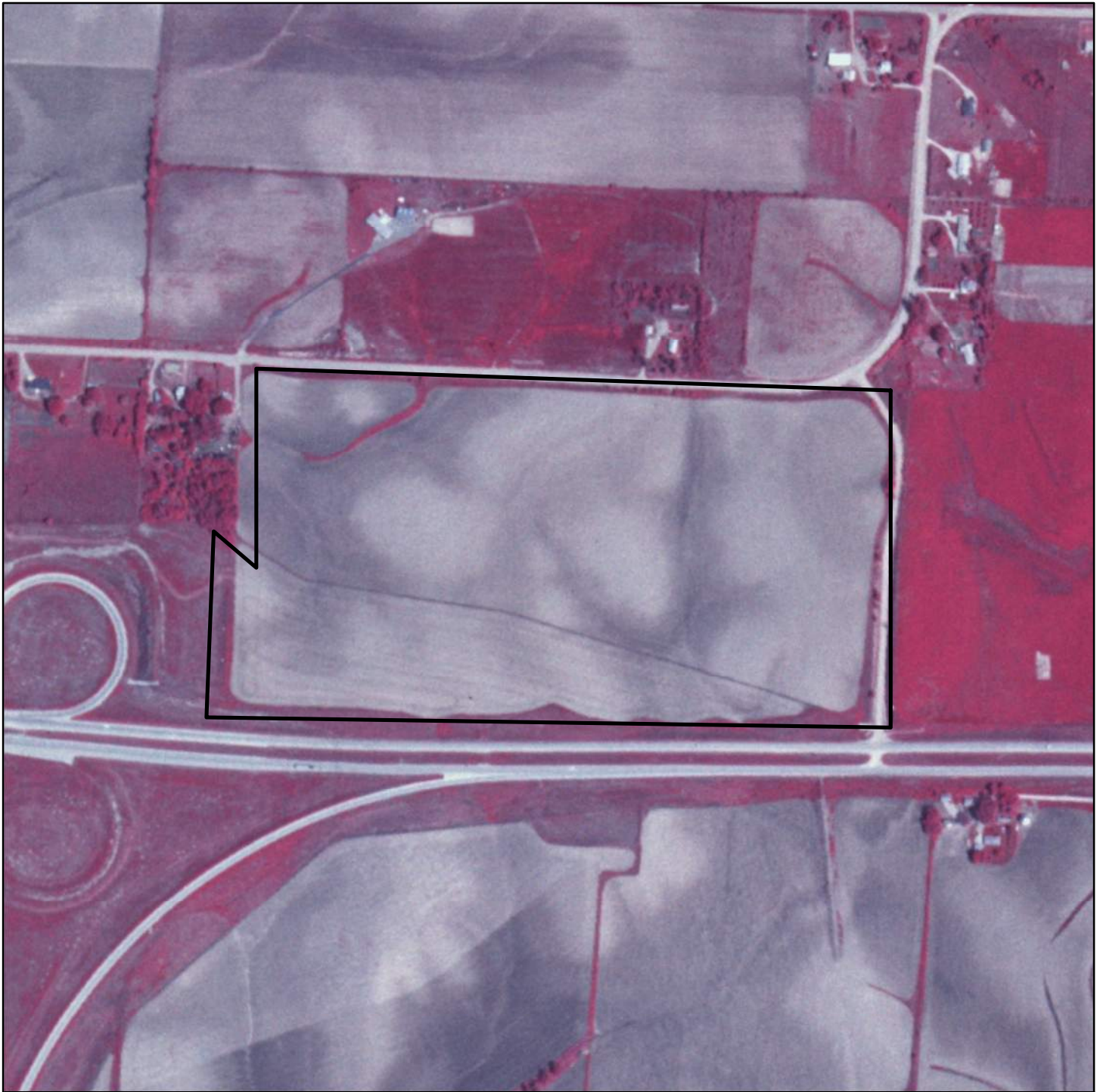


INQUIRY #: 5769033.8


YEAR: 1990

— = 500'





Legend

 Approx. Subject Property Extent

1980's

Proposed Combined
DOT Facility Site

Woodbury County, Iowa



0 500
Feet
1 inch = 500 feet





INQUIRY #: 5769033.8

YEAR: 1973

— = 500'





INQUIRY #: 5769033.8

YEAR: 1962

— = 500'





INQUIRY #: 5769033.8

YEAR: 1953

— = 500'





INQUIRY #: 5769033.8

YEAR: 1950

 = 500'





INQUIRY #: 5769033.8

YEAR: 1949

— = 500'





INQUIRY #: 5769033.8

YEAR: 1938

— = 500'



158TH ST

2014

1429	GROVE, LAURA J WILLIAMS, DONALD V
1454	MOVE U INC OCCUPANT UNKNOWN,
1458	MACHEY, DAN
1461	MARX, GRADY R MT BROKERAGE INC
1487	BERGEN-SMITH, TERRY

BENTON AVE 2014

1556	NAVARRETE, EDUARDO J
1560	BUSS, RHONDA R
1566	SCOTT RICK C CONSTRUCTION
	SCOTT, RICK C
1569	CRULL CONSTRUCTION



-

158TH ST 2010

1429	JOHNSON, RUSS WILLIAMS, DONALD V
1454	MOVE U INC OCCUPANT UNKNOWN,
1458	OCCUPANT UNKNOWN,
1461	MARX, GRADY R MT BROKERAGE INC
1487	LUCK, JASON M

BENTON AVE 2010

1556	J AND E NAVEARRETES NAVARRETE, EDUARDO J
1560	BUSS, RHONDA R
1566	SCOTT RICK C CONSTRUCTION SCOTT, RICK C
1574	CHERKAS, RICHARD C

158TH ST

2005

1429 OCCUPANT UNKNOWN,
1454 MOVE U INC
THOMPSON, TONY
1458 OCCUPANT UNKNOWN,
1461 MARX, GRADY R

BENTON AVE 2005

1556	NORBY, MARVIN A
1560	BUSS, RHONDA R
1566	SCOTT RICK C CONSTRUCTION
	SCOTT, RICK C
1574	PEARSON, HOWARD C

158TH ST

2000

1429 ZELLMER-ZANT CHRISTINE A
1454 MOVE U INC
1458 THOMPSON, TONY
1461 MARX, GRADY
1487 OCCUPANT UNKNOWN,

BENTON AVE 2000

1556	NORBY MARVIN NORBY, MARVIN A
1560	BUSS, MARDELL
1566	SCOTT RICK C CONSTRUCTION SCOTT, RICK C
1574	PEARSON, HOWARD C



-

158TH ST

1995

- 1429 ZELLMER-ZANT CHRISTINE A
- 1454 MOVE-U-INC
- 1458 SHERRILL, M
- 1461 MARX, GRADY
- 1487 ANDERSON, LYLE
PETERSON, ELAINE M



-

BENTON AVE 1995

1560 BUSS, MARDELL
1566 KILBURN, LEROY



-

158TH ST

1992

1429 ZELLMER-ZANT CHRISTINE A
1461 MARX, GRADY
1554 THOMPSON HOUSE MOVERS

Certified Sanborn® Map Report

08/28/19

Site Name:

Combined IA DOT Facility Site-
NE Quadrant of US 75 and US
Sioux City, IA 51106
EDR Inquiry # 5769033.3

Client Name:

Howard R. Green Company
8710 Earhart Lane SW
Cedar Rapids, IA 52404-8947
Contact: Steve Prideaux



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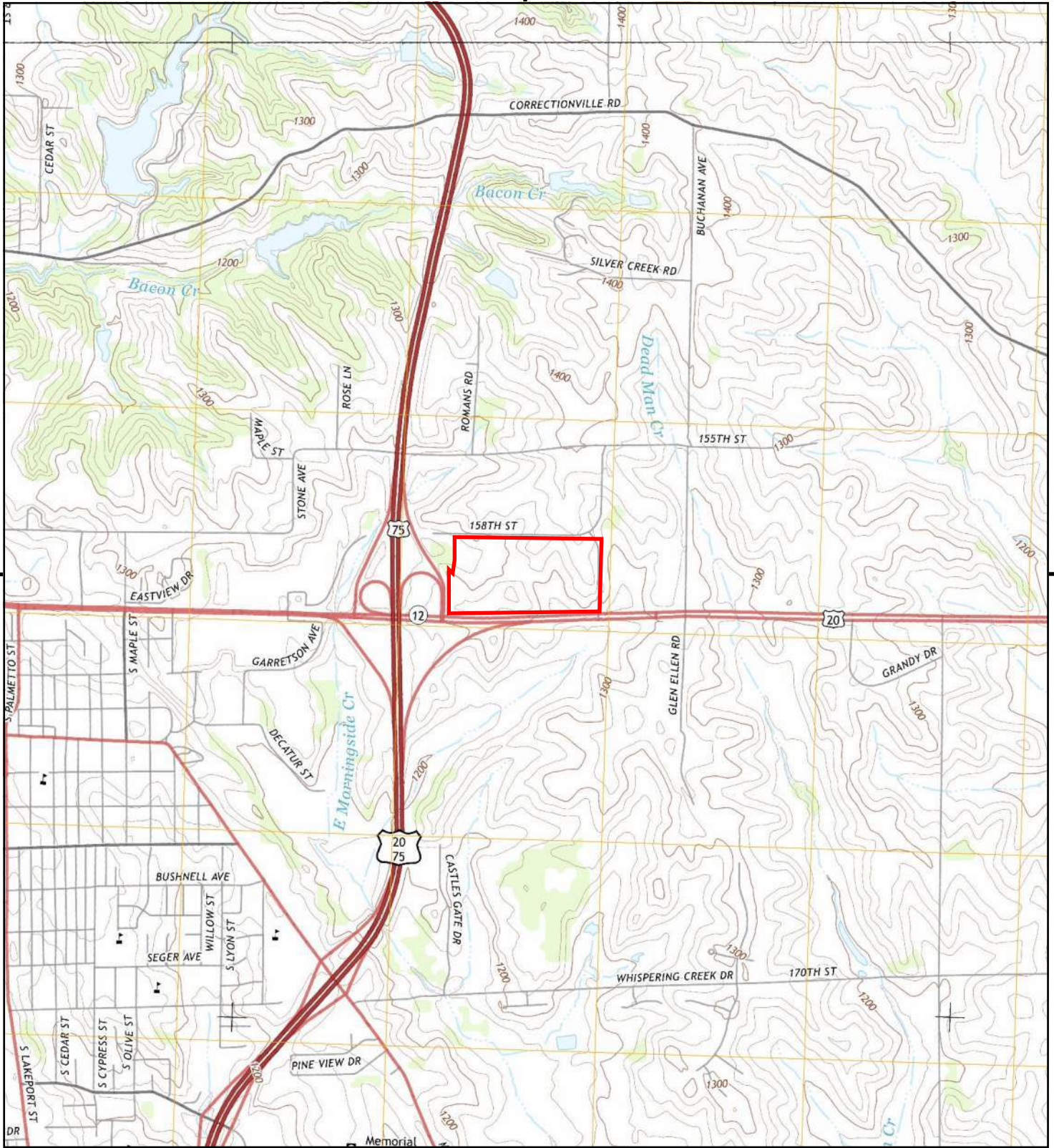
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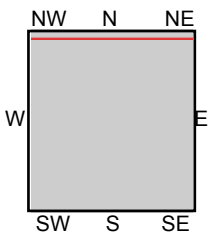
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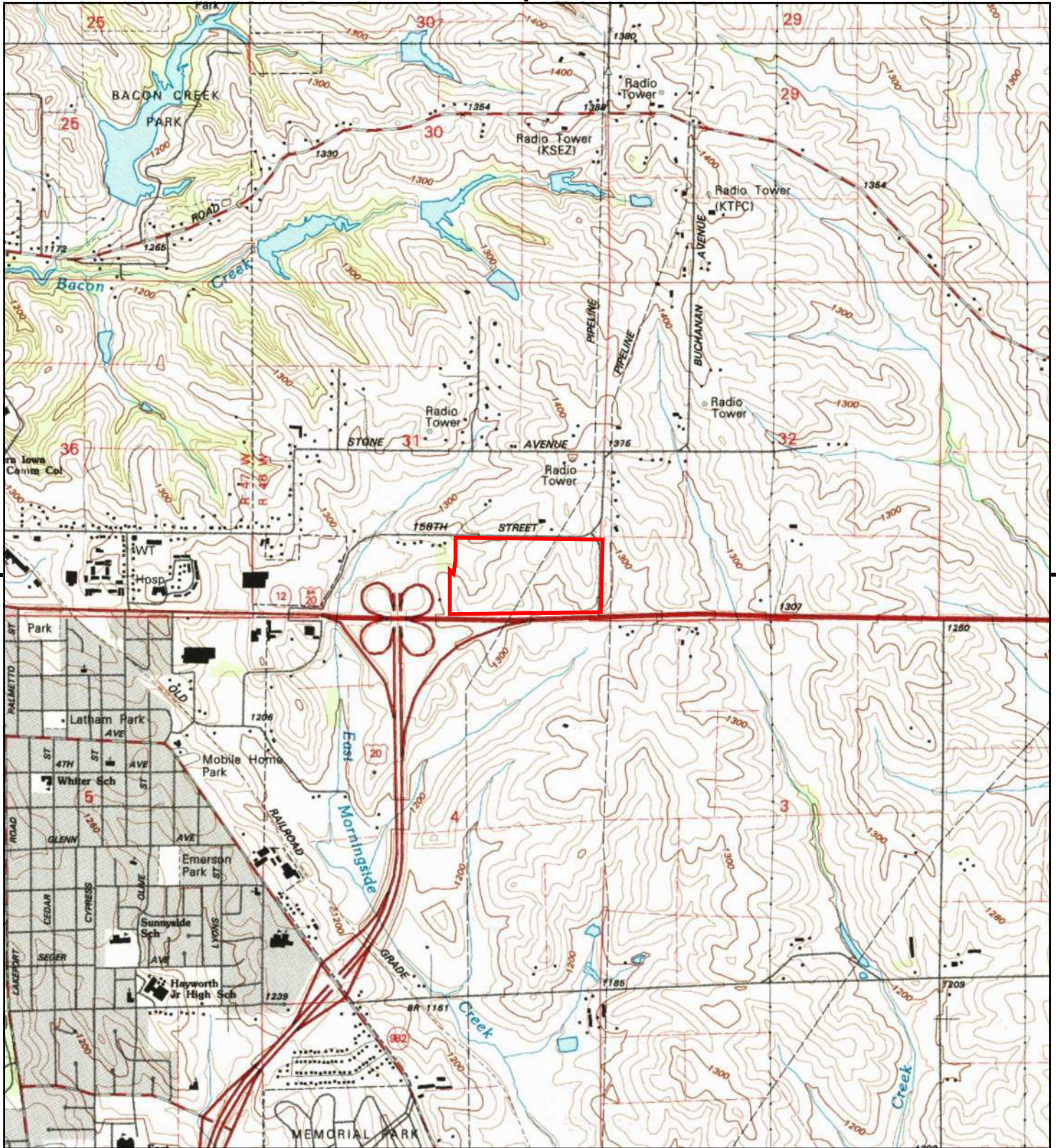
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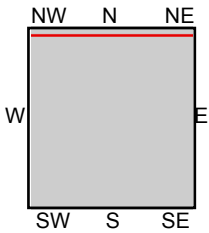
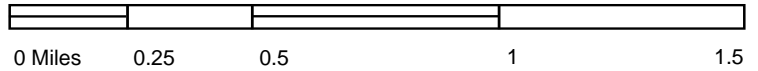
TP, Sergeant Bluff, 2013, 7.5-minute
N, James, 2013, 7.5-minute

SITE NAME: Combined IA DOT Facility Site- Sioux Cit
ADDRESS: NE Quadrant of US 75 and US 20
Sioux City, IA 51106
CLIENT: Howard R. Green Company





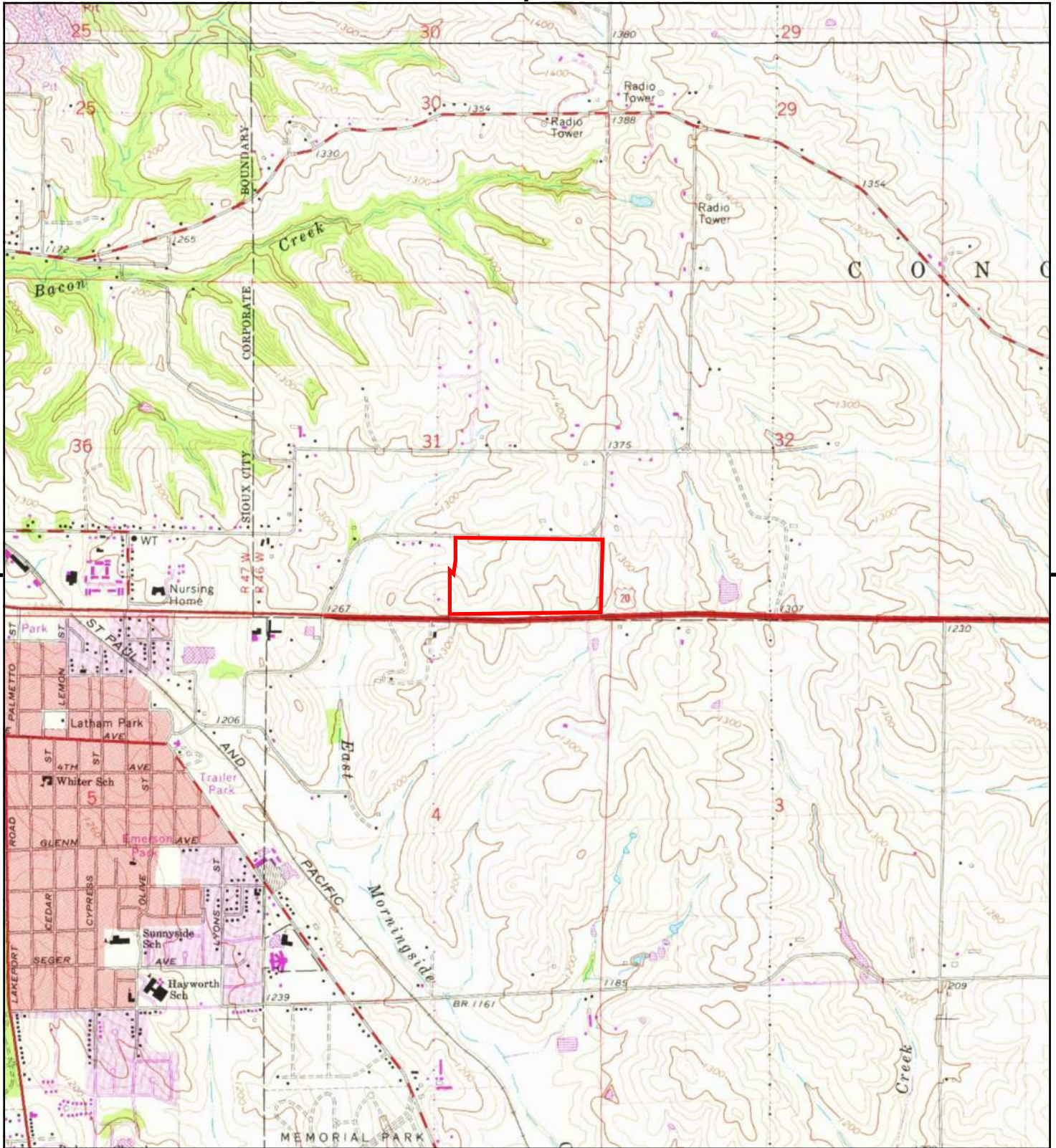
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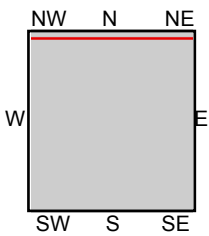
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 N, James, 1994, 7.5-minute

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ADDRESS: NE Quadrant of US 75 and US 20
 Sioux City, IA 51106
CLIENT: Howard R. Green Company





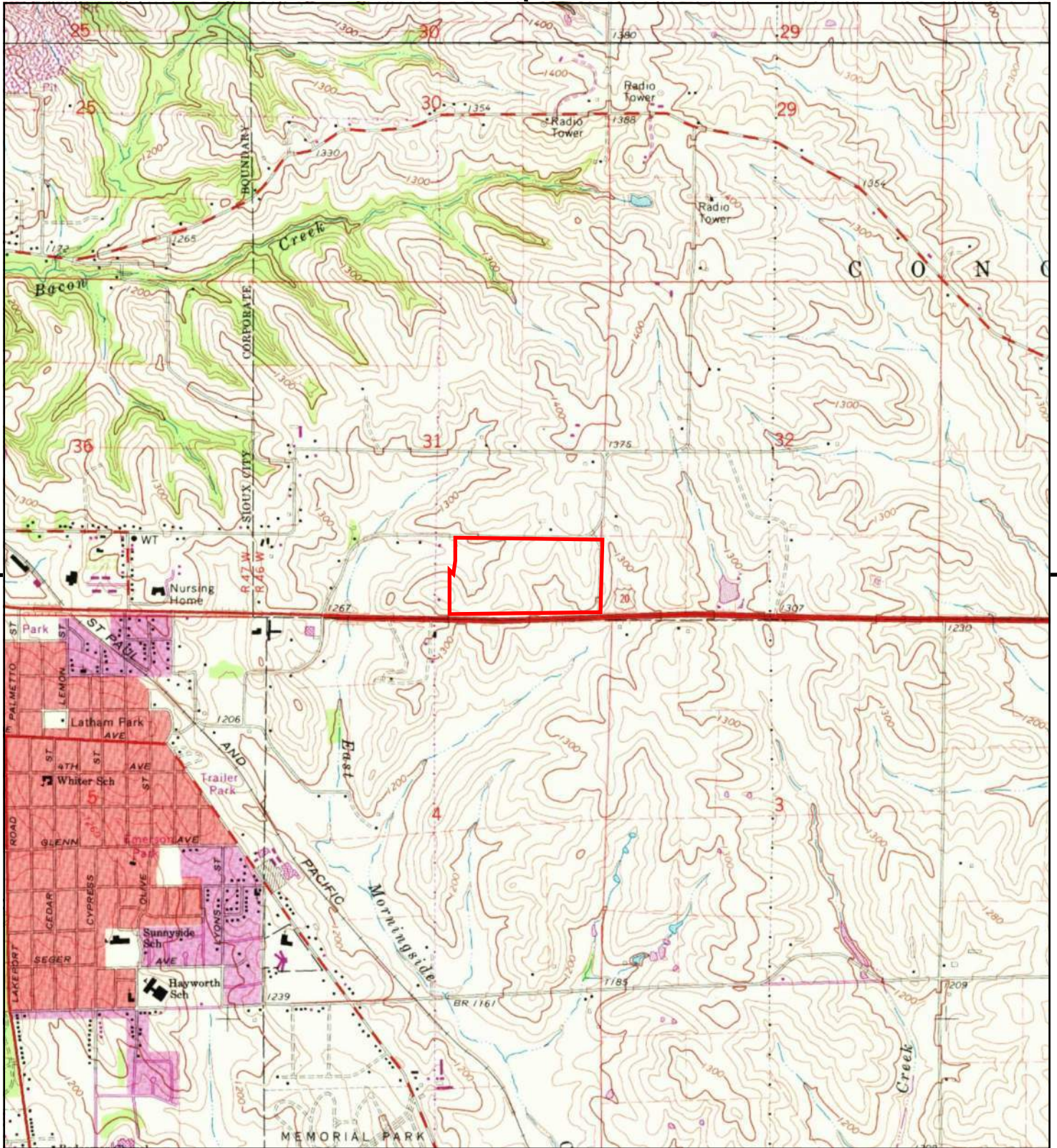
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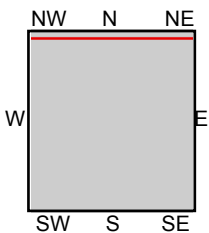
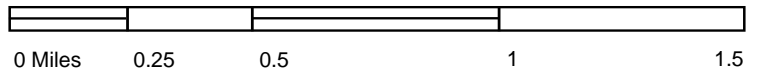
TP, Sergeant Bluff, 1976, 7.5-minute
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SITE NAME: Combined IA DOT Facility Site- Sioux Cit
ADDRESS: NE Quadrant of US 75 and US 20
 Sioux City, IA 51106
CLIENT: Howard R. Green Company





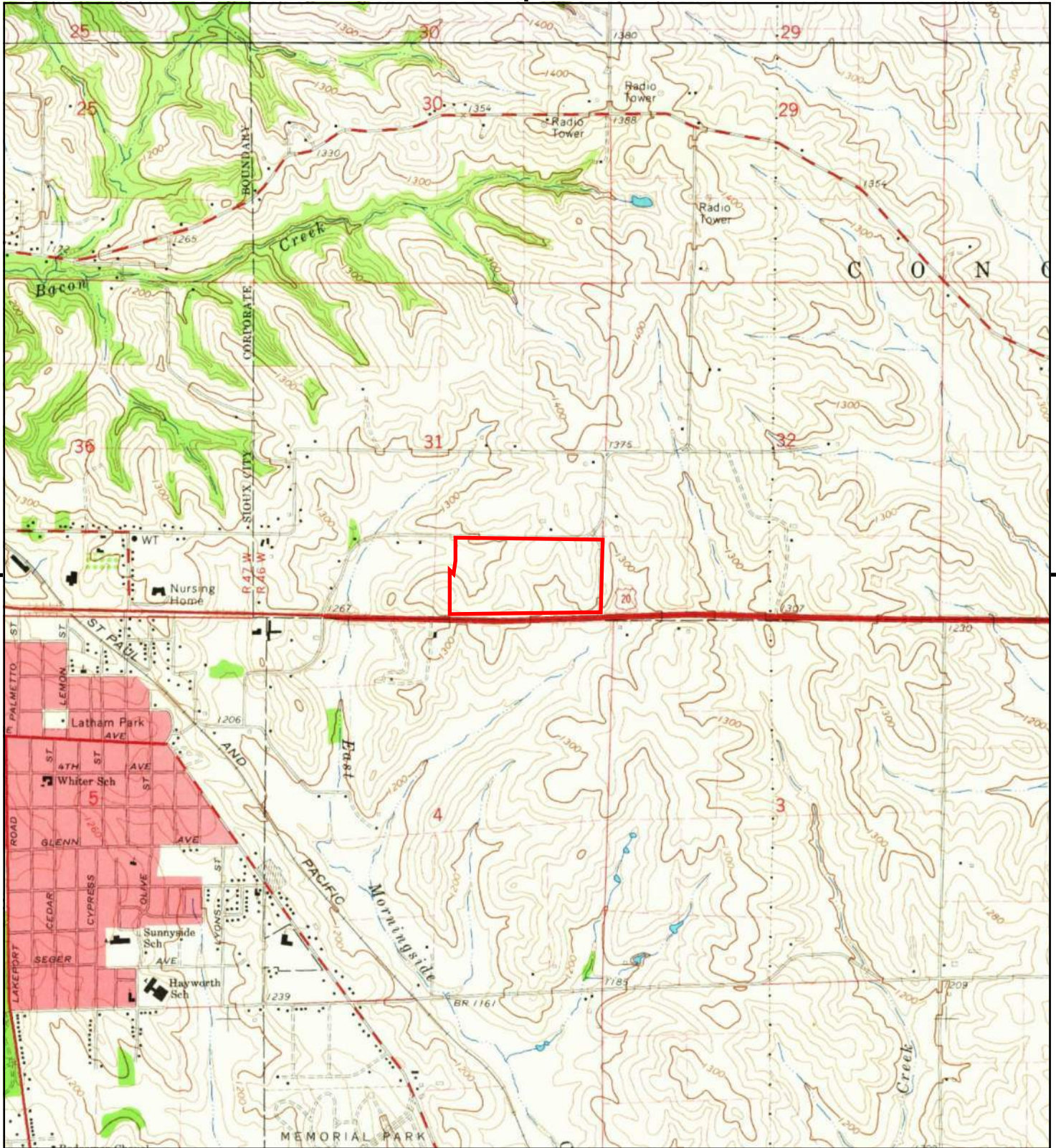
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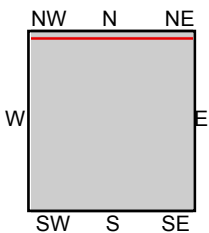
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N, James, 1971, 7.5-minute

SITE NAME: Combined IA DOT Facility Site- Sioux Cit
ADDRESS: NE Quadrant of US 75 and US 20
Sioux City, IA 51106
CLIENT: Howard R. Green Company





This report includes information from the following map sheet(s).



TP, Sergeant Bluff, 1964, 7.5-minute
N, James, 1964, 7.5-minute

SITE NAME: Combined IA DOT Facility Site- Sioux Cit
ADDRESS: NE Quadrant of US 75 and US 20
Sioux City, IA 51106
CLIENT: Howard R. Green Company



APPENDIX D
REGULATORY RECORDS DOCUMENTATION

Combined IA DOT Facility Site- Sioux City

NE Quadrant of US 75 and US 20

Sioux City, IA 51106

Inquiry Number: 5769033.2s

August 28, 2019

The EDR Radius Map™ Report with GeoCheck®



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Toll Free: 800.352.0050
www.edrnet.com

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 with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

NE QUADRANT OF US 75 AND US 20
SIOUX CITY, IA 51106

COORDINATES

Latitude (North): 42.4772900 - 42° 28' 38.24"
Longitude (West): 96.3166140 - 96° 18' 59.81"
Universal Transverse Mercator: Zone 14
UTM X (Meters): 720576.6
UTM Y (Meters): 4706046.5
Elevation: 1320 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 5944628 SERGEANT BLUFF, IA
Version Date: 2013

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20150729
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:
NE QUADRANT OF US 75 AND US 20
SIOUX CITY, IA 51106

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	GOODWILL - GORDON SI	5931 GORDON DRIVE	SWF/LF	Lower	2010, 0.381, West
2	SUNRISE MANOR	5501 GORDON DRIVE	LAST, ALLSITES	Lower	2439, 0.462, West

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing
SEMS..... Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE..... Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-SQG..... RCRA - Small Quantity Generators
RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System
US ENG CONTROLS..... Engineering Controls Sites List

EXECUTIVE SUMMARY

US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent CERCLIS

SHWS..... Registry of Hazardous Waste or Hazardous Substance Disposal Sites

State and tribal leaking storage tank lists

LUST..... Leaking Underground Storage Tank Data

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing

UST..... Underground Storage Tank Data

AST..... Aboveground Storage Tank Sites

INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

INST CONTROL..... Sites with Institutional Controls

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

VCP..... Land Recycling Program Sites

State and tribal Brownfields sites

BROWNFIELDS..... Brownfields Site Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations

ODI..... Open Dump Inventory

IHS OPEN DUMPS..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register

DEL SHWS..... Delisted Contaminated Sites Listing

US CDL..... National Clandestine Laboratory Register

Local Land Records

LIENS..... Liens Filed Listing

EXECUTIVE SUMMARY

LIENS 2..... CERCLA Lien Information

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System
SPILLS..... Spills Database
SPILLS 90..... SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR..... RCRA - Non Generators / No Longer Regulated
FUDS..... Formerly Used Defense Sites
DOD..... Department of Defense Sites
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR..... Financial Assurance Information
EPA WATCH LIST..... EPA WATCH LIST
2020 COR ACTION..... 2020 Corrective Action Program List
TSCA..... Toxic Substances Control Act
TRIS..... Toxic Chemical Release Inventory System
SSTS..... Section 7 Tracking Systems
ROD..... Records Of Decision
RMP..... Risk Management Plans
RAATS..... RCRA Administrative Action Tracking System
PRP..... Potentially Responsible Parties
PADS..... PCB Activity Database System
ICIS..... Integrated Compliance Information System
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS..... Material Licensing Tracking System
COAL ASH DOE..... Steam-Electric Plant Operation Data
COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER..... PCB Transformer Registration Database
RADINFO..... Radiation Information Database
HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS..... Incident and Accident Data
CONSENT..... Superfund (CERCLA) Consent Decrees
INDIAN RESERV..... Indian Reservations
FUSRAP..... Formerly Utilized Sites Remedial Action Program
UMTRA..... Uranium Mill Tailings Sites
LEAD SMELTERS..... Lead Smelter Sites
US AIRS..... Aerometric Information Retrieval System Facility Subsystem
US MINES..... Mines Master Index File
ABANDONED MINES..... Abandoned Mines
FINDS..... Facility Index System/Facility Registry System
DOCKET HWC..... Hazardous Waste Compliance Docket Listing
ECHO..... Enforcement & Compliance History Information
UXO..... Unexploded Ordnance Sites
FUELS PROGRAM..... EPA Fuels Program Registered Listing
AIRS..... Minor and Title V Sources Listing
COAL ASH..... Coal Ash Disposal Site Listing
DRYCLEANERS..... Iowa Drycleaner List
Financial Assurance..... Financial Assurance Information Listing
NPDES..... List of NPDES Permittees
TIER 2..... Tier 2 Information Listing

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP..... EDR Proprietary Manufactured Gas Plants

EXECUTIVE SUMMARY

EDR Hist Auto..... EDR Exclusive Historical Auto Stations
EDR Hist Cleaner..... EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS..... Recovered Government Archive State Hazardous Waste Facilities List
RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Department of Natural Resources' Permitted Solid Waste Management Facilities list.

A review of the SWF/LF list, as provided by EDR, and dated 03/05/2019 has revealed that there is 1 SWF/LF site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GOODWILL - GORDON SI Facility Id: 97-CRT-03-07 Permit Stage: None	5931 GORDON DRIVE	W 1/4 - 1/2 (0.381 mi.)	1	8

State and tribal leaking storage tank lists

LAST: N/A.

A review of the LAST list, as provided by EDR, and dated 04/15/2019 has revealed that there is 1 LAST site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>SUNRISE MANOR</i>	<i>5501 GORDON DRIVE</i>	<i>W 1/4 - 1/2 (0.462 mi.)</i>	<i>2</i>	<i>9</i>

EXECUTIVE SUMMARY

Site ID: 947
Site Status Description: Closed

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

ALLSITES: All the sites included in the Contaminated Sites Tracking Database. The database includes several regulatory compliance programs and actions.

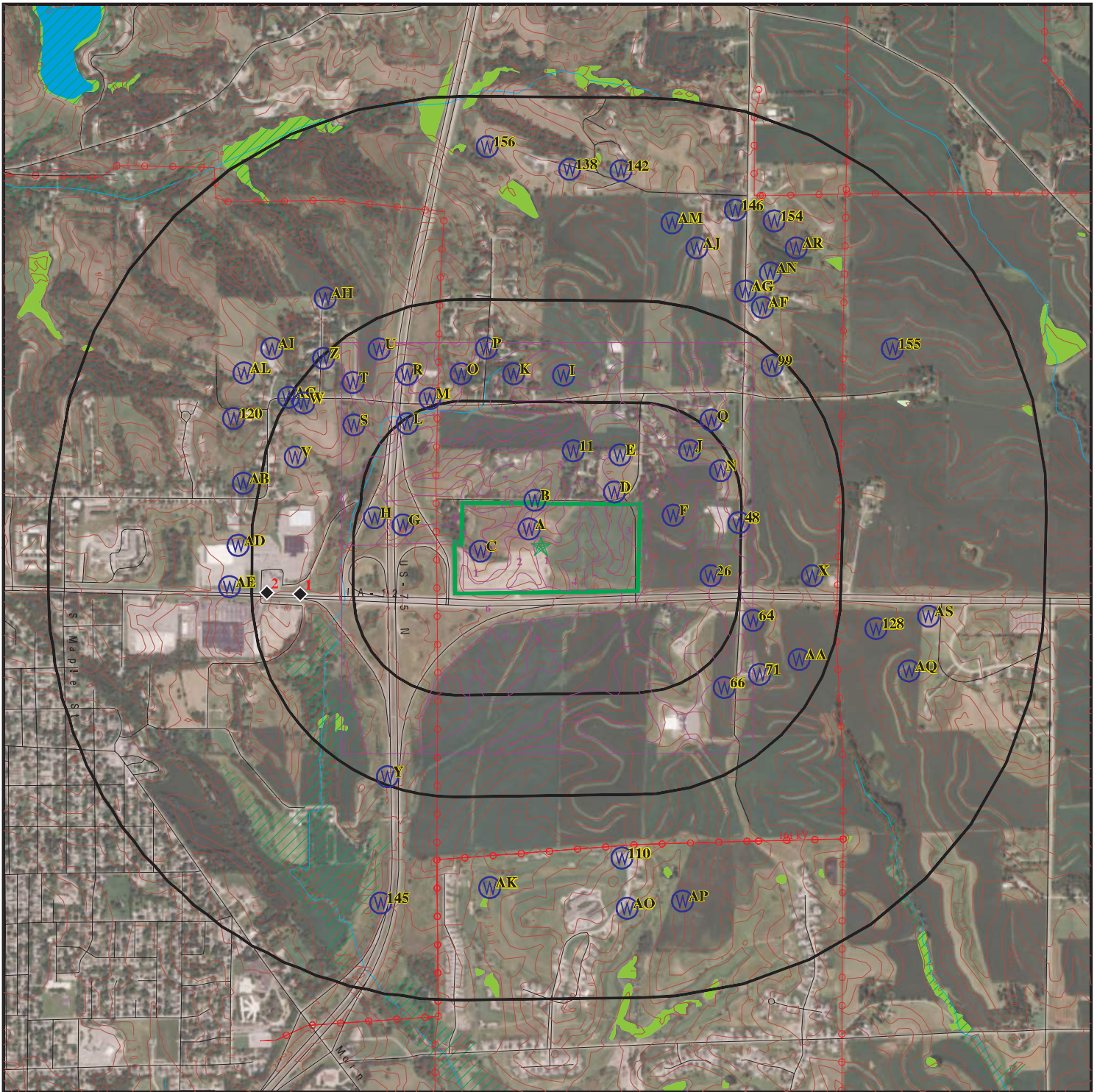
A review of the ALLSITES list, as provided by EDR, and dated 04/15/2019 has revealed that there is 1 ALLSITES site within approximately 0.5 miles of the target property.













<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SUNRISE MANOR Status: Closed Site Id Number: 947	5501 GORDON DRIVE	W 1/4 - 1/2 (0.462 mi.)	2	9

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 5769033.2S



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  National Priority List Sites
-  Dept. Defense Sites
-  Indian Reservations BIA
-  Power transmission lines
-  100-year flood zone
-  500-year flood zone
-  National Wetland Inventory
-  State Wetlands

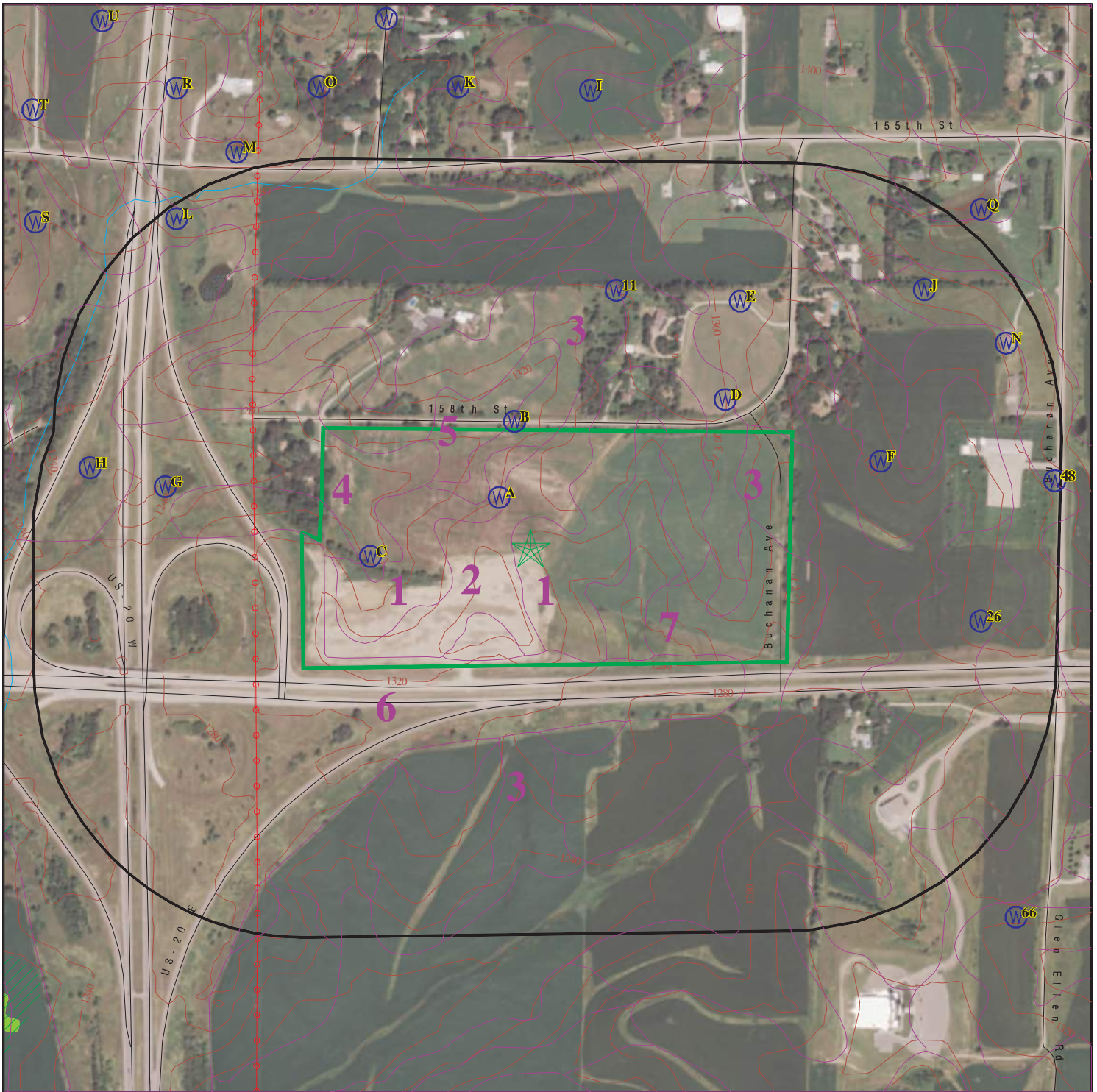









This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Combined IA DOT Facility Site- Sioux City
 ADDRESS: NE Quadrant of US 75 and US 20
 Sioux City IA 51106
 LAT/LONG: 42.47729 / 96.316614

CLIENT: Howard R. Green Company
 CONTACT: Steve Prideaux
 INQUIRY #: 5769033.2s
 DATE: August 28, 2019 1:36 pm

DETAIL MAP - 5769033.2S



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  Sensitive Receptors
-  National Priority List Sites
-  Dept. Defense Sites



-  Indian Reservations BIA
-  Power transmission lines
-  100-year flood zone
-  500-year flood zone
-  National Wetland Inventory
-  State Wetlands



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Combined IA DOT Facility Site- Sioux City
 ADDRESS: NE Quadrant of US 75 and US 20
 Sioux City IA 51106
 LAT/LONG: 42.47729 / 96.316614

CLIENT: Howard R. Green Company
 CONTACT: Steve Prideaux
 INQUIRY #: 5769033.2s
 DATE: August 28, 2019 1:38 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site list</i>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	0.001		0	NR	NR	NR	NR	0
<i>State- and tribal - equivalent CERCLIS</i>								
SHWS	1.000		0	0	0	0	NR	0
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	0.500		0	0	1	NR	NR	1
<i>State and tribal leaking storage tank lists</i>								
LUST	0.500		0	0	0	NR	NR	0
LAST	0.500		0	0	1	NR	NR	1
INDIAN LUST	0.500		0	0	0	NR	NR	0
<i>State and tribal registered storage tank lists</i>								
FEMA UST	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
<i>State and tribal institutional control / engineering control registries</i>								
INST CONTROL	0.500		0	0	0	NR	NR	0
<i>State and tribal voluntary cleanup sites</i>								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
<i>State and tribal Brownfields sites</i>								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
<u>ADDITIONAL ENVIRONMENTAL RECORDS</u>								
<i>Local Brownfield lists</i>								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
<i>Local Lists of Landfill / Solid Waste Disposal Sites</i>								
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
<i>Local Lists of Hazardous waste / Contaminated Sites</i>								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
ALLSITES	0.500		0	0	1	NR	NR	1
DEL SHWS	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
<i>Local Land Records</i>								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
<i>Records of Emergency Release Reports</i>								
HMIRS	0.001		0	NR	NR	NR	NR	0
SPILLS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
<i>Other Ascertainable Records</i>								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	0.001		0	NR	NR	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
TIER 2	0.001		0	NR	NR	NR	NR	0

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS	0.001		0	NR	NR	NR	NR	0
---------	-------	--	---	----	----	----	----	---

MAP FINDINGS SUMMARY

<u>Database</u>	<u>Search Distance (Miles)</u>	<u>Target Property</u>	<u>< 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>> 1</u>	<u>Total Plotted</u>
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	0	0	3	0	0	3

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s) EDR ID Number
 EPA ID Number

1 **GOODWILL - GORDON SIOUX CITY**
West **5931 GORDON DRIVE**
1/4-1/2 **SIOUX CITY, IA 51106**
0.381 mi.
2010 ft.

SWF/LF **S116290451**
N/A

Relative:
Lower

SWF/LF:

Actual:
1278 ft.

Name: Address: City,State,Zip: Facility ID: Facility Type: Permit Stage: Expiration Date: Project Officer: Affiliation: Phone: Contact Name: Contact Title: Contact eMail: Contact Company: Contact Address: Contact Address2: Contact City,St,Zip: Field Office: Loc Supplement: Latitude: Longitude:	GOODWILL - GORDON SIOUX CITY 5931 GORDON DRIVE SIOUX CITY, IA 51106 97-CRT-03-07 CRT Collection Permit None N/A Johnson Primary Contact Work: (402) 522-7226 Kay Stevens Not reported Not reported Goodwill Association of Iowa/Nebraska 1111 So. 41st Street Not reported Omaha, NE 68105 3 Not reported 42.475501 -96.327770
Name: Address: City,State,Zip: Facility ID: Facility Type: Permit Stage: Expiration Date: Project Officer: Affiliation: Phone: Contact Name: Contact Title: Contact eMail: Contact Company: Contact Address: Contact Address2: Contact City,St,Zip: Field Office: Loc Supplement: Latitude: Longitude:	GOODWILL - GORDON SIOUX CITY 5931 GORDON DRIVE SIOUX CITY, IA 51106 97-CRT-03-07 CRT Collection Permit None N/A Johnson Responsible Official of Agency served,Automated Email Work: (712) 274-4380 Linda Schragger Manager Not reported Goodwill Industries 5931 Gordon Drive Not reported Sioux City, IA 51106 3 Not reported 42.475501 -96.327770

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

2
West
1/4-1/2
0.462 mi.
2439 ft.

SUNRISE MANOR
5501 GORDON DRIVE
SIOUX CITY, IA 51106

LAST **S108479087**
ALLSITES **N/A**

Relative:
Lower
Actual:
1280 ft.

LAST:
 Site ID: 947
 Site Status Description: Closed
 Type Description: AST
 Ownership Type Description: Private
 Project Manager: Not reported
 Program Type Description: CERCLA Preremedial

ALLSITES:
 Site Id Number: 947
 Project Manager: Not reported
 Ownership Type: Private
 Status: Closed
 Program: CERCLA Preremedial
 Site Type: AST
 Brownfield Eligible: False
 Registry: False
 Institutional Control: False
 Priority: Not reported
 Latitude: 42.476826
 Longitude: -96.337805
 XCoord: 225630.08
 YCoord: 4708119.87

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
NO SITES FOUND					

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/11/2019	Source: EPA
Date Data Arrived at EDR: 04/18/2019	Telephone: N/A
Date Made Active in Reports: 05/14/2019	Last EDR Contact: 07/02/2019
Number of Days to Update: 26	Next Scheduled EDR Contact: 10/14/2019
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/11/2019	Source: EPA
Date Data Arrived at EDR: 04/18/2019	Telephone: N/A
Date Made Active in Reports: 05/14/2019	Last EDR Contact: 07/02/2019
Number of Days to Update: 26	Next Scheduled EDR Contact: 10/14/2019
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 07/02/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 07/03/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 35

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 07/02/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 04/11/2019	Source: EPA
Date Data Arrived at EDR: 04/18/2019	Telephone: 800-424-9346
Date Made Active in Reports: 05/23/2019	Last EDR Contact: 07/02/2019
Number of Days to Update: 35	Next Scheduled EDR Contact: 10/28/2019
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/25/2019	Source: EPA
Date Data Arrived at EDR: 03/27/2019	Telephone: 800-424-9346
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 06/26/2019
Number of Days to Update: 21	Next Scheduled EDR Contact: 10/07/2019
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/25/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/27/2019	Telephone: 913-551-7003
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 06/26/2019
Number of Days to Update: 21	Next Scheduled EDR Contact: 10/07/2019
	Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/25/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/27/2019	Telephone: 913-551-7003
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 06/26/2019
Number of Days to Update: 21	Next Scheduled EDR Contact: 10/07/2019
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/25/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/27/2019	Telephone: 913-551-7003
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 06/26/2019
Number of Days to Update: 21	Next Scheduled EDR Contact: 10/07/2019
	Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/25/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/27/2019	Telephone: 913-551-7003
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 06/26/2019
Number of Days to Update: 21	Next Scheduled EDR Contact: 10/07/2019
	Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 02/22/2019	Source: Department of the Navy
Date Data Arrived at EDR: 03/07/2019	Telephone: 843-820-7326
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 05/10/2019
Number of Days to Update: 41	Next Scheduled EDR Contact: 08/26/2019
	Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 01/31/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/04/2019	Telephone: 703-603-0695
Date Made Active in Reports: 03/08/2019	Last EDR Contact: 05/29/2019
Number of Days to Update: 32	Next Scheduled EDR Contact: 09/09/2019
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 01/31/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/04/2019	Telephone: 703-603-0695
Date Made Active in Reports: 03/08/2019	Last EDR Contact: 05/29/2019
Number of Days to Update: 32	Next Scheduled EDR Contact: 09/09/2019
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 36

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

SHWS: Registry of Hazardous Waste or Hazardous Substance Disposal Sites

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 01/23/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 44

Source: Department of Natural Resources
Telephone: 515-281-8801
Last EDR Contact: 07/12/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: Annually

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Permitted Solid Waste Management Facilities

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 03/05/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 04/11/2019
Number of Days to Update: 37

Source: Department of Natural Resources
Telephone: 515-281-8801
Last EDR Contact: 06/05/2019
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LAST: Leaking Aboveground Storage Tank Sites

A listing of leaking aboveground storage tank sites.

Date of Government Version: 04/15/2019
Date Data Arrived at EDR: 04/16/2019
Date Made Active in Reports: 05/22/2019
Number of Days to Update: 36

Source: Department of Natural Resources
Telephone: 515-281-6001
Last EDR Contact: 07/17/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: Quarterly

LUST: Leaking Underground Storage Tank Data

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 03/04/2019
Date Data Arrived at EDR: 03/08/2019
Date Made Active in Reports: 04/10/2019
Number of Days to Update: 33

Source: Department of Natural Resources
Telephone: 515-281-6001
Last EDR Contact: 06/03/2019
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/17/2018	Source: EPA Region 10
Date Data Arrived at EDR: 03/07/2019	Telephone: 206-553-2857
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 07/24/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 11/04/2019
	Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/16/2018	Source: EPA Region 8
Date Data Arrived at EDR: 03/07/2019	Telephone: 303-312-6271
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 07/24/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 11/04/2019
	Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 02/19/2019	Source: EPA Region 7
Date Data Arrived at EDR: 03/07/2019	Telephone: 913-551-7003
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 07/24/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 11/04/2019
	Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 11/01/2018	Source: EPA Region 6
Date Data Arrived at EDR: 03/07/2019	Telephone: 214-665-6597
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 07/24/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 11/04/2019
	Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 09/24/2018	Source: EPA Region 4
Date Data Arrived at EDR: 03/12/2019	Telephone: 404-562-8677
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 07/23/2019
Number of Days to Update: 50	Next Scheduled EDR Contact: 11/04/2019
	Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/13/2018	Source: EPA Region 1
Date Data Arrived at EDR: 03/07/2019	Telephone: 617-918-1313
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 07/24/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 11/04/2019
	Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/12/2018	Source: EPA, Region 5
Date Data Arrived at EDR: 03/07/2019	Telephone: 312-886-7439
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 07/24/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 11/04/2019
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/10/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/08/2019	Telephone: 415-972-3372
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 07/24/2019
Number of Days to Update: 54	Next Scheduled EDR Contact: 11/04/2019
	Data Release Frequency: Varies

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017	Source: FEMA
Date Data Arrived at EDR: 05/30/2017	Telephone: 202-646-5797
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 07/10/2019
Number of Days to Update: 136	Next Scheduled EDR Contact: 10/21/2019
	Data Release Frequency: Varies

UST: Underground Storage Tank Data
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 03/04/2019	Source: Department of Natural Resources
Date Data Arrived at EDR: 03/08/2019	Telephone: 515-281-6001
Date Made Active in Reports: 04/10/2019	Last EDR Contact: 06/03/2019
Number of Days to Update: 33	Next Scheduled EDR Contact: 09/16/2019
	Data Release Frequency: Quarterly

AST: Aboveground Storage Tank Sites

Bulk fuel facilities, commercial fuel operations, private farm sites, and any other storage facility that meets the Department of Public Safety's registration criteria. They register any class I, II or III petroleum product (gas, diesel and oil) above 1,100 gallons.

Date of Government Version: 03/31/2019	Source: Department of Public Safety
Date Data Arrived at EDR: 04/02/2019	Telephone: 515-281-5821
Date Made Active in Reports: 05/22/2019	Last EDR Contact: 06/28/2019
Number of Days to Update: 50	Next Scheduled EDR Contact: 10/07/2019
	Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 11/01/2018	Source: EPA Region 6
Date Data Arrived at EDR: 03/07/2019	Telephone: 214-665-7591
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 07/24/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 11/04/2019
	Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 11/07/2018	Source: EPA Region 7
Date Data Arrived at EDR: 03/07/2019	Telephone: 913-551-7003
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 07/24/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 11/04/2019
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/10/2018	Source: EPA Region 9
Date Data Arrived at EDR: 03/08/2019	Telephone: 415-972-3368
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 07/24/2019
Number of Days to Update: 54	Next Scheduled EDR Contact: 11/04/2019
	Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/17/2018	Source: EPA Region 10
Date Data Arrived at EDR: 03/07/2019	Telephone: 206-553-2857
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 07/24/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 11/04/2019
	Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/12/2018	Source: EPA Region 5
Date Data Arrived at EDR: 03/07/2019	Telephone: 312-886-6136
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 07/24/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 11/04/2019
	Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations).

Date of Government Version: 09/24/2018	Source: EPA Region 4
Date Data Arrived at EDR: 03/12/2019	Telephone: 404-562-9424
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 07/23/2019
Number of Days to Update: 50	Next Scheduled EDR Contact: 11/04/2019
	Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/03/2018	Source: EPA, Region 1
Date Data Arrived at EDR: 03/07/2019	Telephone: 617-918-1313
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 07/24/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 11/04/2019
	Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/16/2018	Source: EPA Region 8
Date Data Arrived at EDR: 03/07/2019	Telephone: 303-312-6137
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

State and tribal institutional control / engineering control registries

INST CONTROL: Sites with Institutional Controls

Sites currently enrolled in the Land Recycling Program that have Institutional Controls.

Date of Government Version: 04/15/2019	Source: Department of Natural Resources
Date Data Arrived at EDR: 04/16/2019	Telephone: 515-242-5818
Date Made Active in Reports: 05/22/2019	Last EDR Contact: 07/17/2019
Number of Days to Update: 36	Next Scheduled EDR Contact: 10/28/2019
	Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-918-1102
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 06/20/2019
Number of Days to Update: 142	Next Scheduled EDR Contact: 10/07/2019
	Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

VCP: Land Recycling Program Sites

Sites currently enrolled in the Land Recycling Program.

Date of Government Version: 04/15/2019	Source: Department of Natural Resources
Date Data Arrived at EDR: 04/16/2019	Telephone: 515-242-5818
Date Made Active in Reports: 05/22/2019	Last EDR Contact: 07/17/2019
Number of Days to Update: 36	Next Scheduled EDR Contact: 10/28/2019
	Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Site Listing

Brownfields are abandoned, idled, or under-used industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination.

Date of Government Version: 04/15/2019	Source: Department of Natural Resources
Date Data Arrived at EDR: 04/16/2019	Telephone: 515-281-8489
Date Made Active in Reports: 05/22/2019	Last EDR Contact: 07/17/2019
Number of Days to Update: 36	Next Scheduled EDR Contact: 10/28/2019
	Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/17/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 24

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/04/2019
Next Scheduled EDR Contact: 09/30/2019
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/19/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Services, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 04/23/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 02/24/2019
Date Data Arrived at EDR: 02/26/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 50

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/24/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: No Update Planned

ALLSITES: Contaminated Sites Tracking Database

All the sites included in the Contaminated Sites Tracking Database. The database includes several regulatory compliance programs and actions.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/15/2019
Date Data Arrived at EDR: 04/16/2019
Date Made Active in Reports: 05/22/2019
Number of Days to Update: 36

Source: Department of Natural Resources
Telephone: 515-281-4171
Last EDR Contact: 07/17/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: Quarterly

DEL SHWS: Delisted Contaminated Sites Listing

A listing of sites delisted from the Contaminated Sites Listing.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 02/23/2018
Number of Days to Update: 30

Source: Department of Natural Resources
Telephone: 515-281-8801
Last EDR Contact: 07/12/2019
Next Scheduled EDR Contact: 10/28/2019
Data Release Frequency: Annually

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/24/2019
Date Data Arrived at EDR: 02/26/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 50

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/24/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Quarterly

Local Land Records

LIENS: Liens Filed Listing

A listing of liens filed with the Iowa Comprehensive Petroleum Underground Storage Tank Fund.

Date of Government Version: 01/17/2019
Date Data Arrived at EDR: 03/01/2019
Date Made Active in Reports: 04/10/2019
Number of Days to Update: 40

Source: Department of Natural Resources
Telephone: 515-281-5523
Last EDR Contact: 07/19/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 35

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 07/02/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 49

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SPILLS: Spills Database

Spill reporting data that is collected during the initial report of an incident.

Date of Government Version: 03/05/2019	Source: Department of Natural Resources
Date Data Arrived at EDR: 03/05/2019	Telephone: 515-281-4367
Date Made Active in Reports: 04/11/2019	Last EDR Contact: 06/05/2019
Number of Days to Update: 37	Next Scheduled EDR Contact: 09/16/2019
	Data Release Frequency: Annually

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 10/17/2012	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 03/05/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 61	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/25/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/27/2019	Telephone: 913-551-7003
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 06/26/2019
Number of Days to Update: 21	Next Scheduled EDR Contact: 10/07/2019
	Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 03/07/2019	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 04/03/2019	Telephone: 202-528-4285
Date Made Active in Reports: 05/23/2019	Last EDR Contact: 05/21/2019
Number of Days to Update: 50	Next Scheduled EDR Contact: 09/02/2019
	Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 07/09/2019
Number of Days to Update: 62	Next Scheduled EDR Contact: 10/21/2019
	Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 07/10/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/13/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/07/2019
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 05/06/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/10/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/18/2019
Next Scheduled EDR Contact: 09/30/2019
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 01/10/2018
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 2

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/24/2019
Next Scheduled EDR Contact: 09/02/2019
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/24/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 35

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 07/01/2019
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/25/2019
Date Data Arrived at EDR: 05/02/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 07/22/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 07/01/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 03/20/2019
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 34

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 07/12/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 07/03/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 07/22/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 06/07/2019
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/07/2019
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017
Date Data Arrived at EDR: 11/30/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/02/2019
Date Data Arrived at EDR: 04/02/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 07/01/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 12/03/2018
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 51

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 04/30/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 30

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 07/08/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 06/26/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 07/10/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 05/02/2019
Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/24/2019
Next Scheduled EDR Contact: 09/02/2019
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 26

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 07/01/2019
Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/27/2018
Date Data Arrived at EDR: 02/27/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 33

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 05/29/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/05/2005	Source: USGS
Date Data Arrived at EDR: 02/29/2008	Telephone: 703-648-7709
Date Made Active in Reports: 04/18/2008	Last EDR Contact: 05/31/2019
Number of Days to Update: 49	Next Scheduled EDR Contact: 09/09/2019
	Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011	Source: USGS
Date Data Arrived at EDR: 06/08/2011	Telephone: 703-648-7709
Date Made Active in Reports: 09/13/2011	Last EDR Contact: 05/31/2019
Number of Days to Update: 97	Next Scheduled EDR Contact: 09/09/2019
	Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/27/2019	Source: Department of Interior
Date Data Arrived at EDR: 03/28/2019	Telephone: 202-208-2609
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 06/19/2019
Number of Days to Update: 34	Next Scheduled EDR Contact: 09/23/2019
	Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/15/2019	Source: EPA
Date Data Arrived at EDR: 03/05/2019	Telephone: (913) 551-7003
Date Made Active in Reports: 03/15/2019	Last EDR Contact: 06/05/2019
Number of Days to Update: 10	Next Scheduled EDR Contact: 09/16/2019
	Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/26/2018	Telephone: 202-564-0527
Date Made Active in Reports: 10/05/2018	Last EDR Contact: 05/24/2019
Number of Days to Update: 71	Next Scheduled EDR Contact: 09/09/2019
	Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017	Source: Department of Defense
Date Data Arrived at EDR: 01/17/2019	Telephone: 703-704-1564
Date Made Active in Reports: 04/01/2019	Last EDR Contact: 07/15/2019
Number of Days to Update: 74	Next Scheduled EDR Contact: 10/28/2019
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 04/07/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/09/2019	Telephone: 202-564-2280
Date Made Active in Reports: 05/23/2019	Last EDR Contact: 07/09/2019
Number of Days to Update: 44	Next Scheduled EDR Contact: 10/21/2019
	Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/19/2019	Source: EPA
Date Data Arrived at EDR: 02/21/2019	Telephone: 800-385-6164
Date Made Active in Reports: 04/01/2019	Last EDR Contact: 05/21/2019
Number of Days to Update: 39	Next Scheduled EDR Contact: 09/02/2019
	Data Release Frequency: Quarterly

AIRS: Minor and Title V Sources Listing

A listing of Minor and Title V sources.

Date of Government Version: 03/21/2019	Source: Department of Natural Resources
Date Data Arrived at EDR: 03/28/2019	Telephone: 515-281-8468
Date Made Active in Reports: 04/11/2019	Last EDR Contact: 06/20/2019
Number of Days to Update: 14	Next Scheduled EDR Contact: 10/07/2019
	Data Release Frequency: Varies

COAL ASH: Coal Ash Disposal Site Listing

A listing of coal combustion residue landfill locations.

Date of Government Version: 03/05/2019	Source: Department of Natural Resources
Date Data Arrived at EDR: 03/05/2019	Telephone: 515-281-8308
Date Made Active in Reports: 04/11/2019	Last EDR Contact: 06/05/2019
Number of Days to Update: 37	Next Scheduled EDR Contact: 09/16/2019
	Data Release Frequency: Quarterly

DRYCLEANERS: Iowa Drycleaner List

A listing of drycleaners in Iowa.

Date of Government Version: 04/15/2019	Source: Department of Natural Resources
Date Data Arrived at EDR: 04/19/2019	Telephone: 515-242-5100
Date Made Active in Reports: 05/22/2019	Last EDR Contact: 07/12/2019
Number of Days to Update: 33	Next Scheduled EDR Contact: 10/28/2019
	Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

A listing of financial assurance information for underground storage tank facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 03/04/2019	Source: Department of Natural Resources
Date Data Arrived at EDR: 03/08/2019	Telephone: 515-242-5086
Date Made Active in Reports: 04/10/2019	Last EDR Contact: 06/03/2019
Number of Days to Update: 33	Next Scheduled EDR Contact: 09/16/2019
	Data Release Frequency: Quarterly

Financial Assurance 2: Financial Assurance Information Listing

Information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/28/2019
Date Data Arrived at EDR: 03/01/2019
Date Made Active in Reports: 04/10/2019
Number of Days to Update: 40

Source: Department of Natural Resources
Telephone: 515-242-5818
Last EDR Contact: 06/03/2019
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Varies

NPDES: List of NPDES Permittees

The files listed below contain information on facilities that hold NPDES permits, or those that are authorized to discharge wastewater to surface waters in Iowa.

Date of Government Version: 05/07/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 05/22/2019
Number of Days to Update: 8

Source: Department of Natural Resources
Telephone: 515-281-4736
Last EDR Contact: 05/14/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Varies

TIER 2: Tier 2 Information Listing

A listing of facilities which store or manufacture hazardous materials and submit a chemical inventory report.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 09/18/2018
Date Made Active in Reports: 10/02/2018
Number of Days to Update: 14

Source: Department of Natural Resources
Telephone: 515-725-0302
Last EDR Contact: 06/17/2019
Next Scheduled EDR Contact: 09/30/2019
Data Release Frequency: Annually

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Natural Resources in Iowa.

Date of Government Version: N/A	Source: Department of Natural Resources
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 01/03/2014	Last EDR Contact: 06/01/2012
Number of Days to Update: 186	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Natural Resources in Iowa.

Date of Government Version: N/A	Source: Department of Natural Resources
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 12/26/2013	Last EDR Contact: 06/01/2012
Number of Days to Update: 178	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 02/11/2019	Source: Department of Energy & Environmental Protection
Date Data Arrived at EDR: 02/12/2019	Telephone: 860-424-3375
Date Made Active in Reports: 03/04/2019	Last EDR Contact: 05/14/2019
Number of Days to Update: 20	Next Scheduled EDR Contact: 08/26/2019
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 07/09/2019
Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 05/01/2019
Date Made Active in Reports: 06/21/2019
Number of Days to Update: 51

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/01/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Quarterly

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 02/23/2018
Date Made Active in Reports: 04/09/2018
Number of Days to Update: 45

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/17/2019
Next Scheduled EDR Contact: 09/02/2019
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/15/2018
Date Made Active in Reports: 07/09/2018
Number of Days to Update: 24

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/10/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Child Care Facilities

Source: Department of Human Services

Telephone: 515-281-4357

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: National Wetland Inventory of Iowa

Source: Department of Natural Resources

Telephone: 319-335-1575

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK[®] - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

COMBINED IA DOT FACILITY SITE- SIOUX CITY
NE QUADRANT OF US 75 AND US 20
SIOUX CITY, IA 51106

TARGET PROPERTY COORDINATES

Latitude (North):	42.47729 - 42° 28' 38.24"
Longitude (West):	96.316614 - 96° 18' 59.81"
Universal Tranverse Mercator:	Zone 14
UTM X (Meters):	720576.6
UTM Y (Meters):	4706046.5
Elevation:	1320 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5944628 SERGEANT BLUFF, IA
Version Date:	2013

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

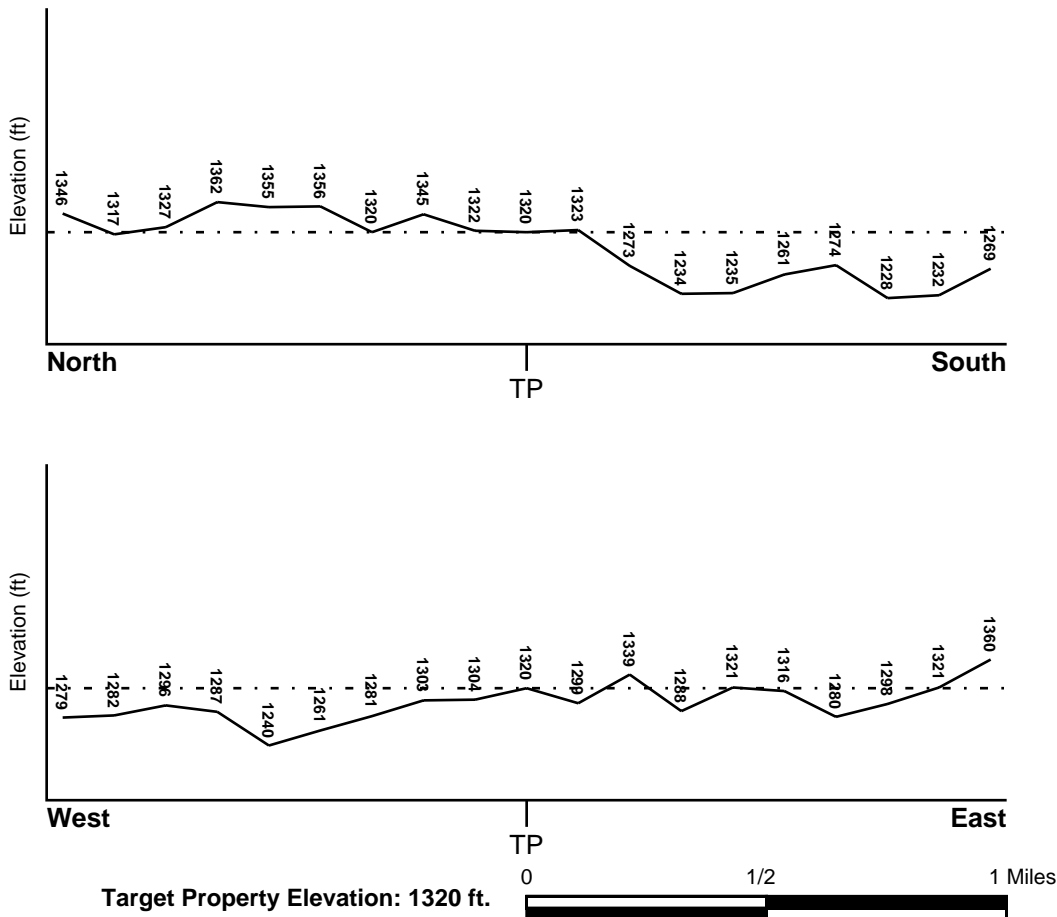
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General South

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
19193C0202D	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
19193C0225D	FEMA FIRM Flood data
19193C0204D	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
SERGEANT BLUFF	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

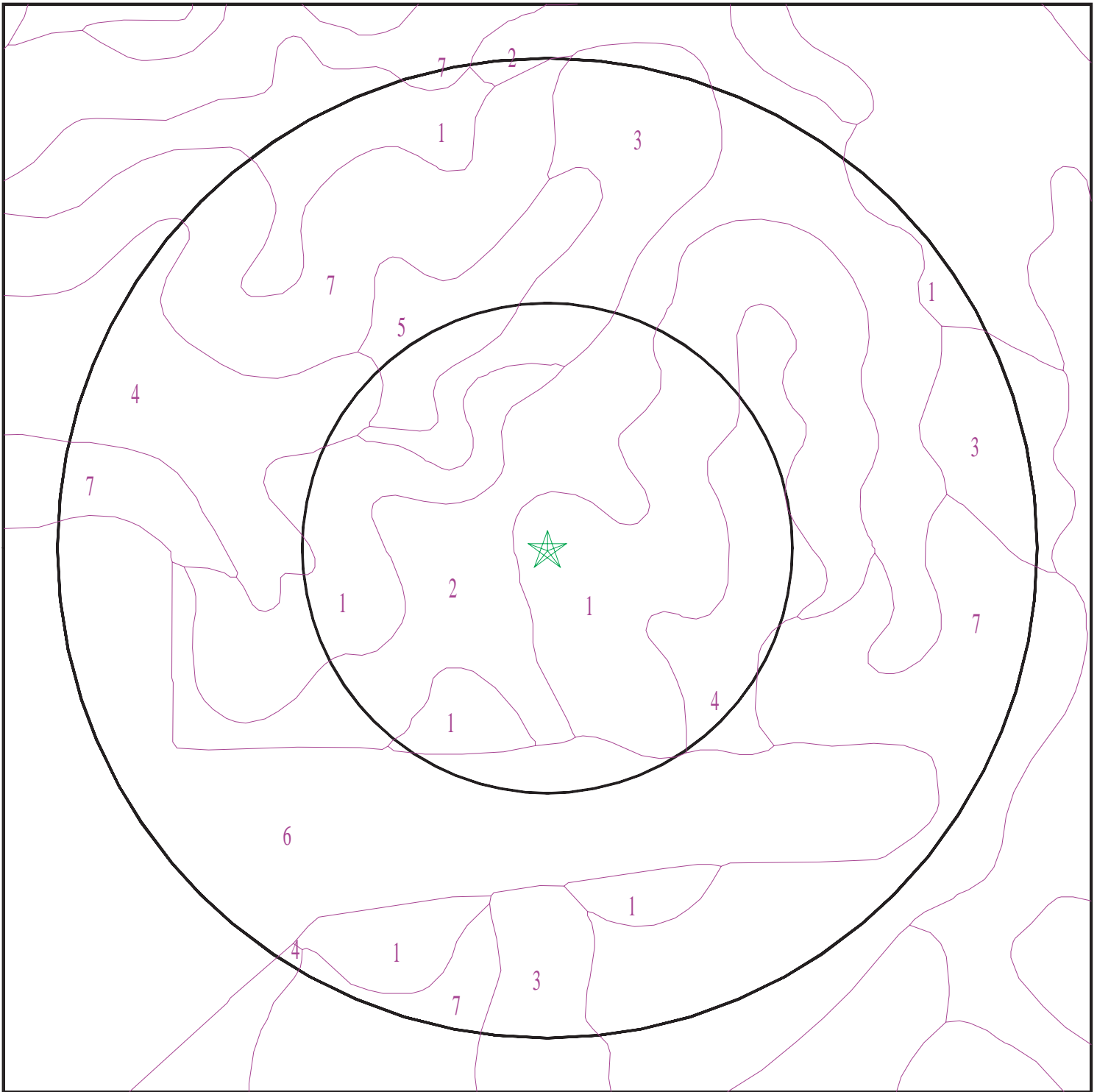
Era: Mesozoic
System: Cretaceous
Series: Woodbine and Tuscaloosa Groups
Code: uK1 (*decoded above as Era, System & Series*)

GEOLOGIC AGE IDENTIFICATION

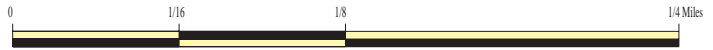
Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 5769033.2s



- ★ Target Property
- SSURGO Soil
- Water



SITE NAME: Combined IA DOT Facility Site- Sioux City
ADDRESS: NE Quadrant of US 75 and US 20
Sioux City IA 51106
LAT/LONG: 42.47729 / 96.316614

CLIENT: Howard R. Green Company
CONTACT: Steve Prideaux
INQUIRY #: 5769033.2s
DATE: August 28, 2019 1:38 pm

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Ida

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 8.4 Min: 7.4
2	5 inches	79 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 8.4 Min: 7.4

Soil Map ID: 2

Soil Component Name: Ida

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 8.4 Min: 7.4
2	5 inches	79 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 8.4 Min: 7.4

Soil Map ID: 3

Soil Component Name: Monona

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 14.11 Min: 4.23	Max: 8.4 Min: 6.6
2	7 inches	24 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 14.11 Min: 4.23	Max: 8.4 Min: 6.6
3	24 inches	59 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 14.11 Min: 4.23	Max: 8.4 Min: 6.6

Soil Map ID: 4

Soil Component Name: Napier

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	7 inches	29 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 14.11 Min: 4.23	Max: 8.4 Min: 6.6
2	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 14.11 Min: 4.23	Max: 8.4 Min: 6.6
3	29 inches	48 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 14.11 Min: 4.23	Max: 8.4 Min: 6.6
4	48 inches	59 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 14.11 Min: 4.23	Max: 8.4 Min: 6.6

Soil Map ID: 5

Soil Component Name: Napier

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	7 inches	29 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 14.11 Min: 4.23	Max: 8.4 Min: 6.6
2	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 14.11 Min: 4.23	Max: 8.4 Min: 6.6
3	29 inches	48 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 14.11 Min: 4.23	Max: 8.4 Min: 6.6
4	48 inches	59 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 14.11 Min: 4.23	Max: 8.4 Min: 6.6

Soil Map ID: 6

Soil Component Name: Udorthents, loamy

Soil Surface Texture: variable

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class:
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	48 inches	59 inches	variable	Not reported	Not reported	Max: Min:	Max: Min:

Soil Map ID: 7

Soil Component Name: Ida

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 8.4 Min: 7.4
2	5 inches	79 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 8.4 Min: 7.4

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A1	IAPW40000072040	0 - 1/8 Mile NNW
A2	IAPU40000080889	0 - 1/8 Mile NNW
B3	IAPR40000039333	0 - 1/8 Mile North
B4	IAPU40000213175	0 - 1/8 Mile North
C5	IAPU40000213183	1/8 - 1/4 Mile West
C6	IAPR40000000019	1/8 - 1/4 Mile West
C7	IAPR40000017718	1/8 - 1/4 Mile West
C8	IAPU40000213185	1/8 - 1/4 Mile West
D9	IAPW40000091793	1/8 - 1/4 Mile NE
D10	IAPU40000080888	1/8 - 1/4 Mile NE
11	IAPU40000080867	1/4 - 1/2 Mile NNE
E12	IAPW40000025614	1/4 - 1/2 Mile NE
E13	IAPU40000080874	1/4 - 1/2 Mile NE
F14	IAPW40000010980	1/4 - 1/2 Mile East
F15	IAPW40000016855	1/4 - 1/2 Mile East
F16	IAPW40000043611	1/4 - 1/2 Mile East
F17	IAPU40000080900	1/4 - 1/2 Mile East
F18	IAPU40000080899	1/4 - 1/2 Mile East
F19	IAPU40000080898	1/4 - 1/2 Mile East
G20	IAPR40000068676	1/4 - 1/2 Mile West

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
G21	IAPU40000213170	1/4 - 1/2 Mile West
F22	IAPW40000057607	1/4 - 1/2 Mile ENE
F23	IAPU40000080894	1/4 - 1/2 Mile ENE
H24	IAPU40000080864	1/4 - 1/2 Mile West
H25	IAPW40000070552	1/4 - 1/2 Mile West
26	IAPU40000190665	1/4 - 1/2 Mile East
I27	IAPU40000213158	1/4 - 1/2 Mile North
I28	IAPR40000047516	1/4 - 1/2 Mile North
J29	IAPU40000213176	1/4 - 1/2 Mile ENE
K30	IAPU40000213154	1/4 - 1/2 Mile North
K31	IAPR40000074496	1/4 - 1/2 Mile North
J32	IAPR40000015784	1/4 - 1/2 Mile ENE
J33	IAPR40000068686	1/4 - 1/2 Mile ENE
J34	IAPR40000069408	1/4 - 1/2 Mile ENE
J35	IAPU40000213178	1/4 - 1/2 Mile ENE
J36	IAPU40000213181	1/4 - 1/2 Mile ENE
L37	IAPU40000213155	1/4 - 1/2 Mile NW
L38	IAPR40000032257	1/4 - 1/2 Mile NW
M39	IAPR40000018806	1/4 - 1/2 Mile NW
M40	IAPR40000068009	1/4 - 1/2 Mile NW
M41	IAPU40000213152	1/4 - 1/2 Mile NW
N42	IAPU40000213187	1/4 - 1/2 Mile ENE
N43	IAPR40000057675	1/4 - 1/2 Mile ENE
M44	IAPU40000213150	1/4 - 1/2 Mile NW
N45	IAPU40000080890	1/4 - 1/2 Mile ENE
O46	IAPU40000213147	1/4 - 1/2 Mile NNW
O47	IAPR40000069726	1/4 - 1/2 Mile NNW
48	IAPU40000080908	1/4 - 1/2 Mile East
N49	IAPW40000016434	1/4 - 1/2 Mile ENE
N50	IAPU40000080893	1/4 - 1/2 Mile ENE
P51	IAPU40000213144	1/2 - 1 Mile NNW
P52	IAPR40000001984	1/2 - 1 Mile NNW
P53	IAPR40000068114	1/2 - 1 Mile NNW
P54	IAPR40000068201	1/2 - 1 Mile NNW
N55	IAPW40000057676	1/2 - 1 Mile ENE
P56	IAPU40000213142	1/2 - 1 Mile NNW
P57	IAPU40000213141	1/2 - 1 Mile NNW
Q58	IAPW40000057915	1/2 - 1 Mile NE
Q59	IAPU40000213173	1/2 - 1 Mile NE
Q60	IAPR40000038350	1/2 - 1 Mile NE
R61	IAPU40000213140	1/2 - 1 Mile NW
R62	IAPR40000083370	1/2 - 1 Mile NW
S63	IAPU40000213151	1/2 - 1 Mile WNW
64	IAPW40000050683	1/2 - 1 Mile ESE
S65	IAPR40000074357	1/2 - 1 Mile WNW
66	IAPU40000190671	1/2 - 1 Mile SE
T67	IAPU40000080826	1/2 - 1 Mile NW
T68	IAPW40000005367	1/2 - 1 Mile NW
T69	IAPU40000080825	1/2 - 1 Mile NW
T70	IAPW40000103960	1/2 - 1 Mile NW
71	IAPU40000080945	1/2 - 1 Mile ESE
U72	IAPU40000213129	1/2 - 1 Mile NW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

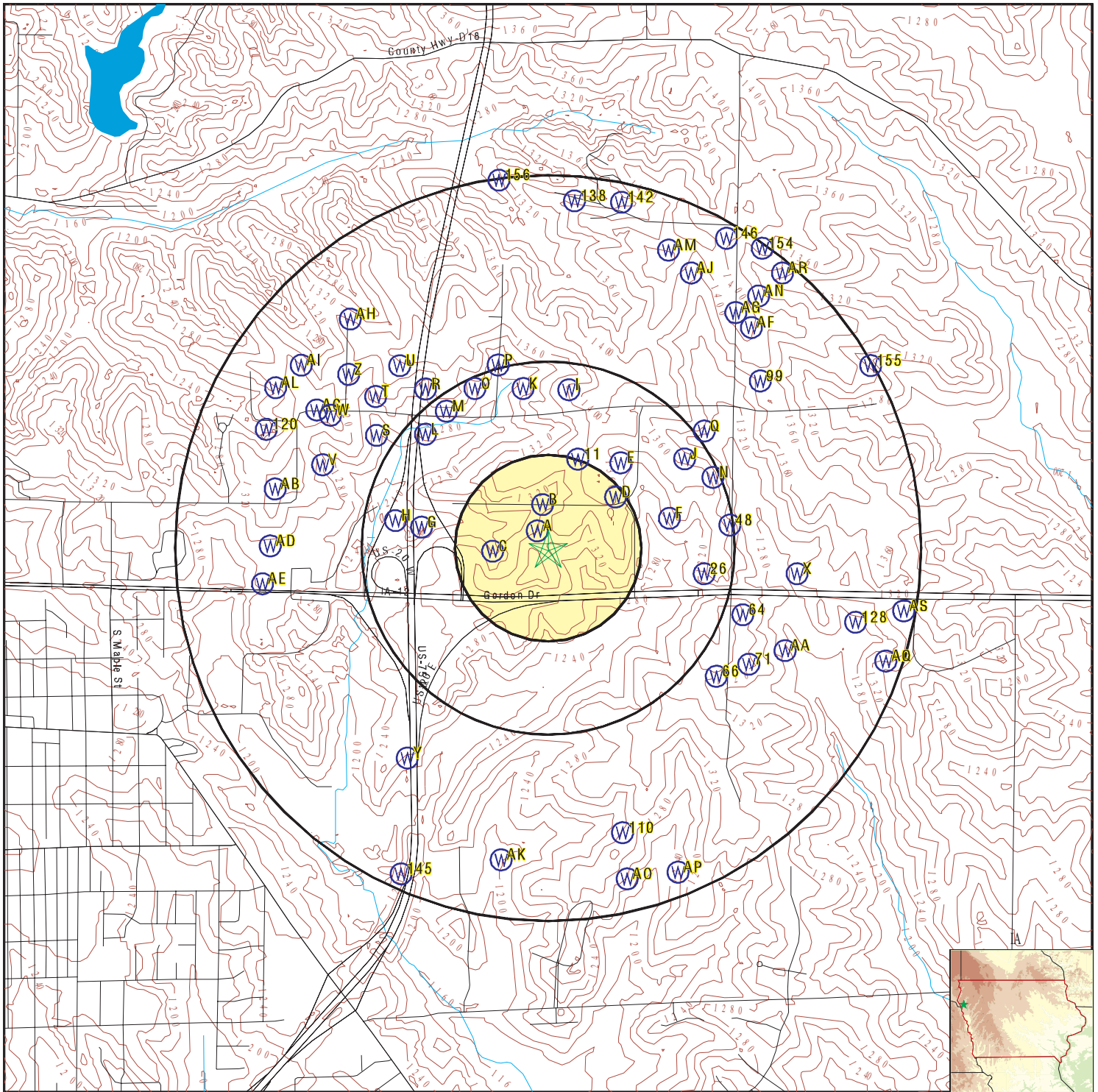
MAP ID	WELL ID	LOCATION FROM TP
T73	IAPU40000213135	1/2 - 1 Mile NW
U74	IAPR40000011229	1/2 - 1 Mile NW
U75	IAPR40000014742	1/2 - 1 Mile NW
U76	IAPR40000017279	1/2 - 1 Mile NW
U77	IAPU40000213130	1/2 - 1 Mile NW
T78	IAPR40000070220	1/2 - 1 Mile NW
T79	IAPR40000085384	1/2 - 1 Mile NW
U80	IAPU40000213128	1/2 - 1 Mile NW
T81	IAPU40000213134	1/2 - 1 Mile NW
V82	IAPU40000080841	1/2 - 1 Mile WNW
V83	IAPW40000082163	1/2 - 1 Mile WNW
V84	IAPU40000080838	1/2 - 1 Mile WNW
V85	IAPU40000080834	1/2 - 1 Mile WNW
W86	IAPU40000080822	1/2 - 1 Mile WNW
X87	IAPU40000213201	1/2 - 1 Mile East
X88	IAPR40000036262	1/2 - 1 Mile East
Y89	IAPR40000069384	1/2 - 1 Mile SW
Y90	IAPU40000213207	1/2 - 1 Mile SW
Z91	IAPU40000080817	1/2 - 1 Mile NW
Z92	IAPW40000077360	1/2 - 1 Mile NW
AA93	IAPR40000069415	1/2 - 1 Mile ESE
AA94	IAPU40000213224	1/2 - 1 Mile ESE
W95	IAPU40000080820	1/2 - 1 Mile WNW
W96	IAPW40000059937	1/2 - 1 Mile WNW
AB97	IAPU40000002717	1/2 - 1 Mile WNW
AC98	IAPW40000046772	1/2 - 1 Mile WNW
99	IAPU40000080863	1/2 - 1 Mile NE
AC100	IAPW40000036153	1/2 - 1 Mile WNW
AD101	IAPU40000080860	1/2 - 1 Mile West
AD102	IAPU40000002726	1/2 - 1 Mile West
AD103	IAPW40000073884	1/2 - 1 Mile West
Z104	IAPW40000031088	1/2 - 1 Mile NW
AB105	IAPU40000080837	1/2 - 1 Mile WNW
AB106	IAPU40000080845	1/2 - 1 Mile West
AB107	IAPW40000001696	1/2 - 1 Mile West
AE108	IAPU40000080868	1/2 - 1 Mile West
AE109	IAPW40000004742	1/2 - 1 Mile West
110	IAPU40000080975	1/2 - 1 Mile SSE
AF111	IAPW40000068259	1/2 - 1 Mile NE
AF112	IAPW40000100478	1/2 - 1 Mile NE
AF113	IAPU40000080852	1/2 - 1 Mile NE
AG114	IAPW40000059742	1/2 - 1 Mile NE
AG115	IAPU40000080839	1/2 - 1 Mile NE
AH116	IAPR40000071945	1/2 - 1 Mile NW
AH117	IAPR40000071946	1/2 - 1 Mile NW
AH118	IAPU40000213105	1/2 - 1 Mile NW
AH119	IAPU40000213106	1/2 - 1 Mile NW
120	IAPW40000031602	1/2 - 1 Mile WNW
AI121	IAPR40000067440	1/2 - 1 Mile NW
AI122	IAPU40000213115	1/2 - 1 Mile NW
AJ123	IAPR40000068519	1/2 - 1 Mile NNE
AJ124	IAPU40000213136	1/2 - 1 Mile NNE

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
AK125	IAPU40000213254	1/2 - 1 Mile South
AL126	IAPR40000027066	1/2 - 1 Mile WNW
AK127	IAPR40000002516	1/2 - 1 Mile South
128	IAPU40000190670	1/2 - 1 Mile ESE
AL129	IAPU40000213119	1/2 - 1 Mile WNW
AM130	IAPU40000213127	1/2 - 1 Mile NNE
AM131	IAPR40000036261	1/2 - 1 Mile NNE
AM132	IAPR40000042643	1/2 - 1 Mile NNE
AM133	IAPU40000213125	1/2 - 1 Mile NNE
AN134	IAPR40000076891	1/2 - 1 Mile NE
AN135	IAPU40000213153	1/2 - 1 Mile NE
AO136	IAPU40000080985	1/2 - 1 Mile SSE
AO137	IAPW40000082864	1/2 - 1 Mile SSE
138	IAPU40000190638	1/2 - 1 Mile North
AP139	IAPU40000002793	1/2 - 1 Mile SSE
AP140	IAPW40000068149	1/2 - 1 Mile SSE
AO141	IAPU40000080987	1/2 - 1 Mile South
142	IAPU40000190639	1/2 - 1 Mile NNE
AQ143	IAPW40000012933	1/2 - 1 Mile ESE
AQ144	IAPU40000080955	1/2 - 1 Mile ESE
145	IAPU40000002780	1/2 - 1 Mile SSW
146	IAPU40000002703	1/2 - 1 Mile NNE
AR147	IAPU40000213148	1/2 - 1 Mile NE
AS148	IAPW40000007758	1/2 - 1 Mile East
AS149	IAPU40000080946	1/2 - 1 Mile East
AR150	IAPR40000068673	1/2 - 1 Mile NE
AS151	IAPU40000190673	1/2 - 1 Mile ESE
AR152	IAPU40000190647	1/2 - 1 Mile NE
AR153	IAPU40000190646	1/2 - 1 Mile NE
154	IAPU40000190642	1/2 - 1 Mile NE
155	IAPR40000001697	1/2 - 1 Mile ENE
156	IAPR40000068096	1/2 - 1 Mile North

PHYSICAL SETTING SOURCE MAP - 5769033.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Oil, gas or related wells



SITE NAME: Combined IA DOT Facility Site- Sioux City
 ADDRESS: NE Quadrant of US 75 and US 20
 Sioux City IA 51106
 LAT/LONG: 42.47729 / 96.316614

CLIENT: Howard R. Green Company
 CONTACT: Steve Prideaux
 INQUIRY #: 5769033.2s
 DATE: August 28, 2019 1:38 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

A1
NNW
0 - 1/8 Mile
Higher

IA WELLS IAPW40000072040

Database:	Private Well Tracking System Wells	Permit #:	36726
PWTS Well #:	2161295	Range #:	46
Tier #:	89	Elevation Accuracy:	Not Reported
Elevation:	0	Bedrock Depth:	0
Total Well Depth:	0	Well Finished:	Not Reported
Depth to Water:	0	Construction Method:	Not Reported
Driller:	Not Reported	Well Use:	Household
Remarks:	Not Reported	Heat Pump Wells:	0
Well Status:	Permitted	Abandoned Well:	Not Reported
Permitted Private Well:	X	Registered for Tests:	Not Reported
Renovated Well:	Not Reported		

A2
NNW
0 - 1/8 Mile
Higher

IA WELLS IAPU40000080889

Database:	All Known Water Wells in the State of Iowa	Well Type:	Private well tracking system
Well ID:	2161295	Construction/Permit Date:	unkn
Well Depth:	unkn		
Notes:	Status: Permitted		

B3
North
0 - 1/8 Mile
Lower

IA WELLS IAPR40000039333

Database:	Private Wells Tested	Well Depth:	80
Depth Reliability:	Not Reported	Private Permit #:	Not Reported
Sample Date:	12-NOV-97	Analysis Date:	Not Reported
Sampling Location:	Not Reported	Safe/Unsafe Bacteria Level:	U
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	<	Construction Method:	DRIVEN
Method Accuracy:	Not Reported	Casing Material:	STEEL
Material Accuracy:	Not Reported	Casing Diameter:	4
Diameter Accuracy:	Not Reported	Year Constructed:	1965
Year Accuracy:	Not Reported	Agent:	Not Reported

B4
North
0 - 1/8 Mile
Lower

IA WELLS IAPU40000213175

Database:	All Known Water Wells in the State of Iowa	Well Type:	Wells registered for testing
Well ID:	39334	Construction/Permit Date:	1965
Well Depth:	80		
Notes:	Drilling method: Driven;		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

C5
West
1/8 - 1/4 Mile
Lower

IA WELLS IAPU40000213183

Database:	All Known Water Wells in the State of Iowa		
Well ID:	20	Well Type:	Wells registered for testing
Well Depth:	unkn	Construction/Permit Date:	unkn
Notes:	Not Reported		

C6
West
1/8 - 1/4 Mile
Lower

IA WELLS IAPR40000000019

Database:	Private Wells Tested	Well Depth:	0
Depth Reliability:	Not Reported	Private Permit #:	Not Reported
Sample Date:	15-JUL-94	Analysis Date:	18-JUL-94
Sampling Location:	SINK FAUCET	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	2.2	Bacteria Remarks:	<
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	Not Reported	Construction Method:	Not Reported
Method Accuracy:	Not Reported	Casing Material:	Not Reported
Material Accuracy:	Not Reported	Casing Diameter:	0
Diameter Accuracy:	Not Reported	Year Constructed:	0
Year Accuracy:	Not Reported	Agent:	D.V. WEAKLEY

C7
West
1/8 - 1/4 Mile
Lower

IA WELLS IAPR40000017718

Database:	Private Wells Tested	Well Depth:	160
Depth Reliability:	K	Private Permit #:	Not Reported
Sample Date:	20-AUG-96	Analysis Date:	22-AUG-96
Sampling Location:	KITCHEN FAUCET	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	s	Nitrate Results:	0
Nitrate Remarks:	Not Reported	Construction Method:	DRILLED
Method Accuracy:	Not Reported	Casing Material:	UNKNOWN
Material Accuracy:	Not Reported	Casing Diameter:	0
Diameter Accuracy:	U	Year Constructed:	0
Year Accuracy:	U	Agent:	Not Reported

C8
West
1/8 - 1/4 Mile
Lower

IA WELLS IAPU40000213185

Database:	All Known Water Wells in the State of Iowa		
Well ID:	17719	Well Type:	Wells registered for testing
Well Depth:	160	Construction/Permit Date:	unkn
Notes:	Drilling method: Drilled; Known well depth		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

D9
NE
1/8 - 1/4 Mile
Higher

IA WELLS IAPW40000091793

Database:	Private Well Tracking System Wells		
PWTS Well #:	2154145	Permit #:	Not Reported
Tier #:	89	Range #:	46
Elevation:	0	Elevation Accuracy:	Not Reported
Total Well Depth:	100	Bedrock Depth:	0
Depth to Water:	0	Well Finished:	01-JAN-50
Driller:	Not Reported	Construction Method:	Unknown
Remarks:	Not Reported	Well Use:	Household
Well Status:	Active	Heat Pump Wells:	0
Permitted Private Well:	Not Reported	Abandoned Well:	Not Reported
Renovated Well:	Not Reported	Registered for Tests:	X

D10
NE
1/8 - 1/4 Mile
Higher

IA WELLS IAPU40000080888

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2154145	Well Type:	Private well tracking system
Well Depth:	100	Construction/Permit Date:	1/1/1950
Notes:	Status: Active		

11
NNE
1/4 - 1/2 Mile
Higher

IA WELLS IAPU40000080867

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2187238	Well Type:	Private well tracking system
Well Depth:	100	Construction/Permit Date:	1/1/2012
Notes:	Status: Active		

E12
NE
1/4 - 1/2 Mile
Higher

IA WELLS IAPW40000025614

Database:	Private Well Tracking System Wells		
PWTS Well #:	2098595	Permit #:	Not Reported
Tier #:	89	Range #:	46
Elevation:	0	Elevation Accuracy:	Not Reported
Total Well Depth:	150	Bedrock Depth:	0
Depth to Water:	0	Well Finished:	01-JAN-89
Driller:	Not Reported	Construction Method:	Rotary Drill
Remarks:	Not Reported	Well Use:	Household
Well Status:	Active	Heat Pump Wells:	0
Permitted Private Well:	Not Reported	Abandoned Well:	Not Reported
Renovated Well:	Not Reported	Registered for Tests:	X

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

E13
NE
1/4 - 1/2 Mile
Higher

IA WELLS IAPU40000080874

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2098595	Well Type:	Private well tracking system
Well Depth:	150	Construction/Permit Date:	1/1/1989
Notes:	Status: Active		

F14
East
1/4 - 1/2 Mile
Higher

IA WELLS IAPW40000010980

Database:	Private Well Tracking System Wells		
PWTS Well #:	2088446	Permit #:	13289
Tier #:	89	Range #:	46
Elevation:	0	Elevation Accuracy:	Not Reported
Total Well Depth:	0	Bedrock Depth:	0
Depth to Water:	0	Well Finished:	Not Reported
Driller:	Not Reported	Construction Method:	Not Reported
Remarks:	Not Reported	Well Use:	Household
Well Status:	Retired	Heat Pump Wells:	0
Permitted Private Well:	X	Abandoned Well:	Not Reported
Renovated Well:	Not Reported	Registered for Tests:	Not Reported

F15
East
1/4 - 1/2 Mile
Higher

IA WELLS IAPW40000016855

Database:	Private Well Tracking System Wells		
PWTS Well #:	2088447	Permit #:	13290
Tier #:	89	Range #:	46
Elevation:	0	Elevation Accuracy:	Not Reported
Total Well Depth:	0	Bedrock Depth:	0
Depth to Water:	0	Well Finished:	Not Reported
Driller:	Not Reported	Construction Method:	Not Reported
Remarks:	Not Reported	Well Use:	Household
Well Status:	Retired	Heat Pump Wells:	0
Permitted Private Well:	X	Abandoned Well:	Not Reported
Renovated Well:	Not Reported	Registered for Tests:	Not Reported

F16
East
1/4 - 1/2 Mile
Higher

IA WELLS IAPW40000043611

Database:	Private Well Tracking System Wells		
PWTS Well #:	2099083	Permit #:	16349
Tier #:	89	Range #:	46
Elevation:	0	Elevation Accuracy:	Not Reported
Total Well Depth:	133	Bedrock Depth:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Depth to Water:	0	Well Finished:	20-MAY-04
Driller:	Bresnahan Well Co.	Construction Method:	Rotary Drill
Remarks:	Not Reported	Well Use:	Household
Well Status:	Active	Heat Pump Wells:	0
Permitted Private Well:	X	Abandoned Well:	Not Reported
Renovated Well:	Not Reported	Registered for Tests:	X

F17
East
1/4 - 1/2 Mile
Higher

IA WELLS IAPU40000080900

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2088447	Well Type:	Private well tracking system
Well Depth:	unkn	Construction/Permit Date:	unkn
Notes:	Status: Retired		

F18
East
1/4 - 1/2 Mile
Higher

IA WELLS IAPU40000080899

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2099083	Well Type:	Private well tracking system
Well Depth:	133	Construction/Permit Date:	5/20/2004
Notes:	Status: Active		

F19
East
1/4 - 1/2 Mile
Higher

IA WELLS IAPU40000080898

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2088446	Well Type:	Private well tracking system
Well Depth:	unkn	Construction/Permit Date:	unkn
Notes:	Status: Retired		

G20
West
1/4 - 1/2 Mile
Lower

IA WELLS IAPR40000068676

Database:	Private Wells Tested	Well Depth:	33
Depth Reliability:	K	Private Permit #:	Not Reported
Sample Date:	18-OCT-90	Analysis Date:	22-OCT-90
Sampling Location:	BASEMENT FAUCET	Safe/Unsafe Bacteria Level:	U
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	Not Reported	Construction Method:	DUG
Method Accuracy:	Not Reported	Casing Material:	STEEL
Material Accuracy:	Not Reported	Casing Diameter:	36
Diameter Accuracy:	K	Year Constructed:	0
Year Accuracy:	U	Agent:	JENNIFER LIGHTBODY

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

G21
West
1/4 - 1/2 Mile
Lower

IA WELLS IAPU40000213170

Database:	All Known Water Wells in the State of Iowa		
Well ID:	68677	Well Type:	Wells registered for testing
Well Depth:	33	Construction/Permit Date:	unkn
Notes:	Drilling method: Dug; Known well depth		

F22
ENE
1/4 - 1/2 Mile
Higher

IA WELLS IAPW40000057607

Database:	Private Well Tracking System Wells		
PWTS Well #:	2141038	Permit #:	Not Reported
Tier #:	89	Range #:	46
Elevation:	0	Elevation Accuracy:	Not Reported
Total Well Depth:	200	Bedrock Depth:	0
Depth to Water:	0	Well Finished:	01-JAN-74
Driller:	Not Reported	Construction Method:	Unknown
Remarks:	Not Reported	Well Use:	Household
Well Status:	Active	Heat Pump Wells:	0
Permitted Private Well:	Not Reported	Abandoned Well:	Not Reported
Renovated Well:	Not Reported	Registered for Tests:	X

F23
ENE
1/4 - 1/2 Mile
Higher

IA WELLS IAPU40000080894

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2141038	Well Type:	Private well tracking system
Well Depth:	200	Construction/Permit Date:	1/1/1974
Notes:	Status: Active		

H24
West
1/4 - 1/2 Mile
Lower

IA WELLS IAPU40000080864

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2132415	Well Type:	Private well tracking system
Well Depth:	unkn	Construction/Permit Date:	unkn
Notes:	Status: Permitted		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

H25
West
1/4 - 1/2 Mile
Lower

IA WELLS IAPW40000070552

Database:	Private Well Tracking System Wells	Permit #:	27413
PWTS Well #:	2132415	Range #:	46
Tier #:	89	Elevation Accuracy:	Not Reported
Elevation:	0	Bedrock Depth:	0
Total Well Depth:	0	Well Finished:	Not Reported
Depth to Water:	0	Construction Method:	Not Reported
Driller:	Not Reported	Well Use:	Household
Remarks:	Not Reported	Heat Pump Wells:	0
Well Status:	Permitted	Abandoned Well:	Not Reported
Permitted Private Well:	X	Registered for Tests:	Not Reported
Renovated Well:	Not Reported		

26
East
1/4 - 1/2 Mile
Higher

IA WELLS IAPU40000190665

Database:	All Known Water Wells in the State of Iowa		
Well ID:	23880	Well Type:	Permitted private wells
Well Depth:	unkn	Construction/Permit Date:	1/25/1999
Notes:	Primary use:		

I27
North
1/4 - 1/2 Mile
Higher

IA WELLS IAPU40000213158

Database:	All Known Water Wells in the State of Iowa		
Well ID:	47517	Well Type:	Wells registered for testing
Well Depth:	234	Construction/Permit Date:	1960
Notes:	Drilling method: Unknown; Known well depth		

I28
North
1/4 - 1/2 Mile
Higher

IA WELLS IAPR40000047516

Database:	Private Wells Tested	Well Depth:	234
Depth Reliability:	K	Private Permit #:	Not Reported
Sample Date:	16-JUL-98	Analysis Date:	Not Reported
Sampling Location:	KITCHEN FAUCET	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	<	Construction Method:	UNKNOWN
Method Accuracy:	Not Reported	Casing Material:	UNKNOWN
Material Accuracy:	Not Reported	Casing Diameter:	6
Diameter Accuracy:	K	Year Constructed:	1960
Year Accuracy:	E	Agent:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

J29
ENE
1/4 - 1/2 Mile
Higher

IA WELLS IAPU40000213176

Database:	All Known Water Wells in the State of Iowa		
Well ID:	68687	Well Type:	Wells registered for testing
Well Depth:	120	Construction/Permit Date:	1976
Notes:	Drilling method: Drilled; Estimated well depth		

K30
North
1/4 - 1/2 Mile
Lower

IA WELLS IAPU40000213154

Database:	All Known Water Wells in the State of Iowa		
Well ID:	74497	Well Type:	Wells registered for testing
Well Depth:	unkn	Construction/Permit Date:	unkn
Notes:	Drilling method: Drilled; Well depth is uncertain		

K31
North
1/4 - 1/2 Mile
Lower

IA WELLS IAPR40000074496

Database:	Private Wells Tested	Well Depth:	0
Depth Reliability:	U	Private Permit #:	Not Reported
Sample Date:	22-AUG-00	Analysis Date:	Not Reported
Sampling Location:	UNKNOWN	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	<	Construction Method:	DRILLED
Method Accuracy:	Not Reported	Casing Material:	STEEL
Material Accuracy:	Not Reported	Casing Diameter:	0
Diameter Accuracy:	U	Year Constructed:	0
Year Accuracy:	U	Agent:	Not Reported

J32
ENE
1/4 - 1/2 Mile
Higher

IA WELLS IAPR40000015784

Database:	Private Wells Tested	Well Depth:	425
Depth Reliability:	E	Private Permit #:	Not Reported
Sample Date:	17-JUN-96	Analysis Date:	19-JUN-96
Sampling Location:	Kitchen Faucet	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	<	Construction Method:	Drilled
Method Accuracy:	Not Reported	Casing Material:	Not Reported
Material Accuracy:	Not Reported	Casing Diameter:	0
Diameter Accuracy:	Not Reported	Year Constructed:	1975
Year Accuracy:	U	Agent:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

J33
ENE
 1/4 - 1/2 Mile
 Higher

IA WELLS IAPR40000068686

Database:	Private Wells Tested	Well Depth:	120
Depth Reliability:	E	Private Permit #:	Not Reported
Sample Date:	07-NOV-90	Analysis Date:	13-NOV-90
Sampling Location:	SINK FAUCET	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	Not Reported	Construction Method:	DRILLED
Method Accuracy:	Not Reported	Casing Material:	STEEL
Material Accuracy:	Not Reported	Casing Diameter:	0
Diameter Accuracy:	U	Year Constructed:	1976
Year Accuracy:	K	Agent:	JENNIFER LIGHTBODY

J34
ENE
 1/4 - 1/2 Mile
 Higher

IA WELLS IAPR40000069408

Database:	Private Wells Tested	Well Depth:	290
Depth Reliability:	K	Private Permit #:	Not Reported
Sample Date:	21-OCT-92	Analysis Date:	23-OCT-92
Sampling Location:	INDOOR FAUCET	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	Not Reported	Construction Method:	DRILLED
Method Accuracy:	Not Reported	Casing Material:	CAST IRON
Material Accuracy:	Not Reported	Casing Diameter:	6
Diameter Accuracy:	K	Year Constructed:	1974
Year Accuracy:	E	Agent:	JENNIFER LIGHTBODY

J35
ENE
 1/4 - 1/2 Mile
 Higher

IA WELLS IAPU40000213178

Database:	All Known Water Wells in the State of Iowa		
Well ID:	69409	Well Type:	Wells registered for testing
Well Depth:	290	Construction/Permit Date:	1974
Notes:	Drilling method: Drilled; Known well depth		

J36
ENE
 1/4 - 1/2 Mile
 Higher

IA WELLS IAPU40000213181

Database:	All Known Water Wells in the State of Iowa		
Well ID:	15785	Well Type:	Wells registered for testing
Well Depth:	425	Construction/Permit Date:	1975
Notes:	Drilling method: Drilled; Estimated well depth		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

L37
NW
1/4 - 1/2 Mile
Lower

IA WELLS IAPU40000213155

Database:	All Known Water Wells in the State of Iowa		
Well ID:	32258	Well Type:	Wells registered for testing
Well Depth:	135	Construction/Permit Date:	1975
Notes:	Drilling method: Drilled;		

L38
NW
1/4 - 1/2 Mile
Lower

IA WELLS IAPR40000032257

Database:	Private Wells Tested	Well Depth:	135
Depth Reliability:	Not Reported	Private Permit #:	Not Reported
Sample Date:	27-MAY-97	Analysis Date:	27-MAY-97
Sampling Location:	KITCHEN FAUCET	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	Not Reported	Construction Method:	DRILLED
Method Accuracy:	Not Reported	Casing Material:	PLASTIC
Material Accuracy:	Not Reported	Casing Diameter:	5
Diameter Accuracy:	Not Reported	Year Constructed:	1975
Year Accuracy:	Not Reported	Agent:	Not Reported

M39
NW
1/4 - 1/2 Mile
Lower

IA WELLS IAPR40000018806

Database:	Private Wells Tested	Well Depth:	300
Depth Reliability:	Not Reported	Private Permit #:	Not Reported
Sample Date:	20-SEP-96	Analysis Date:	Not Reported
Sampling Location:	Not Reported	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	<	Construction Method:	DRILLED
Method Accuracy:	Not Reported	Casing Material:	PLASTIC
Material Accuracy:	Not Reported	Casing Diameter:	5
Diameter Accuracy:	Not Reported	Year Constructed:	1980
Year Accuracy:	Not Reported	Agent:	Not Reported

M40
NW
1/4 - 1/2 Mile
Lower

IA WELLS IAPR40000068009

Database:	Private Wells Tested	Well Depth:	300
Depth Reliability:	E	Private Permit #:	Not Reported
Sample Date:	27-JUL-90	Analysis Date:	31-JUL-90
Sampling Location:	OUTDOOR TAP	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	0	Bacteria Remarks:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	Not Reported	Construction Method:	DRILLED
Method Accuracy:	Not Reported	Casing Material:	STEEL
Material Accuracy:	Not Reported	Casing Diameter:	8
Diameter Accuracy:	E	Year Constructed:	1910
Year Accuracy:	E	Agent:	JENNIFER LIGHTBODY

M41
NW
1/4 - 1/2 Mile
Lower

IA WELLS IAPU40000213152

Database:	All Known Water Wells in the State of Iowa		
Well ID:	18807	Well Type:	Wells registered for testing
Well Depth:	300	Construction/Permit Date:	1980
Notes:	Drilling method: Drilled;		

N42
ENE
1/4 - 1/2 Mile
Higher

IA WELLS IAPU40000213187

Database:	All Known Water Wells in the State of Iowa		
Well ID:	57676	Well Type:	Wells registered for testing
Well Depth:	385	Construction/Permit Date:	unkn
Notes:	Drilling method: Unknown; Known well depth		

N43
ENE
1/4 - 1/2 Mile
Higher

IA WELLS IAPR40000057675

Database:	Private Wells Tested	Well Depth:	385
Depth Reliability:	K	Private Permit #:	Not Reported
Sample Date:	05-AUG-99	Analysis Date:	05-AUG-99
Sampling Location:	UNKNWON	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	<	Construction Method:	UNKNOWN
Method Accuracy:	Not Reported	Casing Material:	UNKNOWN
Material Accuracy:	Not Reported	Casing Diameter:	0
Diameter Accuracy:	U	Year Constructed:	0
Year Accuracy:	U	Agent:	Not Reported

M44
NW
1/4 - 1/2 Mile
Lower

IA WELLS IAPU40000213150

Database:	All Known Water Wells in the State of Iowa		
Well ID:	68010	Well Type:	Wells registered for testing
Well Depth:	300	Construction/Permit Date:	1910
Notes:	Drilling method: Drilled; Estimated well depth		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

N45
ENE
1/4 - 1/2 Mile
Higher

IA WELLS IAPU40000080890

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2124288	Well Type:	Private well tracking system
Well Depth:	86	Construction/Permit Date:	4/24/1985
Notes:	Status: Active		

O46
NNW
1/4 - 1/2 Mile
Lower

IA WELLS IAPU40000213147

Database:	All Known Water Wells in the State of Iowa		
Well ID:	69727	Well Type:	Wells registered for testing
Well Depth:	110	Construction/Permit Date:	1988
Notes:	Drilling method: Drilled; Known well depth		

O47
NNW
1/4 - 1/2 Mile
Lower

IA WELLS IAPR40000069726

Database:	Private Wells Tested	Well Depth:	110
Depth Reliability:	K	Private Permit #:	Not Reported
Sample Date:	24-APR-00	Analysis Date:	Not Reported
Sampling Location:	KITCHEN FAUCET	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	Not Reported	Construction Method:	DRILLED
Method Accuracy:	Not Reported	Casing Material:	Not Reported
Material Accuracy:	Not Reported	Casing Diameter:	0
Diameter Accuracy:	U	Year Constructed:	1988
Year Accuracy:	K	Agent:	Not Reported

48
East
1/4 - 1/2 Mile
Higher

IA WELLS IAPU40000080908

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2123917	Well Type:	Private well tracking system
Well Depth:	385	Construction/Permit Date:	9/22/1996
Notes:	Status: Active		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

N49
ENE
1/4 - 1/2 Mile
Higher

IA WELLS IAPW40000016434

Database:	Private Well Tracking System Wells		
PWTS Well #:	2092857	Permit #:	Not Reported
Tier #:	89	Range #:	46
Elevation:	0	Elevation Accuracy:	Not Reported
Total Well Depth:	113	Bedrock Depth:	0
Depth to Water:	0	Well Finished:	01-JAN-88
Driller:	Not Reported	Construction Method:	Unknown
Remarks:	Not Reported	Well Use:	Household
Well Status:	Active	Heat Pump Wells:	0
Permitted Private Well:	Not Reported	Abandoned Well:	Not Reported
Renovated Well:	Not Reported	Registered for Tests:	X

N50
ENE
1/4 - 1/2 Mile
Higher

IA WELLS IAPU40000080893

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2092857	Well Type:	Private well tracking system
Well Depth:	113	Construction/Permit Date:	1/1/1988
Notes:	Status: Active		

P51
NNW
1/2 - 1 Mile
Lower

IA WELLS IAPU40000213144

Database:	All Known Water Wells in the State of Iowa		
Well ID:	68202	Well Type:	Wells registered for testing
Well Depth:	280	Construction/Permit Date:	1984
Notes:	Drilling method: Drilled; Estimated well depth		

P52
NNW
1/2 - 1 Mile
Lower

IA WELLS IAPR40000001984

Database:	Private Wells Tested	Well Depth:	110
Depth Reliability:	K	Private Permit #:	Not Reported
Sample Date:	10-FEB-94	Analysis Date:	14-FEB-94
Sampling Location:	BATHROOM SINK	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	2.2	Bacteria Remarks:	<
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	.1
Nitrate Remarks:	<	Construction Method:	DRILLED
Method Accuracy:	K	Casing Material:	STEEL
Material Accuracy:	K	Casing Diameter:	2
Diameter Accuracy:	E	Year Constructed:	0
Year Accuracy:	U	Agent:	D.V. WEAKLEY

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

P53
NNW
1/2 - 1 Mile
Lower

IA WELLS IAPR40000068114

Database:	Private Wells Tested	Well Depth:	110
Depth Reliability:	K	Private Permit #:	Not Reported
Sample Date:	18-MAY-93	Analysis Date:	20-MAY-93
Sampling Location:	KITCHEN FAUCET	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	Not Reported	Construction Method:	DRILLED
Method Accuracy:	Not Reported	Casing Material:	STEEL
Material Accuracy:	Not Reported	Casing Diameter:	2.3
Diameter Accuracy:	K	Year Constructed:	0
Year Accuracy:	U	Agent:	JENNIFER LIGHTBODY

P54
NNW
1/2 - 1 Mile
Lower

IA WELLS IAPR40000068201

Database:	Private Wells Tested	Well Depth:	280
Depth Reliability:	E	Private Permit #:	Not Reported
Sample Date:	13-AUG-91	Analysis Date:	15-AUG-91
Sampling Location:	OUTDOOR TAP	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	Not Reported	Construction Method:	DRILLED
Method Accuracy:	Not Reported	Casing Material:	STEEL
Material Accuracy:	Not Reported	Casing Diameter:	8
Diameter Accuracy:	K	Year Constructed:	1984
Year Accuracy:	K	Agent:	JENNIFER LIGHTBODY

N55
ENE
1/2 - 1 Mile
Higher

IA WELLS IAPW40000057676

Database:	Private Well Tracking System Wells	Permit #:	Not Reported
PWTS Well #:	2123917	Range #:	46
Tier #:	89	Elevation Accuracy:	Not Reported
Elevation:	0	Bedrock Depth:	0
Total Well Depth:	385	Well Finished:	22-SEP-96
Depth to Water:	0	Construction Method:	Unknown
Driller:	Not Reported	Well Use:	Household
Remarks:	Not Reported	Heat Pump Wells:	0
Well Status:	Active	Abandoned Well:	Not Reported
Permitted Private Well:	Not Reported	Registered for Tests:	X
Renovated Well:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

P56
NNW
1/2 - 1 Mile
Lower

IA WELLS IAPU40000213142

Database:	All Known Water Wells in the State of Iowa		
Well ID:	1985	Well Type:	Wells registered for testing
Well Depth:	110	Construction/Permit Date:	unkn
Notes:	Drilling method: Drilled; Known well depth		

P57
NNW
1/2 - 1 Mile
Lower

IA WELLS IAPU40000213141

Database:	All Known Water Wells in the State of Iowa		
Well ID:	68115	Well Type:	Wells registered for testing
Well Depth:	110	Construction/Permit Date:	unkn
Notes:	Drilling method: Drilled; Known well depth		

Q58
NE
1/2 - 1 Mile
Higher

IA WELLS IAPW40000057915

Database:	Private Well Tracking System Wells		
PWTS Well #:	2124288	Permit #:	Not Reported
Tier #:	89	Range #:	46
Elevation:	0	Elevation Accuracy:	Not Reported
Total Well Depth:	86	Bedrock Depth:	0
Depth to Water:	0	Well Finished:	24-APR-85
Driller:	Not Reported	Construction Method:	Rotary Drill
Remarks:	Not Reported	Well Use:	Household
Well Status:	Active	Heat Pump Wells:	0
Permitted Private Well:	Not Reported	Abandoned Well:	Not Reported
Renovated Well:	Not Reported	Registered for Tests:	X

Q59
NE
1/2 - 1 Mile
Higher

IA WELLS IAPU40000213173

Database:	All Known Water Wells in the State of Iowa		
Well ID:	38351	Well Type:	Wells registered for testing
Well Depth:	380	Construction/Permit Date:	unkn
Notes:	Drilling method: Drilled;		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

Q60
NE
 1/2 - 1 Mile
 Lower

IA WELLS IAPR40000038350

Database:	Private Wells Tested	Well Depth:	380
Depth Reliability:	Not Reported	Private Permit #:	Not Reported
Sample Date:	09-OCT-97	Analysis Date:	Not Reported
Sampling Location:	Not Reported	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	<	Construction Method:	DRILLED
Method Accuracy:	Not Reported	Casing Material:	UNKNOWN
Material Accuracy:	Not Reported	Casing Diameter:	0
Diameter Accuracy:	U	Year Constructed:	0
Year Accuracy:	U	Agent:	Not Reported

R61
NW
 1/2 - 1 Mile
 Lower

IA WELLS IAPU40000213140

Database:	All Known Water Wells in the State of Iowa		
Well ID:	83371	Well Type:	Wells registered for testing
Well Depth:	140	Construction/Permit Date:	1977
Notes:	Drilling method: Drilled; Known well depth		

R62
NW
 1/2 - 1 Mile
 Lower

IA WELLS IAPR40000083370

Database:	Private Wells Tested	Well Depth:	140
Depth Reliability:	K	Private Permit #:	Not Reported
Sample Date:	14-JUN-01	Analysis Date:	Not Reported
Sampling Location:	KITCHEN FAUCET	Safe/Unsafe Bacteria Level:	U
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	Not Reported	Construction Method:	DRILLED
Method Accuracy:	Not Reported	Casing Material:	PLASTIC
Material Accuracy:	Not Reported	Casing Diameter:	5
Diameter Accuracy:	K	Year Constructed:	1977
Year Accuracy:	K	Agent:	Not Reported

S63
WNW
 1/2 - 1 Mile
 Lower

IA WELLS IAPU40000213151

Database:	All Known Water Wells in the State of Iowa		
Well ID:	74358	Well Type:	Wells registered for testing
Well Depth:	135	Construction/Permit Date:	unkn
Notes:	Drilling method: Drilled; Known well depth		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

64
ESE
1/2 - 1 Mile
Higher

IA WELLS IAPW40000050683

Database:	Private Well Tracking System Wells	Permit #:	25092
PWTS Well #:	2125521	Range #:	47
Tier #:	88	Elevation Accuracy:	Not Reported
Elevation:	0	Bedrock Depth:	0
Total Well Depth:	119	Well Finished:	30-MAR-07
Depth to Water:	0	Construction Method:	Rotary Drill
Driller:	Bresnahan Well Co.	Well Use:	Household
Remarks:	Not Reported	Heat Pump Wells:	0
Well Status:	Permitted	Abandoned Well:	Not Reported
Permitted Private Well:	X	Registered for Tests:	Not Reported
Renovated Well:	Not Reported		

S65
WNW
1/2 - 1 Mile
Lower

IA WELLS IAPR40000074357

Database:	Private Wells Tested	Well Depth:	135
Depth Reliability:	K	Private Permit #:	Not Reported
Sample Date:	20-JUL-00	Analysis Date:	Not Reported
Sampling Location:	KITCHEN FAUCET	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	Not Reported	Nitrate Results:	0
Nitrate Remarks:	Not Reported	Construction Method:	DRILLED
Method Accuracy:	Not Reported	Casing Material:	PLASTIC
Material Accuracy:	Not Reported	Casing Diameter:	5
Diameter Accuracy:	K	Year Constructed:	0
Year Accuracy:	U	Agent:	Not Reported

66
SE
1/2 - 1 Mile
Higher

IA WELLS IAPU40000190671

Database:	All Known Water Wells in the State of Iowa		
Well ID:	28526	Well Type:	Permitted private wells
Well Depth:	100	Construction/Permit Date:	5/23/2001
Notes:	Primary use:		

T67
NW
1/2 - 1 Mile
Lower

IA WELLS IAPU40000080826

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2081292	Well Type:	Private well tracking system
Well Depth:	140	Construction/Permit Date:	1/1/1976
Notes:	Status: Active		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

T68
NW
1/2 - 1 Mile
Lower

IA WELLS IAPW4000005367

Database:	Private Well Tracking System Wells		
PWTS Well #:	2081292	Permit #:	Not Reported
Tier #:	89	Range #:	46
Elevation:	0	Elevation Accuracy:	Not Reported
Total Well Depth:	140	Bedrock Depth:	0
Depth to Water:	0	Well Finished:	01-JAN-76
Driller:	Not Reported	Construction Method:	Rotary Drill
Remarks:	Not Reported	Well Use:	Household
Well Status:	Active	Heat Pump Wells:	0
Permitted Private Well:	Not Reported	Abandoned Well:	Not Reported
Renovated Well:	Not Reported	Registered for Tests:	X

T69
NW
1/2 - 1 Mile
Lower

IA WELLS IAPU40000080825

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2178404	Well Type:	Private well tracking system
Well Depth:	100	Construction/Permit Date:	1/1/1960
Notes:	Status: Active		

T70
NW
1/2 - 1 Mile
Lower

IA WELLS IAPW40000103960

Database:	Private Well Tracking System Wells		
PWTS Well #:	2178404	Permit #:	Not Reported
Tier #:	89	Range #:	46
Elevation:	0	Elevation Accuracy:	Not Reported
Total Well Depth:	100	Bedrock Depth:	0
Depth to Water:	0	Well Finished:	01-JAN-60
Driller:	Not Reported	Construction Method:	Unknown
Remarks:	Not Reported	Well Use:	Household
Well Status:	Active	Heat Pump Wells:	0
Permitted Private Well:	Not Reported	Abandoned Well:	Not Reported
Renovated Well:	Not Reported	Registered for Tests:	X

71
ESE
1/2 - 1 Mile
Higher

IA WELLS IAPU40000080945

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2125521	Well Type:	Private well tracking system
Well Depth:	119	Construction/Permit Date:	3/30/2007
Notes:	Status: Permitted		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

U72
NW
1/2 - 1 Mile
Higher

IA WELLS IAPU40000213129

Database:	All Known Water Wells in the State of Iowa		
Well ID:	17280	Well Type:	Wells registered for testing
Well Depth:	117	Construction/Permit Date:	1982
Notes:	Drilling method: Drilled; Known well depth		

T73
NW
1/2 - 1 Mile
Higher

IA WELLS IAPU40000213135

Database:	All Known Water Wells in the State of Iowa		
Well ID:	85385	Well Type:	Wells registered for testing
Well Depth:	unkn	Construction/Permit Date:	1984
Notes:	Drilling method: Drilled; Well depth is uncertain		

U74
NW
1/2 - 1 Mile
Higher

IA WELLS IAPR40000011229

Database:	Private Wells Tested	Well Depth:	0
Depth Reliability:	U	Private Permit #:	Not Reported
Sample Date:	25-AUG-95	Analysis Date:	28-AUG-95
Sampling Location:	KITCHEN SINK	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	2.2	Bacteria Remarks:	<
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	Not Reported	Construction Method:	UNKNOWN
Method Accuracy:	Not Reported	Casing Material:	STEEL
Material Accuracy:	Not Reported	Casing Diameter:	6
Diameter Accuracy:	E	Year Constructed:	1979
Year Accuracy:	E	Agent:	Not Reported

U75
NW
1/2 - 1 Mile
Higher

IA WELLS IAPR40000014742

Database:	Private Wells Tested	Well Depth:	130
Depth Reliability:	E	Private Permit #:	Not Reported
Sample Date:	21-DEC-95	Analysis Date:	23-DEC-95
Sampling Location:	BASEMENT SINK FAUCET	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	Not Reported	Construction Method:	Drilled
Method Accuracy:	Not Reported	Casing Material:	Plastic
Material Accuracy:	Not Reported	Casing Diameter:	0
Diameter Accuracy:	U	Year Constructed:	1983
Year Accuracy:	K	Agent:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

U76
NW
1/2 - 1 Mile
Higher

IA WELLS IAPR40000017279

Database:	Private Wells Tested	Well Depth:	117
Depth Reliability:	K	Private Permit #:	Not Reported
Sample Date:	05-JUL-96	Analysis Date:	07-JUL-96
Sampling Location:	KITCHEN FAUCET	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	Not Reported	Nitrate Results:	0
Nitrate Remarks:	Not Reported	Construction Method:	DRILLED
Method Accuracy:	Not Reported	Casing Material:	PLASTIC
Material Accuracy:	Not Reported	Casing Diameter:	5
Diameter Accuracy:	K	Year Constructed:	1982
Year Accuracy:	E	Agent:	Not Reported

U77
NW
1/2 - 1 Mile
Higher

IA WELLS IAPU40000213130

Database:	All Known Water Wells in the State of Iowa		
Well ID:	11230	Well Type:	Wells registered for testing
Well Depth:	unkn	Construction/Permit Date:	1979
Notes:	Drilling method: Unknown; Well depth is uncertain		

T78
NW
1/2 - 1 Mile
Higher

IA WELLS IAPR40000070220

Database:	Private Wells Tested	Well Depth:	135
Depth Reliability:	K	Private Permit #:	Not Reported
Sample Date:	25-MAY-00	Analysis Date:	Not Reported
Sampling Location:	KITCHEN SINK	Safe/Unsafe Bacteria Level:	U
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	Not Reported	Construction Method:	DRILLED
Method Accuracy:	Not Reported	Casing Material:	PLASTIC
Material Accuracy:	Not Reported	Casing Diameter:	5
Diameter Accuracy:	K	Year Constructed:	1975
Year Accuracy:	K	Agent:	JENNIFER LIGHTBODY

T79
NW
1/2 - 1 Mile
Higher

IA WELLS IAPR40000085384

Database:	Private Wells Tested	Well Depth:	0
Depth Reliability:	U	Private Permit #:	Not Reported
Sample Date:	24-JUL-01	Analysis Date:	Not Reported
Sampling Location:	KITCHEN FAUCET	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	0	Bacteria Remarks:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	Not Reported	Construction Method:	DRILLED
Method Accuracy:	Not Reported	Casing Material:	UNKNOWN
Material Accuracy:	Not Reported	Casing Diameter:	0
Diameter Accuracy:	U	Year Constructed:	1984
Year Accuracy:	K	Agent:	Not Reported

**U80
NW
1/2 - 1 Mile
Higher**

IA WELLS IAPU40000213128

Database:	All Known Water Wells in the State of Iowa		
Well ID:	14743	Well Type:	Wells registered for testing
Well Depth:	130	Construction/Permit Date:	1983
Notes:	Drilling method: Drilled; Estimated well depth		

**T81
NW
1/2 - 1 Mile
Higher**

IA WELLS IAPU40000213134

Database:	All Known Water Wells in the State of Iowa		
Well ID:	70221	Well Type:	Wells registered for testing
Well Depth:	135	Construction/Permit Date:	1975
Notes:	Drilling method: Drilled; Known well depth		

**V82
WNW
1/2 - 1 Mile
Lower**

IA WELLS IAPU40000080841

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2140258	Well Type:	Private well tracking system
Well Depth:	145	Construction/Permit Date:	1/1/2003
Notes:	Status: Active		

**V83
WNW
1/2 - 1 Mile
Lower**

IA WELLS IAPW40000082163

Database:	Private Well Tracking System Wells		
PWTS Well #:	2140258	Permit #:	Not Reported
Tier #:	89	Range #:	46
Elevation:	0	Elevation Accuracy:	Not Reported
Total Well Depth:	145	Bedrock Depth:	0
Depth to Water:	0	Well Finished:	01-JAN-03
Driller:	Not Reported	Construction Method:	Rotary Drill
Remarks:	Not Reported	Well Use:	Household, Livestock
Well Status:	Active	Heat Pump Wells:	0
Permitted Private Well:	Not Reported	Abandoned Well:	Not Reported
Renovated Well:	Not Reported	Registered for Tests:	X

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

V84
WNW
1/2 - 1 Mile
Lower

IA WELLS IAPU40000080838

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2118656	Well Type:	Private well tracking system
Well Depth:	128	Construction/Permit Date:	8/23/2003
Notes:	Status: Active		

V85
WNW
1/2 - 1 Mile
Lower

IA WELLS IAPU40000080834

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2112053	Well Type:	Private well tracking system
Well Depth:	113	Construction/Permit Date:	7/16/1987
Notes:	Status: Active		

W86
WNW
1/2 - 1 Mile
Higher

IA WELLS IAPU40000080822

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2106339	Well Type:	Private well tracking system
Well Depth:	150	Construction/Permit Date:	6/1/1981
Notes:	Status: Active		

X87
East
1/2 - 1 Mile
Lower

IA WELLS IAPU40000213201

Database:	All Known Water Wells in the State of Iowa		
Well ID:	36263	Well Type:	Wells registered for testing
Well Depth:	300	Construction/Permit Date:	1992
Notes:	Not Reported		

X88
East
1/2 - 1 Mile
Lower

IA WELLS IAPR40000036262

Database:	Private Wells Tested	Well Depth:	300
Depth Reliability:	Not Reported	Private Permit #:	Not Reported
Sample Date:	12-AUG-97	Analysis Date:	12-AUG-97
Sampling Location:	BATHROOM	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	<	Construction Method:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Method Accuracy:	Not Reported	Casing Material:	Not Reported
Material Accuracy:	Not Reported	Casing Diameter:	0
Diameter Accuracy:	Not Reported	Year Constructed:	1992
Year Accuracy:	Not Reported	Agent:	LINDA CLAUSEN

**Y89
SW
1/2 - 1 Mile
Lower**

IA WELLS IAPR40000069384

Database:	Private Wells Tested	Well Depth:	280
Depth Reliability:	K	Private Permit #:	Not Reported
Sample Date:	12-NOV-93	Analysis Date:	14-DEC-93
Sampling Location:	KITCHEN SINK	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	Not Reported	Construction Method:	DRILLED
Method Accuracy:	Not Reported	Casing Material:	STEEL
Material Accuracy:	Not Reported	Casing Diameter:	0
Diameter Accuracy:	U	Year Constructed:	1982
Year Accuracy:	K	Agent:	JENNIFER LIGHTBODY

**Y90
SW
1/2 - 1 Mile
Lower**

IA WELLS IAPU40000213207

Database:	All Known Water Wells in the State of Iowa		
Well ID:	69385	Well Type:	Wells registered for testing
Well Depth:	280	Construction/Permit Date:	1982
Notes:	Drilling method: Drilled; Known well depth		

**Z91
NW
1/2 - 1 Mile
Higher**

IA WELLS IAPU40000080817

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2135922	Well Type:	Private well tracking system
Well Depth:	80	Construction/Permit Date:	1/1/1998
Notes:	Status: Active		

**Z92
NW
1/2 - 1 Mile
Higher**

IA WELLS IAPW40000077360

Database:	Private Well Tracking System Wells		
PWTS Well #:	2135922	Permit #:	Not Reported
Tier #:	89	Range #:	46
Elevation:	0	Elevation Accuracy:	Not Reported
Total Well Depth:	80	Bedrock Depth:	0
Depth to Water:	0	Well Finished:	01-JAN-98
Driller:	Not Reported	Construction Method:	Rotary Drill

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Remarks:	Not Reported	Well Use:	Household
Well Status:	Active	Heat Pump Wells:	0
Permitted Private Well:	Not Reported	Abandoned Well:	Not Reported
Renovated Well:	Not Reported	Registered for Tests:	X

AA93
ESE
1/2 - 1 Mile
Lower

IA WELLS IAPR40000069415

Database:	Private Wells Tested	Well Depth:	80
Depth Reliability:	K	Private Permit #:	Not Reported
Sample Date:	04-SEP-90	Analysis Date:	07-SEP-90
Sampling Location:	KITCHEN SINK	Safe/Unsafe Bacteria Level:	U
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	Not Reported	Construction Method:	DRILLED
Method Accuracy:	Not Reported	Casing Material:	STEEL
Material Accuracy:	Not Reported	Casing Diameter:	0
Diameter Accuracy:	U	Year Constructed:	1917
Year Accuracy:	K	Agent:	JENNIFER LIGHTBODY

AA94
ESE
1/2 - 1 Mile
Lower

IA WELLS IAPU40000213224

Database:	All Known Water Wells in the State of Iowa		
Well ID:	69416	Well Type:	Wells registered for testing
Well Depth:	80	Construction/Permit Date:	1917
Notes:	Drilling method: Drilled; Known well depth		

W95
WNW
1/2 - 1 Mile
Higher

IA WELLS IAPU40000080820

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2144155	Well Type:	Private well tracking system
Well Depth:	107	Construction/Permit Date:	1/1/1988
Notes:	Status: Active		

W96
WNW
1/2 - 1 Mile
Higher

IA WELLS IAPW40000059937

Database:	Private Well Tracking System Wells		
PWTS Well #:	2144155	Permit #:	Not Reported
Tier #:	89	Range #:	46
Elevation:	0	Elevation Accuracy:	Not Reported
Total Well Depth:	107	Bedrock Depth:	0
Depth to Water:	0	Well Finished:	01-JAN-88
Driller:	Not Reported	Construction Method:	Rotary Drill

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Remarks:	Not Reported	Well Use:	Household
Well Status:	Active	Heat Pump Wells:	0
Permitted Private Well:	Not Reported	Abandoned Well:	Not Reported
Renovated Well:	Not Reported	Registered for Tests:	X

AB97
WNW
1/2 - 1 Mile
Higher

IA WELLS IAPU4000002717

Database:	All Known Water Wells in the State of Iowa		
Well ID:	76249	Well Type:	IGS well database
Well Depth:	180	Construction/Permit Date:	11/12/2012
Notes:	Bedrock depth: 0; Well type: Heat Pump		

AC98
WNW
1/2 - 1 Mile
Higher

IA WELLS IAPW40000046772

Database:	Private Well Tracking System Wells		
PWTS Well #:	2118656	Permit #:	Not Reported
Tier #:	89	Range #:	46
Elevation:	0	Elevation Accuracy:	Not Reported
Total Well Depth:	128	Bedrock Depth:	0
Depth to Water:	0	Well Finished:	23-AUG-03
Driller:	Not Reported	Construction Method:	Unknown
Remarks:	Not Reported	Well Use:	Household
Well Status:	Active	Heat Pump Wells:	0
Permitted Private Well:	Not Reported	Abandoned Well:	Not Reported
Renovated Well:	Not Reported	Registered for Tests:	X

99
NE
1/2 - 1 Mile
Higher

IA WELLS IAPU40000080863

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2131076	Well Type:	Private well tracking system
Well Depth:	300	Construction/Permit Date:	3/18/1995
Notes:	Status: Active		

AC100
WNW
1/2 - 1 Mile
Higher

IA WELLS IAPW40000036153

Database:	Private Well Tracking System Wells		
PWTS Well #:	2112053	Permit #:	Not Reported
Tier #:	89	Range #:	46
Elevation:	0	Elevation Accuracy:	Not Reported
Total Well Depth:	113	Bedrock Depth:	0
Depth to Water:	0	Well Finished:	16-JUL-87
Driller:	Not Reported	Construction Method:	Rotary Drill

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Remarks:	Not Reported	Well Use:	Household
Well Status:	Active	Heat Pump Wells:	0
Permitted Private Well:	Not Reported	Abandoned Well:	Not Reported
Renovated Well:	Not Reported	Registered for Tests:	X

AD101
West
1/2 - 1 Mile
Lower

IA WELLS IAPU40000080860

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2164577	Well Type:	Private well tracking system
Well Depth:	180	Construction/Permit Date:	11/12/2012
Notes:	Status: Active Logged		

AD102
West
1/2 - 1 Mile
Lower

IA WELLS IAPU40000002726

Database:	All Known Water Wells in the State of Iowa		
Well ID:	75363	Well Type:	IGS well database
Well Depth:	180	Construction/Permit Date:	11/12/2012
Notes:	Bedrock depth: 0; Well type: Heat Pump		

AD103
West
1/2 - 1 Mile
Lower

IA WELLS IAPW40000073884

Database:	Private Well Tracking System Wells		
PWTS Well #:	2164577	Permit #:	38148
Tier #:	89	Range #:	46
Elevation:	0	Elevation Accuracy:	Not Reported
Total Well Depth:	0	Bedrock Depth:	0
Depth to Water:	0	Well Finished:	Not Reported
Driller:	Midwest Thermal Drilling	Construction Method:	Not Reported
Remarks:	Not Reported	Well Use:	Heat pump
Well Status:	Permitted	Heat Pump Wells:	1
Permitted Private Well:	X	Abandoned Well:	Not Reported
Renovated Well:	Not Reported	Registered for Tests:	Not Reported

Z104
NW
1/2 - 1 Mile
Higher

IA WELLS IAPW40000031088

Database:	Private Well Tracking System Wells		
PWTS Well #:	2106339	Permit #:	Not Reported
Tier #:	89	Range #:	46
Elevation:	0	Elevation Accuracy:	Not Reported
Total Well Depth:	150	Bedrock Depth:	0
Depth to Water:	0	Well Finished:	01-JUN-81
Driller:	Not Reported	Construction Method:	Rotary Drill

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Remarks:	Not Reported	Well Use:	Household
Well Status:	Active	Heat Pump Wells:	0
Permitted Private Well:	Not Reported	Abandoned Well:	Not Reported
Renovated Well:	Not Reported	Registered for Tests:	X

AB105
WNW
1/2 - 1 Mile
Higher

IA WELLS IAPU40000080837

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2106807	Well Type:	Private well tracking system
Well Depth:	360	Construction/Permit Date:	7/2/2002
Notes:	Status: Active		

AB106
West
1/2 - 1 Mile
Higher

IA WELLS IAPU40000080845

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2077642	Well Type:	Private well tracking system
Well Depth:	unkn	Construction/Permit Date:	unkn
Notes:	Status: Retired		

AB107
West
1/2 - 1 Mile
Higher

IA WELLS IAPW40000001696

Database:	Private Well Tracking System Wells		
PWTS Well #:	2077642	Permit #:	10830
Tier #:	89	Range #:	46
Elevation:	0	Elevation Accuracy:	Not Reported
Total Well Depth:	0	Bedrock Depth:	0
Depth to Water:	0	Well Finished:	Not Reported
Driller:	Hammond-Wetmore Drilling	Construction Method:	Not Reported
Remarks:	Not Reported	Well Use:	Household
Well Status:	Retired	Heat Pump Wells:	0
Permitted Private Well:	X	Abandoned Well:	Not Reported
Renovated Well:	Not Reported	Registered for Tests:	Not Reported

AE108
West
1/2 - 1 Mile
Lower

IA WELLS IAPU40000080868

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2080959	Well Type:	Private well tracking system
Well Depth:	unkn	Construction/Permit Date:	unkn
Notes:	Status: Retired		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

AE109
West
1/2 - 1 Mile
Lower

IA WELLS IAPW40000004742

Database:	Private Well Tracking System Wells	Permit #:	11640
PWTS Well #:	2080959	Range #:	46
Tier #:	89	Elevation Accuracy:	Not Reported
Elevation:	0	Bedrock Depth:	0
Total Well Depth:	0	Well Finished:	Not Reported
Depth to Water:	0	Construction Method:	Not Reported
Driller:	Hammond-Wetmore Drilling	Well Use:	Household
Remarks:	Not Reported	Heat Pump Wells:	0
Well Status:	Retired	Abandoned Well:	Not Reported
Permitted Private Well:	X	Registered for Tests:	Not Reported
Renovated Well:	Not Reported		

110
SSE
1/2 - 1 Mile
Lower

IA WELLS IAPU40000080975

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2181210	Well Type:	Private well tracking system
Well Depth:	unkn	Construction/Permit Date:	unkn
Notes:	Status: Permitted		

AF111
NE
1/2 - 1 Mile
Higher

IA WELLS IAPW40000068259

Database:	Private Well Tracking System Wells	Permit #:	Not Reported
PWTS Well #:	2131076	Range #:	46
Tier #:	89	Elevation Accuracy:	Not Reported
Elevation:	0	Bedrock Depth:	0
Total Well Depth:	300	Well Finished:	18-MAR-95
Depth to Water:	0	Construction Method:	Unknown
Driller:	Not Reported	Well Use:	Household
Remarks:	Not Reported	Heat Pump Wells:	0
Well Status:	Active	Abandoned Well:	Not Reported
Permitted Private Well:	Not Reported	Registered for Tests:	X
Renovated Well:	Not Reported		

AF112
NE
1/2 - 1 Mile
Higher

IA WELLS IAPW40000100478

Database:	Private Well Tracking System Wells	Permit #:	40533
PWTS Well #:	2172015	Range #:	46
Tier #:	89	Elevation Accuracy:	Not Reported
Elevation:	0	Bedrock Depth:	0
Total Well Depth:	0		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Depth to Water:	0	Well Finished:	Not Reported
Driller:	Not Reported	Construction Method:	Not Reported
Remarks:	Not Reported	Well Use:	Heat pump
Well Status:	Permitted	Heat Pump Wells:	1
Permitted Private Well:	X	Abandoned Well:	Not Reported
Renovated Well:	Not Reported	Registered for Tests:	Not Reported

AF113
NE
1/2 - 1 Mile
Higher

IA WELLS IAPU40000080852

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2172015	Well Type:	Private well tracking system
Well Depth:	200	Construction/Permit Date:	10/8/2013
Notes:	Status: Active Logged		

AG114
NE
1/2 - 1 Mile
Higher

IA WELLS IAPW40000059742

Database:	Private Well Tracking System Wells		
PWTS Well #:	2143755	Permit #:	Not Reported
Tier #:	89	Range #:	46
Elevation:	0	Elevation Accuracy:	Not Reported
Total Well Depth:	410	Bedrock Depth:	0
Depth to Water:	0	Well Finished:	01-SEP-92
Driller:	Not Reported	Construction Method:	Rotary Drill
Remarks:	Not Reported	Well Use:	Household
Well Status:	Active	Heat Pump Wells:	0
Permitted Private Well:	Not Reported	Abandoned Well:	Not Reported
Renovated Well:	Not Reported	Registered for Tests:	X

AG115
NE
1/2 - 1 Mile
Higher

IA WELLS IAPU40000080839

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2143755	Well Type:	Private well tracking system
Well Depth:	410	Construction/Permit Date:	9/1/1992
Notes:	Status: Active		

AH116
NW
1/2 - 1 Mile
Higher

IA WELLS IAPR40000071945

Database:	Private Wells Tested		
Depth Reliability:	K	Well Depth:	160
Sample Date:	08-JUN-00	Private Permit #:	Not Reported
Sampling Location:	KITCHEN FAUCET	Analysis Date:	Not Reported
Bacteria Results:	0	Safe/Unsafe Bacteria Level:	S
		Bacteria Remarks:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	Not Reported	Construction Method:	DRILLED
Method Accuracy:	Not Reported	Casing Material:	STEEL
Material Accuracy:	Not Reported	Casing Diameter:	6
Diameter Accuracy:	K	Year Constructed:	1984
Year Accuracy:	K	Agent:	Not Reported

AH117
NW
1/2 - 1 Mile
Higher

IA WELLS IAPR40000071946

Database:	Private Wells Tested	Well Depth:	135
Depth Reliability:	K	Private Permit #:	Not Reported
Sample Date:	08-JUN-00	Analysis Date:	Not Reported
Sampling Location:	KITCHEN FAUCET	Safe/Unsafe Bacteria Level:	U
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	Not Reported	Construction Method:	DRILLED
Method Accuracy:	Not Reported	Casing Material:	Not Reported
Material Accuracy:	Not Reported	Casing Diameter:	0
Diameter Accuracy:	U	Year Constructed:	1975
Year Accuracy:	K	Agent:	Not Reported

AH118
NW
1/2 - 1 Mile
Higher

IA WELLS IAPU40000213105

Database:	All Known Water Wells in the State of Iowa		
Well ID:	71947	Well Type:	Wells registered for testing
Well Depth:	135	Construction/Permit Date:	1975
Notes:	Drilling method: Drilled; Known well depth		

AH119
NW
1/2 - 1 Mile
Higher

IA WELLS IAPU40000213106

Database:	All Known Water Wells in the State of Iowa		
Well ID:	71946	Well Type:	Wells registered for testing
Well Depth:	160	Construction/Permit Date:	1984
Notes:	Drilling method: Drilled; Known well depth		

120
WNW
1/2 - 1 Mile
Lower

IA WELLS IAPW40000031602

Database:	Private Well Tracking System Wells		
PWTS Well #:	2106807	Permit #:	Not Reported
Tier #:	89	Range #:	46
Elevation:	0	Elevation Accuracy:	Not Reported
Total Well Depth:	360	Bedrock Depth:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Depth to Water:	0	Well Finished:	02-JUL-02
Driller:	Not Reported	Construction Method:	Rotary Drill
Remarks:	Not Reported	Well Use:	Household
Well Status:	Active	Heat Pump Wells:	0
Permitted Private Well:	Not Reported	Abandoned Well:	Not Reported
Renovated Well:	Not Reported	Registered for Tests:	X

AI121
NW
1/2 - 1 Mile
Higher

IA WELLS IAPR40000067440

Database:	Private Wells Tested	Well Depth:	135
Depth Reliability:	K	Private Permit #:	Not Reported
Sample Date:	13-JUL-90	Analysis Date:	15-JUL-90
Sampling Location:	KITCHEN FAUCET	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	2.1
Nitrate Remarks:	Not Reported	Construction Method:	DRILLED
Method Accuracy:	Not Reported	Casing Material:	PLASTIC
Material Accuracy:	Not Reported	Casing Diameter:	5
Diameter Accuracy:	K	Year Constructed:	1977
Year Accuracy:	K	Agent:	D.V.

AI122
NW
1/2 - 1 Mile
Higher

IA WELLS IAPU40000213115

Database:	All Known Water Wells in the State of Iowa		
Well ID:	67441	Well Type:	Wells registered for testing
Well Depth:	135	Construction/Permit Date:	1977
Notes:	Drilling method: Drilled; Known well depth		

AJ123
NNE
1/2 - 1 Mile
Higher

IA WELLS IAPR40000068519

Database:	Private Wells Tested	Well Depth:	196
Depth Reliability:	K	Private Permit #:	Not Reported
Sample Date:	11-SEP-90	Analysis Date:	13-SEP-90
Sampling Location:	KITCHEN FAUCET	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	<	Construction Method:	DRILLED
Method Accuracy:	Not Reported	Casing Material:	STEEL
Material Accuracy:	Not Reported	Casing Diameter:	6
Diameter Accuracy:	K	Year Constructed:	1967
Year Accuracy:	K	Agent:	JENNIFER LIGHTBODY

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

AJ124
NNE
1/2 - 1 Mile
Higher

IA WELLS IAPU40000213136

Database:	All Known Water Wells in the State of Iowa		
Well ID:	68520	Well Type:	Wells registered for testing
Well Depth:	196	Construction/Permit Date:	1967
Notes:	Drilling method: Drilled; Known well depth		

AK125
South
1/2 - 1 Mile
Lower

IA WELLS IAPU40000213254

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2517	Well Type:	Wells registered for testing
Well Depth:	20	Construction/Permit Date:	unkn
Notes:	Drilling method: Dug; Known well depth		

AL126
WNW
1/2 - 1 Mile
Lower

IA WELLS IAPR40000027066

Database:	Private Wells Tested	Well Depth:	276
Depth Reliability:	Not Reported	Private Permit #:	Not Reported
Sample Date:	21-APR-97	Analysis Date:	Not Reported
Sampling Location:	OUTDOOR TAP	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	Not Reported	Construction Method:	DRILLED
Method Accuracy:	Not Reported	Casing Material:	UNKNOWN
Material Accuracy:	Not Reported	Casing Diameter:	60
Diameter Accuracy:	Not Reported	Year Constructed:	1985
Year Accuracy:	Not Reported	Agent:	Not Reported

AK127
South
1/2 - 1 Mile
Lower

IA WELLS IAPR40000002516

Database:	Private Wells Tested	Well Depth:	20
Depth Reliability:	K	Private Permit #:	Not Reported
Sample Date:	13-MAY-94	Analysis Date:	18-MAY-94
Sampling Location:	KIT	Safe/Unsafe Bacteria Level:	U
Bacteria Results:	9.2	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	.1
Nitrate Remarks:	<	Construction Method:	DUG
Method Accuracy:	K	Casing Material:	BRICK
Material Accuracy:	K	Casing Diameter:	60
Diameter Accuracy:	K	Year Constructed:	0
Year Accuracy:	U	Agent:	D.V. WEAKLEY

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

128
ESE
1/2 - 1 Mile
Lower

IA WELLS IAPU40000190670

Database:	All Known Water Wells in the State of Iowa		
Well ID:	22638	Well Type:	Permitted private wells
Well Depth:	unkn	Construction/Permit Date:	10/01/1998
Notes:	Primary use:		

AL129
WNW
1/2 - 1 Mile
Lower

IA WELLS IAPU40000213119

Database:	All Known Water Wells in the State of Iowa		
Well ID:	27067	Well Type:	Wells registered for testing
Well Depth:	276	Construction/Permit Date:	1985
Notes:	Drilling method: Drilled;		

AM130
NNE
1/2 - 1 Mile
Higher

IA WELLS IAPU40000213127

Database:	All Known Water Wells in the State of Iowa		
Well ID:	42644	Well Type:	Wells registered for testing
Well Depth:	167	Construction/Permit Date:	unkn
Notes:	Drilling method: Unknown; Known well depth		

AM131
NNE
1/2 - 1 Mile
Higher

IA WELLS IAPR40000036261

Database:	Private Wells Tested	Well Depth:	400
Depth Reliability:	Not Reported	Private Permit #:	Not Reported
Sample Date:	12-AUG-97	Analysis Date:	12-AUG-97
Sampling Location:	Not Reported	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	Not Reported	Construction Method:	UNKNOWN
Method Accuracy:	Not Reported	Casing Material:	UNKNOWN
Material Accuracy:	Not Reported	Casing Diameter:	0
Diameter Accuracy:	Not Reported	Year Constructed:	1992
Year Accuracy:	Not Reported	Agent:	LARRY CLAUSEN

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

AM132
NNE
1/2 - 1 Mile
Higher

IA WELLS IAPR40000042643

Database:	Private Wells Tested	Well Depth:	167
Depth Reliability:	K	Private Permit #:	Not Reported
Sample Date:	05-JAN-98	Analysis Date:	Not Reported
Sampling Location:	BASEMENT	Safe/Unsafe Bacteria Level:	U
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	<	Construction Method:	UNKNOWN
Method Accuracy:	Not Reported	Casing Material:	UNKNOWN
Material Accuracy:	Not Reported	Casing Diameter:	0
Diameter Accuracy:	U	Year Constructed:	0
Year Accuracy:	U	Agent:	Not Reported

AM133
NNE
1/2 - 1 Mile
Higher

IA WELLS IAPU40000213125

Database:	All Known Water Wells in the State of Iowa		
Well ID:	36262	Well Type:	Wells registered for testing
Well Depth:	400	Construction/Permit Date:	1992
Notes:	Drilling method: Unknown;		

AN134
NE
1/2 - 1 Mile
Higher

IA WELLS IAPR40000076891

Database:	Private Wells Tested	Well Depth:	410
Depth Reliability:	K	Private Permit #:	Not Reported
Sample Date:	14-NOV-00	Analysis Date:	Not Reported
Sampling Location:	Not Reported	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	<	Construction Method:	DRILLED
Method Accuracy:	Not Reported	Casing Material:	PLASTIC
Material Accuracy:	Not Reported	Casing Diameter:	0
Diameter Accuracy:	U	Year Constructed:	1992
Year Accuracy:	K	Agent:	Not Reported

AN135
NE
1/2 - 1 Mile
Higher

IA WELLS IAPU40000213153

Database:	All Known Water Wells in the State of Iowa		
Well ID:	76892	Well Type:	Wells registered for testing
Well Depth:	410	Construction/Permit Date:	1992
Notes:	Drilling method: Drilled; Known well depth		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

AO136
SSE
1/2 - 1 Mile
Lower

IA WELLS IAPU40000080985

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2174815	Well Type:	Private well tracking system
Well Depth:	unkn	Construction/Permit Date:	unkn
Notes:	Status: Permitted		

AO137
SSE
1/2 - 1 Mile
Lower

IA WELLS IAPW40000082864

Database:	Private Well Tracking System Wells		
PWTS Well #:	2174815	Permit #:	41465
Tier #:	88	Range #:	47
Elevation:	0	Elevation Accuracy:	Not Reported
Total Well Depth:	0	Bedrock Depth:	0
Depth to Water:	0	Well Finished:	Not Reported
Driller:	Longstem Drilling	Construction Method:	Not Reported
Remarks:	Not Reported	Well Use:	Heat pump
Well Status:	Permitted	Heat Pump Wells:	1
Permitted Private Well:	X	Abandoned Well:	Not Reported
Renovated Well:	Not Reported	Registered for Tests:	Not Reported

138
North
1/2 - 1 Mile
Higher

IA WELLS IAPU40000190638

Database:	All Known Water Wells in the State of Iowa		
Well ID:	28491	Well Type:	Permitted private wells
Well Depth:	280	Construction/Permit Date:	5/01/2001
Notes:	Primary use:		

AP139
SSE
1/2 - 1 Mile
Lower

IA WELLS IAPU40000002793

Database:	All Known Water Wells in the State of Iowa		
Well ID:	63829	Well Type:	IGS well database
Well Depth:	178	Construction/Permit Date:	4/23/2007
Notes:	Bedrock depth: 0; Well type: Heat Pump		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

AP140
SSE
1/2 - 1 Mile
Lower

IA WELLS IAPW40000068149

Database:	Private Well Tracking System Wells		
PWTS Well #:	2126095	Permit #:	25296
Tier #:	88	Range #:	47
Elevation:	0	Elevation Accuracy:	Not Reported
Total Well Depth:	178	Bedrock Depth:	0
Depth to Water:	0	Well Finished:	23-APR-07
Driller:	Midwest Thermal Drilling	Construction Method:	Rotary Drill
Remarks:	Not Reported	Well Use:	Heat pump
Well Status:	Active	Heat Pump Wells:	1
Permitted Private Well:	X	Abandoned Well:	Not Reported
Renovated Well:	Not Reported	Registered for Tests:	Not Reported

AO141
South
1/2 - 1 Mile
Lower

IA WELLS IAPU40000080987

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2182352	Well Type:	Private well tracking system
Well Depth:	unkn	Construction/Permit Date:	unkn
Notes:	Status: Permitted		

142
NNE
1/2 - 1 Mile
Higher

IA WELLS IAPU40000190639

Database:	All Known Water Wells in the State of Iowa		
Well ID:	22785	Well Type:	Permitted private wells
Well Depth:	unkn	Construction/Permit Date:	11/09/1998
Notes:	Primary use: household		

AQ143
ESE
1/2 - 1 Mile
Higher

IA WELLS IAPW40000012933

Database:	Private Well Tracking System Wells		
PWTS Well #:	2084442	Permit #:	12472
Tier #:	88	Range #:	47
Elevation:	0	Elevation Accuracy:	Not Reported
Total Well Depth:	0	Bedrock Depth:	0
Depth to Water:	0	Well Finished:	Not Reported
Driller:	Soole Well Drilling	Construction Method:	Not Reported
Remarks:	Not Reported	Well Use:	Household
Well Status:	Retired	Heat Pump Wells:	0
Permitted Private Well:	X	Abandoned Well:	Not Reported
Renovated Well:	Not Reported	Registered for Tests:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

AQ144
ESE
1/2 - 1 Mile
Lower

IA WELLS IAPU40000080955

Database: All Known Water Wells in the State of Iowa
 Well ID: 2084442 Well Type: Private well tracking system
 Well Depth: unkn Construction/Permit Date: unkn
 Notes: Status: Retired

145
SSW
1/2 - 1 Mile
Lower

IA WELLS IAPU40000002780

Database: All Known Water Wells in the State of Iowa
 Well ID: 17053 Well Type: IGS well database
 Well Depth: 166 Construction/Permit Date: 12/6/1961
 Notes: Bedrock depth: 0; Well type: Private

146
NNE
1/2 - 1 Mile
Higher

IA WELLS IAPU40000002703

Database: All Known Water Wells in the State of Iowa
 Well ID: 20435 Well Type: IGS well database
 Well Depth: 196 Construction/Permit Date: 3/11/1968
 Notes: Bedrock depth: 0; Well type: Private

AR147
NE
1/2 - 1 Mile
Higher

IA WELLS IAPU40000213148

Database: All Known Water Wells in the State of Iowa
 Well ID: 68674 Well Type: Wells registered for testing
 Well Depth: 410 Construction/Permit Date: 1991
 Notes: Drilling method: Bored;

AS148
East
1/2 - 1 Mile
Higher

IA WELLS IAPW40000007758

Database: Private Well Tracking System Wells
 PWTS Well #: 2082084 Permit #: 11950
 Tier #: 88 Range #: 47
 Elevation: 0 Elevation Accuracy: Not Reported
 Total Well Depth: 130 Bedrock Depth: 0
 Depth to Water: 0 Well Finished: 16-JAN-02
 Driller: Soole Well Drilling Construction Method: Rotary Drill

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Remarks:	Not Reported	Well Use:	Household
Well Status:	Retired	Heat Pump Wells:	0
Permitted Private Well:	X	Abandoned Well:	Not Reported
Renovated Well:	Not Reported	Registered for Tests:	Not Reported

AS149
East
1/2 - 1 Mile
Higher

IA WELLS IAPU40000080946

Database:	All Known Water Wells in the State of Iowa		
Well ID:	2082084	Well Type:	Private well tracking system
Well Depth:	130	Construction/Permit Date:	1/16/2002
Notes:	Status: Retired		

AR150
NE
1/2 - 1 Mile
Higher

IA WELLS IAPR40000068673

Database:	Private Wells Tested		
Depth Reliability:	Not Reported	Well Depth:	410
Sample Date:	27-MAY-92	Private Permit #:	Not Reported
Sampling Location:	HYDRANT	Analysis Date:	29-MAY-92
Bacteria Results:	0	Safe/Unsafe Bacteria Level:	S
Safe/Unsafe Nitrate Level:	S	Bacteria Remarks:	Not Reported
Nitrate Remarks:	Not Reported	Nitrate Results:	0
Method Accuracy:	Not Reported	Construction Method:	BORED
Material Accuracy:	Not Reported	Casing Material:	PLASTIC
Diameter Accuracy:	Not Reported	Casing Diameter:	5
Year Accuracy:	Not Reported	Year Constructed:	1991
		Agent:	JENNIFER LIGHTBODY

AS151
ESE
1/2 - 1 Mile
Higher

IA WELLS IAPU40000190673

Database:	All Known Water Wells in the State of Iowa		
Well ID:	29186	Well Type:	Permitted private wells
Well Depth:	100	Construction/Permit Date:	7/10/2001
Notes:	Primary use: household		

AR152
NE
1/2 - 1 Mile
Higher

IA WELLS IAPU40000190647

Database:	All Known Water Wells in the State of Iowa		
Well ID:	15434	Well Type:	Permitted private wells
Well Depth:	250	Construction/Permit Date:	unkn
Notes:	Primary use: Domestic/household		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

AR153
NE
1/2 - 1 Mile
Higher

IA WELLS IAPU40000190646

Database:	All Known Water Wells in the State of Iowa		
Well ID:	1581	Well Type:	Permitted private wells
Well Depth:	250	Construction/Permit Date:	unkn
Notes:	Primary use: Domestic/household		

154
NE
1/2 - 1 Mile
Higher

IA WELLS IAPU40000190642

Database:	All Known Water Wells in the State of Iowa		
Well ID:	25043	Well Type:	Permitted private wells
Well Depth:	345	Construction/Permit Date:	7/30/1999
Notes:	Primary use: household		

155
ENE
1/2 - 1 Mile
Lower

IA WELLS IAPR40000001697

Database:	Private Wells Tested	Well Depth:	125
Depth Reliability:	E	Private Permit #:	Not Reported
Sample Date:	04-JAN-94	Analysis Date:	08-JAN-94
Sampling Location:	KIT SINK	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	2.2	Bacteria Remarks:	<
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	.1
Nitrate Remarks:	<	Construction Method:	DRILLED
Method Accuracy:	K	Casing Material:	STEEL
Material Accuracy:	K	Casing Diameter:	6
Diameter Accuracy:	E	Year Constructed:	0
Year Accuracy:	U	Agent:	D.V. WEAKLEY

156
North
1/2 - 1 Mile
Lower

IA WELLS IAPR40000068096

Database:	Private Wells Tested	Well Depth:	129
Depth Reliability:	K	Private Permit #:	Not Reported
Sample Date:	22-APR-92	Analysis Date:	24-APR-92
Sampling Location:	KITCHEN FAUCET	Safe/Unsafe Bacteria Level:	S
Bacteria Results:	0	Bacteria Remarks:	Not Reported
Safe/Unsafe Nitrate Level:	S	Nitrate Results:	0
Nitrate Remarks:	Not Reported	Construction Method:	DRILLED
Method Accuracy:	Not Reported	Casing Material:	PLASTIC
Material Accuracy:	Not Reported	Casing Diameter:	4
Diameter Accuracy:	K	Year Constructed:	1982
Year Accuracy:	K	Agent:	JENNIFER LIGHTBODY

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: IA Radon

Radon Test Results

Zipcode	Num Tests	Minimum	Maximum	Average
51106	159	0.2	27.3	5.6

Federal EPA Radon Zone for WOODBURY County: 1

- Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 51106

Number of sites tested: 8

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	Not Reported	Not Reported	Not Reported	Not Reported
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	9.063 pCi/L	25%	75%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: National Wetland Inventory of Iowa

Source: Department of Natural Resources

Telephone: 319-335-1575

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

All Known Water Wells in the State of Iowa

Source: Department of Natural Resources

Telephone: 319-335-1353

Well types included are agricultural drainage, permitted private, public, registered abandoned, SDWIS public, water use permit sites, wells registered for testing.

Agricultural Drainage Wells

Source: Department of Natural Resources

Telephone: 515-281-5029

Agricultural drainage wells are required to be registered both with the Iowa Department of Natural Resources as a part of the 1987 Groundwater Protection Act, and with the U.S. Environmental Protection Agency as a part of the Underground Injection Control Program.

Private Well Tracking System Wells

Source: Department of Natural Resources

Telephone: 319-335-1353

Water Use Permits

Source: Department of Natural Resources

Telephone: 515-725-0336

Wells under Water Use permits. A water use permit is required of any person or entity that withdraws or diverts at least 25,000 gallons of water in a 24-hour period during any calendar year.

Private Wells Tested

Source: Department of Natural Resources

Telephone: 515-335-1353

This is a point coverage for private wells which have been tested for bacteria and nitrate contamination under the Grants to Counties program.

OTHER STATE DATABASE INFORMATION

Oil and Gas Well Database

Source: Department of Natural Resources

Oil and gas well locations.

RADON

State Database: IA Radon

Source: Department of Public Health

Telephone: 515-281-4340

Radon Test Results

PHYSICAL SETTING SOURCE RECORDS SEARCHED

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRRA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

STREET AND ADDRESS INFORMATION

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APPENDIX E
INTERVIEW DOCUMENTATION

Prideaux, Stephen

From: Jennifer Lowell <jlowell@sioux-city.org>
Sent: Thursday, August 29, 2019 12:23 PM
To: Prideaux, Stephen
Subject: RE: Records Search Request

This email came from outside the HR Green organization. Please use caution when clicking on hyperlinks and opening attachments

Hi Steve- According to our records, there are no hazardous storage tanks, removals, spills or responses to this parcel. If you have additional questions, please give us a shout!
Thank you!



Jennifer Lowell

Sioux City Fire Rescue*IATF 1 USAR
601 Douglas Street, Sioux City, IA 51101
712-279-6314 jlowell@sioux-city.org
<https://www.sioux-city.org/>

From: Prideaux, Stephen [mailto:sprideaux@hrgreen.com]
Sent: Thursday, August 29, 2019 10:49 AM
To: Jennifer Lowell <jlowell@sioux-city.org>
Subject: Records Search Request

Hello Ms. Lowell,

The Iowa Department of Transportation has contracted us to complete a Phase I Environmental Site Assessment on some land within the northeast quadrant of the US 20/US 75 interchange (see attached map). Can you please share any environmental records (e.g. hazardous substances storage, tanks, tank removals, spills, emergency responses, etc.) you have for the area? I understand this is slightly outside of city limits but would imagine that it would likely fall within your jurisdiction.

Let me know if you have any questions! Also, please let me know if this request should be routed elsewhere. I came across your name from a hotel Phase I ESA project we completed a few years ago. I appreciate your time and efforts.

Thank you!
Steve

Steve Prideaux, AICP

Project Planner II – Governmental Services
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8710 Earhart Lane SW | Cedar Rapids, IA 52404-8947
Main 319.841.4000 | **Fax** 319.841.4012 | **Direct** 319.841.4374 | **Cell** 319.430.5421
HRGREEN.COM

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Proposed Combined DOT Facility Site, Woodbury County, IA

**Phase I Environmental Site Assessment
User Questionnaire (From Appendix X.3 of ASTM E 1527-13)**

1. Did a search of recorded land title records (or judicial records where appropriate, see Note 1 below) identify any environmental liens filed or recorded against the property under federal, tribal, state or local law? (*Environmental cleanup liens that are filed or recorded against the property [40 CFR 312.25]*)

NOTE 1—In certain jurisdictions, federal, tribal, state, or local statutes, or regulations specify that environmental liens and AULs (engineering controls, land use restrictions or institutional controls) be filed in judicial records rather than in land title records. In such cases judicial records must be searched for environmental liens and AULs.

None known but will defer to the DOT's Right of Way Bureau to answer.

2. Did a search of recorded land title records (or judicial records where appropriate, see Note 1 above) identify any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state or local law? (*Activity and land use limitations that are in place on the property or that have been filed or recorded in a registry [40 CFR 312.26]*)

None known but will defer to the DOT's Right of Way Bureau to answer.

3. Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business? (*Specialized knowledge or experience of the person seeking to qualify for the LLP [40 CFR 312.28]*)

I performed a previous in-house regulated materials investigation (i.e. limited Phase I ESA) which included a review of Iowa DNR and US EPA on-line databases, geographic imagery, historic aerial photos and the Woodbury County Assessor webpage.

4. Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property? (*Relationship of the purchase price to*

the fair market value of the property if it were not contaminated [40 CFR 312.29]

The DOT acquired the property at a fair market value. No known contamination exists.

5. Are you aware of commonly known or reasonably ascertainable information about the *property* that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as user,
- (a.) Do you know the past uses of the property? If so, what was it?
Agricultural/vacant land. Most recently used as a borrow location to provide soil fill for highway construction projects.
 - (b.) Do you know of specific chemicals that are present or once were present at the property? None known.
 - (c.) Do you know of spills or other chemicals that have taken place at the property? None known.
 - (d.) Do you know of any environmental cleanups that have taken place at the property? None known.

(Commonly known or reasonably ascertainable information about the property [40 CFR 312.30])

6. As the user of this ESA, based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of releases at the property? *(The degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation [40 CFR 312.30])*

No – none.

Signature: _____

Bradley E. Azeltine
Environmental Specialist Senior

Date: _____

9-3-2019

Prideaux, Stephen

From: Michelle Clausen-Rosendahl <mclausen@siouxlanddistricthealth.org>
Sent: Tuesday, September 3, 2019 11:05 AM
To: Prideaux, Stephen
Subject: RE: Records Search Request

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Thanks Steve,
I have not located any records related to this area. Let me know if you have any further questions.
Michelle

From: Prideaux, Stephen [mailto:sprideaux@hrgreen.com]
Sent: Friday, August 30, 2019 9:37 AM
To: Michelle Clausen-Rosendahl <mclausen@siouxlanddistricthealth.org>
Subject: RE: Records Search Request

Thank you for the response Michelle. I should have been more specific- my apologies. My questions relate specifically to the vacant land depicted in the map. The approximate latitude/longitude is 42.477290° North and -96.316614° West. I assume you will not have any records but I need to ask as part of the reporting process.

Thanks!
Steve

Steve Prideaux, AICP
Project Planner II – Governmental Services
Direct 319.841.4374 | **Cell** 319.430.5421
[HR Green@](#) | [Building Communities. Improving Lives.](#)

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From: Michelle Clausen-Rosendahl <mclausen@siouxlanddistricthealth.org>
Sent: Friday, August 30, 2019 9:32 AM
To: Prideaux, Stephen <sprideaux@hrgreen.com>
Subject: RE: Records Search Request

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Hi Steve,
We may have septic information for this area, but do you have any associated addresses, township and section information, or coordinates that would help in our search? I'm afraid this map doesn't give us much to go on.
Thank you,
Michelle

Michelle Clausen Rosendahl, MPH, REHS
Director of Environmental Health

Siouxland District Health Department
1014 Nebraska St Sioux City IA 51105
Ph: 712-279-6119 | Fax: 712-255-2604
mclausen@siouxlanddistricthealth.org
Visit us at: www.siouxlanddistricthealth.org

From: Prideaux, Stephen [<mailto:sprideaux@hrgreen.com>]
Sent: Thursday, August 29, 2019 1:20 PM
To: Michelle Clausen-Rosendahl <mclausen@siouxlanddistricthealth.org>
Subject: Records Search Request

Hello Ms. Clausen-Rosendahl,

The Iowa Department of Transportation has contracted us to complete a Phase I Environmental Site Assessment on some land within the northeast quadrant of the US 20/US 75 interchange (see attached map). Can you please share any environmental records (e.g. hazardous substances storage, tanks, tank removals, spills, emergency responses, septic systems, etc.) you have for the area?

Let me know if you have any questions! Also, please let me know if this request should be routed elsewhere. I appreciate your time and efforts.

Thank you!
Steve

Steve Prideaux, AICP
Project Planner II – Governmental Services
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Prideaux, Stephen

From: Sankey, Marty <marty.sankey@iowadot.us>
Sent: Tuesday, September 10, 2019 4:29 PM
To: Prideaux, Stephen
Cc: Azeltine, Brad; Jackson, Mike
Subject: RE: Sioux City Phase I ESA
Attachments: frm-090319-User_Questionnaire.pdf

This email came from outside the HR Green organization. Please use caution when clicking on hyperlinks and opening attachments

Steve,

My staff has reviewed the title work that was completed when we were acquiring the property back in 2007. No environmental liens (Question 1) or land use restrictions (Question 2) were reported from that title work. So I agree with Brad's answer of "None known" for both of these questions.

Let me know if you need anything else.



MARTY SANKEY
BUREAU DIRECTOR
RIGHT OF WAY BUREAU

iowadot.gov

[Iowa Department of Transportation](#)

Office: 515-239-1652

[@iowadot](#)

[@iowadot](#)

800 Lincoln Way, Ames, IA 50010

From: Prideaux, Stephen <sprideaux@hrgreen.com>
Sent: Wednesday, September 04, 2019 11:35 AM
To: Sankey, Marty <marty.sankey@iowadot.us>
Cc: Azeltine, Brad <Brad.Azeltine@iowadot.us>
Subject: RE: Sioux City Phase I ESA

Good morning Marty,

Please see the attached User Questionnaire partially completed by Brad Azeltine. Could you provide answers to those questions that he deferred to you? I appreciate your help.

Thank you!
Steve

Steve Prideaux, AICP

Project Planner II – Governmental Services

Direct 319.841.4374 | Cell 319.430.5421

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From: Azeltine, Brad <Brad.Azeltine@iowadot.us>
Sent: Thursday, August 29, 2019 6:35 AM

Property Address: Proposed Combined DOT Facility Site, Woodbury County, IA

Interview with Property Owner			
<i>Question</i>	Yes	No	Unk.
1. Is the property or any of the adjoining property used for industrial use?		XXX	
2. To the best of your knowledge, has the property been used for an industrial use in the past [before current use]?		XXX	
3. Is the property or any adjoining property used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?		XXX	
4. To the best of your knowledge has the property or any adjoining property been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?		XXX	
5. Are there currently, or to the best of your knowledge have there been previously, any damaged or discarded automotive or industrial batteries, or pesticides, or paints, or other chemicals in individual containers of greater than 5 gallons (19 Liters) in volume or 50 gallons (190 Liters) in the aggregate, stored on or used at the property or at the facility?		XXX	
6. Are there currently, or to the best of your knowledge have there been previously, any industrial drums (typically 55 gallons (208 Liters)) or sacks of chemicals located on the property or at the facility?		XXX	
7. Has fill dirt been brought onto the property that originated from a contaminated site or that is of unknown origin?		XXX	
8. Are there currently, or to the best of your knowledge, have there been previously, any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?		XXX	
9. Is there currently, or the best of your knowledge has there been previously, any stained soil on the property?		XXX	
10. Are there currently, or the best of your knowledge have there been previously, any registered or unregistered storage tanks (above or underground) located on the property?		XXX	
11. Are there currently, or the best of your knowledge have there been previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the property or adjacent to any structure located on the property?		XXX	
12. Are there currently, or the best of your knowledge have there been previously, any flooring, drains, or walls located in the facility that are stained by substances other than water or are emitting foul odors?		XXX	

Property Address: Proposed Combined DOT Facility Site, Woodbury County, IA

Interview with Property Owner			
<i>Question</i>	<i>Yes</i>	<i>No</i>	<i>Unk.</i>
13. If the property is served by private well on non-public water system, have contaminants been identified in the well or system that exceeded guidelines applicable to the water system or has the well been designated as contaminated by any government environmental/health agency?		XXX (N/A)	
14. Does the owner or occupant of the property have any knowledge of environmental liens or government notification relating to past or recurrent violations of environmental laws with respect to the property or any facility located on the property?		XXX	
15. Has the owner or occupant of the property been informed of the past or current existence of hazardous substances or petroleum products or environmental violations with respect to the property or any facility located on the property?		XXX	
16. Does the owner or occupant of the property have any knowledge of any environmental site assessment of the property or facility that indicated the presence of hazardous substances or petroleum products on, or contamination of, the property by any owner or occupant of the property?		XXX	
17. Does the owner or occupant of the property know of any past, threatened, or pending lawsuits, or administrative proceedings concerning a release or threatened release of any hazardous substance or petroleum products involving the property by any owner or occupant of the property?		XXX	
18. Does the property discharge waste water on or adjacent to the property other than storm water into a sanitary sewer system?		XXX	
19. To the best of your knowledge, have any hazardous substances or petroleum products, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above grade, buried and/or burned on the property?		XXX	
20. Is there a transformer, capacitor, or any hydraulic equipment on the property for which there are any records indicating the presence of PCBs?		XXX	

Additional Questions on following Page:

Property Address: Proposed Combined DOT Facility Site, Woodbury County, IA

Additional Interview Questions:

- I. How long have you been familiar with the property? **The Iowa Department of Transportation (DOT) acquired the property in 2008.**

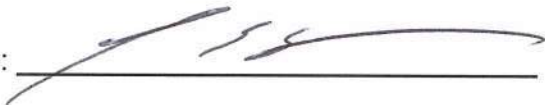
- II. How are you familiar with the property (owner, resident, occupant, etc.) **Yes, the property consists of former agricultural/vacant ground acquired by the DOT to provide soil borrow material for highway construction projects.**

- III. Name and contact information: **Bradley E. Azeltine, Environmental Specialist Senior Iowa Department of Transportation, Location and Environment Bureau, 800 Lincoln Way, Ames, IA, 50010, 515-239-1938.**

- IV. Please provide the information on utilities to the site and utility providers (e.g. Alliant Energy provides natural gas and electric to the site)? **No structures were previously or currently are present so no utility connections exist. A 6" natural gas pipeline, owned by Magellan Pipeline Company, crosses the site but it has been abandoned and will be removed as part of future site improvements.**

- V. Do you have or do you know of any previous investigations performed on the property (Environmental, Geotechnical, Other)? If so, please provide more information on the type of assessment. **In 2018 the DOT's Location and Environment Bureau performed a regulated materials investigation (i.e. limited Phase I ESA) as part of an environmental review for the proposed construction of a new DOT facility. This investigation included the review of Iowa DNR and US EPA on-line databases, geographic imagery, historic aerial photos and the Woodbury County Assessor's webpage. No contamination concerns were identified.**

Signature: _____



Date: _____

9-16-2019

APPENDIX F

QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS



HR GREEN COMPANY PROFILE

HR Green, Inc. is a professional engineering and technical consulting firm serving clients in the public and private sectors. We are a privately held, employee-owned company, and fully committed to the success of our clients and the well-being of our nearly 400 employees.

HR Green builds **business accountability into every task we perform for our clients.** This means we partner with our clients to create viable facilities and healthy enterprises that are truly sustainable **for the client.**

We have been in business without interruption since 1913. We carefully target our technical services to address the most timely needs of society, and thus to succeed as sustainable businesses.

QUALIFICATIONS OF INDIVIDUALS PREPARING THIS REPORT

Ms. Rose Amundson is a Project Scientist II with ten years of experience working in the environmental field. Rose has completed work on Federal and State regulatory compliance reporting, Phase I and Phase II Environmental Site Assessments, site remediation planning and implementation, geographic information systems (GIS) projects, and surface water and groundwater modeling. Rose holds a Master's Degree in Hydrology from the University of Arizona and is 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) certified. Rose is also an Iowa Certified Groundwater Professional (#2103).

Mr. Steve Prideaux is a Project Planner II with twelve years of experience in Brownfields projects including Phase I Environmental Site Assessments, community outreach initiatives, and program administration activities. Steve holds a Master's Degree in Urban and Regional Planning from the University of Iowa and is a member of the American Institute of Certified Planners (AICP).



APPENDIX G
ADDITIONAL INFORMATION



Summary

Parcel ID 894631400007
 Alternate ID N/A
 Property Address N/A
 Sec/Twp/Rng N/A
 Brief Tax Description E 30 A SWSE 31-89-46 EX PART TO STATE
 (Note: Not to be used on legal documents)
 Deed Book/Page 698-5809 (5/16/2008)
 Gross Acres 17.53
 Exempt Acres 17.53
 Net Acres 0.00
 Adjusted CSR Pts 783.66
 Class A - Agriculture
 (Note: This is for tax purposes only. Not to be used for zoning.)
 District N/A
 School District LAWTON-BRONSON
 Neighborhood N/A
 Main Area Square Feet N/A

Owner

Deed Holder State Of Iowa Property Management Section 800 Lincoln Way Ames IA 50010	Contract Holder	Mailing Address
--	------------------------	------------------------

Land

Lot Area 17.53 Acres ; 763,607 SF

Sales

Date	Seller	Buyer	Recording	Sale Condition - NUTC	Type	Multi Parcel	Amount
5/16/2008	POPP DONNA L, BRADLEY H JONES	STATE OF IOWA	698/5809	SALE TO / BY GOVERNMENT	Deed		\$0.00
10/22/2003	JONES DOROTHY W TRUST	POPP DONNA L & BRADLEY H JONES	628/486	TRANSFER TO / BY ADMINISTRATOR, GUARDIAN, CONSERVATOR, REFEREE, TRUSTEE	Deed		\$0.00

+ There are other parcels involved in one or more of the above sales:

Valuation

	2019	2018	2017	2016	2015
Classification	Agriculture	Agriculture	Agriculture	Agriculture	Agricultural
+ Assessed Land Value	\$27,300	\$10,780	\$10,780	\$10,780	\$0
+ Assessed Building Value	\$0	\$0	\$0	\$0	\$0
+ Assessed Dwelling Value	\$0	\$0	\$0	\$0	\$0
+ Exempt Value	\$27,300	\$10,780	\$10,780	\$10,780	\$10,780
= Gross Assessed Value	\$27,300	\$10,780	\$10,780	\$10,780	\$10,780
- Exempt Value	(\$27,300)	(\$10,780)	(\$10,780)	(\$10,780)	(\$10,780)
= Net Assessed Value	\$0	\$0	\$0	\$0	\$0

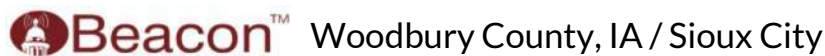
No data available for the following modules: Residential Dwellings, Commercial Buildings, Agricultural Buildings, Yard Extras, Permits, Valuation (Sioux City), Valuation History (Sioux City), Photos, Sketches.

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Version 2.3.2



Summary

Parcel ID 894631400008
 Alternate ID N/A
 Property Address N/A
 Sec/Twp/Rng N/A
 Brief Tax Description SESE 31-89-46 EX PART TO STATE
 (Note: Not to be used on legal documents)
 Deed Book/Page 698-5809 (5/16/2008)
 Gross Acres 28.72
 Exempt Acres 28.72
 Net Acres 0.00
 Adjusted CSR Pts 1189.21
 Class A - Agriculture
 (Note: This is for tax purposes only. Not to be used for zoning.)
 District N/A
 School District LAWTON-BRONSON
 Neighborhood N/A
 Main Area Square Feet N/A

Owner

Deed Holder State Of Iowa Property Management Section 800 Lincoln Way Ames IA 50010	Contract Holder	Mailing Address
--	------------------------	------------------------

Land

Lot Area 28.72 Acres ; 1,251,043 SF

Sales

Date	Seller	Buyer	Recording	Sale Condition - NUTC	Type	Multi Parcel	Amount
5/16/2008	POPP DONNA L, BRADLEY H JONES	STATE OF IOWA	698/5809	SALE TO / BY GOVERNMENT	Deed		\$380,000.00
10/22/2003	JONES DOROTHY W TRUST, % SECURITY BANK	POPP DONNA L & BRADLEY H JONES	628/486	TRANSFER TO / BY ADMINISTRATOR, GUARDIAN, CONSERVATOR, REFEREE, TRUSTEE	Deed		\$0.00

+ There are other parcels involved in one or more of the above sales:

Valuation

	2019	2018	2017	2016	2015
Classification	Agriculture	Agriculture	Agriculture	Agriculture	Agricultural
+ Assessed Land Value	\$41,420	\$16,570	\$16,570	\$16,570	\$0
+ Assessed Building Value	\$0	\$0	\$0	\$0	\$0
+ Assessed Dwelling Value	\$0	\$0	\$0	\$0	\$0
+ Exempt Value	\$41,420	\$16,570	\$16,570	\$16,570	\$16,570
= Gross Assessed Value	\$41,420	\$16,570	\$16,570	\$16,570	\$16,570
- Exempt Value	(\$41,420)	(\$16,570)	(\$16,570)	(\$16,570)	(\$16,570)
= Net Assessed Value	\$0	\$0	\$0	\$0	\$0

No data available for the following modules: Residential Dwellings, Commercial Buildings, Agricultural Buildings, Yard Extras, Permits, Valuation (Sioux City), Valuation History (Sioux City), Photos, Sketches.

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Version 2.3.2

Site Inspection Worksheet
Phase I Environmental Site Assessments

(If more space is required for descriptions attach notes page and refer to by number and general area of interest – i.e. 2.5.2.2 USTs)

1 Target Property Location		
1.1	Address	None assigned
1.2	Crossing & Bordering Streets	158 th Street/Benton Ave. to N and US 20 to S
1.3	Railways	N/A
1.4	Other Boundary Structures	
2 Target Property Description		
2.1 Physical Description		
2.1.1	Estimated % of site covered by pavement & structures	0%
2.1.2	Site layout & structure location	N/A
2.1.3	Topography & Slopes	
	2.1.3.1 General Site Topography	Generally slopes to S
	2.1.3.2 Degree of Slope	Variable (5-20%)
2.1.4	Surface Water	
	2.1.4.1 Ponds, Streams, Wetlands	N/A
	2.1.4.2 Drainage Ditches	Along 158 th Street
2.1.5	Ditches & Storm Water Collection Systems	Drainage ditch along 158 th Street
2.1.6	Roads on Target Property	N/A
2.2 Current Use		
2.2.1	Activities	Undeveloped land and borrow pit
2.2.2	Unoccupied Spaces	N/A
2.3 Structures		
2.3.1	Number of Structures (List with type, approximate age, and construction)	N/A
2.4 Utility Systems		
2.4.1	Potable Water Supply (public or private and name of entity)	N/A
2.4.2	Sewage Disposal System(public or private and name of entity)	N/A
2.4.3	Facility Source(s) of Energy for Heating and Cooling	N/A
2.4.4	Non-Facility Utilities Crossing Property	Abandoned six-inch natural gas pipeline
2.5 Exterior and Interior Descriptions (note if interior or exterior and location and locate significant findings on sketch of Target Property)		
2.5.1	Hazardous Substances and Petroleum Products (include inventory sheet for each location with type of container, size, approximate fullness, and condition)	N/A

Site Inspection Worksheet
Phase I Environmental Site Assessments

(If more space is required for descriptions attach notes page and refer to by number and general area of interest – i.e. 2.5.2.2 USTs)

2.5 Exterior and Interior Descriptions (note if interior or exterior and location and locate significant findings on sketch of Target Property) – continued from previous page		
2.5.2	Storage Tanks	
	2.5.2.1 Aboveground (ASTs)	Poly-tote near an informal driveway access off 158 th Street on the northern portion of the subject property The storage tank contained chain-link fencing, metal piping, and other miscellaneous debris.
	2.5.2.2 Underground (USTs) – identify evidence such as vent pipes, fill pipes, access ways, etc.	N/A
2.5.3	Odors	N/A
2.5.4	Pools of Liquids	N/A
	2.5.5.1 Surface Water	N/A
	2.5.5.2 Pools or Sumps Containing Liquids Likely to be Hazardous Substances or Petroleum Products	N/A
	2.5.5.3 Drains and Sumps	N/A
2.5.5	Drums (note if leaking, note contents)	N/A
2.5.6	Unidentified Substance Containers	N/A
2.5.7	PCBs (Electrical or Hydraulic Equipment Likely to Contain PCBs such as transformers, etc.)	N/A
2.5.8	Stains or Corrosion	N/A
2.6 Exterior Observations		
2.6.1	Pits, Ponds, or Lagoons (especially if in connection with waste disposal or waste treatment)	N/A
2.6.2	Stained Soil or Pavement	N/A
2.6.3	Stressed Vegetation	N/A
2.6.4	Solid Waste (Include areas of fill of unknown origin, mounds, or depressions)	de-minimis solid waste on SW portion of subject property
2.6.5	Waste Water – waste water or other liquid (including storm water) into drain, ditch, underground injection system, or stream on or adjacent to Target Property	N/A
2.6.6	Wells (including dry wells, irrigation wells, injection wells, abandoned wells, and other wells)	N/A
2.6.7	Septic Systems (include septic systems or cesspools)	N/A
2.6.8	Other Pertinent Observation	N/A

Site Inspection Worksheet
Phase I Environmental Site Assessments

(If more space is required for descriptions attach notes page and refer to by number and general area of interest – i.e. 2.5.2.2 USTs)

3 Sensitive Receptors in the Area of the Target Property		
3.1	Bodies of Water, Wetlands, Marshes, Sloughs, Seeps, and Depressed Areas	N/A
3.2	Wells, Cisterns, Ponds, and Other Sources of Water	N/A
3.3	Residences	Adj. to N/NW, N, SE, and W
3.4	Schools, Playgrounds, or Child Care Facilities	N/A
3.5	Senior Citizen Centers, Homes, or Care Facilities	N/A
3.6	Other Potential Receptors	N/A
4 General Observations		
4.1	Soil Conditions	Wet
4.2	Standing Water Conditions	N/A

Notes:



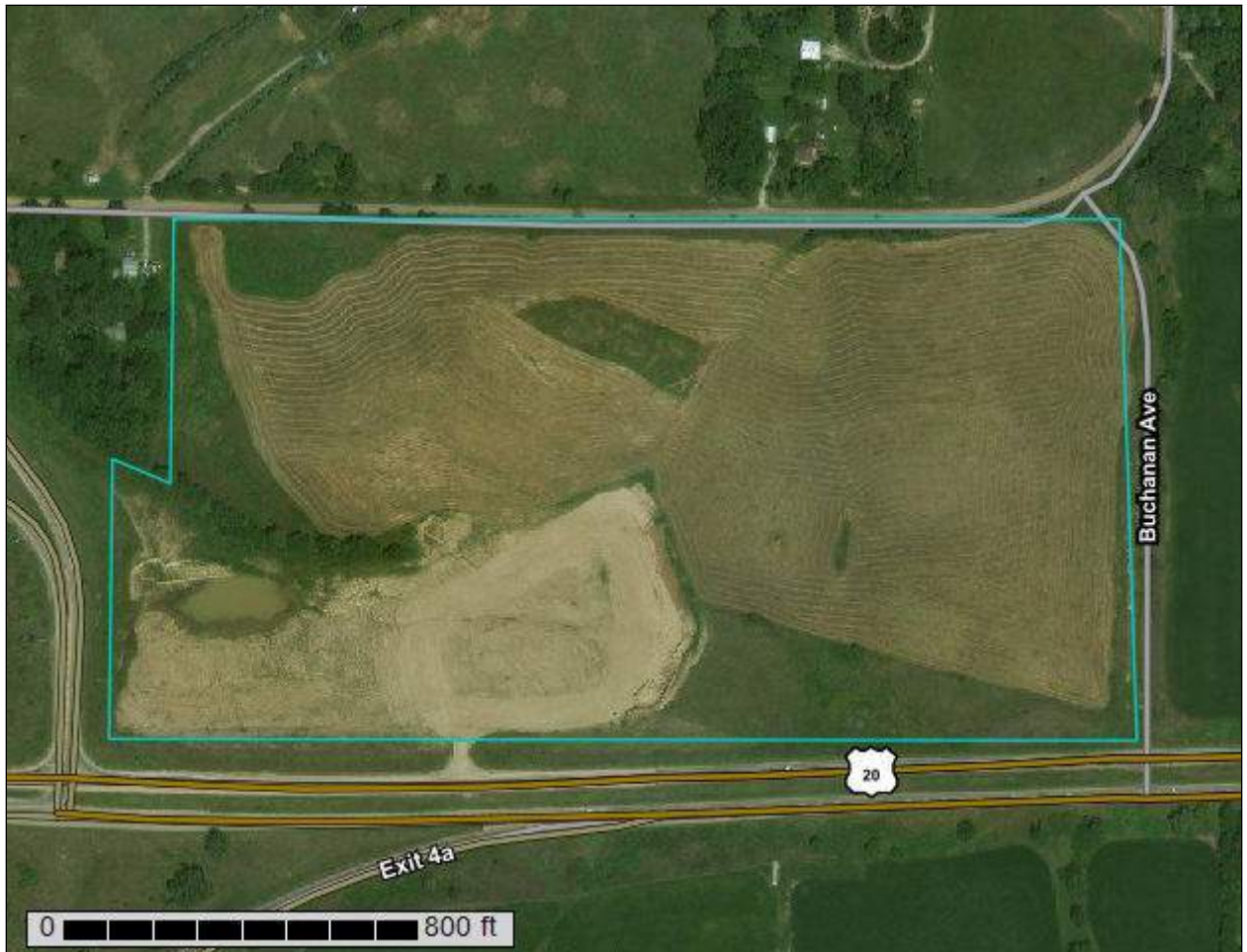
United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Woodbury County, Iowa



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

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scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

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identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

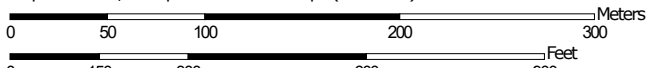
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map








































Map Scale: 1:3,880 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

MAP LEGEND

- Area of Interest (AOI)**
 -  Area of Interest (AOI)
- Soils**
 -  Soil Map Unit Polygons
 -  Soil Map Unit Lines
 -  Soil Map Unit Points
- Special Point Features**
 -  Blowout
 -  Borrow Pit
 -  Clay Spot
 -  Closed Depression
 -  Gravel Pit
 -  Gravelly Spot
 -  Landfill
 -  Lava Flow
 -  Marsh or swamp
 -  Mine or Quarry
 -  Miscellaneous Water
 -  Perennial Water
 -  Rock Outcrop
 -  Saline Spot
 -  Sandy Spot
 -  Severely Eroded Spot
 -  Sinkhole
 -  Slide or Slip
 -  Sodic Spot
- Water Features**
 -  Streams and Canals
 -  Streams and Canals
- Transportation**
 -  Rails
 -  Interstate Highways
 -  US Routes
 -  Major Roads
 -  Local Roads
- Background**
 -  Aerial Photography
- Other**
 -  Spoil Area
 -  Stony Spot
 -  Very Stony Spot
 -  Wet Spot
 -  Other
 -  Special Line Features

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

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

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

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

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

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

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

Soil Survey Area: Woodbury County, Iowa
 Survey Area Data: Version 28, Sep 7, 2018

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

Date(s) aerial images were photographed: Feb 1, 2014—Nov 25, 2016

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1C3	Ida silt loam, 5 to 9 percent slopes, severely eroded	14.2	23.6%
1D3	Ida silt loam, 9 to 14 percent slopes, severely eroded	20.7	34.5%
1E3	Ida silt loam, 14 to 20 percent slopes, severely eroded	7.5	12.5%
10D2	Monona silt loam, 9 to 14 percent slopes, eroded	3.0	4.9%
12C	Napier silt loam, 5 to 9 percent slopes	10.1	16.7%
170E	Napier-Castana silt loams, 9 to 20 percent slopes	1.4	2.3%
5040	Udorthents, loamy	3.2	5.4%
Totals for Area of Interest		60.1	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor

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components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Woodbury County, Iowa

1C3—Ida silt loam, 5 to 9 percent slopes, severely eroded

Map Unit Setting

National map unit symbol: 2sqrd

Elevation: 990 to 1,540 feet

Mean annual precipitation: 28 to 34 inches

Mean annual air temperature: 47 to 51 degrees F

Frost-free period: 145 to 165 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Ida, severely eroded, and similar soils: 80 percent

Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ida, Severely Eroded

Setting

Landform: Loess hills

Landform position (two-dimensional): Summit, shoulder

Landform position (three-dimensional): Side slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Calcareous loess

Typical profile

Ap - 0 to 4 inches: silt loam

C - 4 to 79 inches: silt loam

Properties and qualities

Slope: 5 to 9 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 1.42 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 14 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: Very high (about 12.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: B

Ecological site: Calcareous Loess Upland Prairie (R107BY012MO)

Hydric soil rating: No

Minor Components

Monona, severely eroded

Percent of map unit: 10 percent

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Landform: Loess hills
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: Deep Loess Upland Prairie (R107BY002MO)
Hydric soil rating: No

Monona, eroded

Percent of map unit: 5 percent
Landform: Loess hills
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: Deep Loess Upland Prairie (R107BY002MO)
Hydric soil rating: No

Napier

Percent of map unit: 5 percent
Landform: Loess hills
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: Loamy Footslope Savanna (R107BY008MO)
Hydric soil rating: No

1D3—Ida silt loam, 9 to 14 percent slopes, severely eroded

Map Unit Setting

National map unit symbol: 2sqrij
Elevation: 920 to 1,520 feet
Mean annual precipitation: 28 to 35 inches
Mean annual air temperature: 47 to 52 degrees F
Frost-free period: 145 to 180 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Ida, severely eroded, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ida, Severely Eroded

Setting

Landform: Loess hills
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex

Custom Soil Resource Report

Across-slope shape: Convex
Parent material: Calcareous loess

Typical profile

Ap - 0 to 4 inches: silt loam
C - 4 to 79 inches: silt loam

Properties and qualities

Slope: 9 to 14 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 1.42 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 14 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Very high (about 12.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: Calcareous Loess Upland Prairie (R107BY012MO)
Hydric soil rating: No

Minor Components

Napier

Percent of map unit: 5 percent
Landform: Loess hills
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: Loamy Footslope Savanna (R107BY008MO)
Hydric soil rating: No

Burchard, severely eroded

Percent of map unit: 5 percent
Landform: Loess hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: Calcareous Till Upland Prairie (R107BY027IA)
Hydric soil rating: No

Monona, severely eroded

Percent of map unit: 5 percent
Landform: Loess hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex

Custom Soil Resource Report

Ecological site: Deep Loess Upland Prairie (R107BY002MO)
Hydric soil rating: No

1E3—Ida silt loam, 14 to 20 percent slopes, severely eroded

Map Unit Setting

National map unit symbol: 2sqr0
Elevation: 940 to 1,510 feet
Mean annual precipitation: 28 to 34 inches
Mean annual air temperature: 47 to 52 degrees F
Frost-free period: 145 to 180 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Ida, severely eroded, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ida, Severely Eroded

Setting

Landform: Loess hills
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Calcareous loess

Typical profile

Ap - 0 to 4 inches: silt loam
C - 4 to 79 inches: silt loam

Properties and qualities

Slope: 14 to 20 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 1.42 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 14 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Very high (about 12.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B

Custom Soil Resource Report

Ecological site: Calcareous Loess Protected Backslope Savanna
(R107BY013MO), Calcareous Loess Exposed Backslope Prairie
(R107BY006MO)
Hydric soil rating: No

Minor Components

Monona, severely eroded

Percent of map unit: 5 percent
Landform: Loess hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: Deep Loess Exposed Backslope Savanna (R107BY003MO)
Hydric soil rating: No

Napier

Percent of map unit: 5 percent
Landform: Loess hills
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: Loamy Footslope Savanna (R107BY008MO)
Hydric soil rating: No

Burchard, severely eroded

Percent of map unit: 5 percent
Landform: Loess hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: Calcareous Till Upland Prairie (R107BY027IA)
Hydric soil rating: No

10D2—Monona silt loam, 9 to 14 percent slopes, eroded

Map Unit Setting

National map unit symbol: 2sy5g
Elevation: 890 to 1,520 feet
Mean annual precipitation: 28 to 37 inches
Mean annual air temperature: 47 to 53 degrees F
Frost-free period: 145 to 180 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Monona, eroded, and similar soils: 80 percent
Minor components: 20 percent

Custom Soil Resource Report

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Monona, Eroded

Setting

Landform: Loess hills
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Fine-silty loess

Typical profile

Ap - 0 to 7 inches: silt loam
Bw - 7 to 30 inches: silt loam
C - 30 to 79 inches: silt loam

Properties and qualities

Slope: 9 to 14 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 1.42 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 12 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Very high (about 12.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: Deep Loess Upland Prairie (R107BY002MO)
Hydric soil rating: No

Minor Components

Monona, severely eroded

Percent of map unit: 10 percent
Landform: Loess hills
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: Deep Loess Upland Prairie (R107BY002MO)
Hydric soil rating: No

Napier

Percent of map unit: 5 percent
Landform: Loess hills
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Convex

Custom Soil Resource Report

Ecological site: Loamy Footslope Savanna (R107BY008MO)
Hydric soil rating: No

Ida, severely eroded

Percent of map unit: 5 percent
Landform: Loess hills
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: Calcareous Loess Upland Prairie (R107BY012MO)
Hydric soil rating: No

12C—Napier silt loam, 5 to 9 percent slopes

Map Unit Setting

National map unit symbol: 2sy78
Elevation: 910 to 1,470 feet
Mean annual precipitation: 28 to 35 inches
Mean annual air temperature: 47 to 52 degrees F
Frost-free period: 145 to 180 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Napier and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Napier

Setting

Landform: Loess hills
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Local silty colluvium

Typical profile

Ap - 0 to 8 inches: silt loam
A - 8 to 29 inches: silt loam
Bw - 29 to 48 inches: silt loam
C - 48 to 79 inches: silt loam

Properties and qualities

Slope: 5 to 9 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 1.42 in/hr)
Depth to water table: More than 80 inches

Custom Soil Resource Report

Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 10 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Very high (about 13.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: Loamy Footslope Savanna (R107BY008MO)
Hydric soil rating: No

Minor Components

Rawles, occasionally flooded

Percent of map unit: 3 percent
Landform: Drainageways
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: Wet Upland Drainageway Prairie (R107BY024IA)
Hydric soil rating: No

Monona

Percent of map unit: 2 percent
Landform: Loess hills
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: Deep Loess Upland Prairie (R107BY002MO)
Hydric soil rating: No

170E—Napier-Castana silt loams, 9 to 20 percent slopes

Map Unit Setting

National map unit symbol: 2xblp
Elevation: 1,070 to 1,410 feet
Mean annual precipitation: 28 to 31 inches
Mean annual air temperature: 48 to 49 degrees F
Frost-free period: 155 to 165 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Napier and similar soils: 70 percent
Castana and similar soils: 25 percent
Minor components: 5 percent

Custom Soil Resource Report

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Napier

Setting

Landform: Loess hills
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Local silty colluvium

Typical profile

Ap - 0 to 8 inches: silt loam
A - 8 to 29 inches: silt loam
Bw - 29 to 48 inches: silt loam
C - 48 to 79 inches: silt loam

Properties and qualities

Slope: 9 to 14 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 1.42 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 10 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Very high (about 13.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: Loamy Footslope Savanna (R107BY008MO)
Hydric soil rating: No

Description of Castana

Setting

Landform: Loess hills
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Local silty colluvium

Typical profile

Ap - 0 to 8 inches: silt loam
A - 8 to 18 inches: silt loam
AC - 18 to 30 inches: silt loam
C - 30 to 60 inches: silt loam

Properties and qualities

Slope: 14 to 20 percent
Depth to restrictive feature: More than 80 inches

Custom Soil Resource Report

Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 1.42 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 30 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Very high (about 12.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Ecological site: Loamy Footslope Savanna (R107BY008MO)
Hydric soil rating: No

Minor Components

Monona

Percent of map unit: 5 percent
Landform: Loess hills
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: Deep Loess Upland Prairie (R107BY002MO)
Hydric soil rating: No

5040—Udorthents, loamy

Map Unit Setting

National map unit symbol: fh7c
Elevation: 660 to 980 feet
Mean annual precipitation: 34 to 41 inches
Mean annual air temperature: 48 to 54 degrees F
Frost-free period: 175 to 210 days
Farmland classification: Not prime farmland

Map Unit Composition

Udorthents, loamy and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents, Loamy

Setting

Parent material: Loamy manipulated materials

Custom Soil Resource Report

Properties and qualities

Depth to restrictive feature: More than 80 inches

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

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Custom Soil Resource Report

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Well Search



Print | Help |

Well Search Report

Included in search	No. of wells	Database
X	0	IGS well database General well database maintained by IGS, location accuracy varies 3,730 to 25 ft., last updated 8/2005.
X	0	Public wells Municipal and nonmunicipal public well databases maintained by IGS, location varies 3,730 to 25 ft., under development.
X	0	SDWIS public wells Public well database developed from the Safe Drinking Water Information System database maintained by IDNR, estimated locational accuracy varies from 15m. to 3300m. Created from 5/2005 data.
X	3	Private well tracking system IDNR database management system for Grants-to-counties-covered wells. Locational accuracy unknown, assumed to be +/- 17 m., Last update 7/2005.
X	3	Wells registered for testing Wells tested under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Permitted private wells Wells permitted under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Registered abandoned wells Wells abandoned under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Water use facilities Wells used by facilities permitted to withdraw >25,000 gallons per day, locational accuracy is +/-20m to 1150 m. Created from 7/2005 data.
X	0	Municipal wells and intakes Locational accuracy 220 m., last updated 8/96.
X	0	Ag drainage wells Locational accuracy 100 m., last updated 4/98.

Well Search Detail

Subject: XY UTM Coordinates: 227387/4708096
Search Radius (ft): 1500

IGS Well Database

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
--------	----------	----------	----------	------------------	------------	---------------------------	------------------	-------------------

No records found from this data source

Public Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
--------	----------	----------	----------	------------------	------------	---------------------------	------------------	-------------------

No records found from this data source

SDWIS public wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
--------	----------	----------	----------	------------------	------------	---------------------------	------------------	-------------------

No records found from this data source

Private Well Tracking System

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
--------	----------	----------	----------	------------------	------------	---------------------------	------------------	-------------------

15255	2161295	T89N, R46W, S31	nom. +/- 25m.	101 (m)			CRULL, JEFF	Status: Permitted
15207	2154145	T89N, R46W, S31	nom. +/- 25m.	359 (m)	100	1/1/1950	ZANT, CHRIS	Status: Active
15104	2187238	T89N, R46W, S31	nom. +/- 25m.	407 (m)	100	1/1/2012	ZELLMER, DILLON	Status: Active

Wells Registered For Testing

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
--------	----------	----------	----------	------------------	------------	---------------------------	------------------	-------------------

15282	17719	T89N, R46W, Sec. 31, SE, SW, SE	Calc. +/- 285m.	255 (m)	160	unkn	Marx, Grady	Drilling method: Drilled; Known well depth
15189	39334	T89N, R46W, Sec. 31, SE, NE, SW	Calc. +/- 570m.	(m)	80	1965	Thompson, Duane	Drilling method: Driven;
15275	20	T89N, R46W, Sec. 31, SE, SW, NE	Calc. +/- 285m.	248 (m)	unkn	unkn	Thompson, Duane L.	

Permitted Private Wells

Location Accuracy

Owner/Permittees

Map ID	Well No.	Dist. From Point	Well Depth	Construction/ Permit Date	Other Information
No records found from this data source					

Abandoned Wells (plugged)								
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
No records found from this data source								

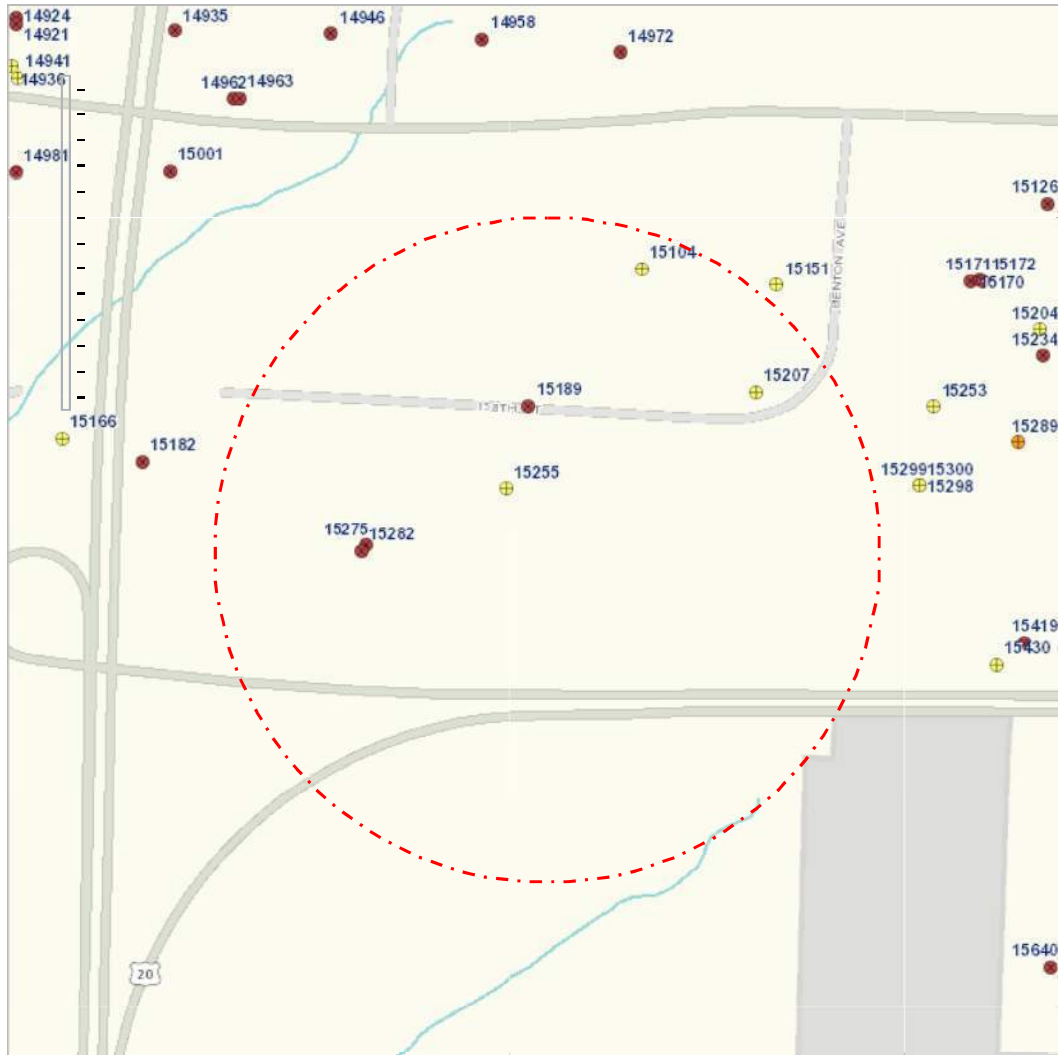
Water Use Facilities								
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
No records found from this data source								

Municipal Wells And Intakes								
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
No records found from this data source								

Ag Drainage Wells								
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
No records found from this data source								

Well Search Buffered Map

Subject: XY UTM Coordinates: 227387/4708096
 Search Radius (ft): 1500



Map Notes:

- UST
- ★ LUST
- * Wells

Please refer to the Accuracy column in Well Search Detail.

Since multiple points can be at the same spot (as those located to the center of a quarter section), points were randomly dispersed within 10 meters around that spot so all points can be seen.



AE

GC

AP

AP

32

AE

GC

GC

HIGHWAY 20

AP

03

AP

Duchman Ave

Access

Glen Ellen Rd

AP

HIGHWAY 20

AP

AE

AE

AE

AE

AE

AE

Benton Ave

158th St

AE

AP

AP

AP

AE

AE

AE

AE

AP

AP

AP

31

onramp

Access

Access

AP

AE

AP

HIGHWAY 75

Access

04

exit 93 sb HIG

Access

Access

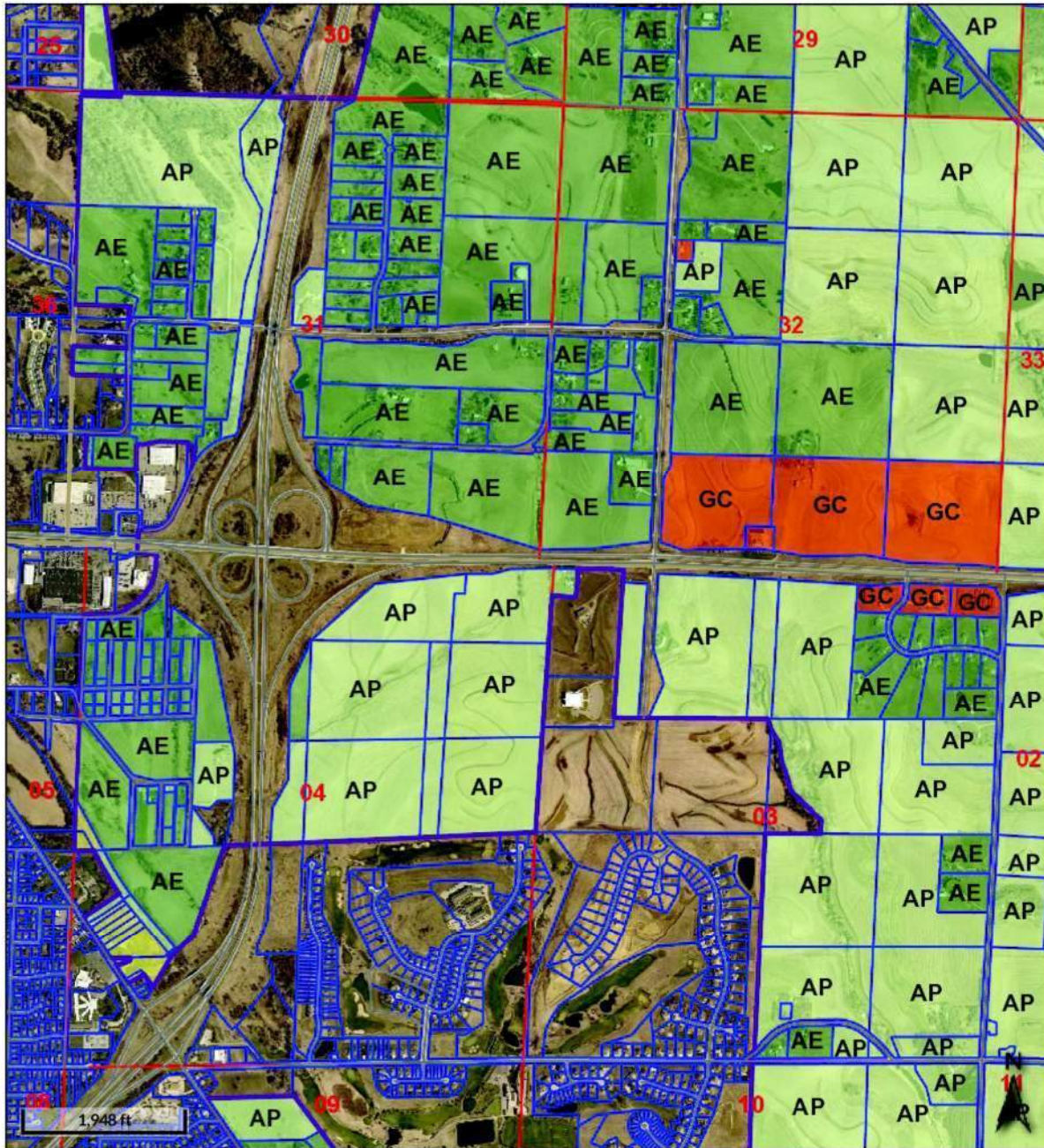
AE

AP

E

P

Beacon™ Woodbury County, IA / Sioux City



Overview



Legend

- Roads
- ▭ Corp Boundaries
- ▭ Townships
- ▭ Sections
- ▭ Parcels
- County Zoning**
- AE
- AP
- GC
- GC-PD
- GI
- LI
- LI-PD
- SR
- WR

Date created: 8/28/2019
 Last Data Uploaded: 7/10/2019 7:01:24 PM

Developed by  **Schneider**
 GEOSPATIAL



I-29 Improvements in Sioux City
Woodbury County, Iowa
IM-029-6(168)146--13-97

FINAL ENVIRONMENTAL IMPACT STATEMENT

Prepared in Accordance with:
The National Environmental Policy Act, as amended
42 USC 4332(2)(c)

by the
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

IOWA DEPARTMENT OF TRANSPORTATION

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 request to fund the preferred alternative.

2/2/09
Date of Approval

James Rost
For Iowa Department of Transportation

February 2, 2009
Date of Approval

David L. Kennedy
For Federal Highway Administration

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The purpose of this planning study is to improve Interstate 29 in Woodbury County, Iowa. The project begins approximately 0.7 miles west of the Hamilton Boulevard Interchange and continues approximately 3.5 miles south to approximately 0.25 mile south of the Burlington Northern Santa Fe Railroad Bridge over the Missouri River along the existing I-29 corridor. The proposed project includes expanding the existing four lane roadway to six lanes and improving safety by modifying interchanges. This condensed Final Environmental Impact Statement (Final EIS) summarizes the Draft EIS and reports the final results of the environmental analysis for the Project. The focus is on the changes that have occurred since the publication of the Draft EIS.

Comments on this FEIS are due by April 3, 2009 and should be sent to the persons listed above.

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ACRONYMS

ACRONYMS

AASHTO	American Association of State Highway and Transportation Officials
BMP	Best Management Practices
BNSF	Burlington Northern Santa Fe
CE	Categorical Exclusion
CFR	Code of Federal Regulations
CWA	Clean Water Act
dBA	A-weighted decibel unit
DOI	Department of Interior
DOT	Department of Transportation
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FHWA	Federal Highway Administration
I-29	Interstate 29
Iowa DNR	Iowa Department of Natural Resources
Iowa DOT	Iowa Department of Transportation
L&C NHT	Lewis & Clark National Historic Trail
L&WCF	Land and Water Conservation Act
MSAT	Mobile Source Air Toxics
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Study Program
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
PEM	Palustrine Emergent Wetlands
PSS	Palustrine Scrub-Scrub Wetlands
REC	Recognized Environmental Condition
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SHPO	State Historic Preservation Office
SIMPCO	Siouxland Interstate Metropolitan Planning Council

SMAC	Siouxland Metropolitan Advisory Council
TV	Television
UP	Union Pacific
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
VMT	Vehicle Miles of Travel

SECTION 1

PURPOSE AND NEED FOR ACTION

PURPOSE AND NEED FOR PROPOSED ACTION

The Federal Highway Administration (FHWA), in cooperation with Iowa Department of Transportation (Iowa DOT) is proposing to improve approximately 3.5 miles of Interstate 29 (I-29) in Sioux City, Iowa. This condensed¹ Final Environmental Impact Statement (Final EIS) reports the final results of the environmental analysis for the proposed action, which is described below. This Final EIS was prepared in compliance with the requirements of the National Environmental Policy Act of 1969 (NEPA) and with guidelines in the *FHWA's Technical Advisory T6640.8A Guidance for Preparing and Processing Environmental and Section 4(f) Documents*.² The purpose of this Final EIS is to provide a full and fair discussion of the significant environmental impacts of the proposed action and to inform decision makers and the public of the reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment.

The interim results of the analysis were published in March 2008 in the *I-29 Improvements in Sioux City, Woodbury County, Iowa Draft Environmental Impact Statement* (Draft EIS), which was made available to the appropriate agencies and to the public for review and comment. This Final EIS is in a condensed format and summarizes the Draft EIS, with focus on changes that have occurred since publication of the Draft EIS. For more detail, see the Draft EIS, which has section numbers corresponding to those in the Final EIS. Note that any references in this Final EIS to sections, figures, and tables pertain to this document unless the Draft EIS is specified.

1.1 The Proposed Action and the Project Study Area

The proposed action consists of improving approximately 3.5 miles of I-29 in Sioux City, Iowa. The proposed improvement consists of reconfiguring four interchanges to increase safety, enhance connections to the local roadway system, add one lane in each direction, and improve or eliminate some of the traffic merging issues that occur in this 3.5-mile long corridor.

The area examined in this environmental analysis (project study area) includes the area along I-29 from approximately 0.7 miles west of the existing Hamilton Boulevard Interchange with I-29, along the existing I-29 alignment to approximately 0.25 mile south of the Burlington Northern Santa Fe Railroad (BNSF) Bridge over the Missouri River (Figure 1-1, *Location Map*). The project study area includes the following interchanges:

- Hamilton Boulevard
- US 77/Wesley Parkway (Wesley Parkway)

¹ “[The condensed] approach avoids repetition of material from the Draft Environmental Impact Statement (Draft EIS) by incorporating, by reference, the draft EIS” (FHWA, Technical Advisory T 6640.8A).

² The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)-which authorizes the Federal surface transportation programs for highways, with “Section 303” (the current section of the Federal code that deals with issues formerly addressed in Section 4(f)). This Final EIS retains the term “4(f)”, however, in keeping with current guidance from FHWA and Iowa DOT.

- Nebraska Street/Pierce Street
- Floyd Boulevard/Virginia Street (Floyd Boulevard)

The Missouri River parallels much of the project corridor on the south and west. Railroad right-of-way owned by BNSF and Union Pacific (UP) Railroads parallels much of the project corridor's eastern and northern boundaries. The land adjacent to the railroad right-of-way has been developed or is likely to be developed in many areas along the project corridor. The project corridor locally serves the Sioux City Downtown Central Business District and adjoining industrial areas. The project study area was selected after reviewing relevant traffic patterns in the corridor as part of a previous I-29 corridor study completed in 1997 (Iowa DOT, 1997).

1.2 Project Background

I-29 is an interstate highway in the Midwestern United States that was authorized by the Federal-Aid Highway Act of 1956. As such, I-29 became part of the Dwight D. Eisenhower National System of Interstate and Defense Highways. It runs from Kansas City, Missouri to the Canadian border near Pembina, North Dakota. This interstate system consists of controlled-access freeways allowing for generally consistent safe high-speed driving. The interstate highway system remains an important component to daily life in the United States providing an efficient means of delivering goods and services. In urban areas such as Sioux City, many residents use the interstate on a daily basis. The project corridor in Sioux City is part of larger component that connects Sioux City to Sioux Falls, South Dakota and Council Bluffs, Iowa. The portion of the interstate within Sioux City was open to traffic in 1961. Since 1961, no major roadway improvements have occurred to the mainline of this section of the Interstate except for two partial resurfacing projects that occurred in 1970 and 2002. The majority of the interstate roadway pavement in the project study area is original pavement constructed approximately 46 years ago.

Iowa DOT in conjunction with Siouxland Interstate Metropolitan Planning Council (SIMPCO) and the City of Sioux City commissioned several studies to learn more about the functional needs of I-29 from the Iowa/South Dakota border to Sergeant Bluff, Iowa. These studies resulted in a final report in 1997 that drew attention to the need for numerous improvements along I-29 through Sioux City as well as specific needs for the corridor adjoining the Downtown Central Business District. Studies, including the 1997 final report, that contributed to the understanding of the project corridor safety and operational needs included:

- *Report 1, I-29 Corridor Study, Sioux Gateway Airport to South Dakota Border.* Stanley Consultants, Inc., February 1993.
- *Report 2, Development of Alternative Improvement Schemes, I-29 Corridor Study, Sioux Gateway Airport to South Dakota Border.* Stanley Consultants, Inc., June 1996.
- *Report 3, Refinement of Selected Improvement Concepts, I-29 Corridor Study, Sioux Gateway Airport to South Dakota Border.* Stanley Consultants, Inc., January 1997.
- *Final Report, Refinement of Selected Improvement Concepts, I-29 Corridor Study, Sioux Gateway Airport to South Dakota Border.* Stanley Consultants, Inc., July 1997.

Between 2001 and 2003 the Sergeant Bluff/Sioux Gateway Airport Interchange was redesigned and reconstructed. The bridge clearance over I-29 needed to be increased by approximately two feet and the on- and off-ramps were reconfigured to meet current Iowa DOT standards and improve capacity.

In 2004, the Iowa DOT began the early planning process of improving ten miles of I-29 through Sioux City. Initially, the planning process assumed the interstate had the same safety, capacity, and traffic flow issues throughout the ten mile corridor. As the planning process continued, it became evident that portions of the ten mile corridor had different characteristics and functioned differently than other parts of I-29 within Sioux City. As a result, the FHWA divided the project into three individual projects. The northern-most of the three projects is the I-29/Riverside Boulevard Interchange project with project limits beginning at the South Dakota border and ending at Judd Street. The southern-most of the three projects is the I-29/System Interchange project with project limits beginning 0.25 miles south of the BNSF Railway Bridge to approximately 0.75 miles south of the Sergeant Bluff/Sioux Gateway Airport Interchange. Both the northern-most and the southern-most projects were classified by FHWA as Categorical Exclusions (CE) type projects. The project that is located between the two CE projects is the project that is described in detail in Section 1.1, *The Proposed Action and Study Area*, and is the project study area used for this Final EIS document.

1.3 Purpose of the Project

The purposes of the proposed improvements are to improve traffic operations, and provide a safe facility that serves the local, regional, and national traffic demands of the I-29 Sioux City corridor from approximately 0.7 miles west of the existing Hamilton Boulevard Interchange with I-29 to about 0.25 mile south of the BNSF Railroad Bridge in Sioux City, Iowa. See Figure 1-1 for the location of the project study area.

1.4 Need for the Project

The purpose of the project is to provide an operationally improved and safe facility that serves the local, regional, and national traffic demands of the I-29 Sioux City Corridor. The four key needs for the Project are discussed in detail in Section 1.4, *Need for Proposed Action* of the Draft EIS and include:

- Improve Safety - The need to improve safety is evident considering all four interchanges in the project corridor are above the statewide average for crash rates according to 2001-2003 crash data. The project would address the need to provide a reduction in the number and severity of traffic accidents in the project corridor.
- Improve Traffic Operations – The project would remedy the following specific design deficiencies that affect the flow of vehicles:

- I-29 ramp sequence and spacing³ is not adequate between the Hamilton Boulevard Interchange and the Wesley Parkway Interchange, between the Wesley Parkway Interchange and the Nebraska Street/Pierce Street Interchange, and near the Floyd Boulevard Interchange.
 - Lane balance issues exist between Wesley Parkway and Floyd Boulevard.
 - I-29 exit and entrance ramp designs are either too short or do not meet current design standards at Hamilton Boulevard, Nebraska Street/Pierce Street, and Floyd Boulevard.
 - Guide signage is poorly located throughout the corridor and does not exist in some locations near the Wesley Parkway Interchange.
 - Roadway needs to be updated to current standards to accommodate new driving speeds and improved vehicle performance characteristics.
- Provide for Driver Expectancy - In the project corridor, short acceleration and deceleration lanes, tight curves, and poor sight distance are existing factors that contribute to crashes by not consistently meeting driver expectations. The project would improve:
 - The horizontal stopping sight distance on I-29 at Wesley Parkway, near Pearl Street, at the Floyd Boulevard Interchange, and south of the BNSF Railroad Bridge does not meet minimum criteria based on American Association of State Highway and Transportation Officials (AASHTO) Policy.
 - A sag curve just east of the Nebraska Street/Pierce Street Interchange and a crest curve over the Nebraska Street/Pierce Street Interchange do not meet the minimum criteria for vertical stopping sight distance. Decision sight distance from the Hamilton Boulevard Interchange to the Nebraska/Pierce Interchange does not meet current standards.
 - Improve Roadway Infrastructure Condition - The roadway infrastructure is reaching the end of its useful life and the need for new pavement throughout the corridor and new or upgraded bridge structures over Floyd Boulevard and Bacon Creek will exist prior to the design year 2030.

1.5 Updates to Section 1

There has not been any new information on the Purpose and Need for the project since publication of the Draft EIS.

³ Ramp sequence and spacing refers to the distance between interchange on- and off-ramps.

Figure 1-1. Location Map

8.5x11 Graphic

SECTION 2
ALTERNATIVES

ALTERNATIVES

Alternatives are strategies that can satisfy the purpose of and need for the project. This section includes a summary of the process used for identifying and screening alternatives, the range of alternatives developed, alternatives eliminated, and alternatives retained for analysis. The detailed information for Steps 1-3 is included in the Draft EIS. Step 4 was completed after the Draft EIS comments were evaluated and agency concurrences on the preferred alternative were received. The information for Step 4, identifying the preferred alternative, is included in Section 2.5 of this Final EIS.

2.1 Process for Identifying and Screening Alternatives

A detailed process was used to identify and evaluate the alternatives that meet the project purpose and to address problems identified as needs that can be satisfied by the project. Alternative solutions were developed and screened as follows:

Step 1 Develop a range of alternatives to consider.

Step 2 Evaluate the range of alternatives. Eliminate from further consideration any that do not meet the project purpose and need or have unacceptable impacts.

Step 3 Identify the alternatives that meet the project purpose and need and should be carried forward for detailed study. Develop preliminary alignments and other details for each.

Step 4 Identify the preferred alternative based on engineering considerations, potential environmental impacts, input from regulatory agencies, and public opinion.

The following explains what was done during these steps.

2.2 Step 1: Range of Alternatives

The following alternatives were initially considered:

No-Build Alternative - The no-build alternative is defined as no new major construction along the I-29 corridor. Improvements implemented with the No-Build alternative would be limited to short-term restoration activities (maintenance improvements) needed to ensure continued roadway pavement and the structural integrity of the bridges over the Floyd River and Bacon Creek. The design of the existing roadway, including its location, geometric features, and current capacity constraints, would remain unchanged. Under this alternative, some minor improvements at high volume ramp intersections could occur. Under the no-build alternative, it is assumed that other committed and planned improvements (as detailed in Iowa DOT multi-year programs for the Sioux City Metropolitan Area) would still be undertaken and that safety concerns identified in Section 1, *Purpose and Need*, would still remain.

Build Alternatives - Six initial concepts were developed that considered project purpose and need, potential environmental constraints, future traffic projections, and order of magnitude

costs. The development and evaluation of the initial concepts also considered operational and driver expectancy issues, constructability, maintenance of traffic during construction, environmental impacts, estimated right-of-way impacts, and order of magnitude costs. A complete description of the six initial concepts is in Section 2, *Alternatives*, of the Draft EIS.

2.3 Step 2: Alternatives Eliminated From Consideration

The No-Build Alternative, though unable to meet the project purpose and need, was carried forward in accordance with 40 Code of Federal Regulations (CFR) 1502.14, Alternatives including the proposed action, of the Regulations for Implementing NEPA. As the range of alternatives was evaluated, other alternatives that did not meet the project purpose and need were eliminated from further consideration as follows:

Concept 2 - The main disadvantages of Concept 2 were the five-leg intersection at Gordon Drive and Pierce Street, the use of Gordon Drive as part of the northbound frontage road, and the conversion of Pierce to two-way traffic. The elimination of Concept 2 was based primarily on concerns about two-way traffic on Pierce Street. Two-way traffic was noted as being incompatible with existing one-way traffic in the downtown area and concerns surfaced regarding traffic backing up during railroad grade crossing blockages. Additionally, the five-leg intersection at Gordon Drive and Pierce Street was anticipated to operate at level of service (LOS) D and provided undesirable intersection geometry, introducing the potential for wrong-way traffic on the northbound exit ramp.

Concept 3 - Concept 3 provided the most direct access to and from downtown and I-29 and fully satisfied traffic operations criteria, it provided these advantages by eliminating access from Gordon Drive to Wesley Parkway and isolating the Tyson Events Center. Concept 3 also included the most bridges and correspondingly the highest construction cost. Finally, traffic patterns between Gordon Drive and Wesley Parkway would have been diverted to other city streets by Concept 3. For these reasons, Concept 3 was not recommended for further refinement or modification.

Concept 4 - Concept 4 did not advance for further development because of changes this alternative made to downtown access and accompanying operations problems at key intersections. Direct access from Gordon Drive to I-29 and Wesley Parkway was severed in the concept, forcing traffic to divert to Virginia Street or through downtown. The rerouting of this traffic tended to focus traffic on Virginia Street and severe traffic operation problems were anticipated on the intersections along Virginia Street. The concept also severed interstate connections for Floyd Boulevard, the industrial areas adjacent to Floyd Boulevard south of Gordon Drive, and the Tyson Events Center. The local stakeholders on the Siouxland Metropolitan Advisory Council (SMAC) strongly objected to Concept 4.

Stockyard Interchange Concept - Upon completion of further study of the Stockyard Interchange concepts, the City of Sioux City determined that the Stockyards Interchange was not desirable because of its effects on access from I-29 to the Hoeven Valley corridor to the north. Additionally, the City of Sioux City determined that the likely delay on constructing I-29 improvements caused by the time required to obtain and clear the necessary right-of-way was not

desirable. The City of Sioux City sent a letter to the Iowa DOT on May 9, 2006 requesting that the Stockyards Interchange concept be eliminated from further consideration.

2.4 Step 3: Alternatives Carried Forward

Three build concepts were carried forward because they meet the aspects of the project's purpose and need. The three build concepts carried forward in the Draft EIS were Concept 1 (Alternative A), Concept 5 (Alternative B), and Concept 6 (Alternative C), as shown on Figures 2-3a, b, c, *Alternatives Carried Forward* in the Draft EIS. Alternatives A, B, C and the No-Build Alternative⁴ were carried forward for impact analysis. A brief summary of the major components of the three build alternatives is presented below.

Alternative A:

- Reconstructing 15 bridges.
- Providing a full access interchange for Hamilton Boulevard.
- Extending 3rd Street to Wesley Parkway to provide additional access from Wesley Parkway to downtown.
- Reconstructing the existing Wesley Parkway Interchange as a two-level interchange.
- Providing southbound access from Wesley Parkway through the south side frontage road and the Nebraska/Pierce Street interchange.
- Providing southbound access to Wesley Parkway through the south side frontage road and the Hamilton Boulevard exit ramp.
- Providing direct access to and from Wesley Parkway through northbound exit and entrance ramps.
- Connecting northbound and southbound downtown frontage roads directly to Iowa 12, locally known as Gordon Drive, at Virginia Street.
- Providing northbound entrance access from downtown through a frontage road and US 77, locally known as the Wesley Parkway Interchange.
- Constructing braided downtown and Floyd Boulevard ramps.
- Providing an interchange for downtown access to and from Nebraska Street and Pierce Street, similar to the existing downtown interchange.
- Providing full access interchange for Floyd Boulevard, which separates industrial traffic from downtown commercial traffic.

⁴ The No-Build Alternative is included in accordance with 40 CFR 1502.14, Alternatives including the proposed action, of the Regulations for Implementing NEPA.

Alternative B:

- Reconstructing 13 bridges.
- Providing a full access interchange for Hamilton Boulevard.
- Extending 3rd Street to Wesley Parkway to provide additional access from Wesley Parkway to downtown.
- Shifting Gordon Drive to the north in the vicinity of Pearl Street to accommodate the I-29 alignment.
- Reconstructing the existing Wesley Parkway Interchange as a two-level interchange.
- Provisioning full access to and from Wesley Parkway except for southbound access to Wesley Parkway.
- Extending the north frontage road to Nebraska Street and the south frontage road to Pierce Street, which is extended under I-29 providing additional access to and from the downtown area.
- Connecting Floyd Boulevard to Virginia Street with a one-way pair of frontage roads.
- Combining access to Floyd Boulevard and to Downtown in the form of a split-diamond interchange with ramps connecting from I-29 to Floyd Boulevard and Virginia Street.

Alternative C:

- Reconstructing 9 bridges.
- Constructing braided ramps between Hamilton Boulevard and Wesley Parkway.
- Reconstructing the existing Wesley Parkway Interchange as a two-level interchange.
- Realigning Wesley Parkway to tie directly into 3rd Street.
- Constructing a split diamond interchange between Wesley Parkway and Pearl Street to access the downtown area, removing the need for an interchange at the Nebraska and Pierce Street locations.
- Modifying the on and off ramps of the Floyd Boulevard Interchange and keeping Floyd Boulevard in its existing location.

2.5 Step 4: Preferred Alternative

Step 4 and was completed after agencies and the public had a chance to review and comment on the Draft EIS. The information below is an update to Section 2 of the Draft EIS.

FHWA, in coordination with Iowa DOT and public input, identified Alternative B as the preferred alternative for the following reasons:

- Evaluation of the existing and planned transportation network indicated that Alternative B would best meet the project purpose and need.
- Alternative B would satisfy traffic operations criteria at all locations.
- Alternative B would separate Floyd Boulevard traffic from downtown traffic, per stakeholder preference.
- Alternative B would provide more convenient local access during construction compared to the other two alternatives.
- Alternative B received the most support from stakeholders and agencies.
- Alternative B would take less time to construct compared to the other alternatives.
- Alternative B would reduce the number of I-29 entrances and exits by consolidating Floyd Boulevard and downtown access, per agency preference.
- Alternative B would minimize parkland impacts.

Alternative B was identified as the preferred alternative after reviewing all the reasonable alternatives under consideration (including the No-Build Alternative) with respect to their ability to meet the project purpose and need.

Subsequent to the Draft EIS, FHWA and Iowa DOT (the signatory agencies) further evaluated potential impacts, as discussed in Section 3, *Environmental Analysis* and reviewed the comments received on the Draft EIS, as addressed in Section 4, *Comments and Coordination*. Based on the updated information obtained in this manner, the signatory agencies decided that the preferred alternative to implement for the project is Alternative B. From this point forward Alternative B will be referred to as the Preferred Alternative. Figures 2-1a, b, and c shows the Preferred Alternative.

The alignment for the Preferred Alternative has not been modified from the Draft EIS. No comments received from the public or agencies required the evaluation of additional or different alternatives than what was presented in the Draft EIS. Agency support for the Preferred Alternative is discussed in Section 4, *Comments and Coordination* of this Final EIS.

Figure 2-1a. Preferred Alternative (Western Section of Corridor)

11x17

Figure 2-1b. Preferred Alternative (Central Section of Corridor)

11x17

Figure 2-1c. Preferred Alternative (Southern Section of Corridor)

11x17

SECTION 3

ENVIRONMENTAL ANALYSIS

Environmental Analysis

Section 3 of the Draft EIS included the environmental analysis for resources located within the project study area. This included a description of the affected environment where the existing natural and human environmental resources were identified. The environmental consequences sections within Section 3 of the Draft EIS described how the existing natural and human environments would be impacted by the proposed improvements.

This section of the Final EIS summarizes the results of the environmental analysis of the Draft EIS and describes any changes, updates, or modifications that have occurred since the Draft EIS was signed. In addition, this section addresses comments that were received during the Draft EIS review period concerning the environmental impact analysis.

3.1 Summary of Environmental Analysis

The potential environmental impacts of the Preferred Alternative are summarized in Table 3-1 along with the appropriate section of the Draft EIS that provides a detailed discussion of the impacts.

Table 3-1. Summary of Potential Impacts

Resource Area	Preferred Alternative	Draft EIS Section
Land Use		
Right-of-Way	15.0 acres	Section 3.1.3 – <i>General Land Use</i>
Navigation	No Impact	Section 3.1.5 – <i>Navigation</i>
Utilities	Adverse Impact	Section 3.1.6 – <i>Utilities</i>
Socioeconomics		
Environmental Justice	No Impact	Section 3.2.2 – <i>Environmental Justice</i>
Business Relocations	7 businesses 9 structures	Section 3.2.5 – <i>Business Relocation Impacts</i>
Property Taxes	\$2 million decrease	Section 3.2.8 – <i>Property Taxes</i>
Surface Water	< 1% increase	Section 3.3 – <i>Surface Water and Water Quality</i>
Wetlands and Waters of the U.S.	0.1 acres	Section 3.4 – <i>Wetlands and Other Waters of the U.S.</i>
Floodplains	Negligible Impact	Section 3.5 – <i>Floodplains</i>
Ecological		
Federal Listed Species	Bald Eagle & Pallid Sturgeon Habitat	Section 3.6.1.3 – <i>Threatened and Endangered Species</i>
Air Quality	Beneficial Impact	Section 3.7 – <i>Air Quality</i>
Noise	No Impact	Section 3.8 – <i>Noise</i>
Cultural Resources		
Archaeological	No Impact	Section 3.9.1.1 – <i>Archaeological Resources</i>
Historic Structures	0.7 acres	Section 3.9.1.2 – <i>Historic Structures</i>
Parks and Recreational Areas	4.0 acres	Section 3.10 – <i>Parks, Recreational Areas, and Other Public Use Lands</i>
Section 4(f) Properties	No Impact	Section 3.11 – <i>Section 4(f) Properties</i>
Regulated Materials	13 parcels 2.0 acres	Section 3.12 – <i>Regulated Materials</i>
Visual Impacts	Negligible Impact	Section 3.13 – <i>Visual Resources/Aesthetics</i>

The following is a brief summary of each resource area shown in Table 3-1. For a detailed discussion on a specific resource area refer to Draft EIS Section shown in the table.

- **Right-of-Way** - The proposed improvements to I-29 in the project study area would use both existing and additional right-of-way throughout the corridor. As a result of new right-of-way acquisition, there would be direct conversions of commercial and industrial property to roadway uses. Given the absence of residential uses in the area, there would be no conversion of residential lands to roadway uses. Approximately 15.0 acres of new roadway right-of-way be converted to roadway uses for the construction of the Preferred Alternative. Of the 15.0 acres, 8.1 acres of the new right-of-way needed would be converted from commercial uses and 6.7 acres would be converted from public and utility uses. Of the 6.7 acres approximately 0.7 acres is owned by the State of Iowa. Approximately 0.2 acre of railroad right-of-way and less than 0.1 acre of industrial use property be converted to public roadway right-of-way.
- **Navigation** - The Sioux City region currently has seven port facilities, six of which are privately-owned and -operated. The public port is owned by the City of Sioux City and serves as the berth for the Argosy Riverboat Casino. During navigable river flow conditions, northbound spring shipments consist primarily of fertilizer, while southbound fall shipments typically carry grain and other agricultural products. All six privately-owned port terminals are served by UP Railroad connections and all but one, owned by Nutra-Flo Company, are located outside the project study area. With the recent reductions and elimination of shipping seasons, much of the goods and commodities formerly shipped by river barge have shifted to rail.

The Preferred Alternative would not impact navigation on the Missouri River. No structural changes to bridges that would affect barge shipping traffic, such as changes in pier spacing and horizontal and vertical clearances are proposed. Likewise, improvements to I-29 associated with the Preferred Alternative do not require shoreline cut or fill activities that could impact surface water flow or the navigable channel.

- **Utilities** - The Siouxland region is served primarily by major national and regional utility companies. MidAmerican energy provides electrical and natural gas services throughout the area. Local and long-distance telephone service providers include Qwest Communications, McLeod USA, MCI, AT&T, FiberComm, and Northwest Iowa Telephone Co. FiberComm, Northwest Iowa Telephone Co., and Thompson Electric Company provide fiber optic communications in the area. Water and wastewater services are provided by the City of Sioux City, which also service outlying areas. The Sioux City Water Plant treats and provides drinking water to Sioux City and neighboring communities through its distribution system; the plant is located adjacent to the I-29 right-of-way in the vicinity of Wesley Parkway.

The Preferred Alternative would require the relocation of existing public and private utilities found within the existing I-29 right-of-way as well as those adjacent or in close proximity to the right-of-way. The types of required utility relocations would be typical of projects involving the construction of roadways utilizing both existing and expanded

right-of-way. Utility impacts could include fiber optic cable, overhead and underground electric lines, gas mains, telephone cable and cable TV lines, water main, and sanitary and storm sewers. Additional information about the relocation of the public utilities is included in Section 3.2, *Updates to Environmental Analysis*.

- ***Environmental Justice*** - The minority and low-income populations located near the I-29 corridor would not be directly impacted by the Preferred Alternative. The nearest neighborhood is located atop a bluff adjacent to the existing I-29 roadway. The bluff is outside of new roadway right-of-way proposed for the Preferred Alternative. The Preferred Alternative includes improvements to and minor realignments of Wesley Parkway and I-29 on the southeast side of the neighborhood. These improvements would not require the displacement of any residences in the neighborhood. The existing access point to Wesley Parkway from the neighborhood would be maintained at its current location.
- ***Business Relocations*** - The business displacements that would occur as a result of construction of a proposed alternative would be concentrated in the downtown commercial area of Sioux City, typically in the Leech Avenue, Dace Avenue, and Gordon Drive areas northeast of the existing I-29 right-of-way. Another area of potential business relocations is the Tri-View Avenue area north of I-29 between the Hamilton Boulevard and Wesley Parkway Interchanges. The preferred Alternative would potentially require the displacement and relocation of one billboard, seven businesses, and a total of nine buildings associated with those businesses.
- ***Property Taxes*** - A short-term property tax revenue loss would occur in the City of Sioux City resulting from the conversion of taxable land into non-taxable transportation right-of-way use with construction of the Preferred Alternative.

Approximately \$2 million dollars of taxable value would be eliminated from tax rolls due to the conversion of land and structures to public right-of-way as a result of construction of the Preferred Alternative. This taxable value represents 0.09 percent of the total taxable value in the City of Sioux City and would result in the loss of approximately \$90,200 in annual property tax revenues. However, it is expected that a portion of this lost tax revenue would be replaced over time as higher-valued land uses develop adjacent to the proposed project in accordance with the City of Sioux City's land use and redevelopment plans.

- ***Surface Water*** - The Preferred Alternative is located adjacent to the Missouri River. Most of the corridor area drains into the Missouri River either directly or via tributaries. The existing I-29 corridor in Woodbury County crosses the Floyd River, Perry Creek, and Bacon Creek.

An impact analysis was conducted to approximate the effect of the Preferred Alternative impact to stormwater peak flows in the project study area. The amount of pervious area to be covered by additional pavement (beyond the existing pavement footprint) was calculated. The Preferred Alternative would result in less than one percent increase in

runoff and a negligible change in peak flows. More information concerning surface water is included in Section 3.2, *Updates to Environmental Analysis*.

- ***Wetlands and Waters of the U.S.*** - Existing data and a field survey were used to identify and characterize potential wetlands and other waters of the U.S. within the project study area. A windshield survey of the corridor was conducted in June 2005 by Iowa DOT Office of Location and Environment Water Resources staff to locate wetland resources in the project corridor.

The windshield survey identified four waterways (Missouri River, Floyd River, Bacon Creek, and Perry Creek) and three wetland areas in the project study area. One of the wetland areas occurs at the point where Perry Creek enters the Missouri River and is on the outside edge of the study area. This wetland area includes two wetland types: Palustrine, Emergent (PEM) and Palustrine Scrub-Shrub (PSS). Another area is a narrow drainage containing reed canary grass (*Phalaris arundinacea*) south of the Hamilton Boulevard Interchange. This wetland was determined to be non-jurisdictional (i.e., not regulated by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA)) in a previous study completed for Hamilton Boulevard Interchange Improvements⁵. The third wetland covers 0.10 acre and is a highly disturbed bottom portion of a shallow drainage adjacent to Floyd Boulevard. This non-jurisdictional wetland near Floyd Boulevard was identified as PEM.

The Preferred Alternative would result in a 0.1 acre impact to the wetland near Floyd Boulevard which would be considered a minimal impact under the USACE Section 404 Nationwide Permit process.

- ***Floodplain*** - Sioux City, Iowa has not mapped a floodway along the Missouri River, but across the river South Sioux City, Nebraska has a mapped floodway. Projects should limit any encroachment into the 100-year floodplain so that water surface increases do not exceed elevations of the Nebraska-side floodway. The Preferred Alternative project study area crosses the Floyd River, Perry Creek, and Bacon Creek. These tributaries of the Missouri River have been mapped as part of Sioux City's participation in the National Flood Insurance Study Program (NFIP). Bacon Creek has a 100 year floodplain but no floodway. Perry Creek and the Floyd River have a 100 year floodplain and a floodway. The modeling shows that the overall impact of the Preferred Alternative would be negligible because of the large size of the floodplain in comparison to the limited width of floodplain encroachment. More information about impacts to floodplains is included in Section 3.2, *Updates to Environmental Analysis*.
- ***Federal Listed Species*** – No federal or state threatened or endangered species were observed in the project study area. However, early coordination with the U.S. Fish and Wildlife Service (USFWS) identified the federally threatened bald eagle (*Haliaeetus*

⁵ Iowa DOT, 2003. I-29 Hamilton Boulevard Interchange Improvement, Woodbury County, Sioux City, Iowa. *Project Concept Assessment of Impacts*, October 2003.

leucocephalus) and endangered pallid sturgeon (*Scaphirhynchus albus*) as potentially being in or near the project area.

Any planned in-stream work would require additional consultation with USFWS under Section 7 of the Endangered Species Act (ENSA) and may necessitate preparation of an incidental take agreement.

- **Air Quality** - For the Preferred Alternative, the amount of Mobile Source Air Toxics (MSATs) emitted would be proportional to the vehicle miles traveled (VMT), assuming that other variables such as fleet mix and travel speeds are the same for each alternative. The VMT for the Preferred Alternative is expected to be slightly higher than that for the No-Build Alternative, because the additional capacity increases the efficiency of the roadway and would attract rerouted trips from elsewhere in the transportation network. This increase in VMT would lead to higher MSAT emissions in the project study area for the Preferred Alternative, along with a corresponding decrease in MSAT emissions along parallel routes. Also, emissions would likely be lower in the design year than present levels as a result of Environmental Protection Agency's (EPA) national control programs that are projected to reduce MSAT emissions by 57 to 87 percent between 2000 and 2020.
- **Noise** - The predominant source of noise in the project study area is from I-29 traffic noise. Local roadways are an additional source of noise. The 2030 traffic noise estimates indicate that the Preferred Alternative would increase noise levels by a maximum of three (+3) A weighted decibel units (dBA) and decrease by a maximum of three (-3) dBA over the 2003 modeled existing noise levels. Since the average human ear is not able to hear a difference in noise unless the change is increased or decreased by three or more dBA, no change in noise would be noticeable under the Preferred Alternative. Therefore, noticeable impacts to the ambient noise environment would not occur.
- **Archaeological** - A Phase I Archaeological Survey covered approximately 1,400 acres within the project study area and approximately 44 acres of a potential borrow area located outside the project study area. The study included pre-field research, such as looking at previous studies and area history; bucket auger tests; shovel tests; and hand probe cores (Benn, 2005). No prehistoric material was recovered and no early historic remains were located within the project study area or the potential borrow site. Archaeological impacts would not be expected to occur with the implementation of the Preferred Alternative. Additional information concerning archaeology surveys is included in Section 3.2, *Updates to Environmental Analysis*.
- **Historic Structures** - A Historical/Architectural Intensive Level Survey was conducted for 91 properties in the project study area (Nash, 2005). Of these 91 properties, 26 have at least one principal building that appeared to be over 50 years of age or older. The remaining 65 properties were less than 40 years old and were considered modern. Of the 26 properties evaluated, seven were found to either be listed, in the process of being listed, or eligible for listing on the National Register of Historic Places (NRHP). The Iowa

State Historic Preservation Office (SHPO) concurred with these findings on October 2, 2005.

The Preferred Alternative would impact approximately 0.7 acres of a parking lot associated with the Municipal Auditorium/Tyson Events Center, which is currently in the process of being listed on the NRHP. Despite the impacts to the parking lot no impacts would occur to the Municipal Auditorium building. On October 22, 2007 FHWA concurred that no use of the Municipal Auditorium building would occur by constructing the Preferred Alternative.

- ***Park and Recreational Areas*** – The Preferred Alternative would require the acquisition of approximately 4.1 acres of Chris Larsen Park, or approximately 3.6 percent of the park area. Of the 4.1 acres the State of Iowa owns approximately 0.7 acres and the City of Sioux City owns 3.4 acres. Existing park property that would be needed for incorporation in roadway right-of-way is located adjacent to the existing right-of-way and is not actively used other than for passive-use open space. Some minor amounts of paved ground would also be incorporated into new roadway right-of-way. Temporary construction impacts to three trails (Lewis & Clark Trail, Perry Creek Trail, and Floyd River Trail) are likely to occur during construction and may require the temporary closure of the trail. However, after the construction of the Preferred Alternative is complete, the trails would be reopened and the trail system would no longer be impacted. Additional information concerning impacts to trails is included in Section 3.2, *Updates to Environmental Analysis*.
- ***Section 4(f) Properties*** – The Preferred Alternative would impact portions of Chris Larsen Park that are Section 4(f) resources but would not have adverse effects on the activities, features, and attributes of Chris Larsen Park. The impacted Section 4(f) resources to be incorporated into permanent right-of-way are not currently used by park patrons except as passive open space, parking areas, and paved roadway. The FHWA concurred on October 22, 2007 that the portions of Chris Larsen Park proposed to become roadway right-of-way under the Preferred Alternative were *de minimis* and would not impact the recreational use, features, or activities of the Park. The Sioux City Parks and Recreation Department concurred that the impacts to Chris Larsen Park would not impact the activities, features, or attributes of the park in a letter dated January 24, 2008.
- ***Regulated Materials*** – The Preferred Alternative would impact 2.0 acres (3.56 percent) of potentially contaminated properties in the project corridor. The recognized environmental conditions (REC) sites with the most potential impact under the Preferred Alternative include 1100 Tri-View Ave (I L L Inc.), 205 S. Court (Mid-American Dairymen), 301 S. Floyd (Nguyen Liquors, INC), 514 S. Floyd (Nutra-Flo Company), 1005 Gordon Drive (Holiday Station), 1200 Bluff Road (John Morrell & Co.), and 1101 Tri-View Ave (Sioux City Wastewater Treatment Plant). In addition, contaminated soil was recently encountered during completion of a geotechnical soil boring just north of the existing mainline and east of the Perry Creek conduit. These sites have potential soil and groundwater contamination or they generate regulated material waste on-site.

- **Visual Impacts** - In general, the viewshed in the project study area would be similar to what currently exists if the preferred Alternative was constructed. I-29 would be wider, with six travel lanes instead of four, and some of the on- and off-ramps would be slightly relocated. The overall visual impact to the corridor would be negligible since the aesthetic appeal would remain relatively unchanged.

3.2 Updates to the Environmental Analysis

The information below updates the environmental resources in the Draft EIS that need updating due to changes in governmental regulations or require clarification to address comments.

Utilities

Since the Draft EIS was signed, additional information about the relocation of public utilities, included in Section 3.1.6, *Utilities* of the Draft EIS, is available. The City of Sioux City plans to relocate the water main and the sanitary sewer main in areas where the proposed Preferred Alternative alignment conflicts with these existing services.

Approximately 3,000 linear feet of existing water main is planned to be relocated or abandoned. Water main currently located under the existing I-29 pavement must be abandoned and water main located within proposed new right-of-way that conflicts with the preferred alternative must be relocated. Table 3-2 describes the potential relocation of the Sioux City water main impacted by the proposed Preferred Alternative.

Table 3-2. Relocation of Water Main

Existing		Proposed (Relocated)		
Approximate Length (linear feet)	Existing Location	Approximate Length (linear feet)	Proposed Location	Impacts to REC
1,700	Along Tri-View Avenue between Hamilton Boulevard and Wesley Parkway.	1,500	North side of Tri-View Avenue through private property.	Property not a REC.
800	In the area of Pearl Street and Gordon Drive.	700	Northeast quadrant as Pearl Street meets Gordon Drive southwest of the Events Center parking lot through City property.	Impact to low risk REC.
200	In the intersection of Pierce Street and Gordon Drive.	200	Diagonal across the intersection of Pierce Street and Gordon Drive through City and Iowa DOT property.	Property not a REC.
300	Along Larsen Park Road south of I-29 in the area of Virginia Street.	300	Along Larsen Park Road south of I-29 in the area of Virginia Street through City and Iowa DOT property.	Impact to low risk REC.

Approximately 12,400 linear feet of existing sanitary sewer is planned to be relocated or abandoned because of conflicts with the proposed pavement location of the proposed Preferred Alternative. Table 3-3 describes the relocation of the Sioux City sanitary sewer impacted by the proposed Preferred Alternative.

The majority of the properties located in the project study area are considered recognized REC sites. The level of risk associated with these sites are described in Section 3.12 Regulated Materials section and are shown in Figures 3-5a, b, and c, *Regulated Materials*, of the Draft EIS document. It is likely that the relocation of the water and sewer mains would come into contact with contaminated soil. The relocation of the water main would impact low risk REC sites. The relocation of the sanitary sewer main would impact two low risk REC sites and possibly one high risk REC site, depending on which option is selected near the Floyd River Lift Station. Special provisions would be written into the construction documents that address both the materials needed for pipe being placed into the ground and the methods of constructing in areas where contamination may be present. Some containment methods may be determined to include lower cost solutions as appropriate and feasible, such as capping or plugs to prevent contaminant migration.

Table 3-3. Relocation of Sanitary Sewer

Existing		Proposed (Relocated)		
Approximate Length (linear feet)	Existing Location	Approximate Length (linear feet)	Proposed Location	Impacts to REC
6,700	From the north side of I-29 west of Hamilton Boulevard, under northbound I-29 lanes at Wesley Parkway, to the Perry Creek Lift Station.	7,200	North of I-29 along Zenith Drive & Tri-View Avenue, crossing to south of I-29 west of Wesley Parkway. Maintained on City and Iowa DOT property.	Impact to low risk REC.
2,900	From the south side of I-29 near Pierce Street to north of I-20 between Virginia Street and Floyd Boulevard.	4,200 total	2,900 linear feet would be south of I-29 located between I-29 and Larsen Park Road through City and Iowa DOT property. 600 linear feet would be located north of I-29 between Virginia Street and the existing I-29 northbound onramp through private property. 200 linear feet located on Iowa DOT property between Pierce Street and Nebraska Street.	Impact to low risk REC.
2,800	Option A: On the north side of I-29 from the Floyd River to the Floyd Lift Station.	Option A: 2,600	Shift sewer slightly north of current location to be outside the Iowa DOT right-of-way ending at the Floyd River Lift Station.	Impact to high risk REC.
		Option B: 3,400	Located north of the Morrell property ending at the Floyd River Lift Station.	Impact to high risk REC.
		Option C: 2,900	Sewer located south of I-29 outside Iowa DOT right-of-way ending at the Floyd River Lift Station.	Property not a REC.

Surface Water Quality

Typical pollutants found in highway stormwater runoff are discussed in Section 3.3.2.3, *Operation Maintenance Impacts* of the Draft EIS. The following information is provided to better define the impacts the Preferred Alternative would have on the surface water quality in the project study area.

Research shows that occasional high levels of chloride occur in drainage ditches and waterways due to rapid runoff and snowmelt. This occurrence is also known as the “first flush” which means that a larger amount of pollutants are found in runoff at the beginning of the storm event than near the end of the storm event. Trace pollutants, such as metals, can be found in deicing salts even after the “first flush” occurs.

The Preferred Alternative would increase the amount of pavement in the project study area by approximately 30 percent. This would increase the amount of deicing chemicals used during inclement winter weather by approximately 30 percent. Therefore, it is expected that the concentration of pollutants found in stormwater runoff would be higher under the Preferred Alternative than under existing conditions especially in the spring when the snow melts.

As required in Iowa DOT’s *Construction Manual*, contractors constructing in or near the Floyd River, Bacon Creek, and Missouri River would observe and comply with all federal and state laws, local ordinances, and regulations that affect the conduct of the work. This includes meeting the requirements of the National Pollutant Discharge Elimination Permitting (NPDES)⁶ for construction affecting areas greater than one acre. Implementation of erosion control measures known as Best Management Practices (BMPs) and other construction techniques would minimize erosion and sedimentation to the extent practicable. Some of the techniques that could be used are listed below. The application of these construction practices would reduce the effects of turbidity and sedimentation in the Floyd River, Bacon Creek, and Missouri River. The proposed Preferred Alternative would be designed to meet the NPDES stormwater runoff management requirements to minimize impacts to water quality.

Perry Creek Crossing

Section 3.5.2 of the Draft EIS discusses floodplain impacts. At the time the Draft EIS was prepared, plans were to reconstruct the proposed I-29 section on grade over Perry Creek without any modifications to the existing Perry Creek conduit. Recently, more detailed design investigations have determined that the bearing capacity of the Perry Creek conduit’s timber pile foundation would not support the additional loads of the proposed widened I-29 cross section. This affects the viability of reconstructing of the I-29 section on grade as an alternative for crossing the conduit. Three other alternatives for the I-29 crossing of Perry Creek, with varying I-29 profile impacts, are currently under consideration. These alternatives include:

⁶ The NPDES is a federal program implemented by the EPA through the Iowa Department of Natural Resources intended to regulate stormwater discharges associated with construction activity.

- Alternative 1: I-29 bridges over an unmodified Perry Creek conduit.
- Alternative 2: I-29 bridges over a modified Perry Creek conduit.
- Alternative 3: Reconstruction of the Perry Creek conduit beneath I-29.

Alternative 1: I-29 Bridges over an Unmodified Perry Creek Conduit

This alternative involves constructing bridges to span over the Perry Creek without modifying the existing conduit. The I-29 profile would be adjusted to maintain minimum clearances and provide earth cover for the conduit. Higher fill heights for the ramps and frontage roads would result in grading impacts encroaching further into adjacent properties. Along the southbound entrance ramp from Wesley Parkway, the foreslope of the ramp section would extend into a ditch paralleling the ramp and across the right-of-way boundary into property currently being utilized as parkland. In order to keep the ramp embankment from filling in the ditch and to minimize park impacts, a retaining wall paralleling the ramp would need to be added.

Along the northbound exit ramp to Wesley Parkway, the higher profile grade would preclude the widening and re-decking of the existing bridge over the Perry Creek conduit, instead requiring an all new bridge. The higher fill heights would also cause grading impacts to occur further into adjacent properties, increasing impacts to the Municipal Auditorium/Tyson Events Center parking lot to the west of Pearl Street. The higher profile grade elevations of the northbound and southbound frontage roads running between Hamilton Boulevard and Wesley Parkway do not appear to impact right-of-way needs for either roadway. The Wesley Parkway and Third Street profiles do not appear to impact their right-of-way need lines or other major design components.

This alternative would provide the most conventional structural design and minimize risks otherwise incurred through modifying the existing conduit. It would result in two separate bridge structures that would need to be maintained.

There are no anticipated ramifications for the existing Perry Creek conduit associated with the construction of the bridges. As a result, no floodplain impacts would occur to the Perry Creek floodplain.

Alternative 2: I-29 Bridges over a Modified Perry Creek Conduit

This alternative involves constructing bridges to span over a modified segment of the Perry Creek conduit. The modification of the Perry Creek conduit would entail the removal of the existing conduit lid and supporting the top of the walls with tiebacks or supporting struts. The alternative would also require a slight profile adjustment in order to provide minimum clearances, but significantly less than that required by Alternative 1.

This alternative would be a more complicated structural design than Alternative 1. The existing walls would require tie-backs into the adjacent embankment and a somewhat slower, possibly more expensive, staged modification. Similar to Alternative 1, Alternative 2 would result in two separate bridge structures that would need to be maintained.

The conduit's size and capacity would not be affected by the modification. As a result, no floodplain impacts would occur to the Perry Creek floodplain.

Alternative 3: Reconstruction of the Perry Creek Conduit beneath I-29

This alternative involves the reconstruction of an approximately 200-foot segment of the conduit under I-29 and constructing pavement on grade. This will involve replacing the conduit walls and top slab with a new structure. One of the main structural advantages of this option is the elimination of the added costs due to the long term maintenance of bridges over the conduit, leaving only the reconstructed conduit to maintain. The other benefits are a smaller overall project footprint than Alternative 1 since Alternative 3 will require only slight upward profile adjustments and simplified construction. This alternative is also the most costly. In addition, it should be noted that contaminated soil was encountered in a geotechnical soil boring completed just north of the existing mainline and east of the Perry creek conduit. The contamination encountered could be a result of the timber pile supports used during construction of the conduit. Therefore, potentially contaminated soil could be encountered during reconstruction of the Perry Creek conduit.

The conduit's size and capacity will not be affected by the reconstruction. As a result, no floodplain impacts will occur to the Perry Creek floodplain.

Perry Creek Flood Damage Reduction Project

The USACE commented that the Perry Creek conduit should not be disturbed and requested that preliminary plans for construction activity in the vicinity of the conduit be sent to them for review.

The USACE also commented that the I-29 embankment tends to block Perry Creek flows in excess of the channel and conduit capacity from the natural flow path into the Missouri River and forces flow to the east, towards the Floyd River. The comment letter stated that the design of the I-29 improvements should make provisions for floods in excess of the capacity of the Perry Creek Project.

The design team would submit Preliminary plans to the attention of the Readiness Branch for review and would coordinate with the USACE regarding both of these issues as the project progresses.

Floyd River Crossing

There is an erosion control weir located within the channel just downstream of the existing I-29 Floyd River bridge crossing. The weir may create an increased scour risk to a proposed new structure at the Floyd River, which would occur with any of the alternatives. Iowa DOT would observe and evaluate the weir and, if it is determined that is posing a potential problem for the bridge, would ask that the owner to repair it at that time.

Threatened and Endangered Species

In Section 3.6.1.3, *Threatened and Endangered Species* of the Draft EIS the bald eagle is included as an endangered species. On August 9, 2007, the bald eagle was removed from the federal list of threatened and endangered species. The species is still protected by the Bald and Golden Eagle Protection Act, the Lacey Act, and the Migratory Bird Treaty Act.

Iowa species of special concern were also described in Section 3.6.1.3, *Threatened and Endangered Species* of the Draft EIS. However, two plant species of special concern were not included in the discussion. A field survey conducted as part of a biological resources technical memo for this study identified two Iowa species of special concern in the project study area. The sand cherry (*Prunus pumila*) and spurred violet (*Viola adunca*) were observed in a habitat area south of I-29 and west of the Hamilton Boulevard Interchange at the western edge of the project study area. The spurred violet was observed in habitat area north of I-29 and south of the railroad at the western edge of the project study area. These areas are shown in Figures 3-1a, b, and c, *Updated Natural Environmental Resources*. The Preferred Alternative would impact 0.14 acres of the species of special concern. However, Iowa Code does not require any permitting for potential impacts to these species.

Potential Borrow Sites

One additional potential borrow site was identified after the Draft EIS was signed. This potential borrow site is approximately 44-acres, and is located on private property approximately four miles outside the project study area, northeast of the I-29/Pierce Street Interchange. The site is located adjacent to the northbound on ramp of the U.S. 75/130th Street Interchange and is currently zoned for agricultural use.

No cultural resource materials were found on this potential borrow site and no additional archaeological investigation is needed. These findings were received by SHPO on August 15, 2008. Iowa SHPO concurred with the findings on August 18, 2007. A copy of this correspondence is found in Appendix A, *Agency Coordination*. In addition, no wetlands or threatened or endangered species habitat were found within the potential borrow site.

The one additional potential borrow site is located within the Loess Hills landform. The Iowa DOT and the Iowa DNR entered into a Memorandum of Agreement (MOA) in November 2008 regarding transportation land use within the Loess Hills. The Loess Hills MOA implementing processes are:

- A. Iowa DOT, in consultation with Iowa DNR, will develop an implementing process that provides for early input coordination with Iowa DNR prior to a decision to encroach upon Loess Hills land. This consultation process will follow the protocols established by this MOA, and will include standardized data transmittal plan agreed to by both agencies;
- B. By means of the process established in paragraph A, above, Iowa DNR will be afforded the opportunity to provide early input into borrow site selection when borrows are proposed within the Loess Hills mapped feature established by the 2002 National Park Service (NPS) report;

- C. On a case by case basis, Iowa DNR will be asked to provide input regarding establishing mitigative buffer zones adjacent to areas of natural cover. Iowa DOT's Office of Location and Environment will provide Iowa DNR a formal evaluation of both natural cover areas and potential buffer zones as part of this effort;
- D. Should there be an instance where Iowa DOT cannot avoid a natural area, or one of the 12 special areas or Glenwood locality described in the 2002 NPS report, Iowa DOT will advise Iowa DNR of the circumstances involved, and will include a discussion of Iowa DOT's efforts to avoid or minimize the effects of proposed construction. This activity could include mutually agreed upon mitigation or other remedial actions appropriate to the scale of impacts;
- E. The consultation process described in the MOA will be carried out for each incursion into the Loess Hills mapped feature. Results of this consultation will then be documented within the National Environmental Policy Act (NEPA) compliance report prepared for each project, and also retained with the NEPA administrative record, as evidence of compliance with MOA stipulations;
- F. The consultative process described by the MOA will be carried forward in each instance where encroachment into the Loess Hills landform may be necessary. In the interests of efficiency, it is agreed that the consultative process described herein will be completed within 30 days, except under extraordinary circumstances.

Iowa DOT has been in consultation with Iowa DNR since receiving the May 6, 2008 comment letter. A copy of this letter is in Appendix A, Agency Coordination. In mid October 2008 an extensive plant survey of the site was completed by Iowa DOT's Office of Location and Environment and revealed no threatened, endangered, and/or special concern species were present within the site. Iowa DNR concurred with the findings of the plant survey in an email dated December 9, 2008. This email acknowledged that no further surveys were needed and that the terms of the MOA were met concluding the MOA process. A copy of the email is in Appendix A, *Agency Coordination*.

For more information about the previously identified potential borrow sites see Section 3.9.1.1, *Archaeological Resources* and Section 3.9.2.1, *Archaeological Impacts* of the Draft EIS.

Lewis & Clark and Other Associated Trails

The following information is provided to clarify Section 3.10, *Parks, Recreational Areas, and Other Public Use Lands* of the Draft EIS. These areas are shown in Figures 3-2a, b, and c, *Updated Human Environmental Resources*.

The trail that runs along the riverfront in Chris Larsen Park is one continuous paved trail and is known locally as the Lewis and Clark Trail. Trail maps available through Siouxland Trails Foundation via links from the Sioux City Parks and Recreational Department's website label the trail as the Lewis and Clark Trail.

However, the Sioux City Parks and Recreation Department considers this trail to be three different segments. The Lewis and Clark Trail is approximately two miles long and connects Riverside Park, which is located west of the project study area, to Chris Larsen Park. The trail

that runs through Chris Larsen Park is called the Riverfront Trail and is approximately two miles long. The Gateway 2000 Rivers Edge Trail is approximately three miles long and goes through Chautauqua Park, which is south of the project study area.

In 1978 Congress passed an amendment to the National Trails System Act that designated approximately 3,700 miles, from the Wood River in Illinois along the Missouri River to the mouth of the Columbia River in Oregon, as the Lewis and Clark National Historic Trail (L&C NHT). This designation included the Missouri Riverfront in Sioux City, Iowa but no maintained or groomed trail exists. The L&C NHT follows the outbound and inbound routes of the Lewis and Clark Expedition, but since the land use has changed since the 1804-1806 Lewis and Clark Expedition the location of where the trail may have been is unknown. The National Park Service considers the Missouri River corridor as the L&C HNT at a minimum. Congress purposely did not define the width of the trail so that the trail could encompass as much land as appropriate for the area. In some areas the entire view shed is considered the L&C NHT, and in some cases the entire watershed.

The proposed Preferred Alternative would not impact the L&C NHT since it is a designation for the entire Missouri River through Sioux City. The designation of the L&C NHT occurred approximately 20 years after I-29 was constructed. The change in land use as well as the change in the Missouri River even prior to the construction of I-29 would have irreparably compromised the actual location of the 1804-1806 Lewis and Clark Expedition. Phone conversations with the National Park Service in August 2008 indicated that the proposed project is consistent with the existing developed use of the area. A memo dated August 14, 2008 that describes the details of these phone conversations is included in Section 4.2, *Federal, State, and Local Agency Coordination*. Therefore, no impact would occur to the L&C NHT if the Preferred Alternative were constructed.

Access to the riverfront area, which is also the area designated as the L&C NHT, would not change if the proposed Preferred Alternative were constructed. Currently, vehicles are able to access the riverfront by using Hamilton Boulevard or Floyd Boulevard. Pedestrians have an additional option to access the riverfront area by using the Pierce Street underpass. The proposed Preferred Alternative includes these same access points to the riverfront and enhances the viewshed of the riverfront from downtown. More information about the viewshed of the Preferred Alternative is in Section 3.13.2 *Environmental Consequences of Visual Resources of the Draft EIS*.

Chris Larsen Park

Chris Larsen Park is the location of the August 20, 1804 Lewis and Clark campsite. The Lewis and Clark Expedition camped near the mouth of the Floyd River (Figures 3-2a, b, and c, *Updated Human Environmental Resources*). A historical marker commemorates the campsite and is located near the casino parking lot that is east of Floyd Boulevard, on the south side of I-29. The marker is located off the northeast corner of the parking lot and is shown on Figure 3-2c, *Updated Human Environmental Resources (Southern Section of Corridor)*. While the original location of the campsite is unknown it is thought to be located north by approximately one half

mile of the marker as the waters of the Missouri River have changed since 1804. The proposed Preferred Alternative would not impact the campsite commemorative marker.

Near the western end of Chris Larsen Park the City of Sioux City owns a parcel of land that is available for lease. Approximately 1.6 acres of a 13.9 acre parcel located immediately south of the Hamilton Boulevard Interchange is available by lease. The expected tenant would be a convenience store or a restaurant to serve lodging in the area as well as I-29 traffic. The Preferred Alternative would not impact the parcel of land that is available for lease in its current state. However, if access to the leased property is needed for a business use, it will need to potentially be removed from Chris Larsen Park Road or rerouted in some other fashion to this parcel, as the Hamilton Boulevard Interchange cannot be modified to allow this access.

Section 4(f) Properties

On October 22, 2007 FHWA concurred that the level of documentation needed for the type of impacts from the proposed project on Section 4(f) property was “*de minimis*”. The Sioux City Parks and Recreation Department concurred that the impacts to Chris Larsen Park would not impact the activities, features, or attributes of the park in a letter dated January 24, 2008. The impacts from the three build alternatives to the Section 4(f) property was presented at the May 22, 2008 Public Hearing. More information about the May 22, 2008 Public Hearing is included in Section 4.0 Comments and Coordination. No public comments concerning the impacts to the Section 4(f) property were received during the comment period of the Draft EIS.

Section 6(f) Properties

There are three parcels of land that are considered Section 6(f) properties. These properties are described in Section 3.11.1.4, *Section 6(f) Properties* and shown in Figures 3-4a, b, and c, *Human Environmental Resources*, in the Draft EIS. Three parcels of land were purchased with the funds from the Land and Water Conservation Act (L&WCF), project number 19-01156, which is called the Sioux City Riverfront Trail project. Therefore, these three parcels of land are federally protected from being converted to another land use other than public outdoor recreation use. The proposed Preferred Alternative does not impact the three properties that are considered Section 6(f) properties.

The portion of the Lewis and Clark Trail that runs through Chris Larsen Park, also known as the Riverfront Trail, crosses through the three parcels of land considered Section 6(f) property. The Preferred Alternative would temporarily impact portions of the Trail during construction. The portions of this Trail that crosses the Section 6(f) parcels would not be impacted by the Preferred Alternative. If the Trail on the Section 6(f) property is severed, moved, or blocked during construction activities, then the Iowa DOT would need to notify the Iowa Department of Natural Resources (DNR) of the temporary non-conforming use of the property.

Traffic

The following four bullets replace the five bullets listed in Section 3.15.4, *Traffic* of the Draft EIS document. The preliminary staging plan was based on the following assumptions that are subject to change based on final staging plans to be developed during the final design process:

- It is the Iowa DOT's intention to maintain two lanes of traffic in both directions on the mainline of I-29, except for limited sites such as in the area of Bacon Creek Bridge where a single lane in each direction would be maintained.
- No designated detoured traffic routes would utilize Chris Larsen Park Road.
- Active traffic would continue during I-29 bridge construction at most locations. Limited closures would be allowed for setting beams and pouring bridge decks at night, on weekends, and on non-event dates.
- Pedestrian traffic in the project study area would be maintained when possible during construction.

Figure 3-1a. Updated Natural Environmental Resources (Western Section of Corridor)

11x17 Graphic

Figure 3-1b. Updated Natural Environmental Resources (Central Section of Corridor)

11x17 Graphic

Figure 3-1c. Updated Natural Environmental Resources (Southern Section of Corridor)

11x17 Graphic

Figure 3-2a. Updated Human Environmental Resources (Western Section of Corridor)

11x17 Graphic

Figure 3-2b. Updated Human Environmental Resources (Central Section of Corridor)

11x17 Graphic

Figure 3-2c. Updated Human Environmental Resources (Southern Section of Corridor)

11x17 Graphic

SECTION 4

COMMENTS AND COORDINATION

SECTION 4

COMMENTS AND COORDINATION

This section summarizes the public involvement and agency coordination that has taken place since the Draft EIS was issued. Diverging from the order in Section 4 of the Draft EIS, this section addresses public involvement first, followed by the agency coordination efforts. The comment letters received from the agencies subsequent to circulation of the Draft EIS, along with the signatory agencies' written responses to the comments, are reprinted at the end of this section.

4.1 Public Involvement

The extensive public involvement program to engage the general public and other parties interested in the project continued after the Draft EIS was circulated for review. Throughout the course of the project, correspondence received from the public was logged, and, if requested, a response was sent to the specific public entity or individual.

After the circulation of the Draft EIS, an Open Forum Location Design Public Hearing was held on Thursday, May 22, 2008, between 5:00 and 7:00 p.m. at the Sioux City Convention Center, 801 Fourth Street, Sioux City, Iowa, to discuss the location and design of the I-29 improvements. The meeting was publicized in the following ways:

- A Public Hearing notice was sent to the Sioux City Journal (published on April 22, 2008 and May 15, 2008), the Dakota Star, the Sergeant Bluff Advocate, the Sioux City Globe (published on April 24, 2008 and May 15, 2008), the Mundo Latino (published on April 24, 2008 and May 16, 2008), and the Hispanos Unidos (published on May 1, 2008).
- A letter dated May 8, 2008 announcing the meeting was sent to approximately 200 property owners and stakeholders along the corridor.
- A letter dated April 29, 2008 announcing the meeting was sent to 15 agencies.

The hearing was attended by 120 people, along with media representation from KTIV-TV, KMEG-TV, and the Sioux City Journal.

The transcript of the hearing, including written statements received at or following the hearing, was provided to Iowa DOT staff, Iowa DOT Commissioners, and the FHWA for their review before project plans are completed. Copies were also forwarded to those that sent a written request to the Iowa DOT Office of Location and Environment.

The purpose of the public hearing was to discuss the proposed improvement and the Draft EIS for Segment 2, answer questions, and gather public input on the proposed improvement and alternatives. The hearing also provided an opportunity for the public to review and comment on the proposed *de minimis* effect of this I-29 Segment 2 on portions of Chris Larsen Park (a Section 4(f) Resource). *De minimis* impacts on publicly owned parks, recreation areas, and wildlife and waterfowl refuges are defined as those that do not “adversely affect the activities, features, and attributes” of the Section 4(f) Resource.

A variety of displays were available at the meeting, including boards with text and graphics showing:

- The three proposed alternatives and *de minimis* park impacts.
- An updated three-dimensional animation for the proposed Alternative B depicting development that has occurred since the November 2006 Public Involvement meeting.
- An aesthetic concept slide show presenting the proposed look for the I-29 corridor in Downtown Sioux City. The aesthetic concept may change from the concept presented at the meeting in accordance with approved cost sharing and final design plans.

The following summarizes comments received at the meeting:

- The majority of the comments received were in support of Alternative B with a few persons offering support for Alternative A.
- Additional concerns were voiced regarding the need to complete connections between existing trails, specifically from east and south of Bacon Creek to west of the Floyd River, along Hamilton Boulevard to the Riverfront Trail and a connection from the Transit Avenue Trail to the Riverfront Trail.
- Landowners from several of the downtown businesses attended the meeting to discuss concerns regarding short-term and long-term impacts to their businesses. Wellmark, Hardees, Staples, and First American Bank were a few of the businesses represented at the meeting.
- Several positive comments were received regarding the updated 3-dimensional animation for the alternative.
- There were some inquiries regarding how right-of-way requirements could potentially affect the ability of facilities and businesses to operate.

A total of seven written comments were received from the public hearing. Of the seven, five written comments were received at the meeting, and two were received after the meeting. Concerns and issues identified in the written comments were similar to those expressed informally at the meeting and included:

- Support of Alternative A as best for providing access to downtown merchants and providing hospital access for eastbound emergency vehicle traffic.
- Questions regarding noise levels, timing of construction, right-of-way requirements, and separation of buildings from the roadway.
- Concerns regarding impacts to and opportunities to improve trail system interconnections and access.
- Concerns regarding the loss of facility and business parking for right-of-way.

The design team considers comments received from the public as further project development is completed. By seeking public involvement proactively and allowing the public to reach a

decision with the design team, better decisions with more positive community support are ultimately achieved.

4.1.1 Project Website

An informational project website, <http://www.iowadot.gov/i29/index.htm>, was established as another means of disseminating information about the project. The web address for this site was provided to the public at the November 30, 2006 public information meeting and the May 22, 2008 Public Hearing. The site includes the goals of the project, a description of the project, background information, and displays and handouts from the most recent public information meeting. This site also contains a “contact us” page with contact information and an online form for submitting questions and comments.

4.1.2 Mailing List

A mailing list of 200 names was developed and updated prior to the public information meetings. This list included property owners, interested parties, and representatives from local interest groups. In addition, the list included state, county, and local elected officials as well as representatives from appropriate agencies. This mailing list was used to invite the public to the project public information meetings.

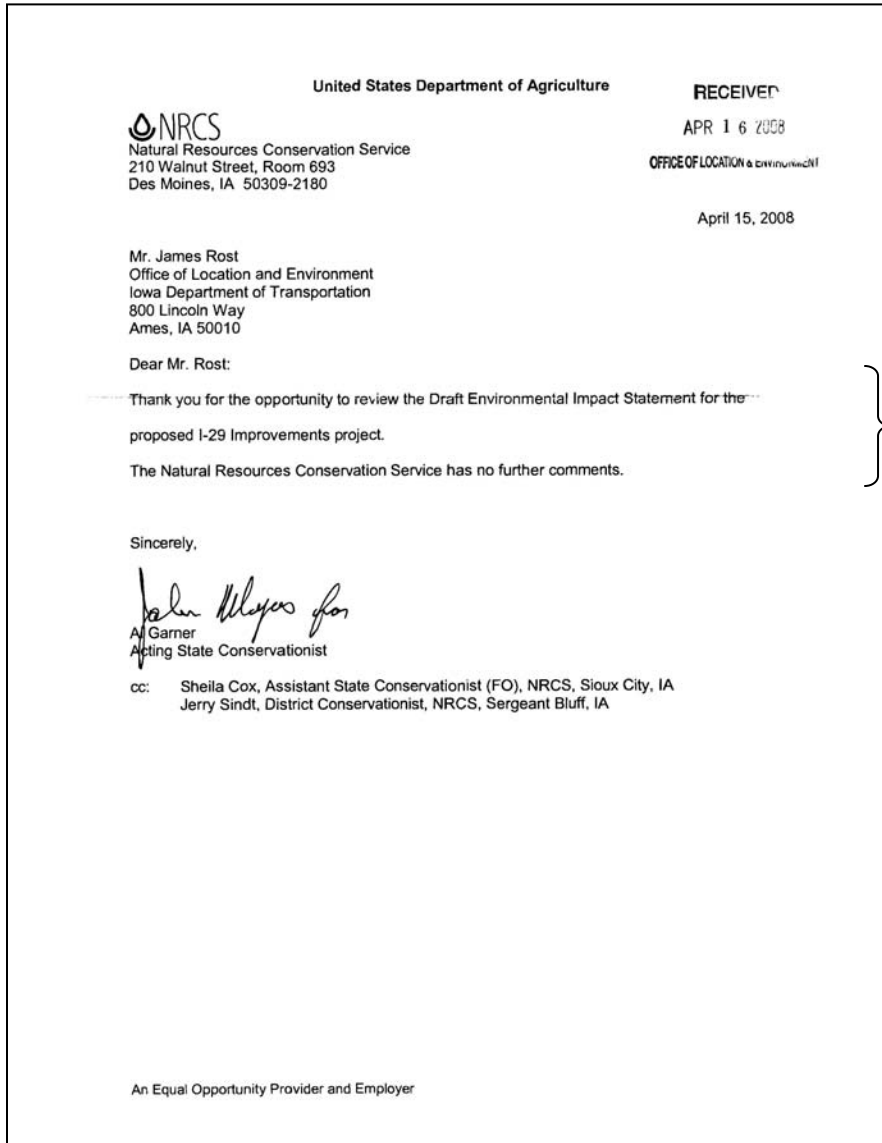
4.2 Federal, State, and Local Agency Coordination

The signatory agencies used the comments received from resource agencies as well as the public to revise the EIS. The comment letters and the signatory agencies’ responses are included on the following pages. The letters are organized and numbered in the order in which they were received. The signatory agencies’ responses, printed to the right of the letters, are keyed to the comments in the letters. For use in locating letters and responses, the following is a list of the correspondence received from the Draft EIS:

- Agency Letter #1, April 15, 2008, Natural Resource Conservation Service
- Agency Letter #2, April 23, 2008, U.S. Army Corps of Engineers
- Agency Letter #3, May 1, 2008, U.S. Army Corps of Engineers
- Agency Letter #4, May 6, 2008, Iowa Department of Natural Resources
- Agency Letter #5, May 15, 2008, U.S. Department of Homeland Security, United States Coast Guard
- Agency Letter #6, June 4 2008, U.S. Environmental Protection Agency
- Agency Letter #7, June 6, 2008, U.S. Department of Interior
- Agency Letter # 8, June 9, 2008, Iowa Department of Natural Resources
- Agency Correspondence Memorandum #9, August 14, 2008, National Park Service

Agency Letter #1, April 15, 2008
Natural Resource Conservation Service

Response to Comments:



Comment #1-1: No response needed.

Agency Letter #2, April 23, 2008
U.S. Army Corps of Engineers

Response to Comments:

Newell, Deeann [DOT]

From: Johnson, Neal J MVR [Neal.J.Johnson@usace.army.mil]
Sent: Wednesday, April 23, 2008 2:49 PM
To: Newell, Deeann [DOT]
Subject: Draft EIS for I-29 Improvements in Sioux City (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

DeeAnn:

We have no further comments at this time beyond what we and the Omaha District gave you in our letters dated November 24, 2004, November 30, 2004, December 20, 2004, and December 27, 2004. All those letters are in Appendix A of the Draft EIS.

Thanks.

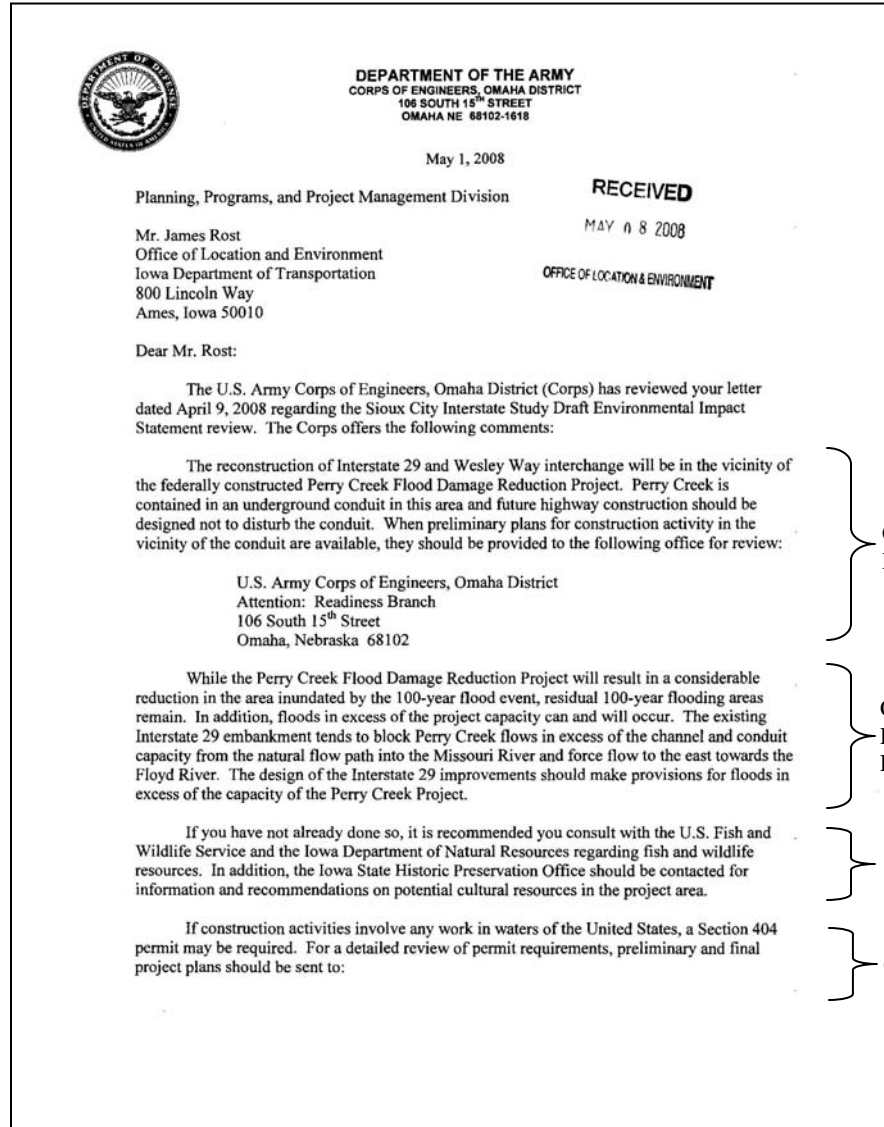
Neal
Classification: UNCLASSIFIED
Caveats: NONE

1

} Comment #2-1: No response needed.

Agency Letter #3, May 1, 2008
U.S. Army Corps of Engineers, Page 1

Response to Comments:



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
106 SOUTH 15TH STREET
OMAHA NE 68102-1618

May 1, 2008

Planning, Programs, and Project Management Division

Mr. James Rost
Office of Location and Environment
Iowa Department of Transportation
800 Lincoln Way
Ames, Iowa 50010

RECEIVED

MAY 08 2008

OFFICE OF LOCATION & ENVIRONMENT

Dear Mr. Rost:

The U.S. Army Corps of Engineers, Omaha District (Corps) has reviewed your letter dated April 9, 2008 regarding the Sioux City Interstate Study Draft Environmental Impact Statement review. The Corps offers the following comments:

The reconstruction of Interstate 29 and Wesley Way interchange will be in the vicinity of the federally constructed Perry Creek Flood Damage Reduction Project. Perry Creek is contained in an underground conduit in this area and future highway construction should be designed not to disturb the conduit. When preliminary plans for construction activity in the vicinity of the conduit are available, they should be provided to the following office for review:

U.S. Army Corps of Engineers, Omaha District
Attention: Readiness Branch
106 South 15th Street
Omaha, Nebraska 68102

While the Perry Creek Flood Damage Reduction Project will result in a considerable reduction in the area inundated by the 100-year flood event, residual 100-year flooding areas remain. In addition, floods in excess of the project capacity can and will occur. The existing Interstate 29 embankment tends to block Perry Creek flows in excess of the channel and conduit capacity from the natural flow path into the Missouri River and force flow to the east towards the Floyd River. The design of the Interstate 29 improvements should make provisions for floods in excess of the capacity of the Perry Creek Project.

If you have not already done so, it is recommended you consult with the U.S. Fish and Wildlife Service and the Iowa Department of Natural Resources regarding fish and wildlife resources. In addition, the Iowa State Historic Preservation Office should be contacted for information and recommendations on potential cultural resources in the project area.

If construction activities involve any work in waters of the United States, a Section 404 permit may be required. For a detailed review of permit requirements, preliminary and final project plans should be sent to:

Comment #3-1: Information concerning the Perry Creek Flood Damage Reduction Project is included in Section 3.2, *Updates to the Environmental Analysis*.

Comment #3-2: Information concerning the Perry Creek Flood Damage Reduction Project is included in Section 3.2, *Updates to the Environmental Analysis* of this Final EIS.

Comment #3-3: Correspondence with the U.S. Fish and Wildlife Service, Iowa Department of Natural Resources, and Iowa State Historic Preservation Office is in Appendix A of the Draft EIS.

Comment #3-4: No response needed.

Agency Letter #3, May 1, 2008
U.S. Army Corps of Engineers, Page 2

Response to Comments:

U.S. Army Corps of Engineers
Rock Island District
Attention: Regulatory Branch
P.O. Box 2004
Clock Tower Building
Rock Island, Illinois 61204-2004

If you have any questions, please contact Mr. Dave Crane of my staff at (402) 995-2676.

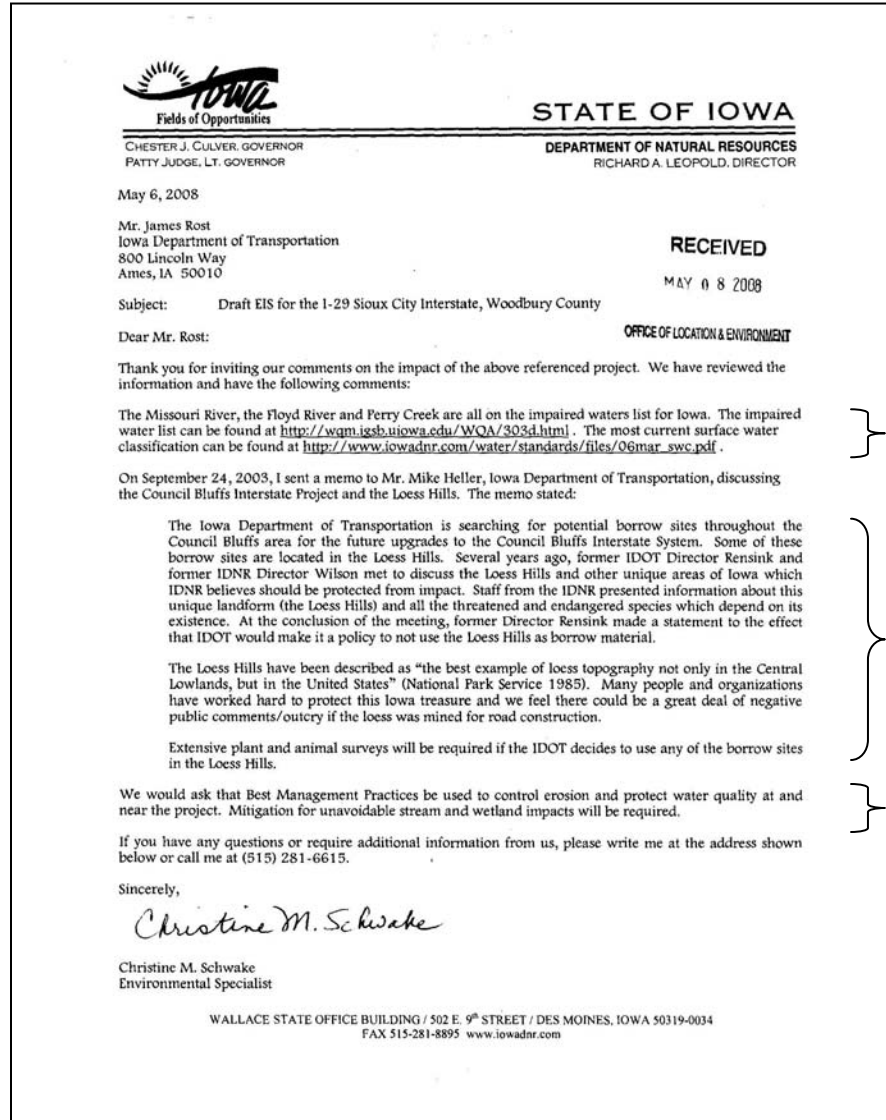
Sincerely,



Eric A. Laux, Chief
Environmental, Economics, and
Cultural Resources Section
Planning Branch

Agency Letter #4, May 6, 2008
Iowa Department of Natural Resources

Response to Comments:



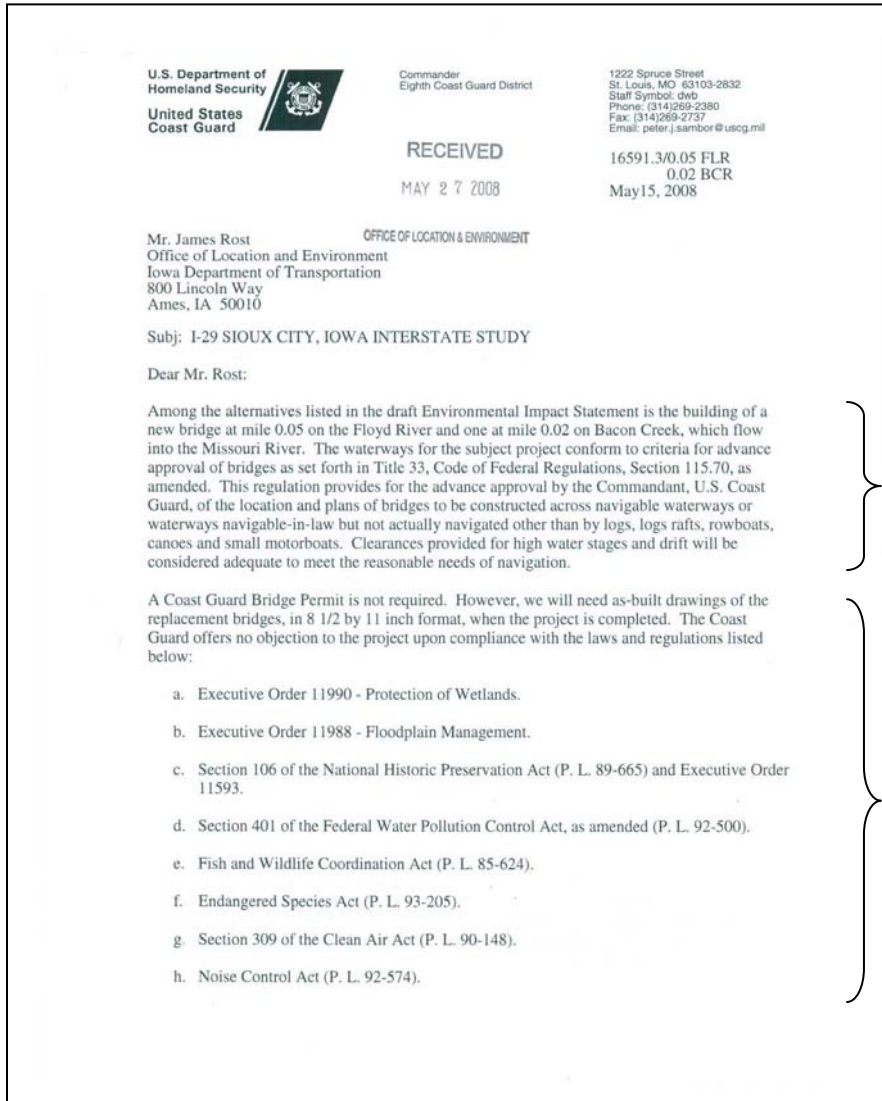
Comment #4-1: No response needed.

Comment #4-2: Information about an additional potential borrow site was added to Section 3.2, *Updates to Environmental Analysis*. This potential borrow site is located within the Loess Hills, but is a remnant of the U.S. 75 bypass project constructed in 2001. This site is not a pristine or virgin Loess Hill site.

Comment #4-3: Information about using Best Management Practices is included in Section 3.2, *Updates to the Environmental Analysis*.

Agency Letter #5, May 15, 2008
U.S. Coast Guard, Page 1

Response to Comments:

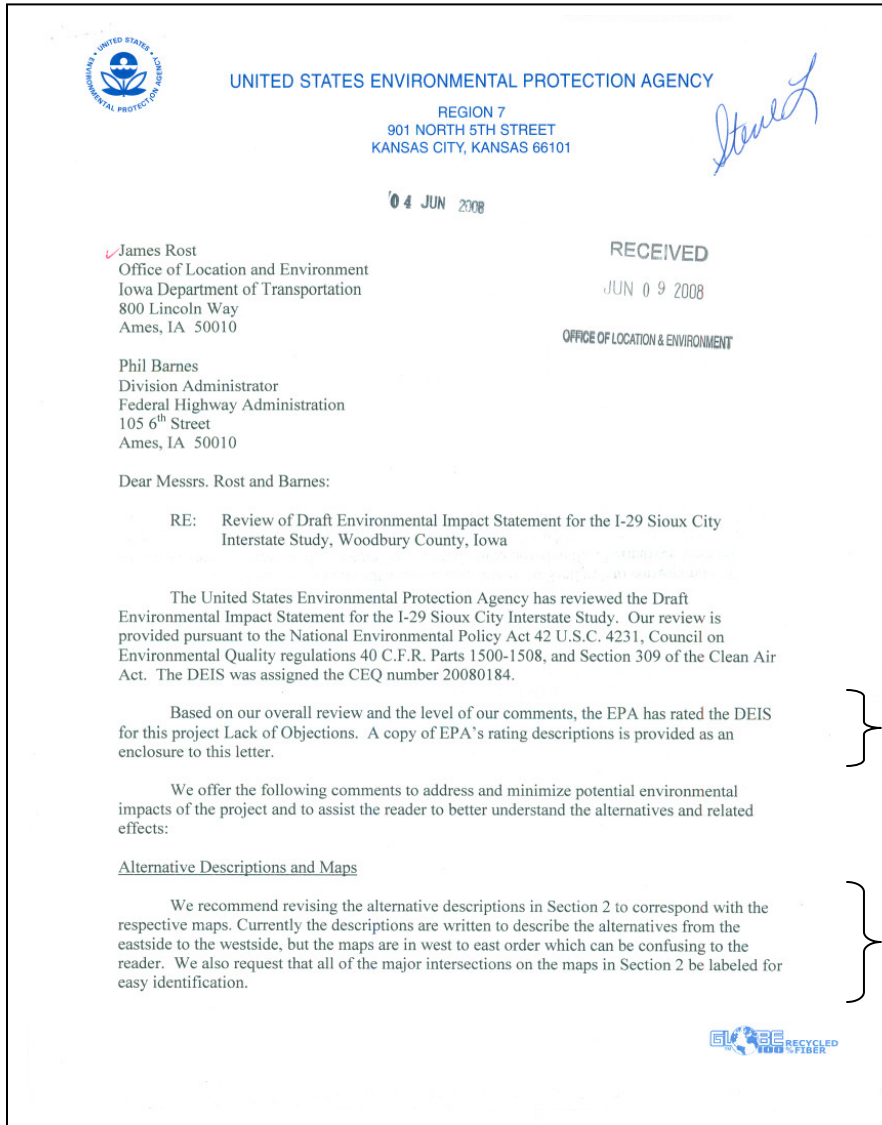


Comment #5-1: No response needed.

Comment #5-2: No response needed.

Agency Letter #6, June 4, 2008
U.S. Environmental Protection Agency, Page 1

Response to Comments:



} Comment #6-1: No response needed.

} Comment #6-2: The discussions of the alternatives in Section 2.4, *Alternatives Carried Forward* were described from west to east. Labels of major intersections are shown in Figure 2-1, *Preferred Alternative*.

Agency Letter #6, June 4, 2008
U.S. Environmental Protection Agency, Page 2

Response to Comments:

Sewer Relocation & Regulated Materials

We recommend including an analysis of potential environmental impacts related to the relocation of approximately 9000 feet of sanitary sewer as described in paragraph 3.1.6 Utilities. The areas for relocation should be identified to avoid all "regulated materials" sites to prevent further contamination. In addition we recommend developing a strategy to handle any hazardous substances that may be encountered during construction.

We appreciate the opportunity to provide comments regarding this project and your DEIS. If you have any questions or concerns, please contact me at (913) 551-7975.

Sincerely,





Kimberly O. Johnson, P.E.
NEPA Reviewer
Environmental Services Division

Enclosure

} Comment #6-3: Information concerning the relocation of the sanitary sewer is included in Section 3.2, *Updates to the Environmental Analysis*.

Agency Letter #7, June 6, 2008
U.S. Department of Interior, Page 1

Response to Comments:

	<p>United States Department of the Interior OFFICE OF THE SECRETARY Washington, DC 20240</p>	<p><i>Stall</i></p> 
	<p>JUN 6 2008</p>	<p>9043.1 PEP/NRM</p>
ER 08/406		<p>RECEIVED</p>
Mr. Philip Barnes Division Administrator Federal Highway Administration 105 Sixth Street Ames, Iowa 50010-6337		<p>JUN 12 2008</p>
		<p>OFFICE OF LOCATION & ENVIRONMENT</p>

Dear Mr. Barnes:

As requested, the Department of the Interior (Department) has reviewed the draft Environmental Impact Statement (EIS) for **I-29 improvements in Sioux City, Woodbury County, Iowa**. The Department offers the following comments for your consideration.

Section 4(f) Comments

The Federal Highway Administration (FHWA) and the Iowa Department of Transportation (IDOT) propose to improve approximately 3.5 miles of I-29 in Sioux City, Iowa. The proposed improvement will consider reconfiguring four interchanges to increase safety, enhance connections to the local roadway system, add one lane in each direction, improve traffic operation, replace aging infrastructure, and improve or eliminate some of the traffic merging issues that occur in this corridor. The draft EIS identified several properties in the project study area eligible to be considered under Section 4(f) of the Department of Transportation Act of 1966 (48 U.S.C. 1653(f)). The FHWA, IDOT, and the City of Sioux City, determined that only four parcels of Chris Larson Park met the definition of a Section 4(f) resource. The four parcels include the Flight 232 Memorial and gardens, a playground, open space, and maintained open space with a parking lot for park and trail users. In addition, seven historic structures were identified as present within the project area eligible for listing on the National Register of Historic Places. These structures are the Sergeant Floyd Riverboat (Sergeant Floyd River Museum and Welcome Center); the Grand Avenue (also known as Gordon Drive) Viaduct over the Floyd River, railroad yards, and Bacon Creek; the Municipal Auditorium; Hobson School; Wall Street Mission (also known as the Hobson Hall); the Octagonal house, a house that is octagonal in shape and has been in existence since at least 1880; and the Simmons Hardware Company Building (also known as the Battery Building).

Agency Letter #7, June 6, 2008
U.S. Department of Interior, Page 2

Response to Comments:

Mr. Philip Barnes 2

According to the draft EIS, all three of the Build Alternatives would impact portions of Chris Larsen Park that are Section 4(f) resources: Alternative A would impact approximately 4.9 acres, Alternative B would impact approximately 3.4 acres, and Alternative C would impact approximately 5.3 acres of the Section 4(f) property. The impacted resources would be incorporated into permanent right-of-way but are not currently used by park patrons except as passive open space, parking areas, and a paved roadway. The FHWA, the Sioux City Parks and Recreation Department, and the IDOT concurred that the impacts to Chris Larsen Park would not impact the recreational use, features, or activities of the park.

Temporary impacts would occur to the Lewis & Clark Trail, Perry Creek Trail, and Floyd River Trail from the construction of all alternatives. Some relocation of trail segments may be necessary but these will be relocated in the same general vicinity in order to maintain the connectivity to the existing trail system. Since the Trails would essentially be unchanged, the FHWA concurred with the IDOT there would be no Section 4(f) use of the trails.

No historic Section 4(f) resources would be directly impacted by Alternatives A, B, or C. However, impacts would occur to one of the parking lots of the Municipal Auditorium. Despite the impacts to the parking lot, no impacts would occur to the building itself, which is the Section 4(f) resource. Therefore, the FHWA concurred with the IDOT that there would be no use of any of the historic Section 4(f) resources.

The Department would agree with the FHWA that properties identified as eligible for Section 4(f) consideration would not be adversely affected by the project. However, we would recommend that in all future documentation of similar types of determinations that the FHWA clearly identify that the intent is to make a *de minimis* finding for affects to some resources. While the regulations and guidance from the FHWA do not specifically call for a declaration of a *de minimis* finding in the document, we find it much easier to review and agree if we were told what the determination was, or at least if such wording appeared somewhere in the text. Since the Department does not review *de minimis* findings, except in certain circumstances, this declaration would tend to speed our review of the 4(f) portion of any document.

Section 6(f) Comments

The National Park Service (NPS) has reviewed this project in relation to any possible conflicts with the Land and Water Conservation Fund (L&WCF) and the

Comment #7-1: Information concerning the *de minimis* finding was included in Section 3.2, *Updates to the Environmental Analysis*.

Agency Letter #7, June 6, 2008
U.S. Department of Interior, Page 3

Response to Comments:

Mr. Philip Barnes 3

Urban Park and Recreation Recovery programs and found that L&WCF project 19-01156, Sioux City Riverfront Trail would be affected.

We recommend you consult directly with the official who administers the L&WCF program in the State of Iowa to determine any potential conflicts with Section 6(f)(3) of the L&WCF Act (Public Law 88-578, as amended). This section states:

No property acquired or developed with assistance under this section shall, without the approval of the Secretary [of the Interior], be converted to other than public outdoor recreation uses. The Secretary shall approve such conversion only if he finds it to be in accord with the then existing comprehensive statewide outdoor recreation plan and only upon such conditions as he deems necessary to assure the substitution of other recreation properties of at least equal fair market value and of reasonably equivalent usefulness and location.

The administrator for the L&WCF program in Iowa is Ms. Kathleen Moench, Federal Aid Coordinator, Budget and Finance Bureau, Department of Natural Resources, Wallace State Office Building, East Ninth Street and Grand Avenue, Des Moines, Iowa 50319.

General Comments

As documented in the draft EIS, the U.S. Fish and Wildlife Service provided technical assistance to the transportation agencies during earlier planning stages for this study. The draft EIS adequately addresses the potential impacts of the project alternatives on fish and wildlife resources, including federally listed threatened and endangered species. We have no further comments regarding these resources.

The Lewis and Clark National Historic Trail (NHT), defined as the outbound and return route of the 1804-1806 Corps of Discovery Expedition, and authorized in the 1978 amendment to the National Historic Trails Act, is the administrative responsibility of the NPS. The NPS is in charge with the identification and protection of this historic route, including its historic remnants and artifacts saved in perpetuity for public enjoyment and education. Near Sioux City, Iowa, the NHT follows the historic as well as contemporary course of the Missouri River. In the southeastern third of this project, the highway is between the Missouri River and industrial development. The Lewis and Clark campsite of August 20, 1804, is located in this section near the mouth of the Floyd River. The southern terminus of

Comment #7-2: Information to clarify Section 6(f) property was added to Section 3.2, *Updates to the Environmental Analysis*.

Comment #7-3: No response needed.

Comment #7-4: Information regarding the Lewis and Clark National Historic Trail and the camp site are included in Section 3.2, *Updates to the Environmental Analysis*. The location of the camp site is shown on Figures 3-2b, *Updated Human Environmental Resources*.

Agency Letter #7, June 6, 2008
U.S. Department of Interior, Page 4

Response to Comments:

Mr. Philip Barnes 4

the I-29 improvement is 0.25 miles south of the Burlington Northern Santa Fe Railroad Bridge over the Missouri River, which is 0.68 miles north of the Sergeant Floyd Monument National Historic Landmark.

The area through which this project extends is highly developed. Irretrievable conversion of the landscape from the conditions experienced by the Corps of Discovery has already occurred. However, opportunities for public enjoyment of the NHT remain in the area. The NPS is concerned about the continued availability of publically accessible park and recreational facilities along the Missouri River floodplain in City-managed parklands. The draft EIS describes potential impacts to Chris Larsen Park and the trail system.

According to the three alternatives described in the draft EIS, between 3.6 to 5 percent of the total park area would be converted to right-of-way during construction. All alternatives will temporarily close recreational trails associated with Chris Larsen Park, though no long-term loss of these resources will occur. If all alternatives offer the same benefit for driver safety, the NPS recommends supporting Alternative B since it converts the least amount of parkland to right-of-way.

Due to the existence of two trails with similar names in close proximity of the proposed I-29 improvement project (Lewis and Clark Trail maintained by the city of Sioux City, and the NHT administered by the NPS), we recommend clearly defining both in the final EIS to alleviate any confusion. In addition, some discussion of potential impacts upon the NHT would be appropriate.

Specific Comment

Concerning section 3.3.2.3 of the draft EIS (Operational and Maintenance Impacts to Surface Waters, page 3-33, first partial paragraph; and Section 6, References, page 6-4), the study cited as "U.S. Geographical Survey Research Project R-18-0" (should be U.S. Geological Survey) in the text contains an incomplete citation in the references section. There was insufficient information provided in the draft EIS to confirm that this is an U.S. Geological Survey publication as this is not the format generally assigned to our publications or project numbers. In addition, the statement, "...additional input of sodium chloride ions from deicing salts would be offset by a proportional increase in snowmelt/water runoff for dilution" seems to oversimplify the potential impacts associated with highway runoff. Trace metals can be found in deicing salts and concentration of salts in runoff can vary due to "first flush" phenomena (see Granato, G.E., 1996, Deicing Chemicals as Source of Constituents of Highway Runoff, Transportation Research Record 1533,

Comment #7-5: Information about continued availability of publically accessible park and recreational facilities is discussed in Section 3.2, *Updates to the Environmental Analysis*.

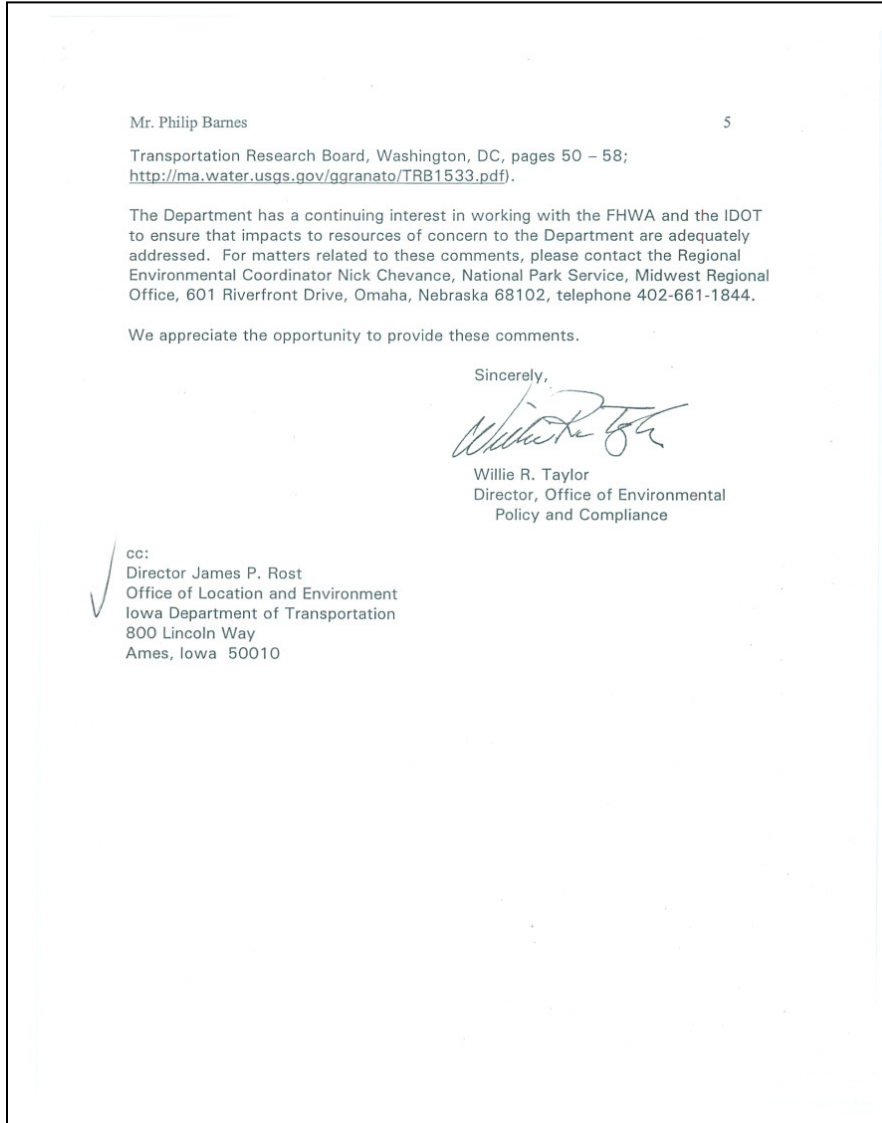
Comment #7-6: No response needed.

Comment #7-7: Information to clarify the location and designation of the Lewis and Clark Trail is included in Section 3.2, *Updates to the Environmental Analysis*.

Comment #7-8: Information to clarify the types of contaminates found in surface water runoff is included in Section 3.2, *Updates to the Environmental Analysis*.

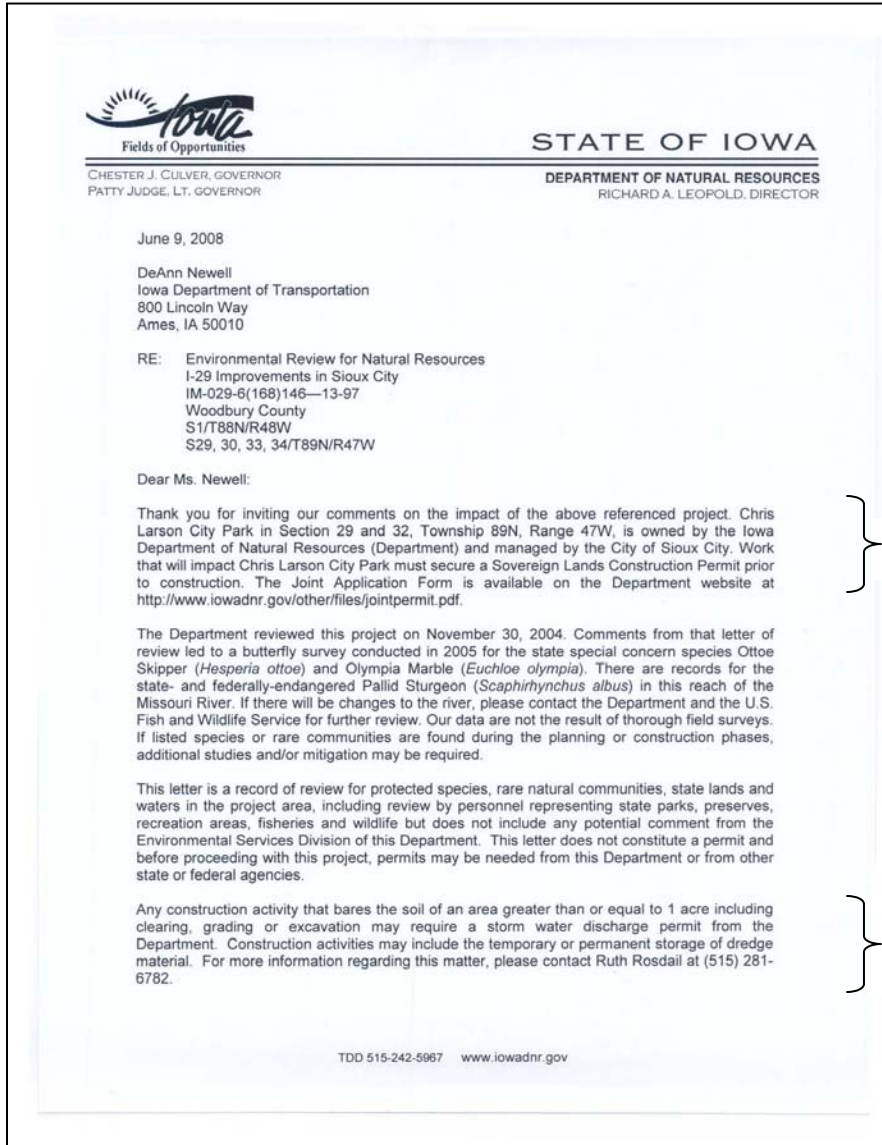
Agency Letter #7, June 6, 2008
U.S. Department of Interior, Page 5

Response to Comments:



Agency Letter #8, June 9, 2008
Iowa Department of Natural Resources, Page 1

Response to Comments:

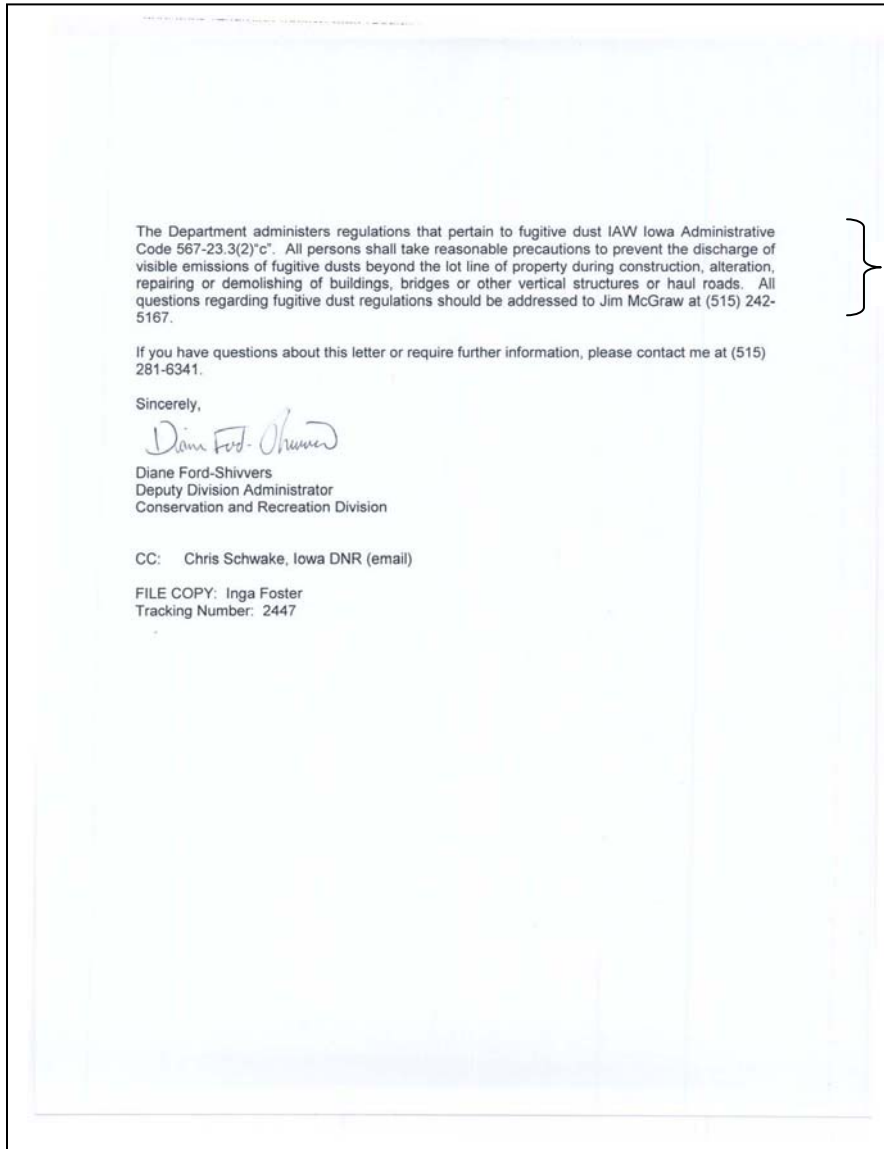


} Comment #8-1: No response needed.

} Comment #8-2: No response needed.

**Agency Letter #8, June 9, 2008
Iowa Department of Natural Resources, Page 2**

Response to Comments:



} Comment #8-3: No response needed.

**Agency Correspondence Memorandum #9, August 14, 2008
National Park Service, Page 1**

Response to Comments:

Memorandum

8/14/2008

To: Stacy Woodson

From: Jenny Reinertsen

Subject: Comments 4 – 7 from United States Department of the Interior

Stacy,

In its comments letter, the Department raises two issues that you asked me to address.

1. The Department references the campsite of Lewis and Clark on August 20, 1804
2. The Department asks that two trails be delineated, the Sioux City Lewis and Clark trail in Larsen Park, and the National Parks administered trail, also called the Lewis and Clark trail in the same vicinity.

Discussion:

1. Lewis and Clark Campsite.

I performed a web search for this site, and was unable to find any information. I called the Sgt Floyd River Museum and was directed to Grace in the research arm of the museum. Grace directed me to Skip Meisner, a local historian, who stated that the actual location of the campsite is unknown, as did Grace. There is, however, a historical marker located near the end of Floyd Blvd that designates the site. There is a casino parking lot directly to the southeast of where Floyd Blvd. ends at the Missouri River. The marker is located on the northeast corner of the parking lot. This is on the northwest side of the mouth of the Floyd River. The UTM Coordinates are: 414,012.167 Easting and 3,653,028.987 Northing.

I also called the Historic Sites Inventory Manager at Iowa's Historical Society. He guided me to the Office of the State Archeologist. I spoke to Joe Artz, Director of Geospatial Programs. Mr. Artz sent me a form via e-mail. The form was a request for a professional archeologist search to determine the likely location of the actual campsite. As we discussed, the marker should suffice for the location of the campsite. The actual campsite is most likely north of the marker as the waters of the Missouri River have receded dramatically, even since 1938.

Nick Chevance of the National Park Service stated in a phone conversation on 8/14/2008 that specification of the location of the marker was what the National Park Service was looking for.

**Agency Correspondence Memorandum #9, August 14, 2008
National Park Service, Page 2**

Response to Comments:

2. Second Trail

I used aerial photographs and conversations with the city of Sioux City and local historians to determine that the trail already marked on the maps of the construction area in the draft EIS is the only trail in the area. The trail does continue outside the beginning and end boundaries shown on the draft EIS map, and does have some offshoots that could be added. There don't appear to be two trails as the Department referenced.

Trails in General: National Historic Trails are established according to the National Trails System Act. It reads:

“..NATIONAL SCENIC AND NATIONAL HISTORIC TRAILS

SEC. 5. [16USC1244] (a) National scenic and national historic trails shall be authorized and designated only by Act of Congress. There are hereby established the following National Scenic and National Historic Trails:

.....

(6) The Lewis and Clark National Historic Trail, a trail of approximately three thousand seven hundred miles, extending from Wood River, Illinois, to the mouth of the Columbia River in Oregon, following the outbound and inbound routes of the Lewis and Clark Expedition depicted on maps identified as, 'Vicinity Map, Lewis and Clark Trail' study report dated April 1977. The map shall be on file and available for public inspection in the office of the Director, National Park Service, Washington, D.C. The trail shall be administered by the Secretary of the Interior....”

And:

“(3) National historic trails, established as provided in section 5 of this Act, which will be extended trails which follow as closely as possible and practicable the original trails or routes of travel of national historic significance. Designation of such trails or routes shall be continuous, but the established or developed trail, and the acquisition thereof, need not be continuous onsite. National historic trails shall have as their purpose the identification and protection of the historic route and its historic remnants and artifacts for public use and enjoyment. Only those selected land and water based components of a historic trail which are on federally owned lands and which meet the national historic trail criteria established in this Act are included as Federal protection components of a national historic trail. The appropriate Secretary may certify other lands as protected segments of an historic trail upon application from State or local governmental agencies or private interests involved if such segments meet the national historic trail criteria established in this Act and such criteria supplementary thereto as the appropriate Secretary may prescribe, and are administered by such agencies or interests without expense to the United States.”

I spoke with Nick Chevance of the National Park Service. Mr. Chevance stated that there is no actual groomed physical trail. The Lewis and Clark trail, essentially, runs along the shore of the Missouri River. Staff at the recently designated National Historic Trail is, at

**Agency Correspondence Memorandum #9, August 14, 2008
National Park Service, Page 3**

Response to Comments:

this point, working to increase public awareness of the existence of the trail. Their intent is primarily to identify camp areas, and work to prevent desecration of those sites.

The letter from the DOI references two similarly named trails. In fact there are not only not two groomed identifiable trails, but they are not similarly named. The trail noted on the existing maps from the draft EIS is actually called the River's Edge Trail. This is maintained by Sioux City. Jeff Hubbard at the Parks and Recreation Department gave me the information. The northern edge of the Missouri River should be designated at the Lewis and Clark National Historic Trail.

SECTION 5
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BIBLIOGRAPHY

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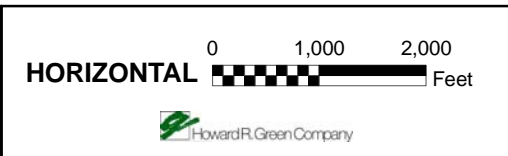
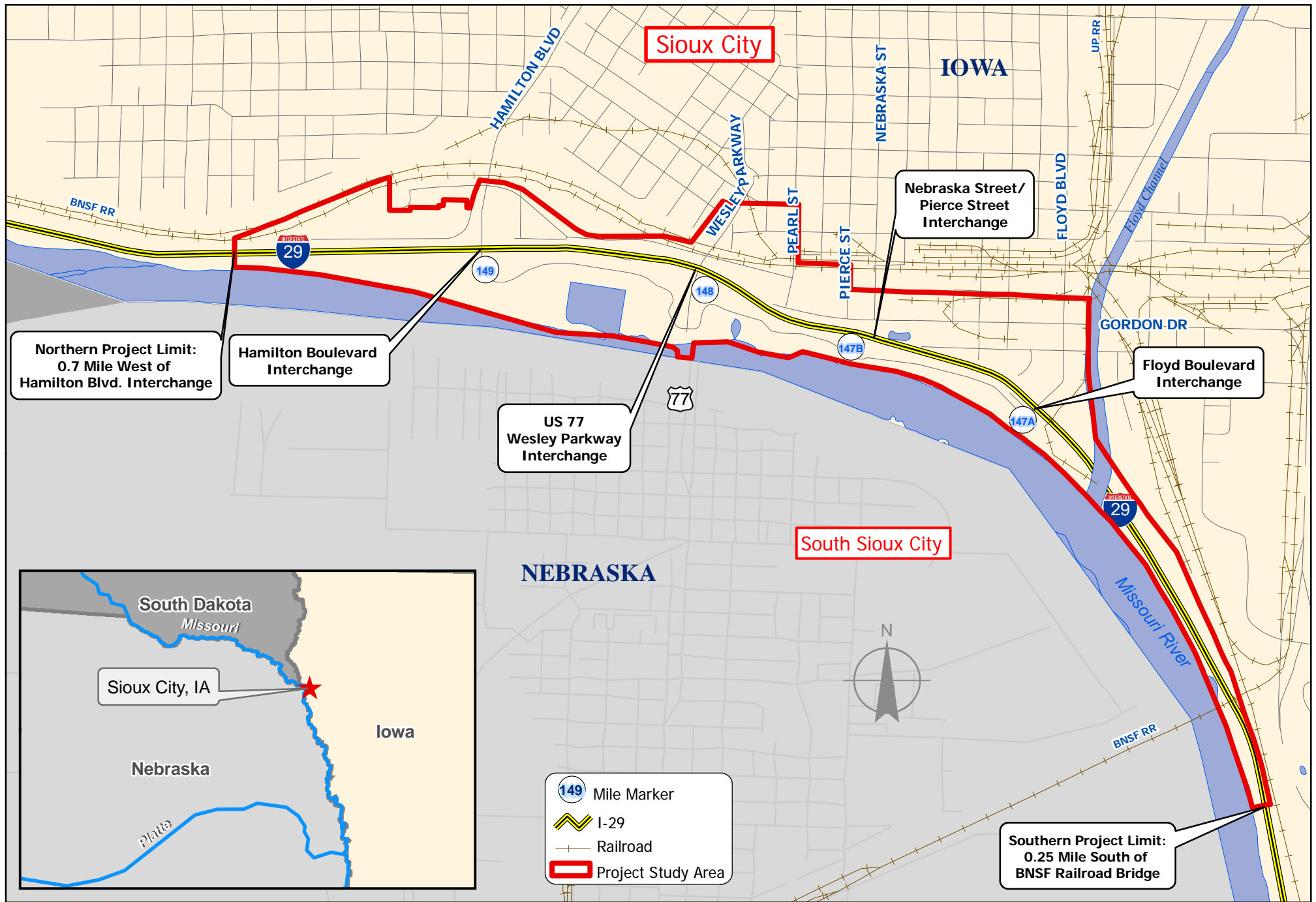
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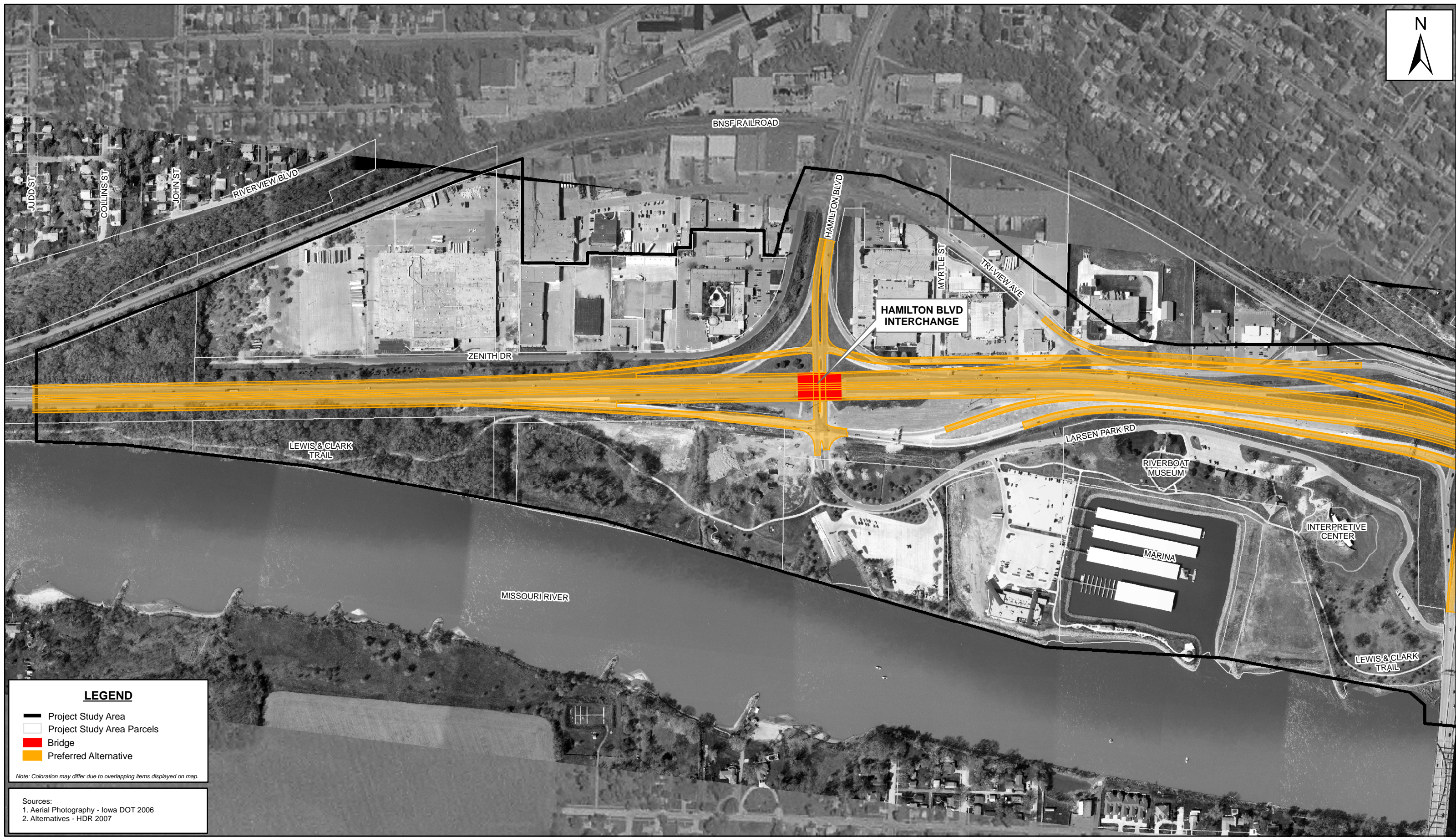


**I-29 Sioux City Interstate Study
Environmental Impact Statement
Sioux City, Iowa**

LOCATION MAP

Date
DEC 2008

Figure
1-1

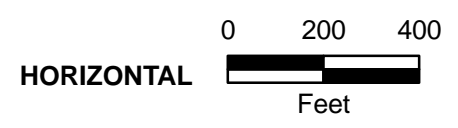


LEGEND

- Project Study Area
- Project Study Area Parcels
- Bridge
- Preferred Alternative

Note: Coloration may differ due to overlapping items displayed on map.

Sources:
 1. Aerial Photography - Iowa DOT 2006
 2. Alternatives - HDR 2007

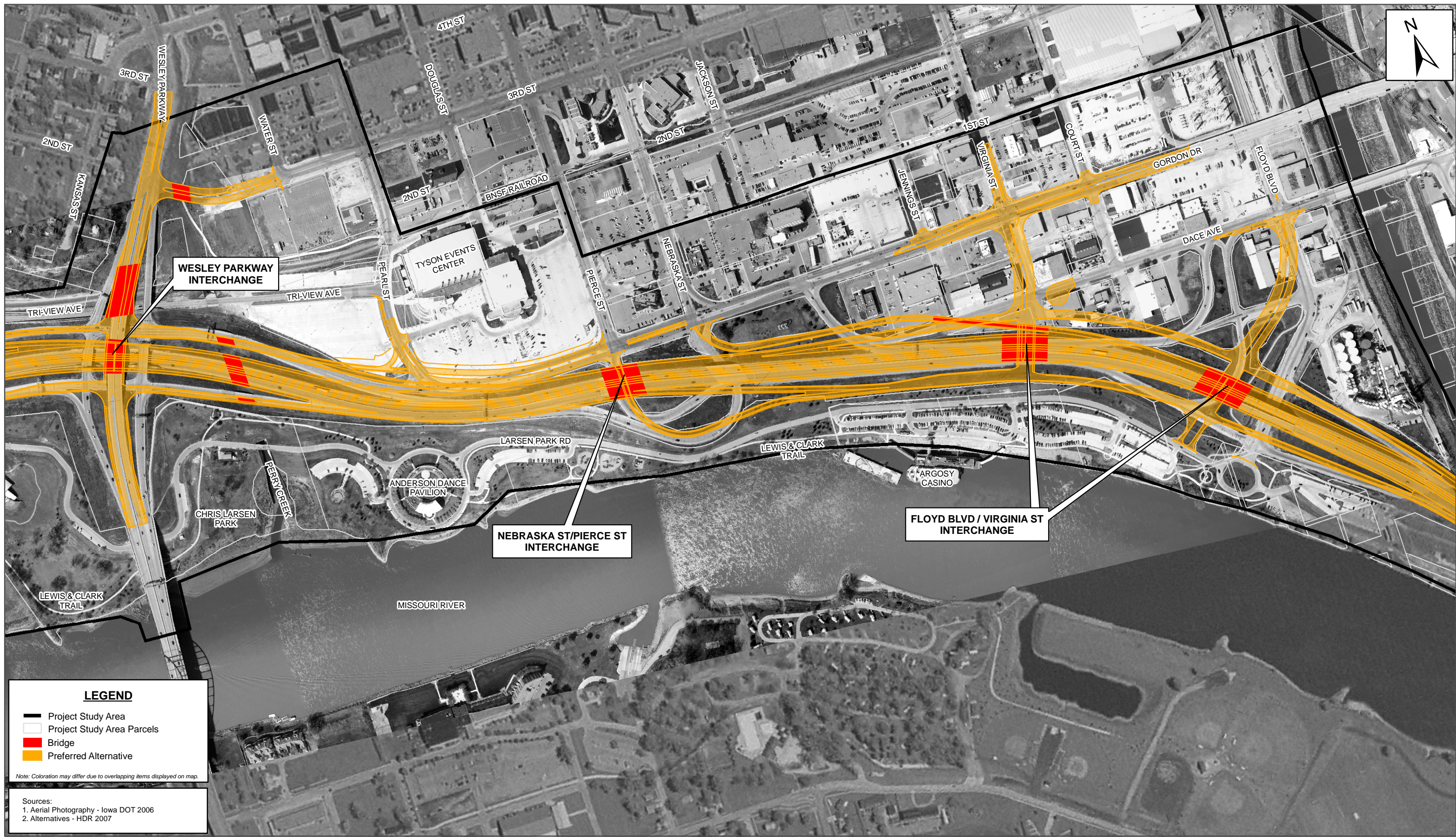


**I-29 Sioux City Interstate Study
 Environmental Impact Statement
 Sioux City, Iowa**

**PREFERRED ALTERNATIVE
 (Western Section of Corridor)**

Date
 DEC 2008

Figure
 2-1a



WESLEY PARKWAY INTERCHANGE

NEBRASKA ST/PIERCE ST INTERCHANGE

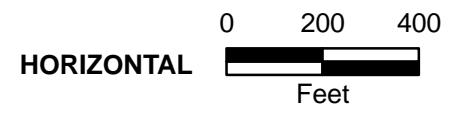
FLOYD BLVD / VIRGINIA ST INTERCHANGE

LEGEND

- Project Study Area
- Project Study Area Parcels
- Bridge
- Preferred Alternative

Note: Coloration may differ due to overlapping items displayed on map.

Sources:
 1. Aerial Photography - Iowa DOT 2006
 2. Alternatives - HDR 2007



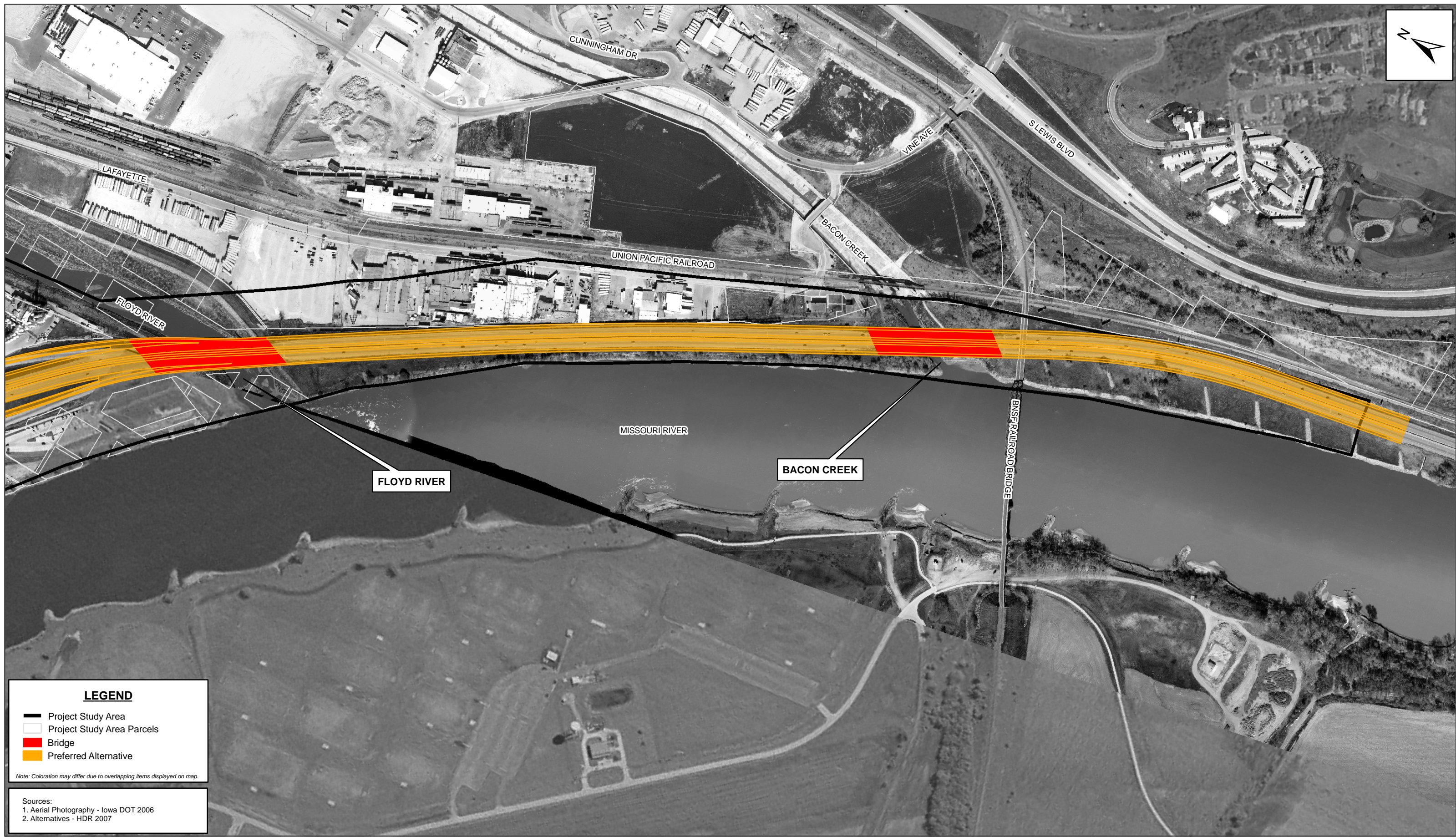
Howard R. Green Company

**I-29 Sioux City Interstate Study
 Environmental Impact Statement
 Sioux City, Iowa**

**PREFERRED ALTERNATIVE
 (Central Section of Corridor)**

Date
DEC 2008

Figure
2-1b

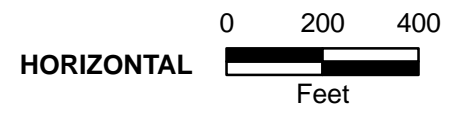


LEGEND

- Project Study Area
- Project Study Area Parcels
- Bridge
- Preferred Alternative

Note: Coloration may differ due to overlapping items displayed on map.

Sources:
 1. Aerial Photography - Iowa DOT 2006
 2. Alternatives - HDR 2007

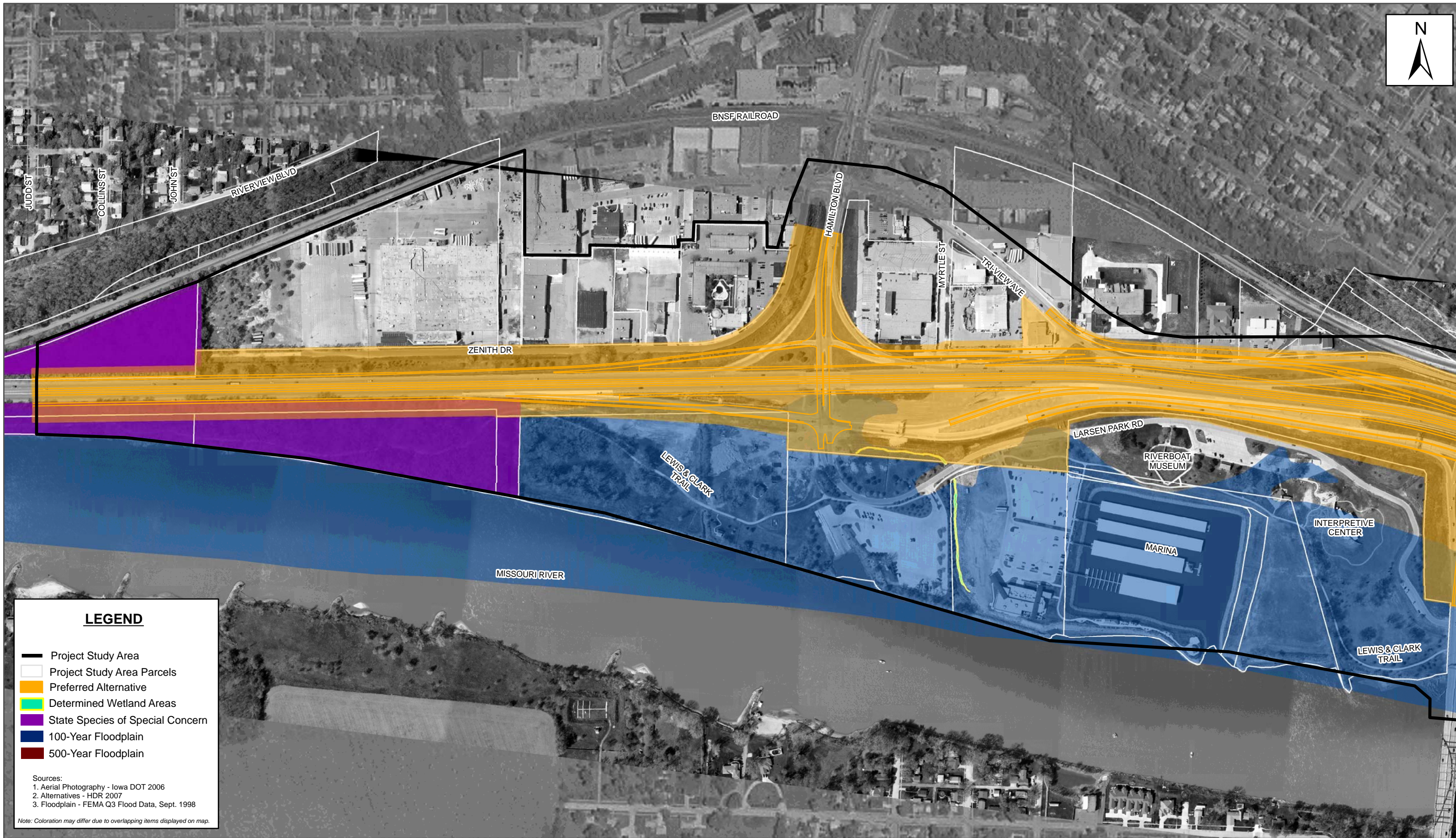


**I-29 Sioux City Interstate Study
 Environmental Impact Statement
 Sioux City, Iowa**







**PREFERRED ALTERNATIVE
 (Southern Section of Corridor)**

Date
 DEC 2008

Figure
 2-1c

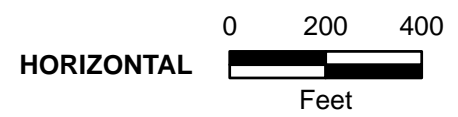


LEGEND

-  Project Study Area
-  Project Study Area Parcels
-  Preferred Alternative
-  State Species of Special Concern
-  100-Year Floodplain
-  500-Year Floodplain

Sources:
 1. Aerial Photography - Iowa DOT 2006
 2. Alternatives - HDR 2007
 3. Floodplain - FEMA Q3 Flood Data, Sept. 1998

Note: Coloration may differ due to overlapping items displayed on map.

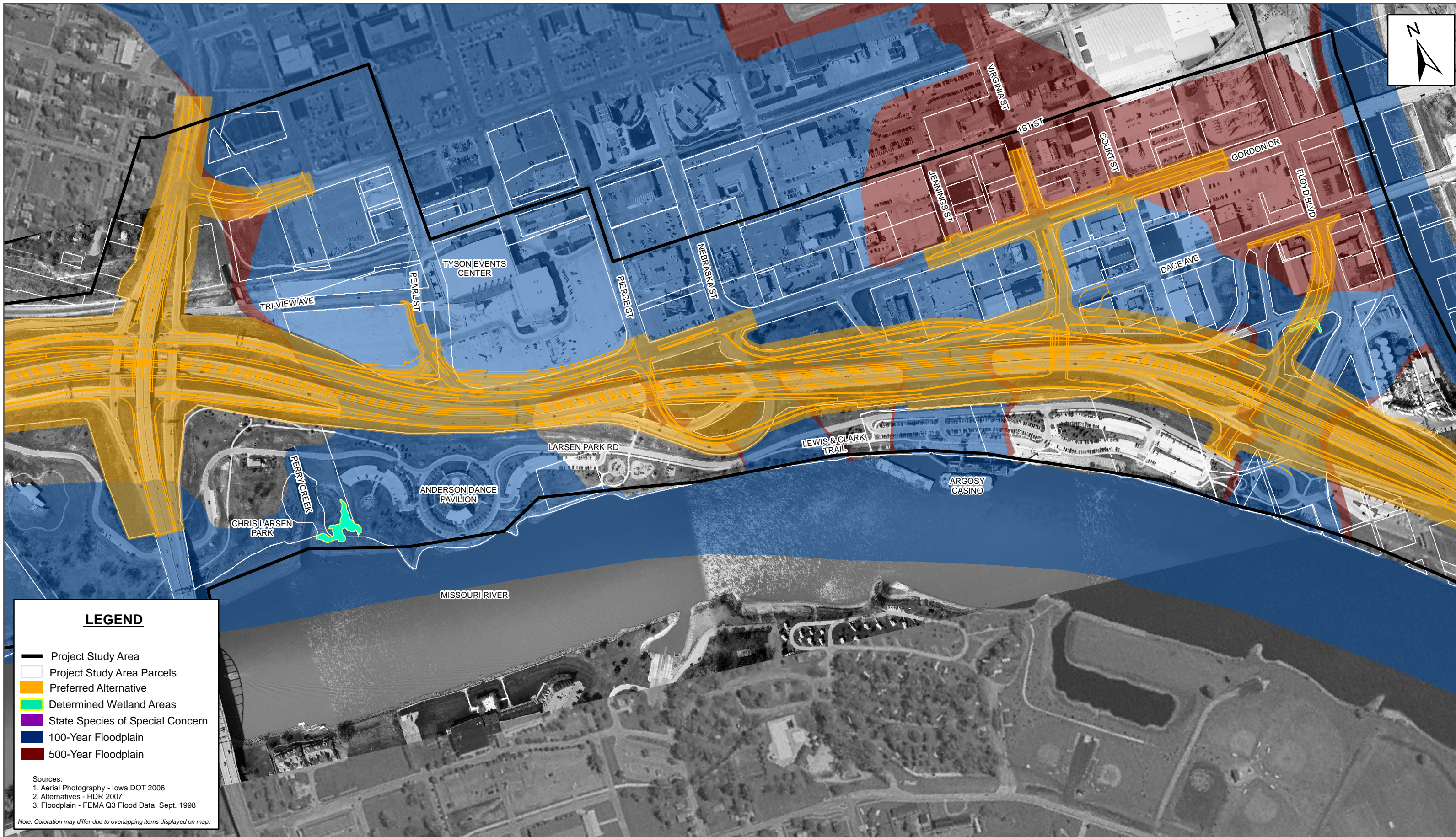


**I-29 Sioux City Interstate Study
 Environmental Impact Statement
 Sioux City, Iowa**

**UPDATED NATURAL ENVIRONMENTAL
 RESOURCES
 (Western Section of Corridor)**

Date
DEC 2008

Figure
3-1a

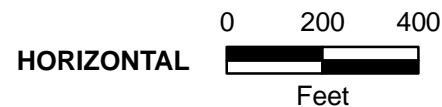


LEGEND

- Project Study Area
- Project Study Area Parcels
- Preferred Alternative
- Determined Wetland Areas
- State Species of Special Concern
- 100-Year Floodplain
- 500-Year Floodplain

Sources:
 1. Aerial Photography - Iowa DOT 2006
 2. Alternatives - HDR 2007
 3. Floodplain - FEMA Q3 Flood Data, Sept. 1998

Note: Coloration may differ due to overlapping items displayed on map.

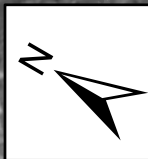


**I-29 Sioux City Interstate Study
 Environmental Impact Statement
 Sioux City, Iowa**





**UPDATED NATURAL ENVIRONMENTAL
 RESOURCES
 Central Section of Corridor)**

Date
 DEC 2008

Figure
 3-1b

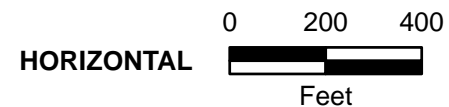


LEGEND

-  Project Study Area
-  Project Study Area Parcels
-  Preferred Alternative
-  Determined Wetland Areas
-  State Species of Special Concern
-  100-Year Floodplain
-  500-Year Floodplain

Sources:
 1. Aerial Photography - Iowa DOT 2006
 2. Alternatives - HDR 2007
 3. Floodplain - FEMA Q3 Flood Data, Sept. 1998

Note: Coloration may differ due to overlapping items displayed on map.

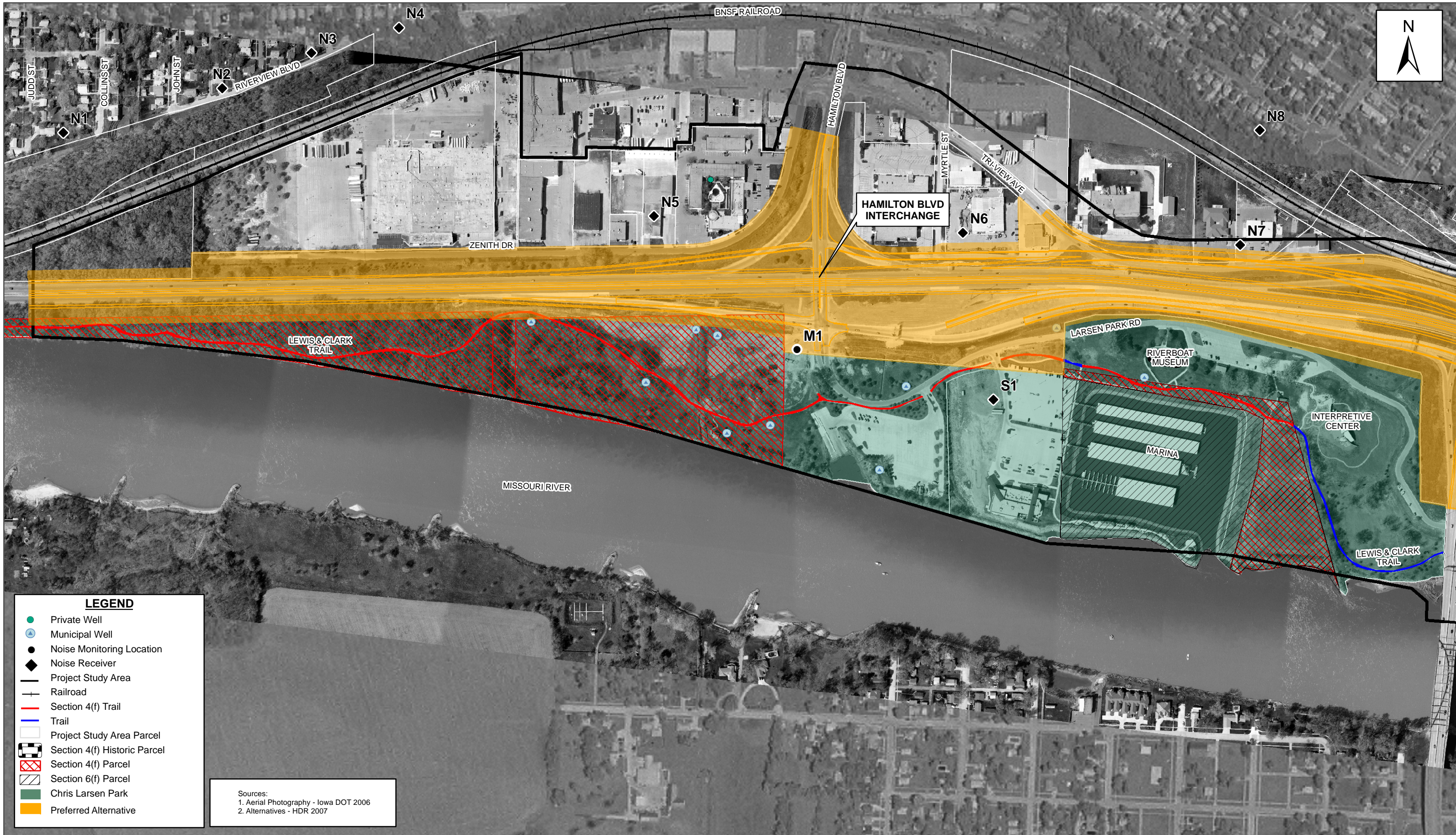


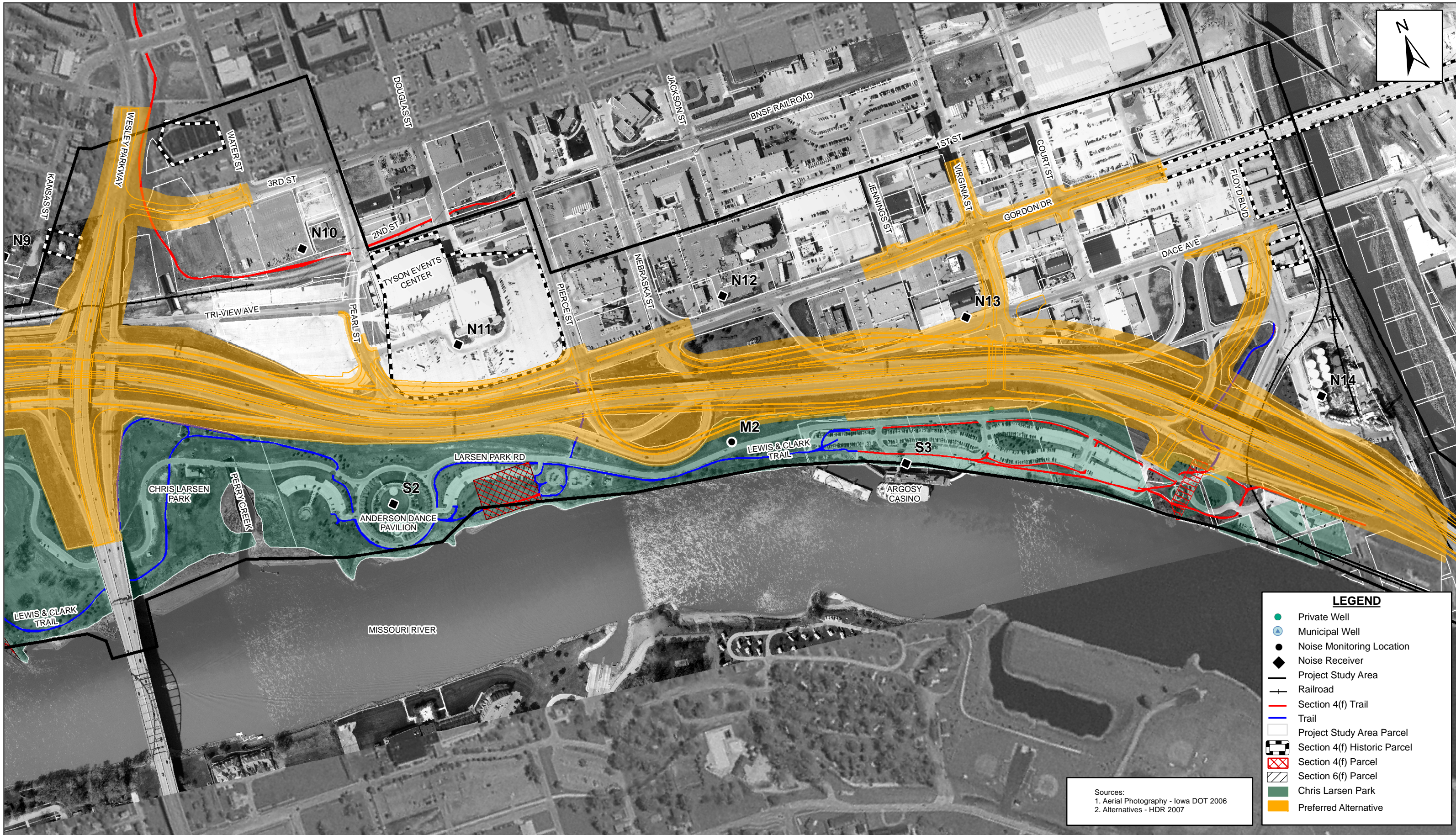
**I-29 Sioux City Interstate Study
 Environmental Impact Statement
 Sioux City, Iowa**

**UPDATED NATURAL ENVIRONMENTAL
 RESOURCES
 (Southern Section of Corridor)**

Date
DEC 2008

Figure
3-1c





LEGEND	
	Private Well
	Municipal Well
	Noise Monitoring Location
	Noise Receiver
	Project Study Area
	Railroad
	Section 4(f) Trail
	Trail
	Project Study Area Parcel
	Section 4(f) Historic Parcel
	Section 4(f) Parcel
	Section 6(f) Parcel
	Chris Larsen Park
	Preferred Alternative

Sources:
 1. Aerial Photography - Iowa DOT 2006
 2. Alternatives - HDR 2007

HORIZONTAL

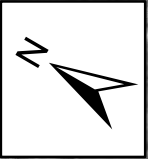
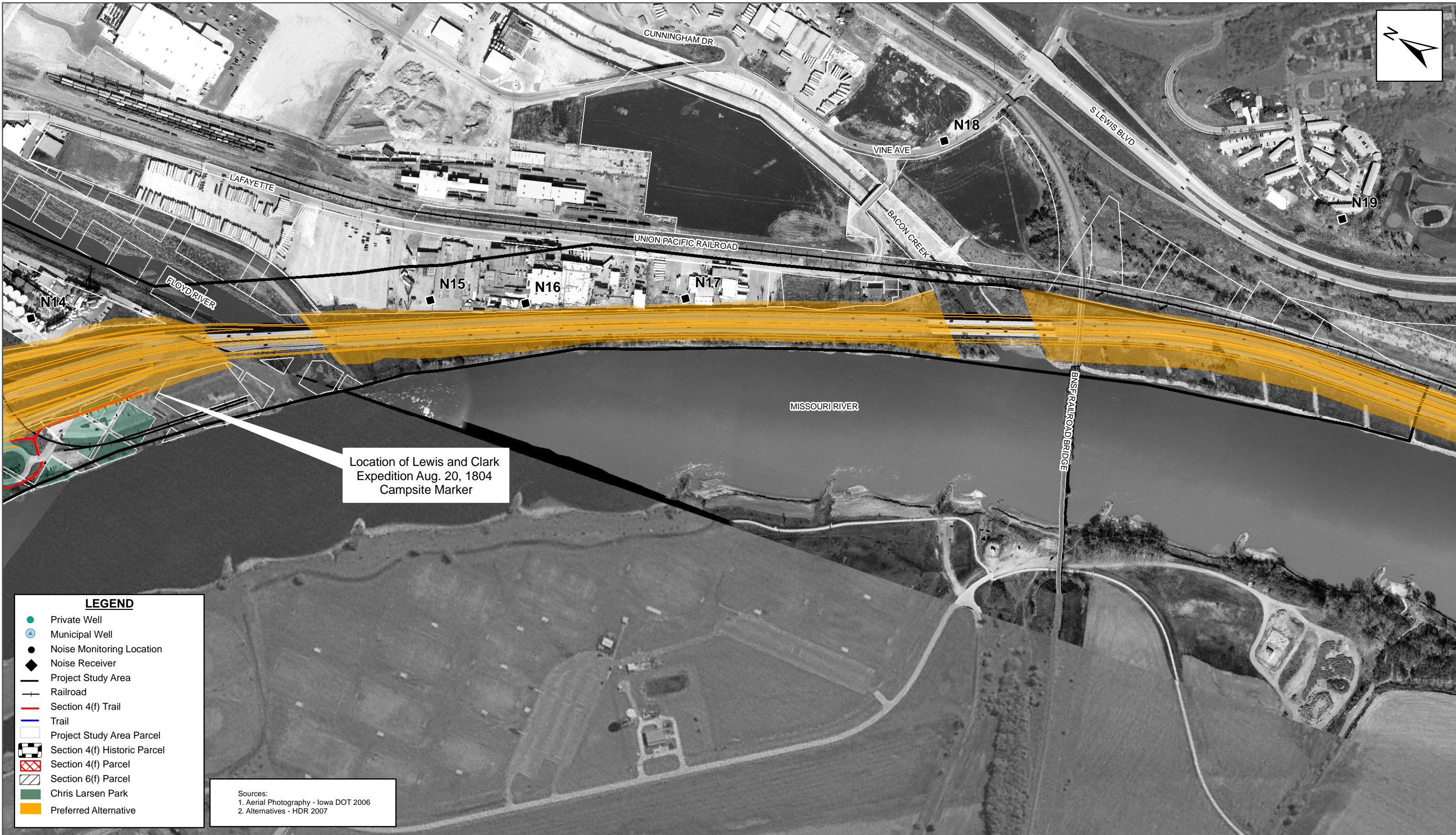
0 200 400
 Feet

I-29 Sioux City Interstate Study Environmental Impact Statement Sioux City, Iowa

UPDATED HUMAN ENVIRONMENTAL
 RESOURCES
 (Central Section of Corridor)

Date
 DEC 2008

Figure
 3-2b

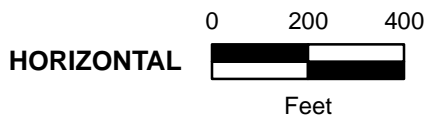


Location of Lewis and Clark Expedition Aug. 20, 1804 Campsite Marker

LEGEND

- Private Well
- Municipal Well
- Noise Monitoring Location
- ◆ Noise Receiver
- Project Study Area
- Railroad
- Section 4(f) Trail
- Trail
- Project Study Area Parcel
- Section 4(f) Historic Parcel
- Section 4(f) Parcel
- Section 6(f) Parcel
- Chris Larsen Park
- Preferred Alternative

Sources:
 1. Aerial Photography - Iowa DOT 2006
 2. Alternatives - HDR 2007



**I-29 Sioux City Interstate Study
 Environmental Impact Statement
 Sioux City, Iowa**

UPDATED HUMAN ENVIRONMENTAL
 RESOURCES
 (Southern Section of Corridor)

Date
 DEC 2008

Figure
 3-2c

**FEDERAL HIGHWAY ADMINISTRATION
RECORD OF DECISION
FHWA-IOWA-EIS-08-01-F**

**I-29 Sioux City Interstate Study
Woodbury County, Iowa
IM-029-6(168)146--13-97**

I. Decision

FHWA, in coordination with Iowa DOT and public input, identified Alternative B as the Selected Alternative for the proposed improvements to I-29, as described in the Final Environmental Impact Statement (EIS). Alternative B was identified as the Selected Alternative after reviewing all the reasonable alternatives under consideration (including the No-Build Alternative) with respect to their ability to meet the project purpose and need. The Selected Alternative is described in Section II of the Record of Decision. Figures 2-1a, 2-1b, and 2-1c in the Final EIS illustrate the Selected Alternative. The reader is also referred to the Final EIS for additional background information pertaining to the Selected Alternative (Alternative B), including potential impacts and mitigation solutions.

The alignment for the Selected Alternative has not been modified from the Draft EIS. No comments received from the public or agencies required the evaluation of additional or different alternatives than what was presented in the Draft EIS. Agency support for the Selected Alternative is discussed in Section 4, *Comments and Coordination* of the Final EIS.

II. Alternatives Considered

No Build Alternative

The no-build alternative is defined as no new major construction along the I-29 corridor. It does not meet the project purpose and need, but was carried forward as a basis for comparison for the build alternatives and is required to be considered by NEPA, as implemented through 40 Code of Federal Regulations (CFR) 1502.14. Improvements implemented with the no-build alternative would be limited to short-term restoration activities (maintenance improvements) needed to ensure continued roadway pavement and the structural integrity of the bridges over the Floyd River and Bacon Creek. The design of the existing roadway, including its location, geometric features, and current capacity constraints, would remain unchanged. Under this alternative, some minor improvements at high volume ramp intersections could occur. Under the no-build alternative, it is assumed that other committed and planned improvements (as detailed in Iowa DOT multi-year programs for the Sioux City Metropolitan Area) would still be undertaken and that safety concerns identified in the Final EIS Section 1 *Purpose and Need*, would still remain.

Alternative A

The Final EIS identified that Alternative A includes the construction of 15 different bridge locations along I-29 and a full access interchange at I-29 and Floyd Boulevard (northbound

exit/entrance and southbound exit/entrance), which separates industrial traffic from downtown commercial traffic. The northbound entrance ramp from Floyd Boulevard and the southbound exit ramp to Floyd Boulevard are braided with ramps to and from downtown because of the short distance between interchanges.

The interchange for downtown provides access to and from Nebraska Street and Pierce Street, similar to the existing downtown interchange. Direct northbound exit access and direct southbound exit and entrance access to downtown are provided. Northbound entrance access from downtown occurs by way of a frontage road and the Wesley Parkway Interchange.

One-way frontage roads parallel I-29 on the north and south sides between Nebraska Street and Wesley Parkway. Access from Gordon Drive to Nebraska Street or Pierce Street occurs by way of connector roadways to the frontage roads. The westbound Gordon Drive connector begins at Virginia Street and merges with the north side frontage road at approximately Jackson Street. The eastbound connector diverges from the south side frontage road at about Jackson Street and crosses under I-29 to rejoin existing Gordon Drive at Virginia Street. Existing Gordon Drive serves as a local circulation street from Jennings Street to Nebraska Street.

Northbound exit and entrance ramps provide direct access to and from Wesley Parkway. Southbound access to Wesley Parkway occurs through the south side frontage road and the Hamilton Boulevard exit ramp. Southbound access from Wesley Parkway occurs through the south side frontage road and the Nebraska/Pierce Street interchange. The existing Wesley Parkway Interchange will be reconstructed as a two-level interchange.

Third Street was extended to Wesley Parkway to provide additional access from Wesley Parkway to downtown.

Alternative A provides for a full access interchange at Hamilton Boulevard. The northbound exit ramp to Hamilton Boulevard and the southbound entrance ramp from Hamilton Boulevard are located on frontage roads between Wesley Parkway and Hamilton Boulevard because of short distance between interchanges.

Alternative B – Selected Alternative

The Final EIS identified that Alternative B includes the construction of 13 different bridge locations along I-29 and is shown in Final EIS Figures 2-3a, b, c, *Alternatives Carried Forward*. The Selected Alternative is also attached as Appendix A. Access to Floyd Boulevard and to downtown is combined in the form of a split-diamond¹ interchange with ramps connecting from I-29 to Floyd Boulevard and Virginia Street. One-way frontage roads on both sides of I-29 provide a connection between Floyd Boulevard and Virginia Street. The south side frontage road originates at Pierce Street and crosses under I-29, providing additional access from downtown. A separate, dedicated northbound exit ramp braided over the northbound Floyd Boulevard entrance ramp provides direct northbound access to downtown at Nebraska Street.

¹ Split diamond interchange ramp pairs connect to separate crossroads a short distance apart.

Full access to and from Wesley Parkway is provided except for southbound access to Wesley Parkway, which occurs by way of a south side frontage road and the Hamilton Boulevard exit ramp. The existing Wesley Parkway Interchange will be reconstructed as a two-level interchange.

Gordon Drive will be shifted to the north in the vicinity of Pearl Street to accommodate the reconstructed I-29 alignment. The one way westbound connection from Gordon Drive to Wesley Parkway will be maintained.

3rd Street extends to Wesley Parkway to provide additional access from Wesley Parkway to downtown, as in Alternative A.

A full access interchange is provided for Hamilton Boulevard. North side and south side frontage roads extend from Wesley Parkway to Hamilton Boulevard and ramps to and from I-29 merge onto and diverge from the frontage roads.

FHWA, in coordination with Iowa DOT and public input, identified Alternative B as the Selected Alternative for the following reasons:

- Evaluation of the existing and planned transportation network indicated that Alternative B would best meet the project purpose and need.
- Alternative B would satisfy traffic operations criteria at all locations.
- Alternative B would separate Floyd Boulevard traffic from downtown traffic, per stakeholder preference.
- Alternative B would provide more convenient local access during construction compared to the other two alternatives.
- Alternative B received the most support from stakeholders and agencies.
- Alternative B would take less time to construct compared to the other alternatives.
- Alternative B would reduce the number of I-29 entrances and exits by consolidating Floyd Boulevard and downtown access, per agency preference.
- Alternative B would minimize parkland impacts.

Alternative B is also the environmentally preferred alternative. Subsequent to the Draft EIS, FHWA and Iowa DOT (the signatory agencies) further evaluated potential impacts, as discussed in Final EIS Section 3, *Environmental Analysis* and reviewed the comments received on the Draft EIS, as addressed in Final EIS Section 4, *Comments and Coordination*. Based on the updated information obtained in this manner, the signatory agencies decided that the Selected Alternative to implement for the project is Alternative B.

The alignment for the Selected Alternative has not been modified from the Draft EIS. No comments received from the public or agencies required the evaluation of additional or different alternatives than what was presented in the Draft EIS. Agency support for the Selected Alternative is discussed in Final EIS Section 4, *Comments and Coordination*.

Alternative C

The Final EIS identified that Alternative C includes the construction of nine different bridge locations along I-29 and maintains the existing interchange access at Floyd Boulevard and at Hamilton Boulevard. Access provided by the existing interchange at Nebraska Street/Pierce Street in Alternative C is consolidated with the Wesley Parkway interchange, with ramp access to Pearl Street, which extends to cross under I-29.

The Floyd Boulevard interchange was reconfigured as a tight diamond² interchange which eliminated existing ramp connections to Dace Avenue. An auxiliary lane was provided on northbound and southbound I-29 between the Floyd Boulevard interchange and the Wesley Parkway/Pearl Street interchange.

The consolidated Wesley Parkway/Pearl Street Interchange was designed as a split diamond interchange along with a rebuilt two-level Wesley Parkway interchange. The Wesley Parkway and Pearl Street interchanges were connected with one-way frontage roads paralleling I-29. Both interchanges shared common I-29 entrance and exit ramps. Because of the tight spacing of the Wesley Parkway and Hamilton Boulevard interchanges, the northbound I-29 entrance ramp was grade separated (“braided”) over the I-29 northbound exit ramp to Hamilton Boulevard. The southbound I-29 exit ramp to Wesley Parkway was also “braided” with the Hamilton Boulevard entrance ramp because of tight interchange spacing.

Wesley Parkway existing alignment was maintained and a two-way connection to 3rd Street was added. The Hamilton Boulevard interchange was maintained as a diamond interchange with modified ramp geometry to accommodate the “braided” ramps necessary because of the close spacing of the Hamilton Boulevard and Wesley interchanges.

III. Section 4(f)

On October 22, 2007, the FHWA concurred that the level of documentation needed for the type of impacts from the proposed project on Section 4(f) property was “*de minimis*”. The Sioux City Parks and Recreation Department concurred that the impacts to Chris Larsen Park would not impact the activities, features, or attributes of the park in a letter dated January 24, 2008. The impacts from the three build alternatives to the Section 4(f) property was presented at the May 22, 2008 Public Hearing. More information about the May 22, 2008 Public Hearing is included in Final EIS Section 4.0, *Comments and Coordination*. No public comments concerning the impacts to the Section 4(f) property were received during the comment period of the Draft EIS.

IV. Measures to Minimize Harm

A variety of measures have been identified to mitigate social, economic, and environmental impacts associated with the construction of the Selected Alternative. The specific elements of the proposed mitigation plan are detailed in the Final EIS. Commitments typically include components that will be incorporated in the final design of the Selected Alternative and mitigation measures that will be implemented as part of the construction project. This project

² Diamond interchange with ramp terminal intersections spaced about 250 to 400 feet apart.

will comply with all federal and state laws and regulations which are applicable at the time of permitting.

All practicable measures to minimize environmental harm have been incorporated into the decision. These measures are noted in “bold” text.

A. Right of Way Acquisition and Business Relocation

The proposed improvements to I-29 in the project study area would use both existing and additional right-of-way throughout the corridor. As a result of new right-of-way acquisition, there would be direct conversions of commercial and industrial property to roadway uses. Given the absence of residential uses in the area, there would be no conversion of residential lands to roadway uses. Approximately 15.0 acres of new roadway right-of-way will be converted to roadway uses for the construction of the Selected Alternative. Of the 15.0 acres, 8.1 acres of the new right-of-way needed will be converted from commercial uses and 6.7 acres will be converted from public and utility uses. Of the 6.7 acres approximately 0.7 acres is owned by the State of Iowa. Approximately 0.2 acre of railroad right-of-way and less than 0.1 acre of industrial use property be converted to public roadway right-of-way.

Business displacements that would occur with right-of-way needed for the Selected Alternative will be concentrated in the downtown commercial area of Sioux City, typically in the Leech Avenue, Dace Avenue, and Gordon Drive areas northeast of the existing I-29 right-of-way. Another area of potential business relocations is the Tri-View Avenue area north of I-29 between the Hamilton Boulevard and Wesley Parkway Interchanges. The Selected Alternative will potentially require the displacement and relocation of one commercial billboard structure, seven businesses, and a total of nine buildings associated with those businesses.

All relocation and right-of-way acquisition will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970, as amended.

B. Utilities

The Selected Alternative would require the relocation of existing public and private utilities found within the existing I-29 right-of-way as well as those adjacent or in close proximity to the right-of-way. The types of required utility relocations would be typical of projects involving the construction of roadways utilizing both existing and expanded right-of-way. Utility impacts could include fiber optic cable, overhead and underground electric lines, gas mains, telephone cable and cable TV lines, water main, and sanitary and storm sewers.

Additional information about the relocation of the public utilities was included in Final EIS Section 3.2, *Updates to the Environmental Analysis*. Approximately 3,000 linear feet of existing water main is planned to be relocated or abandoned. Water main currently

located under the existing I-29 pavement must be abandoned and water main located within proposed new right-of-way that conflicts with the Selected Alternative must be relocated. In addition, approximately 18,000 linear feet of existing sanitary sewer is planned to be relocated or abandoned because of conflicts with the proposed pavement location of the proposed Selected Alternative.

The majority of the properties located in the project study area are considered recognized environmental conditions (REC) sites. The level of risk associated with these sites are described in Final EIS Section 3.12, *Regulated Materials*, section and are shown in Figures 3-5a, b, and c, *Regulated Materials*, of the Draft EIS document. It is likely that the relocation of the water and sewer mains would come into contact with contaminated soil. The relocation of the water main would impact low risk REC sites. The relocation of the sanitary sewer main would impact two low risk REC sites and possibly one high risk REC site, depending on which option is selected near the Floyd River Lift Station. **Special provisions will be written into the construction documents that address both the materials needed for pipe being placed into the ground and the methods of constructing in areas where contamination may be present. Some containment methods may be determined to include lower cost solutions as appropriate and feasible, such as capping or plugs to prevent contaminant migration.**

C. Environmental Justice

The Selected Alternative will not have disproportionately high and adverse human health or environmental effects to any minority population or low income populations.

D. Property Taxes

A short-term property tax revenue loss would occur in the City of Sioux City resulting from the conversion of taxable land into non-taxable transportation right-of-way use with construction of the Selected Alternative.

Approximately \$2 million dollars of taxable property value would be eliminated due to the conversion of land and structures to public right-of-way as a result of construction of the Selected Alternative. This taxable value represents 0.09 percent of the total taxable value in the City of Sioux City and would result in the loss of approximately \$90,200 in annual property tax revenues. **The immediate loss of taxable property value is expected to be offset over time with redevelopment projects that will occur consistent with the City of Sioux City's land use and redevelopment planning. There has been redevelopment occurring near the project area and the anticipated improvements represent continued investment into the core area of Sioux City. As such, the project improvements will complement other public works and private sector activities to improve access to new businesses and also serve to facilitate and attract new businesses near the project area.**

E. Surface Water

The Selected Alternative is located adjacent to the Missouri River. Most of the corridor area drains into the Missouri River either directly or via tributaries. The existing I-29 corridor in Woodbury County crosses the Floyd River, Perry Creek, and Bacon Creek.

An impact analysis was conducted to approximate the effect of the Selected Alternative impact to stormwater peak flows in the project study area. The amount of pervious area to be covered by additional pavement (beyond the existing pavement footprint) was calculated. The Selected Alternative would result in less than one percent increase in runoff and a negligible change in peak flows. The Selected Alternative would increase the amount of pavement in the project study area by approximately 30 percent. This would increase the amount of deicing chemicals used during inclement winter weather by approximately 30 percent. Therefore, it is expected that the concentration of pollutants found in stormwater runoff would be higher under the Selected Alternative than under existing conditions especially in the spring when the snow melts.

As required in Iowa DOT's *Construction Manual*, construction in or near the Floyd River, Bacon Creek, and Missouri River will require compliance with all federal and state laws, local ordinances, and regulations that affect the conduct of the work. This includes meeting the requirements of the National Pollutant Discharge Elimination Permitting (NPDES)³ for construction affecting areas greater than one acre. Implementation of erosion control measures known as Best Management Practices (BMPs) and other construction techniques would minimize erosion and sedimentation to the extent practicable. The application of these construction practices would reduce the effects of turbidity and sedimentation in the Floyd River, Bacon Creek, and Missouri River. The proposed Selected Alternative would be designed to meet the NPDES stormwater runoff management requirements to minimize impacts to water quality.

F. Wetlands and Waters of the U.S.

The Selected Alternative would result in a 0.1 acre impact to the wetland near Floyd Boulevard which would be considered a minimal impact under the U.S. Army Corps of Engineers (USACE) Section 404 Nationwide Permit process. Complete avoidance of wetland impacts was not possible due to the need to balance avoidance of other impacts, such as property acquisition, while satisfying the transportation need with a cost-effective project. There is no practicable alternative to the proposed construction in wetlands, and the Selected Alternative includes all practicable measures to minimize harm to wetlands which may result from such use.

³ The NPDES is a federal program implemented by the EPA through the Iowa Department of Natural Resources intended to regulate stormwater discharges associated with construction activity.

G. Floodplains

The Selected Alternative crosses the Floyd River, Perry Creek, and Bacon Creek. These tributaries of the Missouri River have been mapped as part of Sioux City's participation in the National Flood Insurance Study Program (NFIP). Bacon Creek has a 100 year floodplain but no floodway. Perry Creek and the Floyd River have a 100 year floodplain and a floodway.

Hydrologic modeling showed that the overall impact of the Selected Alternative would be negligible because of the large size of the floodplain in comparison to the limited width of floodplain encroachment. More information about impacts to floodplains is included in Final EIS Section 3.2, *Updates to the Environmental Analysis*.

More detailed design investigations have determined that the bearing capacity of the Perry Creek conduit's timber pile foundation would not support the additional loads of the proposed widened I-29 cross section. This affects the viability of reconstructing the I-29 section on-grade as an alternative for crossing the conduit. Three other alternatives for the I-29 crossing of Perry Creek, with varying I-29 profile impacts, were under consideration. These alternatives include:

- Alternative 1: I-29 bridges over an unmodified Perry Creek conduit.
- Alternative 2: I-29 bridges over a modified Perry Creek conduit.
- Alternative 3: Reconstruction of the Perry Creek conduit beneath I-29.

Each of these alternatives was evaluated in the Final EIS to determine potential Perry Creek floodplain impacts. There are no anticipated ramifications for the existing Perry Creek conduit's size and capacity associated with the construction of the bridges. As a result, no floodplain impacts would occur to the Perry Creek floodplain. Perry Creek Crossing Alternative 1 was chosen by the project's management team as the recommended crossing with the least potential impact to the creek and the fewest roadway profile impacts.

The USACE will review the I-29 improvement project's preliminary plans for construction activity in the vicinity of the Perry Creek Flood Damage Reduction Project. USACE has requested that the design of I-29 improvements make provisions for floods in excess of the capacity of Perry Creek to ensure that flows in excess of the channel and natural conduit capacity will not impede the natural flow path into the Missouri River. The Iowa DOT's project design team will submit Preliminary Plans to the attention of the USACE Readiness Branch for review and will continue to coordinate with the USACE regarding the Perry Creek floodplain and Perry Creek Flood Damage Reduction Project.

In addition, the Iowa DOT will observe and evaluate an erosion control weir within the channel and downstream of the existing I-29 Floyd River bridge crossing. The Iowa DOT will assess the possibility of increased scour risk to a proposed new structure at the Floyd River, which will be constructed in association with the

Selected Alternative. If the Iowa DOT observance and evaluation of the weir is determined to present an increased scour risk for the new bridge, then the Iowa DOT will request the owner's attention to the issue.

H. Cultural Resources

The Selected Alternative would impact approximately 0.7 acres of a parking lot associated with the Municipal Auditorium/Tyson Events Center, which is currently in the process of being listed on the NRHP. Despite the impacts to the parking lot no impacts would occur to the Municipal Auditorium building. On October 22, 2007, the FHWA concurred that no use of the Municipal Auditorium building would occur by constructing the Selected Alternative. In a letter dated June 6, 2008, the U.S. Department of Interior agreed with FHWA "that properties identified as eligible for Section 4(f) consideration would not be adversely affected by the project." This letter is included in Section 4, *Comments and Coordination* of the Final EIS.

I. Park and Recreation Areas

The Selected Alternative would require the acquisition of approximately 4.1 acres of Chris Larsen Park, or approximately 3.6 percent of the park area. Of the 4.1 acres, the State of Iowa owns approximately 0.7 acres and the City of Sioux City owns 3.4 acres. Existing park property that would be needed for incorporation in roadway right-of-way is located adjacent to the existing right-of-way and is not actively used other than for passive-use open space. Some minor amounts of paved ground would also be incorporated into new roadway right-of-way. Temporary construction impacts to three trails (Lewis & Clark Trail, Perry Creek Trail, and Floyd River Trail) are likely to occur during construction and may require the temporary closure of the trail. **With the completion of construction, short-term trail closure will be reopened and the trail system will no longer be impacted.** Additional information concerning impacts to trails is included in Final EIS Section 3.2, *Updates to Environmental Analysis*.

J. Regulated Materials

The Selected Alternative would impact 2.0 acres (3.56 percent) of potentially contaminated properties in the project corridor. The recognized environmental conditions (REC) sites with the most potential impact under the Selected Alternative include 1100 Tri-View Ave (I L L Inc.), 205 S. Court (Mid-American Dairymen), 301 S. Floyd (Nguyen Liquors, INC), 514 S. Floyd (Nutra-Flo Company), 1005 Gordon Drive (Holiday Station), 1200 Bluff Road (John Morrell & Co.), and 1101 Tri-View Ave (Sioux City Wastewater Treatment Plant). In addition, contaminated soil was recently encountered during completion of a geotechnical soil boring just north of the existing mainline and east of the Perry Creek conduit. These sites have potential soil and groundwater contamination or they generate regulated material waste on-site.

Further consideration of contaminated sites and regulated materials in the vicinity of the Selected Alternative may be necessary to prevent any future migration of existing subsurface contaminants, and address potential liability associated with

purchase of those parcels. A Phase II subsurface assessment may become necessary during the design phases of the project if it appears that the potential to disturb regulated sites is unavoidable. Any structures acquired for the project will be tested for asbestos-containing materials before demolition.

K. Visual Impacts

In general, the viewshed in the project study area would be similar to what currently exists if the Selected Alternative was constructed. I-29 would be wider, with six travel lanes instead of four, and some of the entrance and exit ramps would be slightly relocated. The overall visual impact to the corridor would be negligible since the aesthetic appeal would remain relatively unchanged.

The Iowa DOT will continue to partner with the City of Sioux City on appropriate aesthetic treatments associated with the Selected Alternative to integrate design features of the proposed project with planned visual and aesthetic themes chosen by the community for public corridors. Several conceptual designs were prepared in 2008 to provide an opportunity for public comment on potential themes and treatments to visually integrate the Selected Alternative into the urban fabric. As the project progresses through the design development phases, aesthetic concepts are expected to change and evolve. The level of aesthetic enhancements identified in the design plans and implemented in the final project will be dependent on the amount of local contributions provided for these items. The Iowa DOT cannot fund all of the enhancements through basic project funds and therefore will continue to partner with the City of Sioux City for needed local financial support to incorporate many of the design ideas identified.

V. Monitoring or Enforcement Program

The proposed project is subject to further review by federal and state agencies and local units of government during final design. Several permits will be required prior to the commencement of construction. The review and permit process will be implemented in cooperation with the appropriate regulatory agencies.

VI. Comments on the Final EIS

Written comments on the I-29 improvement project's Final EIS were accepted until April 2, 2009. Three written comments (including letters and emails) were received during the public comment period, including correspondence from regulatory agencies, local governments, interest groups, elected officials, and private citizens. Appendix B includes Final EIS comments.

The substantive comments specific to the adequacy of the Final EIS content or process are summarized and responses provided below. No response is provided for statements of preference, statements of fact, general opinions, or comments agreeing with the project information. Many of the comments received addressed similar aspects of the Final EIS content

or process. These have been summarized below and are responded to in common. Where appropriate, responses have been provided to specific, substantive comments.

United States Army Corps of Engineers (USACE), March 17, 2009:

Comment: The USACE requested that a Section 404 permit application, wetland delineation and a wetland mitigation plan should be submitted if more than 1/10th of an acre (0.1 acres) of wetlands will be impacted. USACE also asked that in addition to wetlands, that impacts to Waters of the U.S. also be considered.

Response: The Selected Alternative will impact 1/10th (0.1 acre) of wetland and therefore a Section 404 permit will not be necessary. The Iowa DOT will monitor potential wetland impacts during final design and if plans indicate the Selected Alternative will unavoidably impact more than 1/10th(0.1 acre), a Section 404 permit application, wetland delineation, and wetland mitigation plan will be submitted to the USACE.

Iowa Department of Natural Resources (IDNR), April 3, 2009:

Comment: The IDNR requested that the following permits and construction impact mitigation activities be considered as applicable based on proposed construction activities:

1. Sovereign Lands Construction Permit – for work to be conducted within Chris Larson City Park
2. IDNR Stormwater Discharge Permit – for construction activity greater than or equal to one acre of grading, clearing, or excavation.
3. All persons should take reasonable responsibility for the control of fugitive dust potentially emitted beyond the construction limits in accordance with IAW Iowa Administrative Code 567-23.3(2)“c”.

Response: It is likely given the project’s anticipated construction limits and planned activities that the aforementioned permits may become necessary. The Iowa DOT currently owns land that will be disturbed by construction activities in Chris Larsen Park. The planned construction area is not expected to affect sovereign lands under the jurisdiction of the Iowa Natural Resource Commission. The Iowa DOT will therefore apply for the IDNR Sovereign Lands Construction Permit and IDNR Stormwater Discharge Permit if it appears that unavoidable impacts to sovereign lands managed by the Iowa Natural Resource Commission will occur or greater than or equal to one acre of grading, clearing, or excavation will occur. Construction work that has the potential to emit fugitive dust beyond construction limits will be controlled by standard provisions written into Iowa DOT plans and specifications. Contractors will be advised to observe precautions to control fugitive dust based on weather conditions and sensitive land uses in the vicinity of the project in accordance with IAW Iowa Administrative Code 567-23.3(2)“c”.

United States Environmental Protection Agency (EPA), Undated and Received by Iowa DOT – Office of Location and Environment on May 6, 2009:

Comment: In its DEIS comment letter, dated June 6, 2008, the EPA recommended including an analysis of potential environmental impacts related to the relocation of approximately 9,000 feet of sanitary sewer as described in paragraph 3.1.6 Utilities. In addition, the EPA recommended that the areas for relocation should be identified to avoid all "regulated materials" sites to prevent further contamination and suggested developing a strategy to handle any hazardous substances that may be encountered during construction. While section 3.2 of the FEIS did include an updated utilities section, the EPA noted there is an additional 3000 linear feet of existing water main included in the FEIS that was not mentioned in Section 3.1.6 Utilities of the DEIS. Also included as an update under the Utilities section in the FEIS is an additional 3,400 linear feet, for a new total of 12,400 linear feet of sanitary sewer lines that are to be relocated or abandoned. The FEIS states that the relocation or abandonment is due to "conflicts with the proposed pavement location of the Preferred Alternative." The EPA chose to highlight this difference in order to improve coordination of the additional increment of sewerage among all parties associated with this project.

Response: Comments are noted and recommendation will be further considered during the project's preliminary design.

Comment: The EPA noted that Section 3.2 of the FEIS states that "it is likely that the relocation of the water and sewer mains would come into contact with contaminated soil," some of which have the potential to impact high risk recognized environmental conditions (REC) sites. While mitigation measures are included, the EPA again recommends that if possible, the relocation areas should make the best attempt to avoid any regulated materials or REC sites. If this is not feasible, the smallest possible area and/or the lowest risk area should be considered.


Response: Comments are noted and recommendations will be further considered during the project's preliminary design.

Comment: The EPA noted that FEIS Table 3.3 Relocation of Sanitary Sewer provides three options (A, B, and C) for possible relocation but does not identify the preferred option of the three.

Response: The preferred option for the relocation of the sanitary sewer will be determined during the project's preliminary design, when interrelated design details will become known and be further evaluated. The most appropriate solution will be determined at that time, including consideration of potential consequences for the selection.

VII. Conclusion

The selection of Build Alternative B to improve approximately 3.5 miles of I-29 in Sioux City, Iowa -- including reconfiguration of four interchanges to increase safety, enhance connections to the local roadway system, add one lane in each direction, and improve or eliminate some of the traffic merging issues that occur in this corridor -- was made after careful consideration of all social, economic, and environmental factors, with input from the Iowa DOT, Siouxland Interstate Metropolitan Planning Council (SIMPCO) and city of Sioux City, other local, state, and Federal agencies, and the public.


Lubin Quinones
Division Administrator
Federal Highway Administration

8 July 09
Date

APPENDIX A

SELECTED ALTERNATIVE



LEGEND

- Project Study Area
- Project Study Area Parcels
- Bridge
- Preferred Alternative

Note: Color for map differs due to aerial imagery items displayed on map.

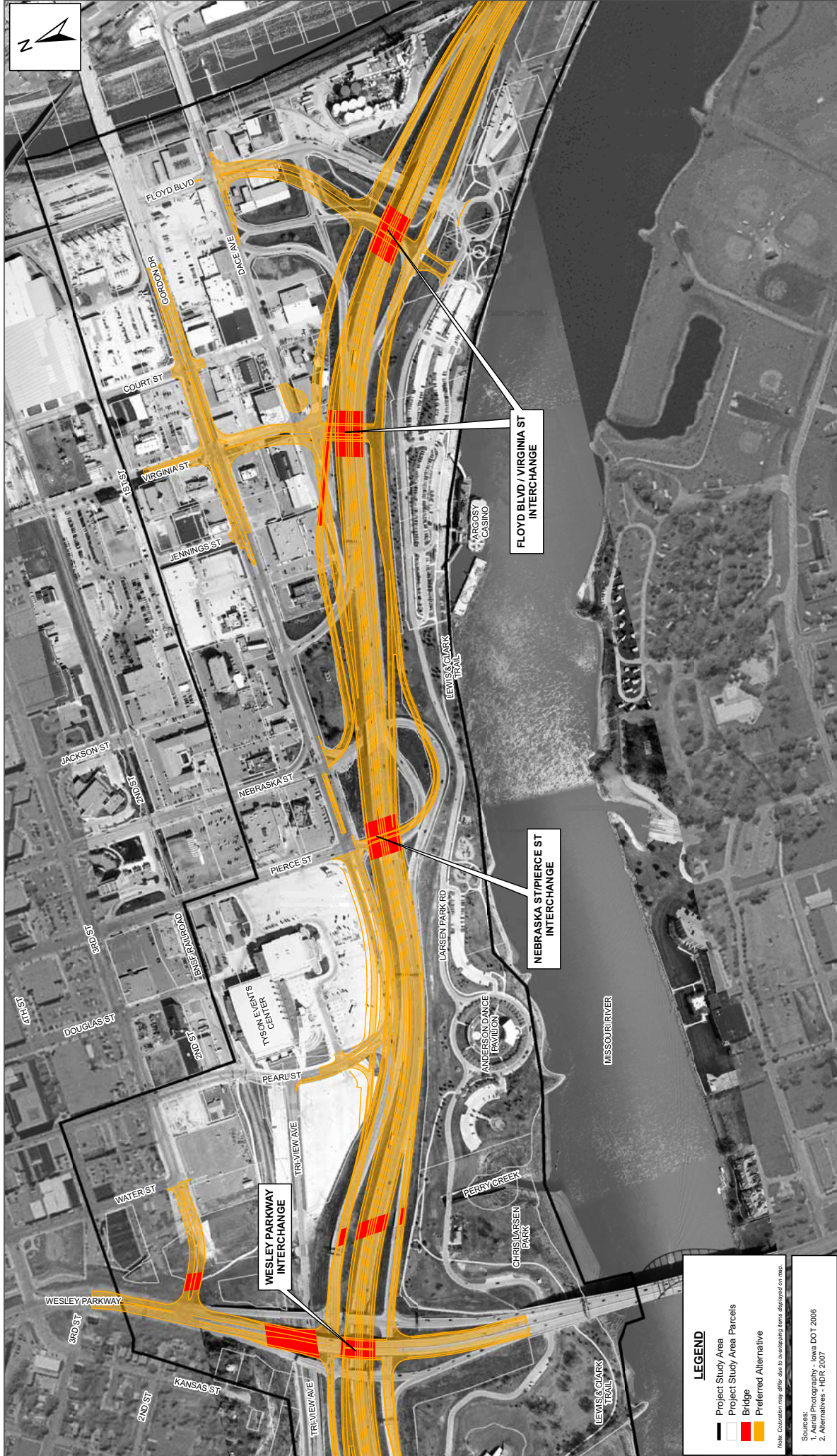
Sources:
 1. Aerial Photography - Iowa DOT 2006
 2. Alternatives - HDR 2007

	I-29 Sioux City Interstate Study Environmental Impact Statement Sioux City, Iowa	PREFERRED ALTERNATIVE (Western Section of Corridor)	Date DEC 2008
			Figure 2-1a

HORIZONTAL

0 200 400
Feet

Woodward Clyde



LEGEND

- Project Study Area
- Project Study Area Parcels
- Bridge
- Preferred Alternative

Note: Colorized map refers only to aerial imagery. Bridge and/or on map.

Sources:
 1. Aerial Photography - Iowa DOT 2006
 2. Alternatives - HDR 2007

Date
DEC 2008

Figure
2-1b

PREFERRED ALTERNATIVE
(Central Section of Corridor)

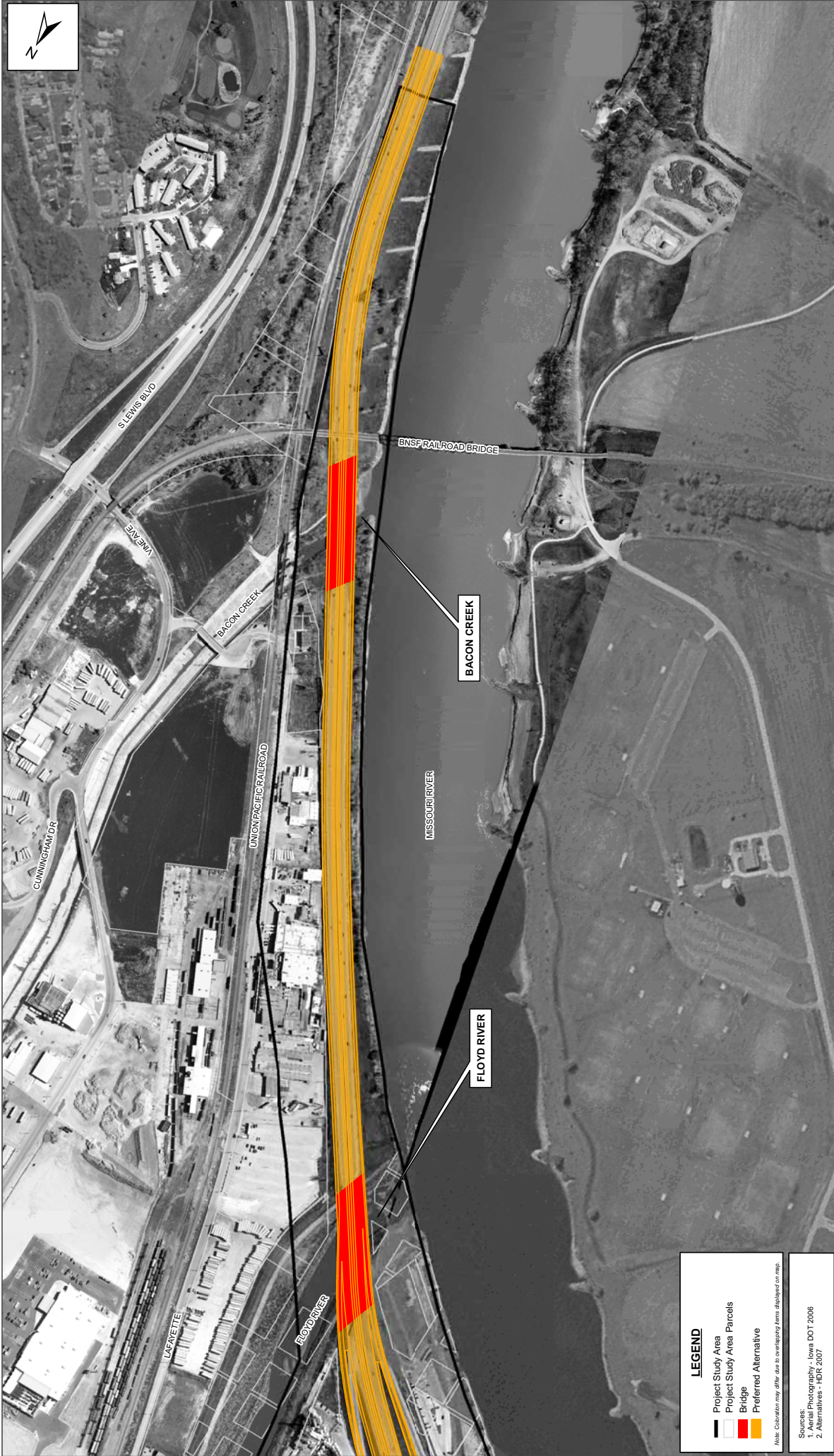
I-29 Sioux City Interstate Study
Environmental Impact Statement
 Sioux City, Iowa

HORIZONTAL

0 200 400
 Feet

Swift Group Company

Iowa Department of Transportation



LEGEND

- Project Study Area
- Project Study Area Parcels
- Bridge
- Preferred Alternative

Note: Color for map differs due to screen/printing items displayed on map.

Sources:
1. Aerial Photography - Iowa DOT 2006
2. Alternatives - HDR 2007

Date
DEC 2008

Figure
2-1c

**PREFERRED ALTERNATIVE
(Southern Section of Corridor)**

**I-29 Sioux City Interstate Study
Environmental Impact Statement
Sioux City, Iowa**

HORIZONTAL

0 200 400
Feet

Wisconsin ClearCorridor

**Iowa Department
of Transportation**

©ICAD081640UGIS/Envr_Impact_Statement/Final_EIS_Figures/Figure_2-1c-Preferred_Alternative-091608.mxd

APPENDIX B

FINAL EIS CORRESPONDENCE



REPLY TO
ATTENTION OF

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

<http://www.mvr.usace.army.mil>

March 17, 2009

Operations Division

SUBJECT: RE: I-29 Sioux City Interstate Study Final EIS

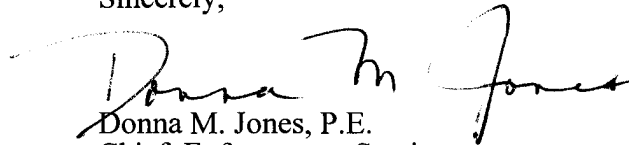
Mr. Jim Rost
Iowa Department of Transportation
800 Lincoln Way
Ames, Iowa 50010

Dear Mr. Rost:

We received the final EIS for the I-29 Sioux City Interstate Study on March 11, 2009. To initiate processing, we will need a 404 application, wetland delineation and an wetland mitigation plan if more than 1/10th of an acre of wetlands will be impacted. In addition to wetlands, please consider the impacts to Waters of the U.S. also.

Should you have any questions, please contact Mr. Albert Frohlich in our Regulatory Branch by letter or telephone at 309/794-5859.

Sincerely,


Donna M. Jones, P.E.
Chief, Enforcement Section
Regulatory Branch

Enclosure

RECEIVED

MAR 20 2009

OFFICE OF LOCATION & ENFORCEMENT



STATE OF IOWA

CHESTER J. CULVER, GOVERNOR
PATTY JUDGE, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
RICHARD A. LEOPOLD, DIRECTOR

April 3, 2009

James Rost
Iowa Department of Transportation
800 Lincoln Way
Ames, IA 50010

RE: Environmental Review for Natural Resources
I-29 Improvements in Sioux City, FEIS
IM-029-6(168)146—13-97
Woodbury County
Section 1, Township 88N, Range 48W
Section 29, 30, 33, 34, Township 89N, Range 47W

RECEIVED
APR 09 2009
OFFICE OF LOCATION & ENVIRONMENT

Dear Mr. Rost:

Thank you for inviting our comments on the impact of the above referenced project. Chris Larson City Park in Section 29 and 32, Township 89N, Range 47W, is owned by the Iowa Department of Natural Resources (IDNR) and managed by the City of Sioux City. Work that will impact Chris Larson City Park must secure a Sovereign Lands Construction Permit prior to construction. The Joint Application Form is available on the IDNR website at <http://www.iowadnr.gov/other/files/jointpermit.pdf>.

The IDNR reviewed this project on November 30, 2004, and June 9, 2008. Comments from that letter of review led to a butterfly survey conducted in 2005 for the state special concern species Ottoe Skipper (*Hesperia ottoe*) and Olympia Marble (*Euchloe olympia*).

The IDOT conducted an extensive plant survey of a borrow site located in the Loess Hills landform after the Draft EIS was signed. The IDOT and IDNR entered into a Memorandum of Agreement (MOA) in November 2008 regarding transportation land use within the Loess Hills. The IDNR concurred with the finding of that survey and also acknowledged that the terms of the MOA were met which concluded the MOA process.

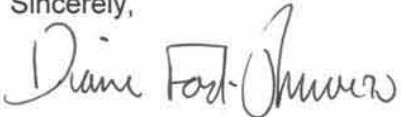
This letter is a record of review for protected species, rare natural communities, state lands and waters in the project area, including review by personnel representing state parks, preserves, recreation areas, fisheries and wildlife but does not include any potential comment from the Environmental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

Any construction activity that bares the soil of an area greater than or equal to 1 acre including clearing, grading or excavation may require a storm water discharge permit from the Department. Construction activities may include the temporary or permanent storage of dredge material. For more information regarding this matter, please contact Ruth Rosdail at (515) 281-6782.

The Department administers regulations that pertain to fugitive dust IAW Iowa Administrative Code 567-23.3(2)"c". All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of property during construction, alteration, repairing or demolishing of buildings, bridges or other vertical structures or haul roads. All questions regarding fugitive dust regulations should be addressed to Jim McGraw at (515) 242-5167.

If you have questions about this letter or require further information, please contact me at (515) 281-6341.

Sincerely,

A handwritten signature in cursive script that reads "Diane Ford-Shivvers".

Diane Ford-Shivvers
Deputy Division Administrator
Conservation and Recreation Division

FILE COPY: Inga Foster

Tracking Number: 2447

CC: Chris Schwake, Iowa DNR (email)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101

04 MAY 2009

RECEIVED

MAY 06 2009

OFFICE OF LOCATION & ENVIRONMENT

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

Dear Mr. Rost:

RE: Review of Final Environmental Impact Statement for the I-29 Sioux City Interstate Study, Woodbury County, Iowa

The U.S. Environmental Protection Agency has reviewed the Final Environmental Impact Statement for the I-29 Sioux City Interstate Study. Our review is provided pursuant to the National Environmental Policy Act 42 U.S.C. 4231, Council on Environmental Quality regulations 40 C.F.R. Parts 1500-1508, and Section 309 of the Clean Air Act. The FEIS was assigned the CEQ number 20090093.

We offer the following comments to address and minimize potential environmental impacts of the project:

Sewer Relocation & Regulated Materials

In our DEIS comment letter, dated June 6, 2008, we recommended including an analysis of potential environmental impacts related to the relocation of approximately 9000 feet of sanitary sewer as described in paragraph 3.1.6 Utilities. In addition, we recommended that the areas for relocation should be identified to avoid all "regulated materials" sites to prevent further contamination and suggested developing a strategy to handle any hazardous substances that may be encountered during construction.

While section 3.2 of the FEIS did include an updated utilities section, there are an additional 3000 linear feet of existing water main included in the FEIS that was not mentioned in section 3.1.6 Utilities of the DEIS. Also included as an update under the Utilities section in the FEIS is an additional 3400 linear feet, for a new total of 12,400 linear feet of sanitary sewer lines that are to be relocated or abandoned. The FEIS states that the relocation or abandonment is due to "conflicts with the proposed pavement location of the Preferred Alternative." We are merely highlighting this difference in order to improve coordination of this additional increment of sewerage among all parties associated with this project.



Section 3.2 states that "it is likely that the relocation of the water and sewer mains would come into contact with contaminated soil," some of which have the potential to impact high risk recognized environmental conditions (REC) sites. While mitigation measures are included, we would again recommend that if possible, the relocation areas should make the best attempt to avoid any regulated materials or REC sites. If this is not feasible, the smallest possible area and/or the lowest risk area should be considered.

Lastly, Table 3.3 Relocation of Sanitary Sewer provides three options (A, B, & C) for possible relocation but does not identify the preferred option of the three.

Thank you for addressing our comments from the previous correspondence. We appreciate the opportunity to provide comments regarding this project and your FEIS. If you have any questions or concerns, please contact me at 913-551-7565 or via email at tucker.amber@epa.gov or you may contact Joe Cothorn, NEPA Team Leader, at 913-551-7148 or via email at cothorn.joe@epa.gov.

Sincerely,

A handwritten signature in cursive script that reads "Amber Tucker".

Amber Tucker
NEPA Reviewer
Environmental Services Division