Summary Information

Federal Awarding Agency Name: U.S. Department Of Agriculture - Natural Resources Conservation Service (NRCS), Commodity Credit Corporation (CCC)

Funding Opportunity Title: Announcement for Program Funding for NRCS' Conservation Easement Restoration.

Initial Announcement

Funding Opportunity Number: USDA-NRCS-IA-18-03

Catalog of Federal Domestic Assistance Number: 10.931, Agriculture Conservation Easement Program (ACEP); 10.932 Regional Conservation Partnership Program (RCPP); 10.923 Emergency Watershed Protection Program – Floodplain Easements (EWPP-FPE)

Funding Opportunity Announcement Summary
ACEP-WRE (and its predecessor, WRP), RCPP (easement component) and EWPP-FPE are voluntary programs to conserve, protect, and enhance the nation's wetland and floodplain ecosystems. These programs promote the restoration, enhancement, protection, maintenance and management of wetland systems and adjacent land that would contribute significantly to wetland functions and values. Through easement programs, landowners may receive assistance to install or implement structural or vegetative wetland/floodplain and associated upland restoration practices on eligible land. Policy provides that the Secretary may request the services of, and enter into cooperative agreements with, non-Federal entities to assist in providing specialized assistance necessary to implement conservation plans under these programs. To that end, the agency is directing resources toward the restoration of degraded wetlands and floodplains across the state of Iowa.

The NRCS is requesting proposals from qualified individuals and organizations that share a common interest in the conservation and restoration of wetland and floodplain resources throughout Iowa under the framework of a five year agreement with approximately $8 million in funding, if available.

Key Dates
Applications must be received by 5 pm Eastern Daylight Time on June 25, 2018. Questions must be submitted by 5 pm Eastern Daylight Time on June 9, 2018, and answers to questions will be posted to Grants.gov by June 13, 2018. NRCS anticipates announcing selections no later than August 2018, and making awards by September 30, 2018.

Submissions
Applications must be submitted electronically through grants.gov.

Please note that the grants.gov electronic submission component has been updated. The updated component is called Workspace. Workspace is the standard way for organizations or individuals to apply for federal grants in Grants.gov. Workspace allows an applicant grant team to

simultaneously access and edit different forms within an application. In addition, the forms can be filled out online or as a PDF.

Please allow extra time to register in the new Workspace. An overview of Workspace can be viewed at grants.gov. There are also several preliminary registration steps before the applicant can submit the application. To register, go to www.grants.gov, click on "Applicants", then click on "Get Registered."If you have completed a prior grants.gov application, you may already have completed the registration process.
Persons with disabilities who require alternative means for communication (e.g., Braille, large print, audio tape) should contact the USDA TARGET Center at (202) 720-2600 (voice and TDD).

Federal Funding Floor and Ceiling Amounts
The funding floor for this announcement $500,000 and the funding ceiling is $3million. The funding floor means the minimum agreement funding amount for the Federal share per agreement awarded. The ceiling is the maximum agreement funding amount for the Federal share per agreement awarded.

I. PROGRAM DESCRIPTION

A. Legislative Authority

The Agriculture Conservation Easement Program – Wetland Reserve Easement (ACEP-WRE) was authorized as part of the Agricultural Act of 2014 and includes legacy easements from WRP. The Natural Resources Conservation Service administers the program through the following authorities: Section 216, Public Law 81-516; Section 403 of Title IV of the Agricultural Credit Act of 1978, Public Law 95-334; and Section 382, Title III, of the 1996 Farm Bill Public Law 104-127. The Secretary may request the services of non-Federal entities to assist the Secretary in providing the assistance necessary to develop and implement conservation programs under this title.. The NRCS may do this through entering into cooperative agreements with an awardee or other cooperator.

B. Overview

The purpose of voluntary conservation easement programs such as ACEP-WRE (WRP & RCPP) and EWPP-FPE is to conserve, protect, and enhance the nation's wetland and floodplain ecosystems. The program promotes the restoration, enhancement, protection, maintenance and management of wetland systems and adjacent land that would contribute significantly to wetland functions and values. Through conservation easement programs, landowners may receive assistance to install or implement structural or vegetative wetland/floodplain and associated upland restoration practices on eligible land. Policy provides that the Secretary may request the services of, and enter into cooperative agreements with, non-Federal entities to assist in providing specialized assistance necessary to implement conservation plans under these programs. The agency is directing resources toward the restoration of degraded wetlands and floodplains across the state of Iowa.

C. Project Description

The objective of conservation easement restorationis to provide specialized assistance to

landowners in planning, designing and implementing wetland and associated upland restoration plans that maximize wildlife habitat in wetland systems, as well as provide water quality improvements, reduced soil erosion, reduced impacts of flooding and provide wildlife habitat for threatened and endangered species. Applicants will be responsible for assisting NRCS by providing specialized assistance to implement conservation easement restoration plans. Performance may include any part or all operations necessary to complete vegetative and hydrology restoration of conservation easements in a timely and effective manner. Work shall include any or all of the following activities: restoration practice implementation, implementation of management activities for various wetland restoration and enhancement practices; vegetative planting and maintenance activities and related conservation practices that meet NRCS standards and specifications. All services shall be provided in accordance with applicable NRCS policy and criteria that can be found at the following websites: NRCS Field Office Technical Guide: http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/fotg/ ; and NRCS National Engineering Handbook, and National Engineering Manual References: https://directives.sc.egov.usda.gov/viewerFS.aspx?hid=41061

Awardees will perform all work in close coordination with the NRCS Restoration Specialist, Area Easement Specialist, District Conservationist (DC), and/or Area Engineer. Once a project is received, the awardee will complete the assigned project during the performance period identified in project documentation. NRCS will complete the survey, engineering design, drawings, specifications, and seeding plans which will provide the basis for the government estimate. NRCS will forward the conservation plan, schedule, and design specifications to the awardee(s) and request the submission of a cost proposal and breakdown. NRCS and awardee will collaborate on restoration plans and implementation procedures. NRCS will negotiate with the awardee(s) if the proposed costs are not fair and reasonable considering the government estimate. NRCS intends for the final project funding to be determined on a site by site basis. Conservation easements require a detailed and extensive restoration implementation process. For agreement obligation purposes, an average restoration cost per easement will be used to determine agreement funding level.

Typical wetland engineering practices and biological practices for conservation easement projects may include but are not limited to the following Conservation Practice Standards: Critical Area Planting (342), Dike (356), Fence (382), Structure for Water Control (587), Subsurface drainage (606), Underground Outlet (620), Wetland Wildlife Management (644) Wetland Restoration (657), Wetland Enhancement (658), Brush Management (314), Herbaceous Weed Control (315), Conservation Cover (327), Prescribed Burning (338), Firebreaks (394), Hedgerow Planting (422), Tree and Shrub Site Preparation (490), Tree/Shrub Establishment (612), Upland Wildlife Habitat Management (645), Early Successional Habitat Development and Management (647), and Forest Stand Improvement (666) and others as deemed necessary and applicable by the Iowa NRCS. All practice standards must be met and are described in the NRCS electronic FOTG, which can be found at: http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/fotg/.

The awardee will be expected to implement restoration practices and provide the

inspection and quality control for each conservation easement restoration project awarded. This will require the awardee to employ the services of a licensed professional engineer (PE). NRCS staff and the awardee will collaborate as needed on the restoration planning and installation. Experience in, or possessing the expertise to provide technical assistance on wetland restoration planning and management would be beneficial qualities to this partnership with NRCS.

The awardee will provide to the NRCS a status report (no less than monthly) of work in progress and any other documentation as may be required by the NRCS standards and specifications.

Awardee will, in accordance with NRCS Standards & Specifications where applicable:

- Solicit bids for implementation of restoration practices
- Provide administrative oversight for all aspects of the restoration implementation process
- Oversee day to day implementation and inspection of restoration practices
- Organize and conduct necessary meetings to facilitate implementation of the restoration plan
- Compile daily field notes on progress of implementation activities and provide them to NRCS upon completion of the project
- Promptly communicate to NRCS any complications encountered during implementation of restoration practices which may require modifications to the task order
- Conduct final inspection/check out consistent with NRCS specifications
- Provide as-built documentation, signed by a licensed professional engineer (PE) to NRCS upon completion of restoration implementation in a format agreed to by both parties

These activities will occur in accordance with the NRCS provided restoration plan. A Sample Restoration Plan that NRCS will provide to the awardee per project is located in the Related Documents tab of this opportunity on Grants.gov. The restoration plan contains conservation plans, landowner contact information, restoration rationale/narrative, engineering plans/construction drawings, specifications, practice maps, planting/seeding plans, location maps, and task order detailing planned practice quantities, agreed to prices and proposed completion dates.

II. FEDERAL AWARD INFORMATION

A. Funding

All awards are subject to the availability of sufficient funds being appropriated by Congress and apportioned by the Office of Management and Budget (OMB) to support the addition and full cost of service to implement specialized assistance activities. The amount of funds available for this program are not fixed and may vary considerably

from the current funding level. Initial obligation may be **approximately $3 Million** for restoration on FY2017 ACEP-WRE Enrollments and may also include funding in multiple conservation easement fund codes (WRP or EWP). Amendments to the agreement(s) may be developed upon availability of funding in future years (FY18 and FY19 ACEP-WRE enrollments) up to $8 million total. The work will be performed statewide.

B. Type of Federal Award

Cooperative agreements will be awarded competitively to applicants. Cooperative agreements have been determined to be the appropriate funding instrument because of the substantial involvement of NRCS in providing technical oversight and coordination of planning, designing and implementing wetland and associated upland restoration activities. The agency undertake activities such as the following:

- Conduct an initial briefing at the Iowa NRCS State Office in Des Moines, Iowa, prior to award to discuss the goals and objectives of the specific projects and items of work to be conducted under the agreement.
- Designate a liaison and responsible officials to participate in the planning and management of the cooperative agreement and coordinate activities between the awardee and Iowa NRCS.
- Complete engineering drawings, specifications, and seeding plans for each restoration project and stake/layout all projects in the field.
- Deliver conservation plan, schedule of operations, and project specifications to awardee(s) and request the submission of cost proposal and breakdown.
- Negotiate with the awardee(s) if the proposed costs are not fair and reasonable considering the government estimate.
- Identify and prioritize work assignments at the Iowa State Office level with consultation from the Iowa NRCS Field Offices.
- Provide state level coordination and collaboration of technical specialists.
- Conduct quality assurance reviews for services provided under the agreement.
- Provide access to NRCS technology and technical tools to the maximum extent possible.
- Provide necessary permits, cultural resource checks, and NEPA compliance.
- Approve all new technologies and innovative practices, including applicable standards and specifications, prior to the applicant applying those practices.
- The NRCS will identify and prioritize work assignments for completing activities required to implement the wetland and associated upland restoration components of each conservation plan.
- The NRCS will monitor the awardee's progress and suspend work if agreement or conservation plan requirements or NRCS standards and specifications are not met.

C. Performance Periods

The cooperative agreements will have a period of performance of five years. Applicants should plan their projects based on a project start date of 09/30/2018. Work under this cooperative agreement is subject to satisfactory negotiation of individual or grouped conservation plans of operation projects. There will be no

minimum or maximum price on any conservation plans of operation projects. The maximum amount of reimbursement for each cooperative agreement period shall be determined by available funds. There shall be no guaranteed minimum. Multiple cooperative agreements may be awarded as a result of this announcement. Projects will be ordered on an as-needed basis beginning from the date of the award of the agreement for a period not to exceed five years.

D. Number of Awards

The agency expects to make one award(s).

E. Procurement Contratcs

The agency does not expect to make procurement contracts associated with this announcement.

F. Eligibility of Renewal or Supplemental Project Applications

Applications for renewal or supplementation of existing projects are eligible to compete with applications for new Federal awards. An application for renewal means a proposal submitted to continue an existing agreement that meets the objectives and requirements of this NFO. An application for supplementation of an existing project means a proposal to add components to an existing agreement so that it would meet the objectives and requirements in this NFO.

III. ELIGIBILITY INFORMATION

A. Applicant Eligibility

Applicants and applications must meet eligibility criteria by the application deadline to be considered for award. Eligible applicant type is determined by the implementing program statute. This opportunity is opne to the following applicants:

- County governments
- City or township governments
- Special district governments
- Institutions of higher education, colleges and universities
- Private organizations
- For profit enterprises
- Native American tribal governments (Federally recognized),
- Native American tribal organizations (other than Federally recognized tribal governments)
- Individuals
- Nonprofits that do not have a 501(c) (3) status with the IRS, other than institutions of higher education
- Nonprofits having a 501(c) (3) status with the IRS, other than institutions of higher education

B. Cost Sharing or Matching

There is no cost sharing or matching requirement for this opportunity.

C. Other

Applicant entities identified in the SAM.gov Exclusions database as ineligible, prohibited/restricted or excluded from receiving Federal contracts, certain subcontracts, and certain Federal assistance and benefits will not be considered for Federal funding, as applicable to the funding being requested under this Federal program (2 CFR 200.205(d)).

IV. APPLICATION AND SUBMISSION INFORMATION

There is no pre-proposal process for this announcement. Full applications are due by the submission date identified in the Summary Information of this notice. All forms and documents necessary for submission are included in the Grants.gov application package and/or Related Documents tab of this opportunity. Applicants may request paper copies of materials by contacting the Federal Awarding Agency contacts listed in Section VII of this opportunity.

A. Content and Format

Applications must contain the content, format, and information set forth below to receive consideration for funding. If submitting applications for more than one project, submit a separate application for each project. Applicants should not assume prior knowledge on the part of NRCS or others as to the relative merits of the project described in their application. Applicants must submit a single copy of the application in the following format:

- Each page must be on numbered, letter-sized (8½” x 11”) paper utilizing a white background that has one-inch margins; and
- The text of the application must be typed, single spaced, black, and in a font no smaller than 12-point.

Applications that are incomplete or fail to comply with the required content and formatting requirements will not be considered for funding.

1. *Project Abstract (1 page maximum)*

   On a single page, provide the applicant entity name, duration of project in months, amount of Federal funding requested, amount of non-Federal cost-share/match funding committed, and project title. The executive summary must include both a technical and administrative contact for the application (if both are the same person, please note this). NRCS will use the technical and administrative contacts identified as the primary applicant contacts.

2. *Standard Application Forms*

All forms and documents necessary for submission are included in the Grants.gov application package and/or Related Documents tab of this opportunity.

3. *Project Narrative (15-page maximum)*

The proposal shall include a narrative statement that addresses the following as a minimum:

- A description of the resources and experience of the organization necessary to successfully perform implementation of wetland and associated upland restoration activities.
- The organization's level of commitment in terms of the staff, equipment resources, and/or funding support necessary to leverage the cooperative agreement.
- A brief description of the capabilities to perform the terms of the cooperative agreement, including a brief description of the organizational entity and of the qualifications, employment status, current responsibilities, and proposed level of effort for the project coordinator, and staff responsible for implementation. Resumes for key personnel should be included in an appendix to the proposal. Similar information requested in this paragraph may also be included for sub- awardees, contractors, subcontractors, and suppliers that would be beneficial for proposal evaluation.
- A list of past experience providing implementation of wetland and associated upland restorations for conservation contracts.
  Reference contacts at past restoration implementation projects.
- The proposal shall include an appendix. Material should be included only when necessary to support information provided in the narrative. Copies of documents, brochures, etc. are encouraged to demonstrate experience, knowledge, skills and abilities.

Awardee will, in accordance with NRCS Standards & Specifications where applicable:

- Solicit bids for implementation of restoration practices
- Provide administrative oversight for all aspects of the restoration implementation process
- Oversee day to day implementation and inspection of restoration practices
- Organize and conduct necessary meetings to facilitate implementation of the restoration plan
- Compile daily field notes on progress of implementation activities and provide them to NRCS upon completion of the project
- Promptly communicate to NRCS any complications encountered during implementation of restoration practices which may require modifications to the task order
- Conduct final inspection/check out consistent with NRCS specifications
- Provide as-built documentation to NRCS upon completion of restoration

implementation in a format agreed to by both parties

4. *Budget Information (12-page maximum)*

The budget portion of the application consists of two parts, as described in (a) and (b) below:

a. Standard Form (SF) 424A Budget Information – Non-Construction Programs. The SF-424A is included as part of the application package posted on Grants.gov.

b. Detailed Budget Narrative. Provide a detailed narrative in support of the budget for the project, broken down by each project year. Discuss how the budget specifically supports the proposed activities. Justify the project cost effectiveness and include justification for personnel and consultant salaries with a description of duties. Statement(s) of work for any subcontractors and consultants must be included as part of the application. The budget narrative should include both the Federal funds requested and the applicant's matching funds.

The format of the budget narrative can be in a chart, spreadsheet, table, etc. It should be readable on letter-size, printable pages. The information needs to be presented in such a way that the reviewers can readily understand what expenses are incurred to support the project.

c. As required in Title 2 of the Code of Federal Regulations Part 200, Subpart F Audit Requirements, all U.S. states, local governments, federally-recognized Indian tribal governments, and non-profit organizations expending $750,000 USD or more in Federal award funds in a fiscal year must submit a Single Audit report for that year through the Federal Audit Clearinghouse's Internet Data Entry System. Therefore, any U.S. states, local governments, federally-recognized Indian tribal governments, and non-profit organizations applying under this opportunity must include one of the following statements in its budget narrative:

> "My organization was required to submit a Single Audit report last year. The reporting period covered was from (insert date) to (insert date). This report, filed under EIN # (insert EIN), is available on the Federal Audit Clearinghouse Single Audit Database website (https://harvester.census.gov/facweb/) or will be by (insert date). "
>
> OR
>
> "My organization was not required to submit a Single Audit report last year."

d. Required Indirect Costs Statement - All applicants except individuals applying for funds separate from a business or non-profit organization he/she may operate must complete and attach the Indirect Costs Statement located in the Related Documents tab of this announcement on Grants.gov.

5. *Funding Restrictions*

Funds may not be used to pay any of the following costs unless otherwise permitted by law or approved in writing by the Authorized Departmental Officer in advance of incurring such costs:

- Costs above the amount of funds authorized for the project;
- Costs incurred prior to the effective date of the grant (preaward costs);
- Costs which lie outside the scope of the approved project and amendments thereto;
- Entertainment costs, regardless of their apparent relationship to project objectives;
- Compensation for injuries to persons or damage to property arising out of project activities;
- Consulting services performed by a Federal employee during official duty hours when such consulting services result in the payment of additional compensation to the employee; and
- Renovation or refurbishment of research or related spaces, the purchase or installation of fixed equipment in such spaces, and the planning, repair, rehabilitation, acquisition, or construction of buildings or facilities.

This list is not exhaustive. For more details, refer to 2 CFR Part 200.

Indirect costs limitations:

a. A non-profit organization or institution of higher education will be limited to a 10% indirect cost rate in accordance with the Agency's annual appropriations act. The 10% indirect cost rate applies to both federal and non-federal funds. Other types of entities are not subject to this statutory limitation.

b. To be eligible to recover any indirect cost under a Federal award, recipients must either 1) have a current negotiated indirect cost rate agreement (NICRA) with a Federal agency that has not expired; or 2) qualify for use of the de minimis rate authorized by 2 CFR 200.414(f). In order to qualify for the de minimis rate, the recipient must have never had a NICRA. A State, local, or tribal governmental department or agency unit that receives more than $35 million in direct Federal funding is not eligible for the de minimis rate.

c. Applicants not subject to the statutory limitation stated above, which have a current NICRA must calculate indirect costs using the rate and base

specified in their NICRA. A recipient may voluntarily reduce or waive recovery of indirect costs at its sole discretion and must not be encouraged or coerced in any way to do so by the agency. If voluntarily reduced or waived, the recipient may choose to apply any unrecovered indirect costs as part of their cost share or match. Unrecovered indirect cost means the difference between the amount charged to the Federal award and the amount which could have been charged to the Federal award under the recipient's approved negotiated indirect cost rate (2 CFR 200.306(c)). A copy of the applicant's current NICRA must be provided with the application. Indirect costs may not be recovered under an expired NICRA. However, if an applicant with a current NICRA is subject to the statutory limitation, indirect costs must be calculated as follows. First, multiply the NICRA rate by the base stated in the NICRA to arrive at Amount A. Next, multiply the statutory limit of 10% by the total of all direct costs to arrive at Amount B. The lower of Amount A and B is the amount of indirect cost to include on the budget.

d. Entities that are eligible for the de minimis rate who already have a de minimis rate agreement must use the rate and base specified in the agreement, which is modified total direct costs (MTDC) as defined by 2 CFR 200.68 and also excluding the amount of each subcontract exceeding $25,000. Note that MTDC excludes certain costs from the base to which the rate is applied. A copy of the applicant's de minimis rate agreement must be provided with the application. If a recipient is eligible to use the de minimis rate, but does not have a de minimis rate agreement, use an indirect cost rate of no more than 10% of MTDC when preparing the budget. If selected for award, a de minimis rate agreement will be executed along with the award.

e. Profit is not an eligible project cost. Therefore, any funds awarded to for-profit entities must be used for reimbursement of award related direct and indirect costs only.

f. Applicants who are individuals applying for funds separate from a business or non-profit organization he/she may operate are not eligible to charge indirect costs to their award. If you are an individual applying for funding, do not include any indirect costs in your proposed budget.

6. Certifications

All proposals must include the following signed certification forms, which are available at Grants.gov:

- AD-3030 Representations Regarding Felony Conviction and Tax Delinquent Status for Corporate Applicants.
- AD-3031 Assurances Regarding Felony Conviction and Tax Delinquent Status for Corporate Applicants.

- SF-424B, Assurances for Non-Constrution Programs.
- Certification Regarding Lobbying. Applicants, by signing and submitting an application, assure and certify that they are in compliance with the following Federal regulations:
    - 2 CFR Part 417, Government wide Debarment and Suspension (Non-procurement)
    - 4 CFR Part 418, New Restrictions on Lobbying
    - 2 CFR Part 421, Government wide Requirements for Drug Free Workplace (Financial Assistance)

- SF-LLL, Certification and Disclosure of Lobbying Activities (if applicable). Under Title 31 of the United States Code, Section 1352, an applicant or recipient must not use any federally appropriated funds (both annually appropriated and continuing appropriations) or matching funds under a grant or cooperative agreement award to pay any person for lobbying in connection with the award. Lobbying is defined as influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress connection with the award. Submission of an application also represents the applicant's certification of the statements in 2 CFR Part 418, Appendix A-Certification Regarding Lobbying. If you/your organization have/has made or agrees to make any payment using non-appropriated funds for lobbying in connection with this proposal AND the Federal share exceeds $100,000, you must also complete and submit the SF LLL, Disclosure of Lobbying Activities located at 2 CFR 418, Appendix B. See 2 CFR, Subpart 418.110 for more information on when additional submission of this form is required.

B. DUNS and SAM Numbers

Each applicant (unless the applicant is an individual excepted from those requirements under 2 CFR §25.110(b) or (c), or has an exception approved by the Federal awarding agency under 2 CFR §25.110(d)) is required to: (i) Be registered in SAM before submitting its application; (ii) provide a a valid unique entity identifier (Data Universal Numbering System (DUNS) number) in its application; and (iii) continue to maintain an active SAM registration with current information at all times during which it has an active Federal award or an application or plan under consideration by a Federal awarding agency. NRCS may not make a Federal award to an applicant until the applicant has complied with all applicable unique entity identifier and SAM requirements and, if an applicant has not fully complied with the requirements by the time NRCS is ready to make a Federal award, NRCS may determine that the applicant is not qualified to receive a Federal award and use that determination as a basis for making a Federal award to another applicant.

Entities must obtain a DUNS and register in SAM prior to registering with Grants.gov. A description of each is below. Entities are strongly encouraged to apply early for their DUNS number and SAM registration.

Data Universal Numbering System (DUNS) Number: A Dun and Bradstreet DUNS number is a unique, nine-digit sequence recognized as the universal standard for identifying and keeping track of over 70 million businesses worldwide. Applicants must obtain a DUNS number. Information on how to obtain a DUNS number can be found at http://fedgov.dnb.com/webform or by calling 1-866-705-5711.
System for Award Management (SAM) Registration: SAM is the official Federal system that consolidated the capabilities of Central Contractor Registry, Federal Agency Registration, Online Representations and Certifications Application, and Excluded Parties List System. To register, go to: https://www.sam.gov/portal/public/SAM/. The Federal Service Desk is available for registration assistance, and can be contacted via the Help tab at the website listed above.

C. How to Submit an Application

Applications must be submitted through the Grants.gov web portal.

Submitting an application through www.grants.gov requires completing a variety of tasks and steps. There are also several preliminary registration steps before the applicant can submit the application. To register in the grants.gov system, go to www.grants.gov, click on "Applicants", then click on "Get Registered."

If you have completed a prior grants.gov application, you may already have completed the registration process.

Please allow sufficient time to register in grants.gov, and for possible system delays.

Please note that the www.grants.gov electronic application submission component has been updated. The updated component is called Workspace. Workspace is the standard way for organizations or individuals to apply for federal grants in Grants.gov. Workspace allows an applicant grant team to simultaneously access and edit different forms within an application. In addition, the forms can be filled out online or as a PDF.

Please allow extra time to register in the new Workspace. An overview of Workspace can be viewed through grants.gov.

NRCS is not responsible for any technical malfunctions or website problems related to Grants.gov. If you encounter issues with Grants.gov, please contact the Grants.gov help desk at (800) 518-4726 or support@grants.gov. The applicant assumes the risk of any delays in application submission through Grants.gov.

D. Due Date

Proposals must be received via Grants.gov by 5 p.m. Eastern Daylight Time on June 25, 2018. Late submissions will not be reviewed or considered The agency will rely on

Grants.gov generated date and time receipt documentation for submission made both via Grants.gov and e-mail to determine whether applications meet the submission deadline. Grants.gov provides and automatic acknowledgement when applications are received.

E. Withdrawal

Proposals may be withdrawn by written notice at any time before award execution. Written notice of withdrawl must be signed by the applicant or an authorized representative.

F. Patents, Inventions, and Copyrights

Allocation of rights to patents, inventions, and copyrights shall be in accordance with 2 CFR Part 200. This regulation provides that small businesses normally may retain the principal worldwide patent rights to any invention developed with USDA support. In accordance with 2 CFR Part 200, this provision will also apply to commercial organizations. USDA receives a royalty-free license for Federal use, reserves the right to require the patentee to license others in certain circumstances, and requires that anyone exclusively licensed to sell the invention in the United States must normally manufacture it domestically. With regard to copyright, the grant recipient may copyright any work that is subject to copyright and was developed, or for which ownership was acquired, under an award. USDA reserves a royalty-free, nonexclusive, and irrevocable right to reproduce, publish, or otherwise use the work for Federal purposes and to authorize others to do so.

All tools produced must meet the accessibility of Electronic and Information Technology (EIT) requirements as specified in Section 508 of the Rehabilitation Act of 1973 (29 U.S.C. 794d) as amended by the Workforce Investment Act of 1998 (P.L. 105-220). Specifically, subsection 508(a)(1) requires that when the Federal government procures EIT, it must allow Federal employees and individuals of the public with disabilities comparable access to and use of information and data that is provided to Federal employees and individuals of the public without disabilities. All EIT that is subject to the 36 CFR 1194 standards will have a Section 508 acceptance test and will be validated upon acceptance. All maintenance for EIT that requires upgrades, modifications, installations, and purchases will adhere to the Section 508 standards and 36 CFR 1194.

G. Intergovernmental Review

This funding opportunity is not subject to Executive Order 12372, “Intergovernmental Review of Federal Programs.”

V. APPLICATION REVIEW INFORMATION

Proposals will be screened for completeness and compliance with the provisions of this notice. Incomplete, noncompliant, and/or proposals not meeting the formatting criteria will be eliminated from competition, and notification of elimination will be sent to the applicant. The agency intends to make a selection and award without conducting any discussions or allowing applicants to correct deficiencies or omissions in their applications. Consequently,

they must ensure their applications are complete and accurate. However, while the agency intents to make a selection and award without discussions, it reserves the right to conduct discussions for the purpose of allowing applicants to revise their applications to correct deficiencies or omissions identified by the NRCS. If this is done, the agency will conduct discussions with all applicants and identify deficiencies and omissions and give applicants and opportunity to submit a revised application by a common cut-off date.

Merit/technical reviews will be conducted by a technical review board nominated by the approving official. Risk reviews will be conducted by the Grants and Agreements Service Branch. The approving official will make the final award decisions. The approving official for this opportunity is the NRCS Iowa State Conservationist.

A. Risk Criteria

The agency will check SAM to ensure the applicant is not suspended or debarred, which would preclude receiving an award. In addition, prior to making a Federal award with a total Federal share greater than the simplified acquisition threshold ($250,000), the agency must review and consider any information about the applicant that is in the designated integrity and performance system accessible through SAM (the Federal Awardee Performance Integrity Information System, FAPIIS) (see 41 U.S.C. 2313 and 2 CFR 200.205(a)).

To further comply with the requirements at 2 CFR 200.205, the agency has established the following risk review process and related standards that an applicant must meet to be considered for award:

1. Financial Stability. The applicant certifies that it maintains adequate financial resources or cash flow to meet its financial obligations on a routine basis and successfully complete any agreement it may be awarded.
2. Quality of Management Systems and Ability to meet Management Standards prescribed in 2 CFR Part 200. The applicant certifies it has a financial management system adequate to segregate and track federal funds. It further certifies is has adequate systems in place for proper agreement administration; compliance with the standards outlined in 2 CFR Part 200 Section D for procurement, property, and records management; and required financial and performance reporting.
3. History of Performance. If the applicant has previously obtained Federal financial assistance award, it certifies that it has never failed to materially comply with the Federal award terms and conditions and further that it has never had an award terminated on that basis.

Submission of a proposal constitutes certification that an applicant meets these standards.

B. Merit Criteria

The focus of the evaluation will be the responses to the merit evaluation criteria. The applicant is not required to submit a sample project or associated pricing. Applicants are

welcome to reference NRCS restoration examples or sample projects if they choose. Capability, not cost, is the basis of the evaluation process and following criteria.

The proposals will be evaluated using the following merit criteria that are listed in descending order of importance:

1. **Specialized experience and technical competence in the type of work required (45%)** Evaluation will be based on the extent of related experience in planning, designing, and implementing wetland and associated upland restorations. Consideration will be given to those applicants with knowledge of and direct experience in implementing wetland and associated upland restorations in Iowa. Some key areas of expertise that will be evaluated include, but are not limited to:

   - Organizational capabilities - The adequacy of organizational resources and experience to successfully install wetland restoration projects. Share in a common mission that supports the natural resource conservation efforts with private landowners.
   - Project personnel - The reasonableness and feasibility of the applicant's approach and expertise for successfully achieving the objectives of the project within the required time frame.
   - Understanding the intent of conservation easement - The applicant's recognition of the value and need of the project and the full understanding of the intent of conservation easements. Ability to demonstrate successful past history and credibility of working with private landowners.
   - Experience - Working on wetland restoration in the State of Iowa or similar ecosystems, to include expertise in specific types of ecozones. Examples of previous work may be documented for review.

2. **Professional qualifications necessary for satisfactory performance (20%)**
   Evaluation will be based upon the number of qualified personnel, their knowledge and experience associated with the requirements above, and their availability to perform work on this agreement.

3. **Capacity to accomplish the work (20%)**
   Evaluation will be based upon the number of qualified personnel, the quantity of existing work under contract and the schedules for completion of the existing work, and the capacity to perform multiple projects simultaneously throughout the state.

4. **Past performance regarding work of this nature (15%)**
   Past experience with other government agencies and other organizations in regards to work of this nature and the quality and timeliness of performance of work performed.

C. **Selection**

Each proposal will be evaluated and ranked in accordance with the evaluation factors listed above. NRCS reserves the right to select more than one applicant for award. Applicant(s) may be selected to perform work by Iowa NRCS Easement Area(s), Ecozone(s), other geographical or program area, statewide or combination(s) thereof. After selection, NRCS will enter into negotiations with the selected applicant(s) to discuss cost and the terms and conditions of the cooperative agreement to be signed. The cooperative agreement will identify the USDA Field Office(s) or locations to be served. NRCS has the option to cancel the announcement if there are no qualified applicants or limit the number of awards made from this announcement. If multiple awards are made, NRCS reserves the right to designate what restoration projects are to be completed by which awardee. It is expected that restorations will be packaged in groups to obtain the best value to the government.

Awards Over the Simplified Acquisition Threshold (if applicable)
Notice to applicants:

a. Prior to making a Federal award with a total Federal share greater than the simplified acquisition threshold ($250,000), the agency must review and consider any information about the applicant that is in the designated integrity and performance system accessible through SAM (the Federal Awardee Performance Integrity Information System, FAPIIS) (see 41 U.S.C. 2313 and 2 CFR 200.205(a);

b. An applicant may review information in FAPIIS accessible through SAM and comment on any information about it that a Federal awarding agency previously entered;

c. The agency will consider any comments by the applicant, in addition to the other information in the designated integrity and performance system, in making a judgment about the applicant's integrity, business ethics, and record of performance under Federal awards when completing the review of risk posed by applicants as described in 2 CFR 200.205, Federal awarding agency review of risk posed by applicants.

D. Anticipated Announcement and Award Dates

NRCS anticipates announcing selections no later than August 2018. Applicants should plan their projects based on a project start date of September 30, 2018.

VI. FEDERAL AWARD ADMINISTRATION INFORMATION

A. Federal Award Notices

The agency will provide notice that an application has been selected before it actually makes the Federal award. As such, the selection notification is not an authorization to

begin performance. Any pre-award costs incurred by the awardee will not be reimbursed. The Notice of Grant and Agreement Award (form NRCS-ADS-093) signed by the authorized agency representative is the only authorizing document, and will be provided electronically to the entity's authorized representative for signature.

Both successful and unsuccessful applicants with be notified of the award decision via letter.

B. Administrative and National Policy Requirements

All project funds will be used in accordance with 2 CFR Part 200 and NRCS' General Terms And Conditions Grants And Cooperative Agreements. A copy of the General Terms And Conditions Grants And Cooperative Agreements document may be obtained by contacting the Federal Agency Contacts listed in Section VII below.

C. **Reporting**

Reporting will follow the NRCS General Terms And Conditions Grants And Cooperative Agreements, but will generally include electronic submission of semiannual progress reports, quarterly financial status reports, and final reports.

If the Federal share of any agreement awarded under this opportunity notice may include more than $500,000 over the period of performance, recipients must also comply with the post award reporting requirements reflected in Appendix XII of 2 CFR Part 200 —Award Term and Condition for Recipient Integrity and Performance Matters.

VII. FEDERAL AWARDING AGENCY CONTACT

Administrative Contact (Primary Contact)
Michele Devaney
Grants Management Specialist
USDA-NRCS
125 S. State St., Room 4010
Salt Lake City, UT 84138
(801) 524-4587
michele.devaney@wdc.usda.gov

Program Contact
Name : Sindra Jensen
210 Walnut Street Room 693
Des Moines, Iowa 50309
(515) 323-2480
sindra.jensen@ia.usda.gov

VIII. OTHER INFORMATION

A. Questions

Questions regarding this announcement must be submitted to the Administrative Contact identified above via email with the Opportunity Number in the subject line. Questions must be submitted by 5 pm Eastern Daylight Time on June 09, 2018. A questions and answers document addressing all questions will be posted to the Related Documents tab of this announcement in Grants.gov as a modification by June 13, 2018.

B. Freedom of Information and Privacy Act

Proposals to NRCS are considered to be confidential information. Proposals are not shared with individuals or entities seeking public disclosure through the Freedom of Information Act (FOIA) without the consent of the applicant. More specifically, Executive Order 12600 and USDA FOIA regulation 7 CFR Part 1, Subpart A requires the NRCS to provide notice to applicants that a third party has requested copies of their business information, and requires NRCS to consult with applicants regarding the releasing their records.

C. Notice to Applicants

The Federal Government is not obligated to make any Federal award as a result of this opportunity. Only authorized federal officials can bind the Federal Government to the expenditure of funds.

U.S. Department of Agriculture Non-Discrimination Statement
In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at https://www.ascr.usda.gov/filing-program-discrimination-complaint-usda-customer and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call

(866) 632-9992. Submit your completed form or letter to USDA by:

(1) mail: U.S. Department of Agriculture

Office of the Assistant Secretary for Civil Rights

1400 Independence Avenue, SW

Washington, D.C. 20250-9410;

(2) fax: (202) 690-7442; or

(3) email: program.intake@usda.gov.

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Required Indirect Cost Statement: All applicants except individuals applying for funds separate from a business or non-profit organization he/she may operate **must** include in the budget narrative one of the following statements and attach to their application any required documentation identified in the applicable statement:

"We are:
1. A U.S. state or local government entity receiving more than $35 million in direct Federal funding each year with an indirect cost rate of [*insert rate*]. We submit our indirect cost rate proposals to our cognizant agency. A copy of our most recently approved rate agreement/certification is attached.

2. A U.S. state or local government entity receiving less than $35 million in direct Federal funding with an indirect cost rate of [*insert rate*]. We are required to prepare and retain for audit an indirect cost rate proposal and related documentation to support those costs.

3. A [*insert your organization type; U.S. states and local governments, please use one of the statements above or below*] that has previously negotiated or currently has an approved indirect cost rate with our cognizant agency. Our indirect cost rate is [*insert rate*]. [*Insert either: "A copy of our most recently approved but expired rate agreement is attached. In the event an award is made, we will submit an indirect cost rate proposal to our cognizant agency within 90 calendar days after the award is made." or "A copy of our current, approved rate agreement(s) is attached."*]

4. A [*insert your organization type*] that has never submitted an indirect cost rate proposal to our cognizant agency. Our indirect cost rate is [*insert rate*]. In the event an award is made, we will submit an indirect cost rate proposal to our cognizant agency within 90 calendar days after the award is made.

5. A [*insert your organization type*] that has never submitted an indirect cost rate proposal to our cognizant agency and has an indirect cost rate that is 10% or higher. Our indirect cost rate is [*insert your organization's indirect rate; must be 10% or higher*]. However, in the event an award is made, we will not be able to meet the requirement to submit an indirect cost rate proposal to our cognizant agency within 90 calendar days after award. We request as a condition of award to charge a flat *de minimis* indirect cost rate of 10% of modified total direct costs as defined in 2 CFR 200.68 and also excluding the amount of each subcontract exceeding $25,000. We understand that we must notify the Agency in writing immediately if we do establish an approved rate with our cognizant agency at any point during the award period. We understand that additional Federal funds may not be available to support an unexpected increase in indirect costs during the project period and such changes are subject to review, negotiation, and prior approval by the Agency.

6. A [*insert your organization type*] that will charge all costs directly.

All applicants are hereby notified of the following:

- Recipients without an approved indirect cost rate are prohibited from charging indirect costs to a Federal award. (Accepting the 10% *de minimis* rate as a condition of award constitutes establishing an approved rate.)
- Failure to establish an approved rate during the award period renders all costs otherwise allocable as indirect costs unallowable under the award.
- Recipients are prohibited from shifting unallowable indirect costs to another Federal award unless specifically authorized to do so by legislation.

Sample Restoration Plan, Opportunity USDA-NRCS-IA-18-03, will be provided by NRCS to awardees for each project

Agreement Number 68-6114-15-015 ACEP-WRE: .

Attachment B - ***Project Number: 19*** Restoration Cover Sheet

Landowner Name:
Landowner Phone:

County: Cerro Gordo

Field Office Contact:

Area Easement Specialist:

Easement Number(s):

Date:	October 17, 2016

NOTES: This restoration consists of tile investigation/plugging/installation, shallow water excavation and re-seeding of disturbed areas. Completion dates can be adjusted with advanced notice and reasonable justification. Please remind all sub-contractors to contact the landowners or the field office prior to beginning any restoration practices.

Restoration proposed to be completed by September 30, 2018

Practice	Quanity	Unit	Unit Cost	Total Cost	Estimated Completion Date
Wetland Restoration:					
Mobilization	1	LS			7/1/17
Tile Investigation	240	LF			7/1/17
Tile Removal/Plugging*	10	EA			7/1/17
6" Dual-wall Tile, installed	390	LF			7/1/17
10" Dual-wall Tile, installed	254	LF			7/1/17
15" Dual-wall Tile, installed	817	LF			7/1/17
Shallow Water Excavation (approx. 1.1 acres)	2,295	CY			7/1/17
Conservation Cover:					
Site Prep Disk (if needed)	7.6	Acres			7/1/17
Northern Cordgrass Wet Prairie, seed & seeding	7.6	Acres			7/1/17
Midwest Ephemeral Pond, seed & seeding	1.1	Acres			7/1/17
Herbaceous Weed Control:					
Mowing, first pass	7.6	Acres			9/30/18
Mowing, second pass	7.6	Acres			9/30/18
Mowing, third pass	7.6	Acres			9/30/18
Mowing, fourth pass	7.6	Acres			9/30/18
Mowing, fifth pass	7.6	Acres			9/30/18
	Total from Restoration Plans				
		10% Indirect Costs:			
	Restoration Management:				
		TOTAL:			

Applied Ecological Services, Inc. Date NRCS Technical Liaison Date

There are seven (7) planned tile plugging/removals, an additional three have been included should additional tiles be discovered during restoration. Bill for actual installed amounts.

WRP RESTORATION
LANDOWNER CONTACT INFORMATION

Easement #

Easement Location:

Easement Name:

Primary Landowner Contact:

Primary Contact Telephone:

Email:

Field Office Contact:

Easement Specialist Contact:

USDA

United States Department of Agriculture

TO: John Paulin

FROM: Mike Webster, Easement Specialist MW

DATE: June 6, 2016

SUBJECT: WRE Restoration Narrative –

INTRODUCTION:

This site totals 139.7 acres, is located in West Central Cerro Gordo County, and lies within the Clear Lake Watershed, approximately 1 mile South of Clear Lake.

This WRE application was not awarded ranking points for T&E, nor are any known T&E within range per a search of IDNR's INAI. The site was enrolled in CRP prior to WRE, thru which some wetlands have already been restored by completing tile breaks/plugs and deleveling/creating shallow water excavations to restore the natural micro-topography of the land. The site was also seeded/established to a nice mix of native grasses and forbs thru the CRP.

The site is also part of an organized drainage district administered by the Cerro Gordo County Supervisors. Approval of this restoration must be granted by Cerro Gordo County prior to construction, because drainage district tile is included in the restoration plans. Tony Moore, DC is working on getting approval from Cerro Gordo County.

OBJECTIVES:

Restore the additional wetlands and improve water quality by replacing existing drainage district tile with solid/non-perforated drainage tile, and restoring additional wetlands.

RESTORATION PLANS/RATIONALE:

Hydrology Restoration – Some wetlands have already been restored on this easement thru prior CRP, including shallow water excavations and tile plugs. Preliminary WRE restoration plans on this easement, at the time of enrollment, was to restore all remaining wetlands by replace existing drainage tile with solid/non perforated tile. However, based on the results of a recent tile search/investigation and detailed topographic elevation survey of the easement area, the wetland basin's in the northeast, northwest, and southeast cannot be fully restored without the potential to adversely impact adjoining landowners during large rainfall events or extreme wet conditions. We are hoping that at sometime in the future, the adjoining landowners may enroll portions of their land into WRE so additional wetlands may be restored at that time.

The tile search and topographic elevation survey did find two additional wetland basins which may be restored without adversely impacting adjacent landowners. This includes a planned shallow water excavation (swe 1) located in the center of the easement and includes replacement of 10"

Natural Resources Conservation Service
420 W. Milwaukee Ave
New Hampton, IA 50659
Phone: 641-394-2513
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and 15" drainage district tile with non perforated tile; and a second shallow water excavation (swe 2) located in the southeast portion of the easement and also includes replacement of existing perforated tile with non perforated. All replacement tile will be non perforated and will be of equivalent size and grade to carry the same capacity from uplands. See the "design report" for additional information/documentation.

Vegetation Restoration – The vegetation on this easement has already been restored to adequate cover of native grasses and forbs thru prior CRP contract. Areas disturbed thru shallow water excavations and tile replacement will be seeded to the appropriate native plant communities. See the seeding plan map and seeding planss for specific location, species and seeding rates.

Additional Practices – none.

T&E SPECIES CONSIDERATION:
No known wetland dependent T&E within ranged according to IDNR's INAI.

TIMELINE:
This easement was closed/recorded on 11/24/2015, and because the site was all CRP, there is no cropping rights in 2016. Restoration can begin as soon as possible.

HIGHWAY AND TRANSPORTATION MAP

CERRO GORDO COUNTY

IOWA

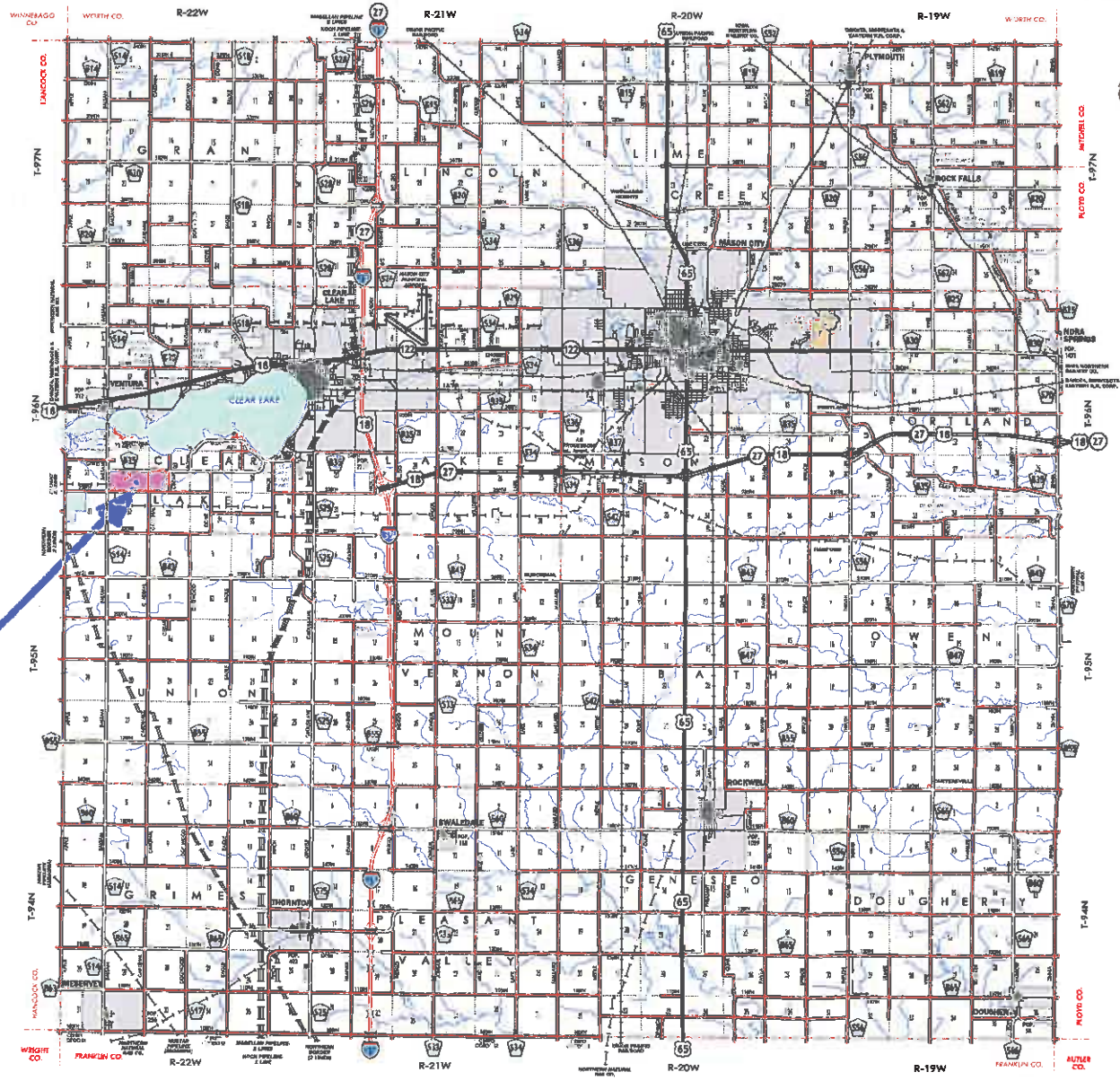
Prepared By

IOWADOT

OFFICE OF SYSTEMS PLANNING
Phone (515) 239-1664
WWW.IOWADOT.GOV/MAPS

In Cooperation With
United States
Department of Transportation

JANUARY 1, 2015



LEGEND

INTERSTATE HIGHWAY
PRIMARY HIGHWAY-DIVIDED
PRIMARY HIGHWAY
PORTLAND CEMENT CONCRETE ROAD
ASPHALT ROAD
BITUMINOUS ROAD
GRAVEL ROAD
EARTHEN ROAD

INTERSTATE HIGHWAY
UNITED STATES HIGHWAY
STATE HIGHWAY
COUNTY HIGHWAY

RAILROAD
RIVER
AIRPORT
HYDROLOGY
BRIDGE

STATE BOUNDARY
COUNTY BOUNDARY
CORPORATE BOUNDARY
TOWNSHIP LINE
SECTION LINE
ROAD NAMES
UNINCORPORATED PLACE

STATE PARKS

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K & H COOPERATIVE OIL CO.

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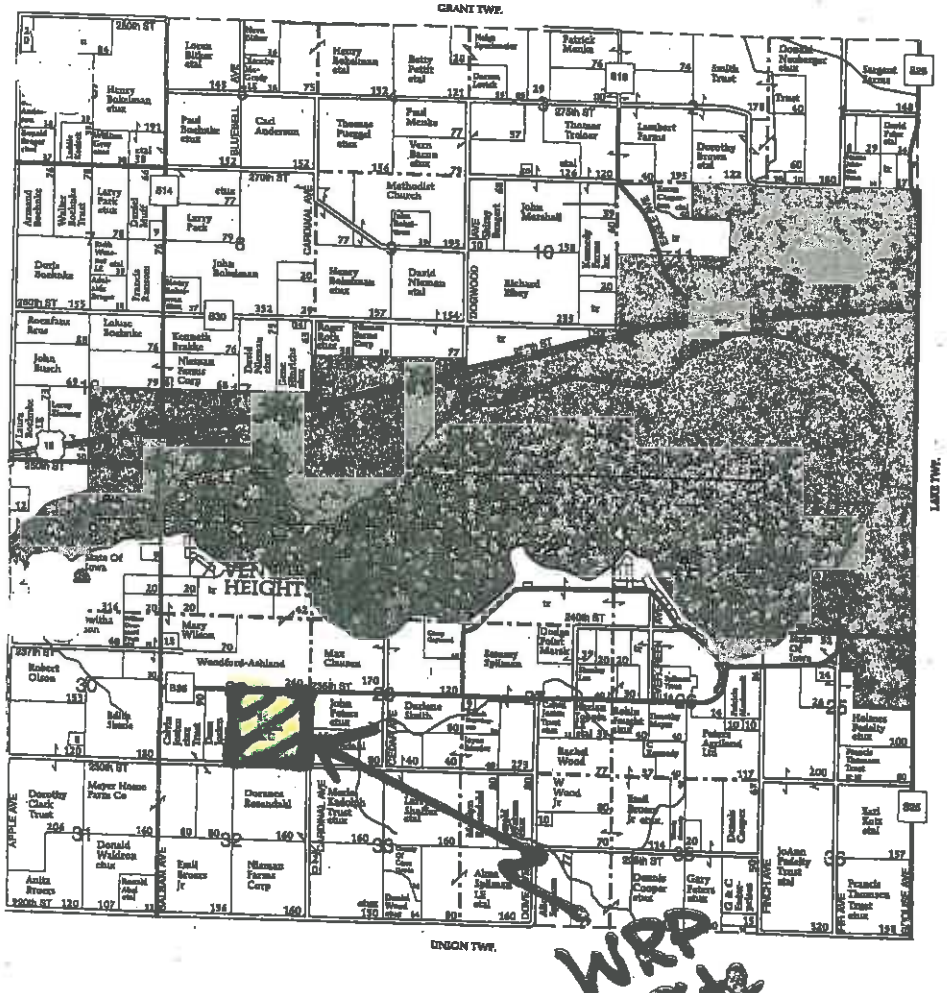
T-96-N

CLEAR LAKE PLAT

(Landowners)

R-22-W

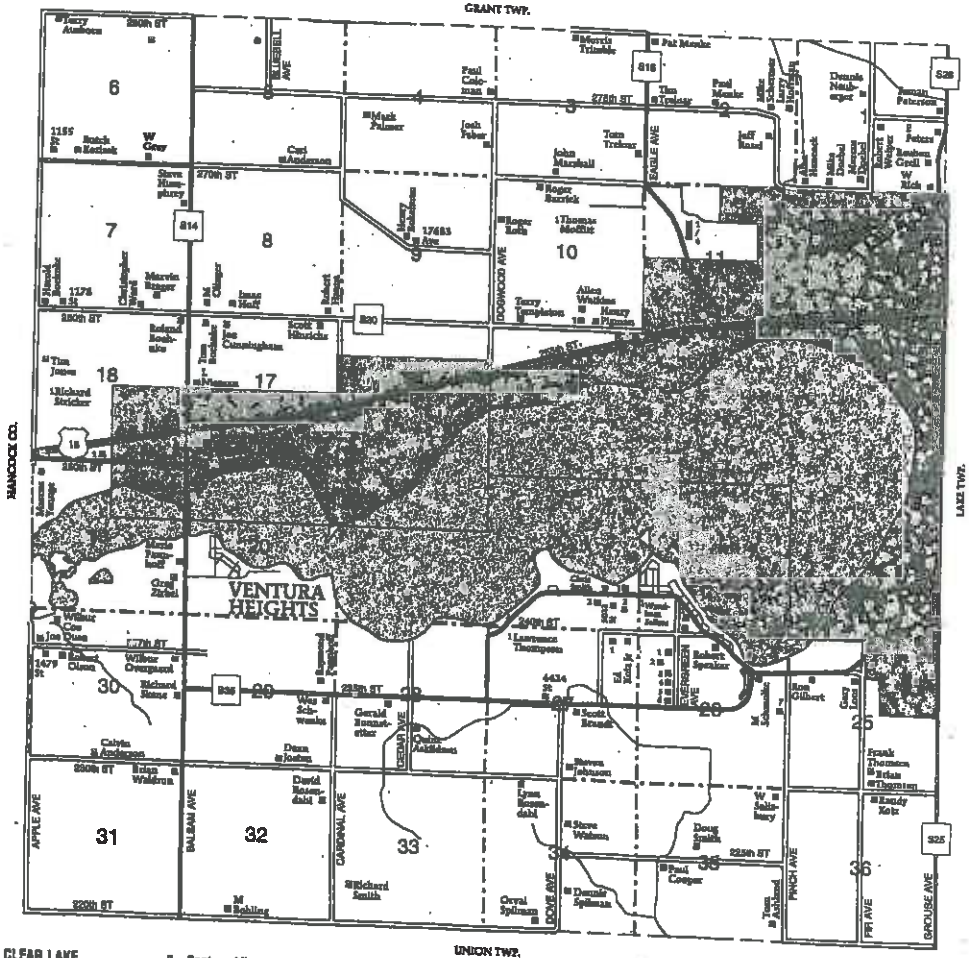


T-96-N

CLEAR LAKE DIRECTORY

(Residents - Owners or Renters)

R-22-W



CLEAR LAKE TOWNSHIP
SECTION 11
1. Jost, R
2. Seaton, Albert
3. Butler, Al
4. Ouverson, Jack

SECTION 22
1. Davis, Oscar
2. 4749 S SHORE DR
3. Anderson, Kenneth

SECTION 28
1. Spilman, Wayne
2. Stephens, Max
3. Paulson, Dick
4. Stearns, Tim
5. Lee, Jim
6. Mawby, Scott
7. Melvin, Joe

MASON CITY SERVICE CENTER
1415 S MONROE AVE STE B
MASON CITY, IA 50401-5615
(641) 424-4452

TONY W. MOORE
DISTRICT CONSERVATIONIST

Conservation Plan

OBJECTIVE(S)

This site has been enrolled in the Agricultural Conservation Easement Program - Wetland Reserve Easement (ACEP-WRE) and a permanent easement placed on 139.7 acres. The program objectives from ACEP-WRE Manual are to protect, restore, and enhance the functions and values of wetland ecosystems to attain:

*Habitat for migratory birds and other wetland-dependent wildlife, including endangered or threatened species and species of concern.
*Protection and improvement of water quality.
*Attenuation of floodwater.
* Recharge of groundwater.
*Protection and enhancement of open space and aesthetic quality.
*Carbon sequestration.
*Protection of native flora and fauna contributing to the Nation's natural heritage.
*Contribution to educational and scientific scholarship.

The landowner's objectives include improving the quality of water entering Clear Lake, as well as providing outdoor recreational opportunities such as hunting, hiking, and bird watching by maintaining a diverse wetland complex. All actions must comply with the terms and conditions in the recorded "Warranty Easement Deed".

Specific details regarding the management and long term maintenance of the easement will be found in the Compatible Use Agreement/Management Plan, which includes guidance from NRCS standard and specifications on Upland Wildlife Habitat Management (WRP 645) and Wetland Wildlife Habitat Management (WRP 644) .

T/E CONSIDERATIONS:
All actions on this easement should protect and not adversely affect any endangered, threatened, or species of concern. The following listed speces are known to be within range of this easement:

FEDERAL SPECIES:
There are no known Federally listed T&E species within range of the easement.

STATE SPECIES:
There are no known State listed T&E species within range of this easement.

Crop

Tract: 8181

Conservation Cover

This field(s) has been enrolled in the Wetland Reserve Easement Program (WRE) and "shallow water excavation areas" will be seeded to the following seed mix - **Midwest Ephemeral Pond**. This seeding will control erosion, provide wildlife habitat, & restore native plant community. Refer to seeding plan for specific species and rates.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	0.3 ac	5	2017		
1	0.8 ac	5	2017		
Total:	1.1 ac				

Conservation Cover

This field(s) has been enrolled in the Wetland Reserve Easement Program (WRE) and "spoil areas" will be seeded to the following seed mix - **Northern Cordgrass Wet Prairie** . This seeding will control erosion, provide wildlife habitat, & restore native plant community. Refer to seeding plan for specific species and rates.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	6.7 ac	5	2017		
1	0.9 ac	5	2017		
Total:	7.6 ac				

Conservation Cover

This field(s) have been enrolled in the Wetland Reserve Easement (WRE) Program. Native vegetation of grass and forbs are already established thru prior CRP contract, and no further vegetative establishment is required to provide Wetland Restoration.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	130.9 ac	5	2017		
Total:	130.9 ac				

Herbaceous Weed Control

Mowing of new seeding - 1st year. Mowing will be completed to control weeds and promote growth of new seeding. Mow three times per year as needed.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	22.8 ac	8	2017		
Total:	22.8 ac				

Herbaceous Weed Control

Mowing of new seeding - 2nd year. Mowing will be completed to control weeds and promote growth of the new seeding. Mow twice per year as needed.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	15.2 ac	8	2018		
Total:	15.2 ac				

Upland Wildlife Habitat Management

IA-ACEP 645 Upland Wildlife Management. Areas of non-hydric soils within the conservation easement boundary will be/have been restored to upland habitat. These non-wetland areas are important to the ecological function of the restored wetland. These upland areas are already established to native grasses and forbs thru prior CRP contract.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	50.8 ac	5	2017		
Total:	50.8 ac				

Wetland Restoration

IA-ACEP 657 Wetland restoration activities will be carried out to restore the biological functions and values that have been lost due to agricultural uses. This includes the restoration of both vegetative and hydrological conditions. A portion of this easement has already been restored thru prior CRP contract which included tile plugs and shallow water excavations to delevel and restore the microtopography of the landscape which has been lost over time. Additional wetlands will be restored thru replacement of existing drainage tile with non-perforated tile and two additional shallow water excavations. See Wetland Restoration Design, and Design Report for further details.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	88.9 ac	5	2017		
Total:	88.9 ac				

CERTIFICATION OF PARTICIPANTS

CERTIFICATION OF:

PUBLIC BURDEN STATEMENT

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collections is 0578-0013. The time required to complete this information collection is estimated to average 45/0.75 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection information.

PRIVACY ACT

The above statements are made in accordance with the Privacy Act of 1974 (5 U.S.C 522a). Furnishing this information is voluntary; however failure to furnish correct, complete information will result in the withholding or withdrawal of such technical or financial assistance. The information may be furnished to other USDA agencies, the Internal Revenue Service, the Department of Justice, or other state or federal law enforcement agencies, or in response to orders of a court, magistrate, or administrative tribunal.

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Or call toll free at (866) 632-9992 (voice) to obtain additional information, the appropriate office or to request documents. Individuals who are deaf, hard of hearing, or have speech disabilities may contact USDA through the Federal Relay service at (800) 877-8339 or (800) 845-6136 (in Spanish). USDA is an equal opportunity provider, employer, and lender. Persons with disabilities who require alternative means for communication of program information (e.g., Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

WRE
FINAL CONSERVATION PLAN MAP

Date: 5/26/2016

2014 Imagery

Legend

- Access
- Connell_WRE_Surveyed_Boundary
- plss_a_ia

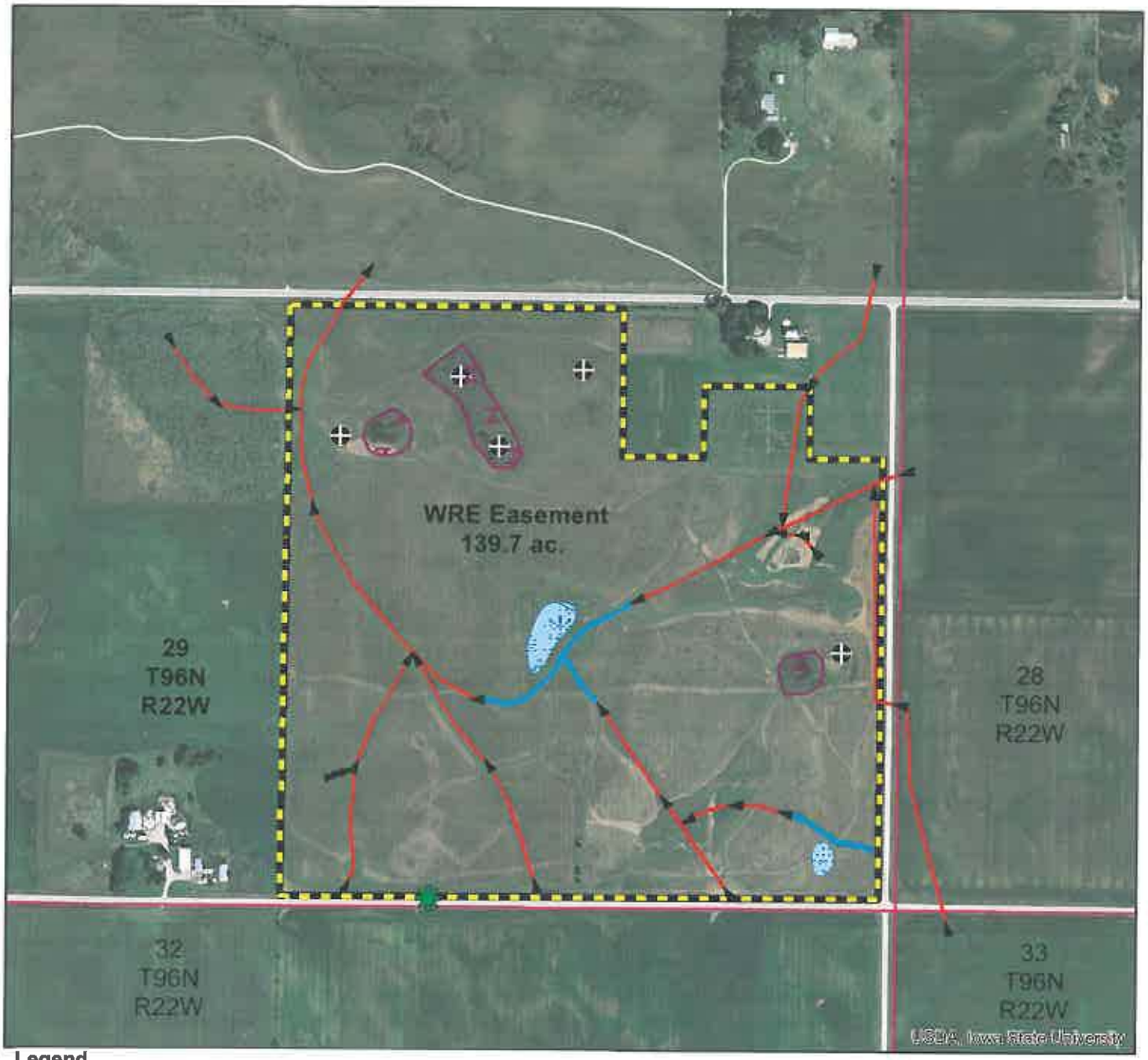
1 inch = 660 feet

660 0 660 Feet

N

WRE
FINAL RESTORATION PLAN MAP

Date: 5/26/2016



Legend

2014 Imagery

- Access
- Planned_SWE's_(final)
- Existing_SWE's_thru_CRP
- Planned_Non_Perforated_Tile_(final)
- Existing Tile including Drainage District Tile (approx location)
- Existing_Tile_Plugs_thru_CRP (approx location)
- Connell_WRE_Surveyed_Boundary

1 inch = 660 feet

660 0 660 Feet

N

WRE
FINAL SEEDING PLAN MAP

Date: 5/26/2016

2014 Imagery

Legend

Planned_SWE's_(final)

Practice name

Conservation Cover

Access

Connell_WRE_Surveyed_Boundary

1 inch = 660 feet

660 0 660 Feet

N

USDA NRCS
Natural Resources Conservation Service

IA - CPA - 4 REV.
February-98
(File Code 180-12-12)

Seeding Plan

Midwest Ephemeral Pond

Name ____ ____ Date **5/31/2016**
Prepared by ____ ____ Tract No. ____
Field No.
Type of Seeding: WRP Field Area (acres): 1.100 Contract No.

Seeding Mix Summary

Grasses	Scientific Name	Common Name	PLS Lbs/Acre	PLS Lbs	Estimated Cost
1	*Calamagrostis canadensis*	Bluejoint	0.012	0.013	$5.01
2	*Carex atherodes*	Wheat Sedge	0.028	0.031	$19.83
3	*Poa palustris*	Fowl Bluegrass	0.021	0.023	$0.37
4	*Carex hystericina*	Bottlebrush Sedge	0.091	0.100	$14.97
5	*Spartina pectinata*	Prairie Cordgrass	0.19	0.20	$18.38
6	*Carex lupulina*	Hop Sedge	0.041	0.045	$21.78
7	*Carex pellita*	Woolly Sedge	0.019	0.021	$20.54
8	*Carex scoparia*	Broom Sedge	0.032	0.036	$6.42
9	*Carex stipata*	Owlfruit Sedge	0.080	0.088	$19.82
10	*Carex stricta*	Upright Sedge	0.021	0.023	$16.95
11	*Carex tribuloides*	Blunt Broom Sedge	0.023	0.025	$14.97
12	*Carex trichocarpa*	Hairyfruit Sedge	0.015	0.017	$23.96
13	*Carex vesicaria*	Blister Sedge	0.045	0.050	$23.96
14	*Carex vulpinoidea*	Fox Sedge	0.018	0.019	$2.34
15	*Eleocharis acicularis*	Needle Spikerush	0.027	0.030	$14.37
16	*Eleocharis obtusa*	Blunt Spikerush	0.027	0.030	$14.37
17	*Carex bebbii*	Bebb's Sedge	0.080	0.088	$6.61
18	*Glyceria striata*	Fowl Mannagrass	0.021	0.023	$10.53
19	*Juncus arcticus ssp. littoralis*	Baltic Rush	0.015	0.016	$3.59
20	*Juncus dudleyi*	Dudley's Rush	0.00085	0.00094	$0.28
21	*Juncus nodosus*	Knotted Rush	0.0015	0.0016	$1.04
22	*Juncus torreyi*	Torrey's Rush	0.0017	0.0019	$0.56
23	*Leersia oryzoides*	Rice Cutgrass	0.080	0.088	$21.14
24	*Schoenoplectus tabernaemontani*	Softstem Bulrush	0.088	0.097	$14.49
25	*Schoenoplectus fluviatilis*	River Bulrush	0.063	0.070	$6.27
26	*Carex bicknellii*	Bicknell's Sedge	0.096	0.11	$15.85
27	*Carex utriculata*	Northwest Territory Sedge	0.027	0.030	$19.17
28	*Carex sartwellii*	Sartwell's Sedge	0.017	0.018	$17.53
29	*Carex laeviconica*	Smoothcone Sedge	0.091	0.100	$17.97
		SUBTOTAL GRASSES	**1.27**	**1.40**	**$373.06**

Forbs/Legumes	Scientific Name	Common Name	PLS Lbs/Acre	PLS Lbs	Estimated Cost
1	*Alisma subcordatum*	Water Plantain	0.059	0.065	$4.87
2	*Asclepias incarnata*	Swamp Milkweed	0.074	0.081	$14.60
3	*Bidens cernua*	Nodding Beggartick	0.091	0.100	$11.98
4	*Anemone canadensis*	Canadian Anemone	0.034	0.037	$11.23
5	*Epilobium coloratum*	Purpleleaf Willowherb	0.011	0.012	$7.67
6	*Eupatorium perfoliatum*	Boneset	0.024	0.026	$7.86

Page 2 - Midwest Ephemeral Pond

7	*Helenium autumnale*	Sneezeweed	0.029	0.032	$4.84
8	*Impatiens capensis*	Spotted Touch-Me-Not	0.027	0.030	$14.37
9	*Iris shrevei*	Blue Flag	0.054	0.060	$8.98
10	*Lycopus americanus*	Water Horehound	0.029	0.032	$7.26
11	*Mentha arvensis*	Wild Mint	0.013	0.014	$6.29
12	*Mimulus ringens*	Monkey Flower	0.0017	0.0018	$0.55
13	*Pedicularis lanceolata*	Swamp Lousewort	0.093	0.10	$12.25
14	*Penthorum sedoides*	Ditch Stonecrop	0.0023	0.0025	$0.76
15	*Polygonum pensylvanicum*	Pennsylvania Smartweed	0.21	0.23	$13.82
16	*Polygonum punctatum*	Water Smartweed	0.010	0.012	$7.37
17	*Pontederia cordata*	Pickerel-weed	0.26	0.29	$25.92
18	*Rumex orbiculatus*	Great Water Dock	0.091	0.100	$14.97
19	*Sagittaria latifolia*	Common Arrowhead	0.017	0.019	$26.95
20	*Physostegia virginiana*	False Dragonhead	0.025	0.027	$19.06
21	*Sparganium eurycarpum*	Common Bur Reed	0.54	0.60	$35.94
22	*Lobelia siphilitica*	Great Lobelia	0.0076	0.0084	$5.03
23	*Agalinis tenuifolia*	Slenderleaf False Foxglove	0.0048	0.0052	$3.35
24	*Lythrum alatum*	Winged Loosestrife	0.00091	0.00100	$1.28
25	*Gentiana andrewsii*	Bottle Gentian, Closed Gentian	0.0097	0.011	$16.04
26	*Cicuta maculata*	Water Hemlock	0.11	0.12	$37.43
		SUBTOTAL FORBS	**1.84**	**2.02**	**$321**

Woody	Scientific Name	Common Name	PLS Lbs / Acre	PLS Lbs	Estimated Cost
1	*Amorpha fruticosa*	False Indigo	0.0074	0.0081	$5.18
			0.01	**0.01**	**$5**

TOTAL	**3.11**	**3.42**	**$699**

	General ☑ Soil Test ☐	Total Needed lbs
Lime (ECCE) (Actual Lime)	0	0
Nitrogen	0	0
Phosphate (P205)	0	0
Potash (K20)	0	0

Seeding Dates: Drmt:11/15-Freeze **Spring 4/15 - 7/1**

Additional Seeding Criteria: Seed SWE basins TO EXTENT PRACTICABLE given likely wet conditions in basin areas.
Use no additional fertilizer or lime.

Seeding was completed by _____ **according to the above requirements.**
(Date)

_____ (Producer's Signature) _____ (Date)

Field Office _____ **Certified by** _____ (NRCS Representative)

When seeding is completed, return seeding plan to the Natural Resources Conservation Services.
For state cost-share projects, attach receipts for seed, fertilizer, lime and mulch.
For Federal cost-share, return receipts to Farm Service Agency.

USDA NRCS
Natural Resources Conservation Service

IA - CPA - 4 REV.
February-98
(File Code 180-12-12)

Seeding Plan

Northern Cordgrass Prairie

Name _____ _____ Date 6/1/2016
Prepared by _____ _____ Tract No. _____
Field No. _____
Type of Seeding: [ ] Field Area (acres): 7.600 Contract No. _____

Seeding Mix Summary

Grasses	Scientific Name	Common Name	PLS Lbs/Acre	PLS Lbs	Cost
1	Andropogon gerardii	Big Bluestem	0.27	2.07	$14.48
2	Beckmannia syzigachne	American Sloughgrass	0.095	0.72	$14.48
3	Calamagrostis canadensis	Bluejoint	0.017	0.13	$48.49
4	Carex atherodes	Wheat Sedge	0.033	0.25	$159.82
5	Carex laeviconica	Smoothcone Sedge	0.11	0.86	$155.18
6	Carex pellita	Woolly Sedge	0.024	0.18	$177.35
7	Carex scoparia	Broom Sedge	0.052	0.39	$70.94
8	Carex stricta	Upright Sedge	0.031	0.23	$175.68
9	Carex vulpinoidea	Fox Sedge	0.044	0.33	$39.73
10	Eleocharis acicularis	Needle Spikerush	0.049	0.37	$177.35
11	Hierochloe odorata	Sweetgrass	0.0068	0.052	$165.53
12	Juncus dudleyi	Dudley's Rush	0.0015	0.011	$3.39
13	Leersia oryzoides	Rice Cutgrass	0.10	0.76	$182.57
14	Muhlenbergia racemosa	Marsh Muhly	0.051	0.39	$29.10
15	Panicum virgatum	Switchgrass	0.19	1.48	$11.82
16	Poa palustris	Fowl Bluegrass	0.037	0.28	$4.46
17	Schoenoplectus pungens	Common Threesquare	0.068	0.52	$116.39
18	Sorghastrum nutans	Indiangrass	0.23	1.72	$10.35
19	Spartina pectinata	Prairie Cordgrass	0.25	1.88	$169.29
20	Tripsacum dactyloides	Eastern Gamagrass	1.10	8.39	$167.76

Forbs/Legumes	Scientific Name	Common Name	PLS Lbs/Acre	PLS Lbs	Cost
1	Agalinis tenuifolia	Slenderleaf False Foxglove	0.0051	0.039	$24.83
2					
3	Asclepias tuberosa	Butterfly Milkweed	0.063	0.48	$144.36
4	Baptisia alba	White Wild Indigo	0.016	0.12	$36.51
5	Chelone glabra	White Turtlehead	0.036	0.27	$161.93
6	Epilobium ciliatum	Northern Willow Herb	0.052	0.40	$118.97
7	Glycyrrhiza lepidota	Wild Licorice	0.070	0.53	$159.16
8	Helenium autumnale	Sneezeweed	0.026	0.20	$29.84
9	Helianthus grosseserratus	Saw-tooth Sunflower	0.036	0.28	$124.15
10	Helianthus mollis	Downy Sunflower	0.078	0.59	$177.35
11	Heterotheca villosa	Hairy False Goldenaster	0.051	0.38	$115.28
12	Liatris pycnostachya	Prairie Blazing Star	0.20	1.50	$180.58
13	Lythrum alatum	Winged Loosestrife	0.0014	0.010	$13.24
14	Mentha arvensis	Wild Mint	0.0091	0.069	$31.04
15	Pedicularis lanceolata	Swamp Lousewort	0.093	0.71	$84.65
16	Pycnanthemum virginianur	Common Mountain Mint	0.00	0.00	$0.00
17	Rudbeckia hirta	Black-eyed Susan	0.10	0.76	$34.24
18	Stachys palustris	Woundwort	0.034	0.26	$165.53
19	Symphyotrichum ericoides	White Heath Aster	0.014	0.10	$165.53
20	Symphyotrichum lanceolati	White Panicle Aster	0.00	0.00	$0.00

Page 2- Northern Cordgrass

21	Symphyotrichum novae-an	New England Aster	0.045	0.34	$103.46
22	Teucrium canadense	American Germander	0.10	0.78	$174.58
23	Thalictrum dasycarpum	Purple Meadow-rue	0.074	0.56	$169.29
24	Vernonia fasciculata	Ironweed	0.10	0.78	$174.58
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					

Woody	Scientific Name	Common Name	PLS Lbs / Acre	PLS Lbs	Cost
1	Amorpha fruticosa	False Indigo	0.22	1.68	$1,073.70
2	Cephalanthus occidentalis	Buttonbush	0.0045	0.034	$4.14
3	Opuntia humifusa	Devil's-tongue	0.00	0.00	$0.00
4					
5					
TOTAL			**4.20**	**31.90**	**$5,361**

Fertilizer & Lime	General ☑ Soil Test ☐	Total Needed lbs
Lime (ECCE) (Actual Lime)	0	0
Nitrogen	0	0
Phosphate (P205)	0	0
Potash (K20)	0	0

Additional Seeding Criteria:

Spring seeding dates April 15-July 1; Dormant dates November 15-Freeze

Seeding was completed by _____ **according to the above requirements.**
(Date)

_____
(Producer's Signature)

_____
(Date)

Field Office _____

Certified by _____
(NRCS Representative)

When seeding is completed, return seeding plan to the Natural Resources Conservation Services.
For state cost-share projects, attach receipts for seed, fertilizer, lime and mulch.
For Federal cost-share, return receipts to Farm Service Agency.

DESIGN REPORT FOR

LOCATION

The wetland restoration easement owner is

SOILS

The soils in the areas designated for restoration include 6 Okoboji silty clay loam, and 107 Webster clay loam. Both soil types are poorly drained, hydric, and suitable for wetland restoration. Soil scientist, Patrick Chase, evaluated the amount of post sediment alluvium (PSA) in shallow water excavation (SWE) 1 as 9 inches.

SURVEY

Survey was completed using a Trimble R10 GPS system. A topography survey was conducted using both continuous survey mounted to a UTV, and single shots mounted atop a 2 meter rod. Survey conditions were sunny with winds light and variable on April 4, 2016. A tile search was also conducted and supervised by Applied Ecological Services in March of 2016.

CULTRUAL RESOURCES

A visual inspection of the construction area revealed no cultural resources. ISITES was checked and no known cultural resource hits were recorded for the project area.

RESTORATION

During investigation and evaluation of the easement area, several drained pothole sites were noted that had potential for restoration. A large complex located on the NE, NW, and SE corner of the easement were evaluated for restoration, however the survey, and soils map revealed that the sites were shared with neighboring landowners. The presence of culverts and large drainage area to storage ratios (see design documentation) made restoration impossible without adversely impacting neighboring landowners. If future easements are secured by neighboring landowners, revaluation of restoration potential on those share potholes sites should be re-considered.

Two sites on the easement were identified that had restoration potential that would not adversely impact neighboring landowners. Shallow water excavation (SWE) 1 is centrally located within the easement. SWE and replacement of a perforated 15 and 10 inch drainage district tile with non-perforated tile will restore hydrology and remove PSA. Permission from the drainage district to replace the tile is required to be secured by the landowner. The current tile is concrete and will be replaced with a non-perforated equivalent that has the same grade and capacity. Although the restoration area shares contours at the same elevation as neighboring potholes that cannot be restored, a slight rise in elevation isolates the restoration in the NE corner of the pothole. If the pothole does overtop, the drainage district infrastructure left in place would likely mitigate any risk to neighboring landowners.

SWE 2 was also identified as a restoration area. Restoration will be accomplished with the replacement of perforated tile with a non-perforated tile equivalent. Replacement of the tile will maintain upstream drainage from the neighbor to the east. Should the restoration overtop, water flows NW into the downstream pothole where tile infrastructure will be left intact and mitigate any risk to neighboring landowners. Permission from the drainage district to replace the tile is required to be secured by the landowner.

EJAA

The wetland restoration includes the replacement of a 15'' tile line resulting in an Engineering Job Approval Authority classification of III.

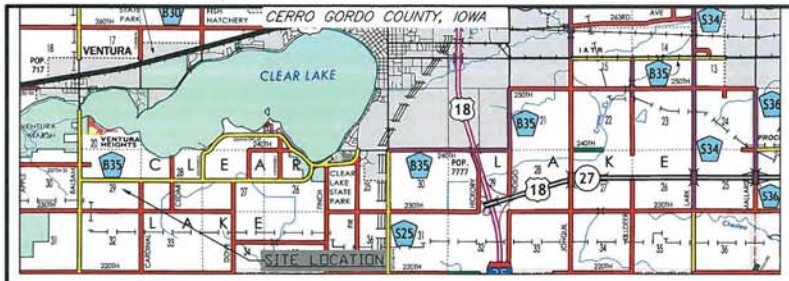


Table of Contents	
SHEET	CONTENT
1	Location & Plan Map / Table of Contents
2	Subsurface Drain (Tile) 1& 2 Details
3	Subsurface Drain (Tile) 3 Details
4	Shallow Water Excavation Details

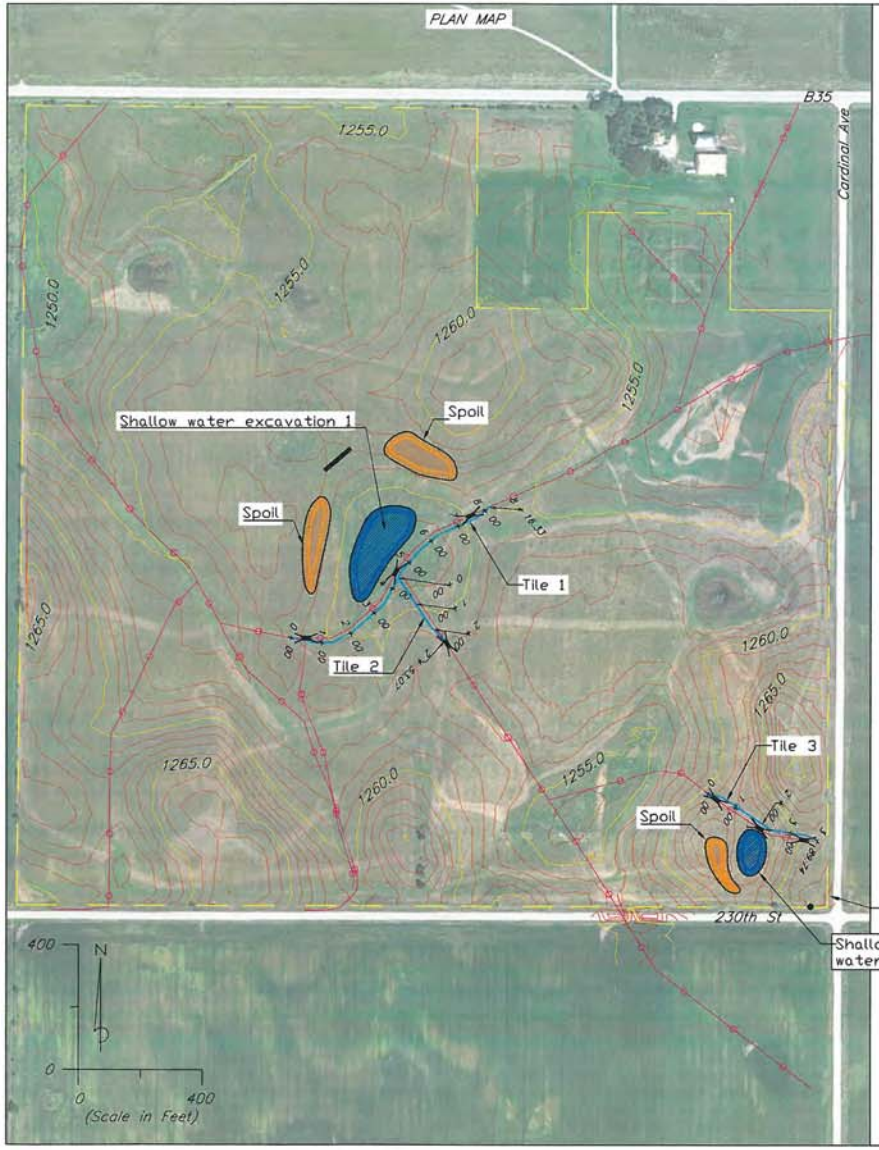
Standards and Specifications	
SPECIFICATION NUMBER	PAGES
IA-1	Site Preparation (1)
IA-5	Pollution Control (2)
IA-6	Seeding and Mulching for Protective Cover (1)
IA-9	Subsurface Drain Investigation, Removal, and Repair (3)
IA-21	Excavation (1)

Quantity Summary Table		
Item/Description	Quantity	Unit
Tile Investigation (20 ft per block + any additional searching)	240.0'	FT
Tile Block	7.0	EA
Excavation	2295.0	CY
6" Dual Wall Non Perf Tile	389.74	FT
10" Dual Wall Non Perf Tile	253.07	FT
15" Dual Wall Non Perf Tile	816.33	FT

CONTRACTOR IS RESPONSIBLE FOR CALLING IOWA ONE CALL 1-800-292-8989

If a cultural resource is identified during construction, stop immediately and notify the Natural Resources Conservation Service Archeologist at (515) 284-4370.

BENCHMARKS			
NAME	NORTHING	EASTING	ELEV.
TBM1	15655381.421	1518105.540	1268.167



LEGEND

- TBM1
- Shallow water excavation. See page 4 of 4 for details.
- Shallow water excavation spoil. See page 4 of 4 for details.
- Pre-existing tile. See sheet 2 & 3 of 4 for details.
- New tile. See sheet 2 & 3 of 4 for details.
- Easement boundary.
- Tile block. See sheet 1 & 2 of 4 for details.
- Additional Tile Search

Excavations will be staked in the field by NRCS. Digital surface models available upon request for layout. Additional hubs can be set at layout, or at contractors request.

		Date
Designed	JD GOEMAAT	4/16
Drawn	JD GOEMAAT	4/16
Checked	JL	5/16
Approved	Jeff Lutz	5/16

WETLAND RESTORATION
LOCATION & PLAN MAP/TABLE OF CONTENTS

United States Department of Agriculture
Natural Resources Conservation Service

File No. Cornell_657_040416

Drawing No. ----

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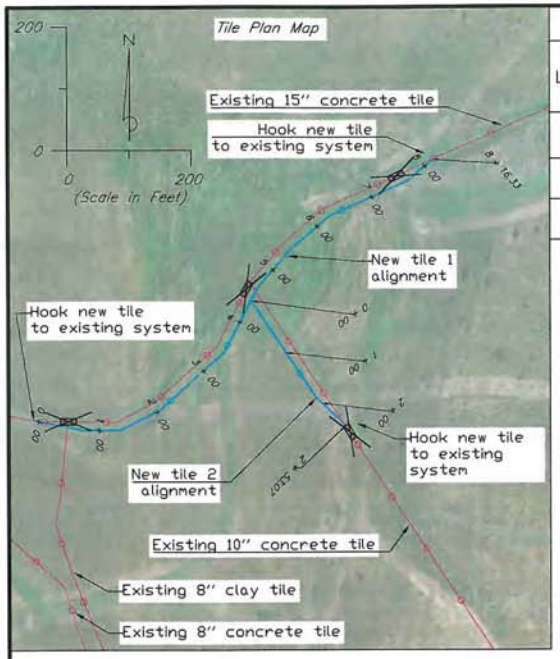
Sheet 1 of 4



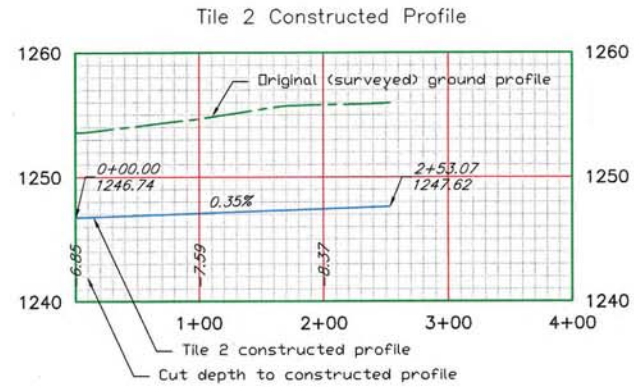
Tile block symbol.

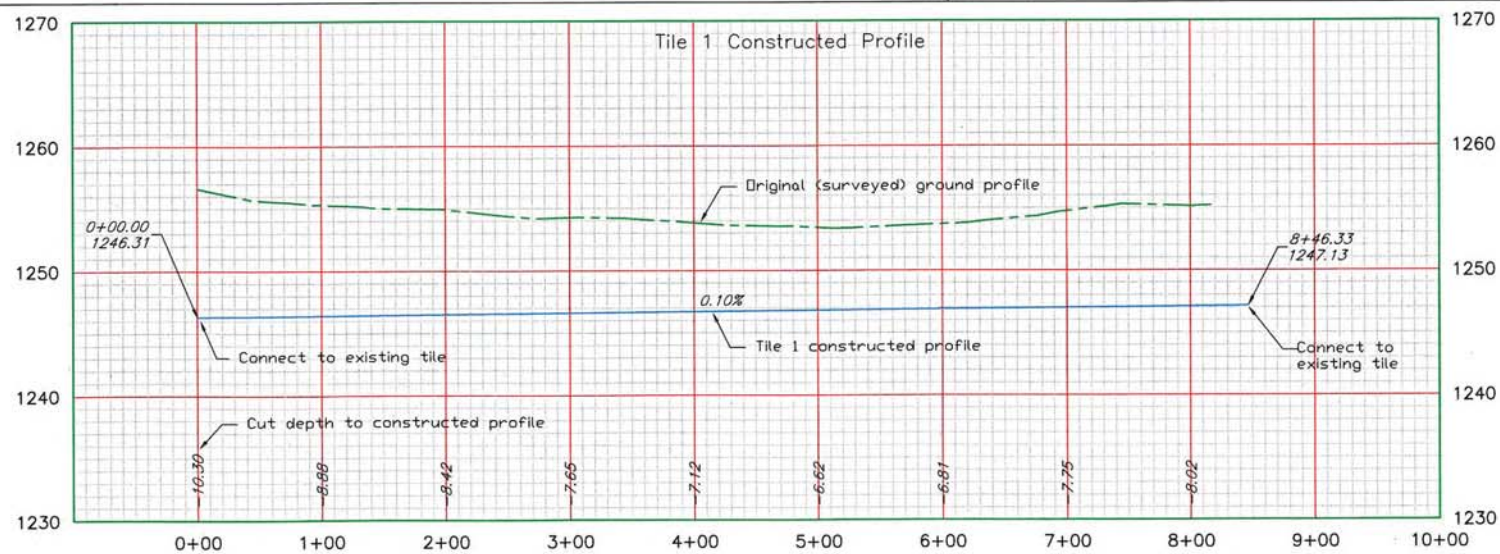
SUBSURFACE DRAIN (TILE) DETAILS

Line No.	Reach No.	Station to Station		Conduit Capacity (CFS)		Length of Conduit (ft.)		Conduit Dia. (in.)	Conduit Material Specs.	Designed Conduit Grade (%)		Conduit Cover (ft.)	
				Req'd	Design	Design	Install	Design	Material Type and Classification	Design	Install	Min. Req'd	Max. Allowed
1	1	0+00	8+16.33	1.94	2.04	8+16.33		15	Non-Perforated Duall Wall	0.10		2.4	11.2
2	1	0+00	2+53.07	1.18	1.30	2+53.07		10	Non-Perforated Duall Wall	0.29		2.4	11.2

NOTES

1. Verify start and ending hookup elevations before installing tile.
2. Tile shall be installed at the same grade and capacity as existing tile.
3. For bedding and trench details see page 3 of 4.
4. NRCS shall be on site during tile block construction and tile search. The approximate locations of tile blocks will be flagged by NRCS.
5. For tile blocks a minimum of 50' of tile shall be removed. Tile ends shall be capped and plugged. For a minimum distance of two feet around each sealed tile end, backfill in layers not over 4 inches thick and tamp by hand or manually directed power tamper. Do not backfill with any soil containing broken tile fragments. The remainder of each trench shall be backfilled with the most suitable soil material available and compacted to a density equal to or greater than that of the surrounding undisturbed soil.
6. If any existing drainage tile not shown on the drawings or staked in the field is encountered during excavation, NRCS shall be notified. No additional work in the area of the encountered drainage tile shall be performed prior to NRCS approval. Any work done to remove, replace, or repair the encountered drainage tile shall be directed by NRCS.
7. Landowner is responsible for securing written permission from the Drainage District for work on any subsurface drain tile that is not privately owned. Permission must be presented to NRCS before construction begins.





		Date
Designed	JD GOEMAAT	4/16
Drawn	JD GOEMAAT	4/16
Checked	JL	5/16
Approved	Jeff Lutz	5/16

SUBSURFACE DRAIN (TILE) 1 & 2 DETAILS

United States Department of Agriculture
Natural Resources Conservation Service

File No. Connell_657_040416c

Drawing No. ----

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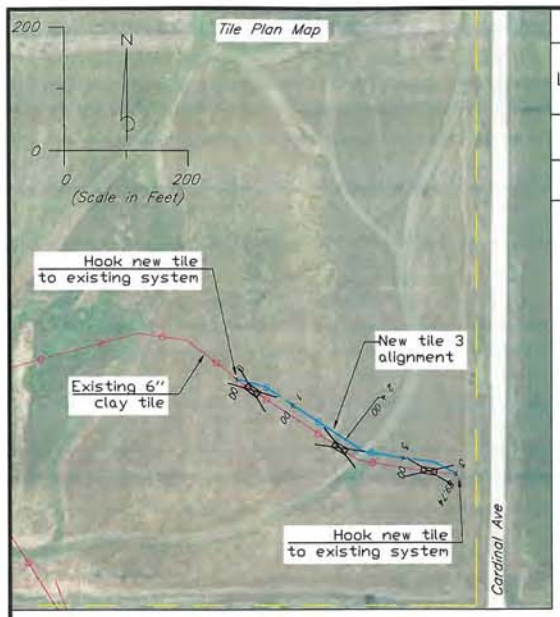
Sheet 2 of 4



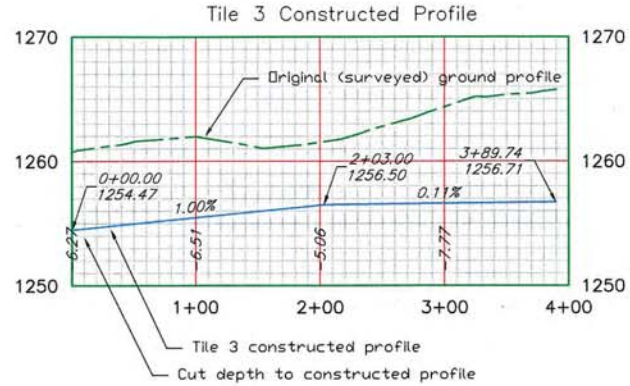
Tile block symbol.

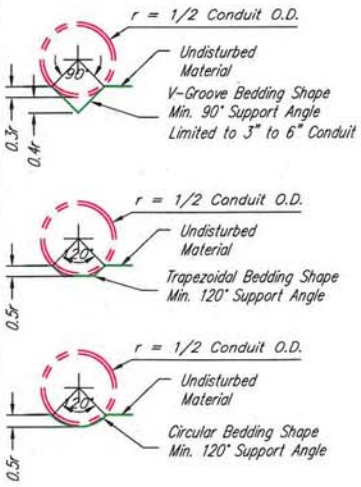
SUBSURFACE DRAIN (TILE) DETAILS

Line No.	Reach No.	Station to Station		Conduit Capacity (CFS)		Length of Conduit (ft.)		Conduit Dia. (in.)	Conduit Material Specs.	MIN Designed Conduit Grade (%)		Conduit Cover (ft.)	
				Req'd	Design	Design	Install	Design	Material Type and Classification	Design	Install	Min. Req'd	Max. Allowed
3	1	0+00	3+89.74	0.19	0.19	3+89.74		6	Non-Perforated Dual Wall	0.11		2.4	11.2

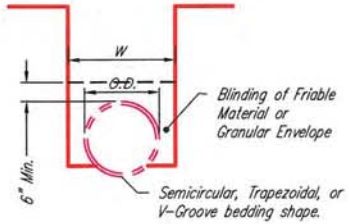
NOTES

1. Verify start and ending hookup elevations before installing tile.
2. Tile shall be installed at the same grade and capacity as existing tile.
3. NRCS shall be on site during tile block construction and tile search. The approximate locations of tile blocks will be flagged by NRCS.
4. For tile blocks a minimum of 50' of tile shall be removed. Tile ends shall be capped and plugged. For a minimum distance of two feet around each sealed tile end, backfill in layers not over 4 inches thick and tamp by hand or manually directed power tamper. Do not backfill with any soil containing broken tile fragments. The remainder of each trench shall be backfilled with the most suitable soil material available and compacted to a density equal to or greater than that of the surrounding undisturbed soil.
5. If any existing drainage tile not shown on the drawings or staked in the field is encountered during excavation, NRCS shall be notified. No additional work in the area of the encountered drainage tile shall be performed prior to NRCS approval. Any work done to remove, replace, or repair the encountered drainage tile shall be directed by NRCS.
6. Landowner is responsible for securing written permission from the Drainage District for work on any subsurface drain tile that is not privately owned. Permission must be presented to NRCS before construction begins.





BEDDING DETAIL



1. W = trench width at top of conduit
2. W = O.D.+6" min. for trench installation;
   W = O.D.+4" min. for plow installation.
3. Where W > O.D.+12", hand compact the blinding or use a granular envelope.

TRENCH DETAIL

		Date
Designed	JD GOEMAAT	4/16
Drawn	JD GOEMAAT	4/16
Checked	JL	5/16
Approved	Jeff Lutz	5/16

SUBSURFACE DRAIN (TILE) 3 DETAILS

United States Department of Agriculture
Natural Resources Conservation Service

File No. Connell_657_040416c

Drawing No. ----

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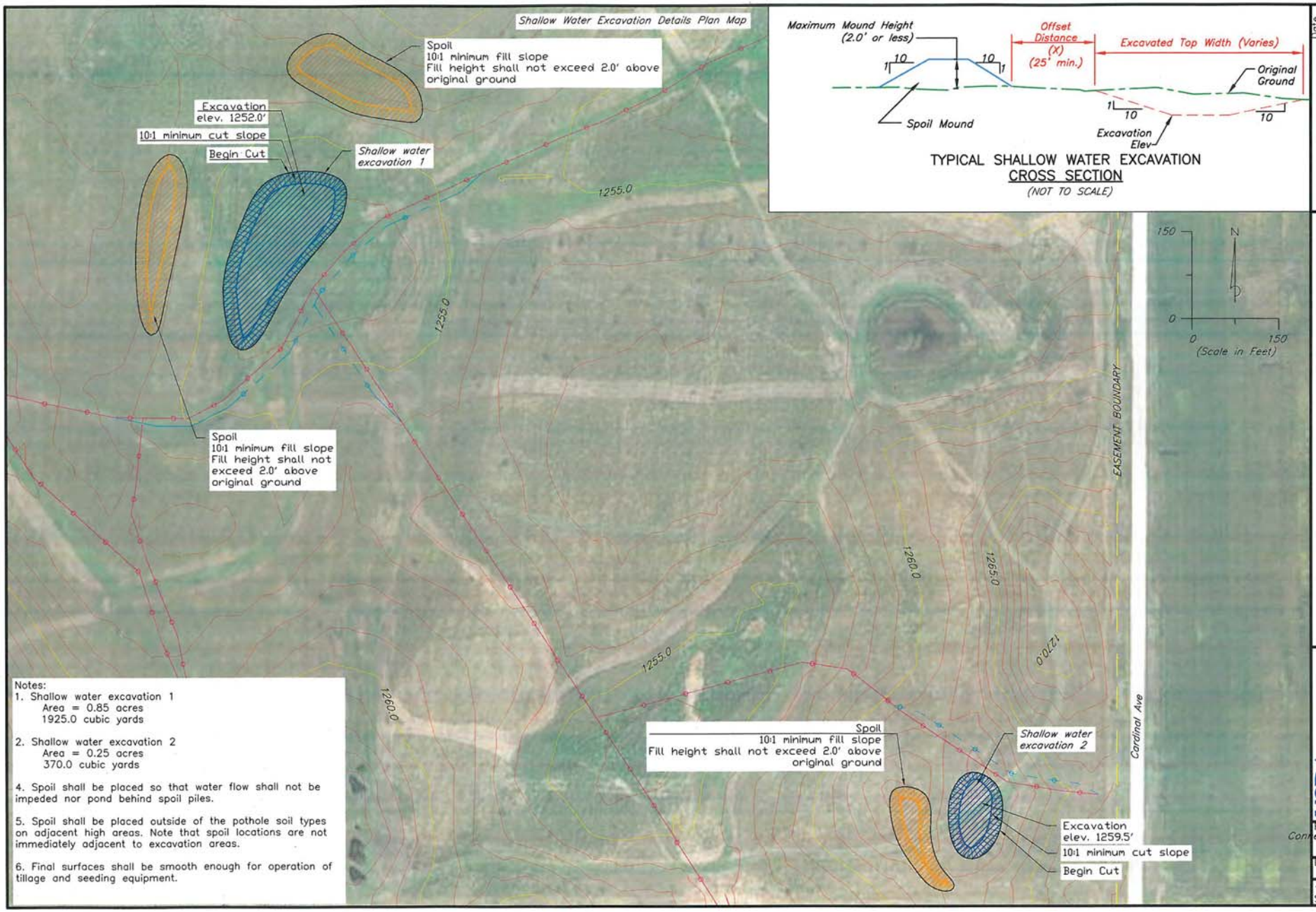
Sheet 3 of 4



Notes:
1. Shallow water excavation 1
   Area = 0.85 acres
   1925.0 cubic yards

2. Shallow water excavation 2
   Area = 0.25 acres
   370.0 cubic yards

4. Spoil shall be placed so that water flow shall not be impeded nor pond behind spoil piles.

5. Spoil shall be placed outside of the pothole soil types on adjacent high areas. Note that spoil locations are not immediately adjacent to excavation areas.

6. Final surfaces shall be smooth enough for operation of tillage and seeding equipment.

TYPICAL SHALLOW WATER EXCAVATION
CROSS SECTION
(NOT TO SCALE)

		Date
Designed	JD GOEMAAT	4/16
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SHALLOW WATER EXCAVATION DETAILS

United States Department of Agriculture
Natural Resources Conservation Service

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NATURAL RESOURCES CONSERVATION SERVICE
CONSTRUCTION SPECIFICATION

IA-1 SITE PREPARATION

1. SCOPE

Site preparation work shall consist of clearing, grubbing, stripping, refuse removal, bank sloping and structure removal on the site as necessary to rid the site of all undesirable materials on or near the surface and prepare the site for the structure. All woody growth within the construction area shall be cleared and all stumps and roots one inch in diameter or larger shall be grubbed from the site. In addition, all areas within 25 feet of the footprint of the structure shall be cleared and grubbed except as directed by NRCS. The work shall also consist of the removal and disposal of structures (including fences) that must be removed to perform other items of work.

For wetland restoration, enhancement, or creation projects, the wetland area shall be disturbed as little as possible and existing naturally vegetated spillway areas shall not be disturbed.

2. FOUNDATION PREPARATION

The construction areas shall be stripped a minimum of 6 inches to remove all unsuitable materials such as organic matter, grasses, weeds, sod, debris, and stones larger than 6 inches in diameter.

In an earth embankment foundation area, all channel banks and sharp breaks shall be sloped to no steeper than 1.5 horizontal to 1 vertical.

The foundation area shall be thoroughly scarified before placement of fill material. The surface shall have moisture added or shall be compacted if necessary so that the first layer of fill material can be compacted and bonded to the foundation.

3. STRIPPED MATERIAL DISPOSAL

Suitable soil material shall be stockpiled for use as topsoil. The other stripped materials shall be buried, removed from the site, or disposed of as directed by the owner or NRCS. Whenever possible, material shall not be disposed of in the pool area created by the structure.

Stockpiled materials around a construction site should be placed so as not to hinder subsequent construction operations.

4. DISPOSAL OF REFUSE MATERIALS

Waste materials from clearing and structure removal shall be burned or buried at locations approved by the owner. Buried materials shall be covered with a minimum of 2 feet of earthfill. Whenever possible, material shall not be disposed of in any pool area created by the structure.

All refuse shall be disposed of in a manner which complies with all local and state regulations.

5. SALVAGE

Items to be salvaged shall be as shown on the drawings. Structures and fencing materials that are designated to be salvaged shall be carefully removed and neatly placed in the specified storage areas.

6. SPECIAL SPECIFICATIONS

NATURAL RESOURCES CONSERVATION SERVICE
CONSTRUCTION SPECIFICATION

IA-5 POLLUTION CONTROL

1. SCOPE

The work shall consist of installing measures or performing work to control erosion and minimize the production of sediment and other pollutants to water and air during construction operations.

2. MATERIALS

All materials furnished shall meet the requirements shown on the drawings or in the specifications.

3. EROSION AND SEDIMENT CONTROL MEASURES AND WORKS

The measures and works shall include, but are not limited to, the following:

Staging of Earthwork Activities: The excavation and moving of soil materials shall be scheduled so that areas unprotected from erosion will be minimized. These areas will be unprotected for the shortest time feasible.

Seeding: Structures and disturbed areas shall be seeded as soon as possible after construction is completed.

Temporary seedings may be used as an alternative to other stabilization measures as approved by NRCS.

Mulching: Construction areas that have been disturbed but have no construction activity scheduled for 21 days or more shall have erosion protection measures applied by the 14th day. This erosion protection may be mulching or other approved temporary measures. Construction areas shall not be left open during a winter shutdown period and shall be protected by mulching.

All seeding and mulching shall be completed in accordance with the seeding plan and Iowa Construction Specification IA-6, Seeding and Mulching for Protective Cover.

The following works may be temporary. If they are installed as a temporary measure, they shall be removed and the area restored to its original state when they are no longer needed or when permanent measures are installed.

Diversions: Diversions may be required to divert clean runoff water away from work areas and to collect runoff from work areas for treatment and safe disposition.

Stream Crossings: Culverts or bridges may be required where construction equipment must cross streams.

Sediment Basins: Sediment basins may be required to settle and filter out sediment from eroding areas to protect properties and streams below the construction site.

Sediment Filters: Straw bale filters, geotextile sediment fences, or other equivalent methods may be used to trap sediment from areas of limited runoff. Sediment filters shall be properly anchored to prevent erosion under them.

Waterways: Waterways may be required for the safe removal of runoff from fields, diversions, and other structures or measures.

4. CHEMICAL POLLUTION

The Contractor shall provide watertight tanks or barrels or construct a sump sealed with plastic sheets to be used to dispose of chemical pollutants, such as drained lubricating or transmission oils, greases, soaps, concrete mixer wash water, asphalt, etc., produced as a by-product of the construction work. At the completion of the construction work, sumps shall be removed and the area restored without causing pollution.

Sanitary facilities such as chemical toilets or septic tanks shall not be placed adjacent to live streams, wells, or springs. They shall be located at a distance sufficient to prevent contamination of any water sources. At the completion of construction work, facilities shall be disposed of without causing pollution.

5. AIR POLLUTION

The burning of brush or trash or disposal of other materials shall adhere to local and state regulations.

Fire prevention measures shall be taken to prevent the start or the spreading of wild fires, which result from project work. Fire breaks or guards shall be constructed at locations shown on the drawings.

All public access or haul roads used by the contractor during construction of the project shall be sprinkled or otherwise treated to fully suppress dust. All dust control methods shall insure safe operations at all times. If chemical dust suppressants are used, the material shall be a commercially available product specifically designed for dust suppression and the application shall follow manufacturer's requirements and recommendations. A copy of the product data sheet and manufacturer's recommended application procedures shall be provided to the Engineer five working days before use.

6. MAINTENANCE, REMOVAL, AND RESTORATION

All pollution control measures and works shall be adequately maintained in a functional condition as long as needed during the construction operation. All temporary measures shall be removed and the site restored to as near original conditions as practical.

7. SPECIAL SPECIFICATIONS

NATURAL RESOURCES CONSERVATION SERVICE
CONSTRUCTION SPECIFICATION

IA-9 SUBSURFACE DRAIN INVESTIGATION, REMOVAL, AND REPAIR

1. SCOPE

The work shall consist of investigation, location, repair, and/or removal of subsurface drains (tile) near new or existing animal waste storage facilities or in wetland restoration, enhancement, or creation project areas, or other situations where subsurface drains may be present.

2. INVESTIGATION AND LOCATION

An inspection trench at least 10 inches wide shall be dug at the location shown on the drawings or as directed by the engineer or his representative. The trench shall be at least 6 feet deep measured from the original ground line, unless otherwise shown on the plans. The Engineer or his representative shall examine the trench and excavated material to identify tile lines.

Size, material, operating condition and direction of flow of each conduit shall be documented. Location and flow line elevation of each conduit shall be surveyed with horizontal and vertical control based on benchmarks shown on the plans.

The inspection trench shall be documented by surveying the natural ground and trench bottom location and elevations at the beginning, end, and every 50 feet for trenches longer than 50 feet.

Backfilling shall not be started without approval of the Engineer. See Section 5 for backfill specifications.

Trench shields, shoring and bracing, or other methods necessary to safeguard the workers and work, and to prevent damage to the existing improvements shall be furnished, placed, and subsequently removed by the contractor.

3. TILE REPAIR

Unless designated for removal, replace damaged conduit with new conduit having equal or greater capacity using material specified in Section 6 or 7. When replacing short sections of clay or concrete tile with single-wall corrugated polyethylene pipe, use the next larger nominal size.

Make connections with manufactured fittings and tight joints. Where joints have gaps that would allow soil to enter, cover the joint with a permanent type material such as coal tar pitch treated roofing paper, fiber glass sheet or mat, or plastic sheet.

If the investigation trench has been excavated below the existing drain grade, backfill the trench with gravel or well-pulverized soil in layers not over four (4) inches thick and tamp by hand or manually directed power tamper to provide a firm foundation for the conduit at the existing grade. Do not backfill with any soil containing broken tile fragments.

Using selected soil free of hard clods, rocks, or frozen soil, hand tamp the backfill material around the haunch of the pipe in layers not over four (4) inches thick to provide support. Hold the conduit in place mechanically while placing excavated material around and over the conduit to ensure proper alignment and grade is maintained. Complete the backfill operation according to Section 5.

4. TILE REMOVAL

Remove conduits as shown on the plans or directed by the Engineer or his representative, including envelope filter material or other flow enhancing material when present.

Cap or plug the open ends of the disconnected conduit to prevent soil entry when the conduit will continue to function downstream, or otherwise shown on the plans. For a minimum distance of two feet around each sealed conduit end, backfill in layers not over four (4) inches thick and tamp by hand or manually directed power tamper to a density equal to or greater than the surrounding undisturbed soil. Do not backfill with any soil containing broken tile fragments, large stones, frozen material, or large dry clods.

Where tile are located beneath an existing animal waste facility, remove the tile or fill the entire length of tile with concrete or Portland cement grout as shown on the plans. When tile removal is specified, the owner shall contact the Iowa Department of Natural Resources (IDNR) for permission to remove the drainage tile under the structure. The structure shall be emptied of waste or lowered to a point below the tile prior to its removal. The structure must be retested for percolation and the results submitted to IDNR and approval received prior to reusing the structure.

If shown on the plans or directed by the engineer, reroute upstream drain lines so the capacity of the upstream drainage system is maintained. Install conduit in accordance with Iowa Construction Specification IA-46, Tile Drains for Land Drainage.

5. BACKFILL

Compact soil around disturbed tile as specified in Section 3 (Tile Repair) and Section 4 (Tile Removal). Keep the backfill within 5 feet of the conduit free from large stones, frozen material, and large dry clods. Unless otherwise shown on the plans, backfill the remainder of the trench as follows:

For trenches located under or near structures, backfill in 12 inch layers and compact each layer to a density equal to or greater than the surrounding undisturbed soil.

For other locations, backfill the remainder of each trench with the excavated soil material which shall extend above the ground surface and be well rounded over the trench.

6. MATERIALS

Unless otherwise shown on the plans, conduit and fittings used for repair shall conform to the specifications listed in Table 1. Perforated pipe shall have a water inlet area of at least 1 square inch per foot, provided by perforations spaced uniformly along the long axis of the pipe. The perforations shall be circular or slots. Circular perforations shall not exceed 3/16 inch in diameter. Slots shall not be more than 1/8 inch wide.

Table 1. Acceptable pipe for subsurface drain repair

Kind of Pipe[#]	Specification
Corrugated Polyethylene (PE) Pipe and Fittings, 3 to 6 inch	ASTM F 405
Corrugated Polyethylene (PE) Pipe and Fittings, 3 to 24 inch	ASTM F 667
Corrugated Profile Wall (Dual Wall) Polyethylene (PE) pipe, 2 to 60 inch	ASTM F 2648[$]
Corrugated Profile Wall (Dual Wall) Polyethylene (PE) pipe, 12 to 60 inch	ASTM F 2306[$]
Polyvinyl Chloride (PVC) Plastic Pipe, Schedules 40, 80 and 120	ASTM D 1785
PVC Pressure-Rated Pipe (SDR Series)	ASTM D 2241
Clay drain tile	ASTM C 4
Concrete drain tile	ASTM C 412

[#] Pipe sizes are nominal and the ranges are inclusive
[$] Pipe conforming to AASHTO M 252 (3 to 10 inch), or AASHTO M 294 (12 to 60 inch) is acceptable

7. SPECIAL SPECIFICATIONS

None

NATURAL RESOURCES CONSERVATION SERVICE
CONSTRUCTION SPECIFICATION

IA-21 EXCAVATION

1. SCOPE

The work shall consist of the excavation required by the drawings and specifications and disposal of the excavated materials. The cutoff trench and any other required excavations shall be dug to the lines and grades shown on the drawings or as staked in the field. Structure or trench excavations will conform to all safety requirements of OSHA.

2. USE OF EXCAVATED MATERIALS

Suitable materials from the specified excavations shall be used in the construction of required permanent earth fill. The suitability of materials for specific purposes shall be determined by the NRCS Inspector.

3. DISPOSAL OF WASTE MATERIAL

All surplus or waste material shall be disposed of in areas shown on the drawings or as approved by the NRCS Inspector. The waste material shall be smoothed and sloped to provide drainage.

4. STRUCTURE AND TRENCH EXCAVATION

Structure or trench excavations will conform to all safety requirements of OSHA.

5. BORROW EXCAVATION

When the quantities of suitable materials obtained from specified excavations are insufficient to construct the specified fills, additional materials shall be obtained from the designated borrow areas as shown on the drawings or as approved by NRCS and the landowner. On wetland projects, borrow shall not be taken from the wetland area within 10 feet of the embankment or as shown on the drawings.

Borrow areas shall be excavated and grading completed in a manner to eliminate steep or unstable side slopes or hazardous or unsightly conditions.

6. OVER-EXCAVATION

Excavation beyond the specified lines and grades shall be corrected by filling the resulting voids with compacted earthfill, except that if the earth is to become the subgrade for riprap, sand or gravel bedding or drainfill, the voids shall be filled with material conforming to the specifications for the riprap, bedding or drainfill, as appropriate.

7. SPECIAL SPECIFICATIONS