



CLEAN WATER STATE REVOLVING LOAN FUND PROGRAM

CATEGORICAL EXCLUSION

TO: All Interested Citizens, Government Agencies and Public Groups

In accordance with the Nebraska Clean Water State Revolving Fund environmental review process, which is based on the National Environmental Policy Act, an environmental review has been performed on the proposed agency action below:

This information reviews the environmental impact likely from a project. This project is planned to be federally funded wholly or in part through your tax dollars; therefore, you are entitled to take part in its review. If you have concerns about the environmental impact of this project, please provide them at this time. The Nebraska Department of Environmental Quality encourages public input in this decision-making process.

PROJECT NAME: Rehabilitation and Resealing of the Wastewater Lagoon Cells for the Village of Haigler's Complete Retention Lagoon Wastewater Treatment System

APPLICANT: Haigler, Nebraska

COUNTY: Dundy

POPULATION: 158 (2010 Census)

CWSRF PROJECT NUMBER: C317999

NDEQ ID No.: 83663

AWIN SUSTAINABILITY SCORE: 23

TOTAL PROJECT AMOUNT: \$637,750

ESTIMATED CWSRF LOAN AMOUNT: \$318,675

CWSRF LOAN FORGIVENESS: \$100,000

CWSRF SMALL TOWN GRANT: \$218,675

The Village of Haigler is planning a rehabilitation project for their Wastewater Lagoon Treatment Facility and a sanitary sewer rehabilitation via cured in place pipe. The Village has applied for financial assistance through the Clean Water State Revolving Fund (CWSRF) loan program to construct this project.

Haigler's wastewater treatment system is a two cell complete retention lagoon system having a total water surface area of 5.0 acres. The Village has operated the west cell, 3.0 acre, (cell #1) as the primary cell with interconnecting line to a 2.0 acre secondary east cell (cell #2). There are no lift stations for their sanitary sewer system. Both cells have grassed over and cannot be considered as sealed which is a violation of NDEQ Title 123. NDEQ Title 123 Chapter 11.008.02 states the minimum wastewater depth of two feet for wastewater lagoons is required to keep emergent weed growth from growing. Chapter 11.008.04 states when inactive cells are placed back into service the permeability rate shall be limited to meet a maximum of 1/8 inch per day by Title 123 Chapter 5.005.01.

The community was inspected by NDEQ on October 31, 2017 and was provided a summary of potential violations for not maintaining this minimum 2 foot depth for cell #2 and having lagoon seepage greater than 1/8 inch per day. A Preliminary Engineering Report, dated June 2017, prepared

by Miller & Associates proposed subdividing and resealing cell #1, adding riprap to interior slopes which are eroded, and abandoning cell #2. The project cost was estimated at \$637,750.

The wastewater flow rate was measured by temporary flow meter to make sure that there was adequate flow to maintain two feet of wastewater in the renovated primary lagoon cell. Haigler's average daily wastewater flow is low, measured at 70 gallons per person per day. The community has 158 residents, when multiplied by the per capita flow equals 11,060 gallons per day for the Village's average daily flow. When analyzed with annual precipitation of 18 inches per year, evaporation of 54 inches per year, and seepage at 1/16 inch per day, would require 2.60 acres of lagoon with a 5 foot operating depth. Subdividing the primary cell would leave 2.60 acres water surface area which should be sufficient to operate as a completion retention system and maintain 2 feet of wastewater in both cells. Geotechnical work was conducted to analyze the in situ liner material in the primary cell. Insufficient clay was found which would need supplemental addition of bentonite or imported clay. A lean clay borrow site was located 2 miles from the lagoon site which will be trucked in to construct the 12 inch thick compacted clay liner. The existing vegetation will be stripped and the interior banks of cell #1 reworked to a 3 to 1 slope with riprap addition. Seepage permeability tests will be conducted by a soils lab on the sides and floor after compaction to make sure the maximum seepage is not exceeded. Any areas that do not pass will need to be reworked and retested.

The project is eligible for financing through the Clean Water State Revolving Loan Fund (CWSRF) and is currently found on the FY2018 planning list ranked at 65 points. Eligible costs include engineering and inspection of the project. Haigler's median household income is \$27,500, and has an Assessing Wastewater Infrastructure Needs (AWIN) high risk sustainability score of 23 which does qualify Haigler for 50% loan forgiveness. Loan forgiveness is capped at \$100,000 and is dependent on the availability of funds. The Village is also eligible for CWSRF Small Town Grant up to 50% of the project cost, or approximately \$218,675, which also depends on availability of funds. The CWSRF loan will be at a term of 30 years at a program interest rate of 1.5 percent. In addition to principal and interest payments, an administrative fee of 1.0 percent of the loan balance would be assessed each year.

Sewer use fees would be pledged to repay the loan. Current residential sewer use rates are a flat rate of \$8.00 per month. The Village of Haigler has approximately 100 combined residential and commercial sewer connections. Sewer rates would need to be raised by \$15.00 per month to cover the debt service and a 10% coverage requirement. This would equate to an average projected residential sewer rate of approximately \$23.00 per month.

A request for comment was sent by the Village's Engineer to 15 other federal and state agencies. The only environmental issue identified was that Haigler's lagoon system lies within the 100 year flood plain. The top of dikes are required to be one foot above the 100 year flood plain elevation of El 3251 NAVD 1988 or El 3252. This will be checked during development of plans and specifications and if top of existing dikes are not found at the required flood proof elevation, additional fill will be brought in to raise the top of dike. NDEQ reviewed the proposed project for eligibility for a categorical exclusion from National Environmental Policy Act review specified in 40 CFR (Code of Federal Regulations) Part 6.204. The project meets all criteria described in the above reference and the Department has determined that this project is eligible for a categorical exclusion. Consequently, a preliminary decision has been made that a Finding of No Significant Impact will not be prepared. The project, as proposed, is solely directed toward rehabilitation of the existing liner and riprap of interior side slopes of Haigler's wastewater lagoon cells and rehabilitation of deteriorated sanitary sewer.

Justification for categorical exclusion includes:

- The proposed action is not known or expected to have potentially significant environmental impacts on the quality of the human environment either individually or cumulatively over time. No significant increases in odors are expected;
- The proposed action is not known or expected to significantly affect federally listed threatened or endangered species or their critical habitat;
- The proposed action is not known or expected to significantly affect national natural landmarks or any property with nationally significant historic, architectural, prehistoric archeological or cultural value, including but not limited to, property listed on or eligible for the National Register of Historic Places;
- The proposed action is not known or expected to significantly affect environmentally important natural resource areas as wetlands, floodplains, prime farmland, wild and scenic rivers, and significant fish or wildlife habitat. The lagoon project site is located in a designated 100-year flood plain for the unincorporated areas of Dundy County. The lagoon top of dikes will be flood proofed according to Nebraska Department of Natural Resources (NDNR) requirements;
- The proposed action is not known or expected to have a significant effect on the pattern and type of land use (industrial, commercial, agricultural, recreational, residential) or growth and distribution of population including altering the character of existing residential areas, or may not be inconsistent with state or local government, or federally-recognized Indian tribe approved land use plans or federal land management plans. The project does not discriminate against any segment of the community's population;
- The proposed action is not known or expected to cause significant public controversy.

The Nebraska Department of Environmental Quality shall revoke the categorical exclusion and shall require a full environmental review if, subsequent to the granting of exclusion, the state determines that the proposed project no longer meets the requirements for a categorical exclusion due to changes in the proposed project; or new evidence reveals that serious local or environmental issues exist; or federal, state, local, or tribal laws are being violated.

This action is taken on the basis of careful review of the application and other supporting data, which are on file in the office of the NDEQ. These are available for public review upon request. Persons having a comment on this categorical exclusion determination are encouraged to submit such comments directly to Tom Fuenning, Review Engineer, of the Technical Assistance Section of NDEQ, who can be reached at (402) 471-4989 or email: tom.fuenning@nebraska.gov.

Signed this 9th day of January, 2018.

Sincerely,

Jim Macy
Director

JM/tsf

Attachments: Distribution List
Maps

CATEGORICAL EXCLUSION DISTRIBUTION LIST

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USDA RURAL DEVELOPMENT

Ken Shaw
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ENVIRONMENTAL PROTECTION AGENCY

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Lenexa, KS 66219

STATE CONSERVATIONIST

Natural Resources Conservation Service
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John Moeschen
State Program Manager
US Army corps of Engineers
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Omaha, NE 68138-3621

APPLICANT:

Village of Haigler
Keith Haskell, Chairman
PO Box 29
Haigler, NE 69030-0029

ENGINEER:

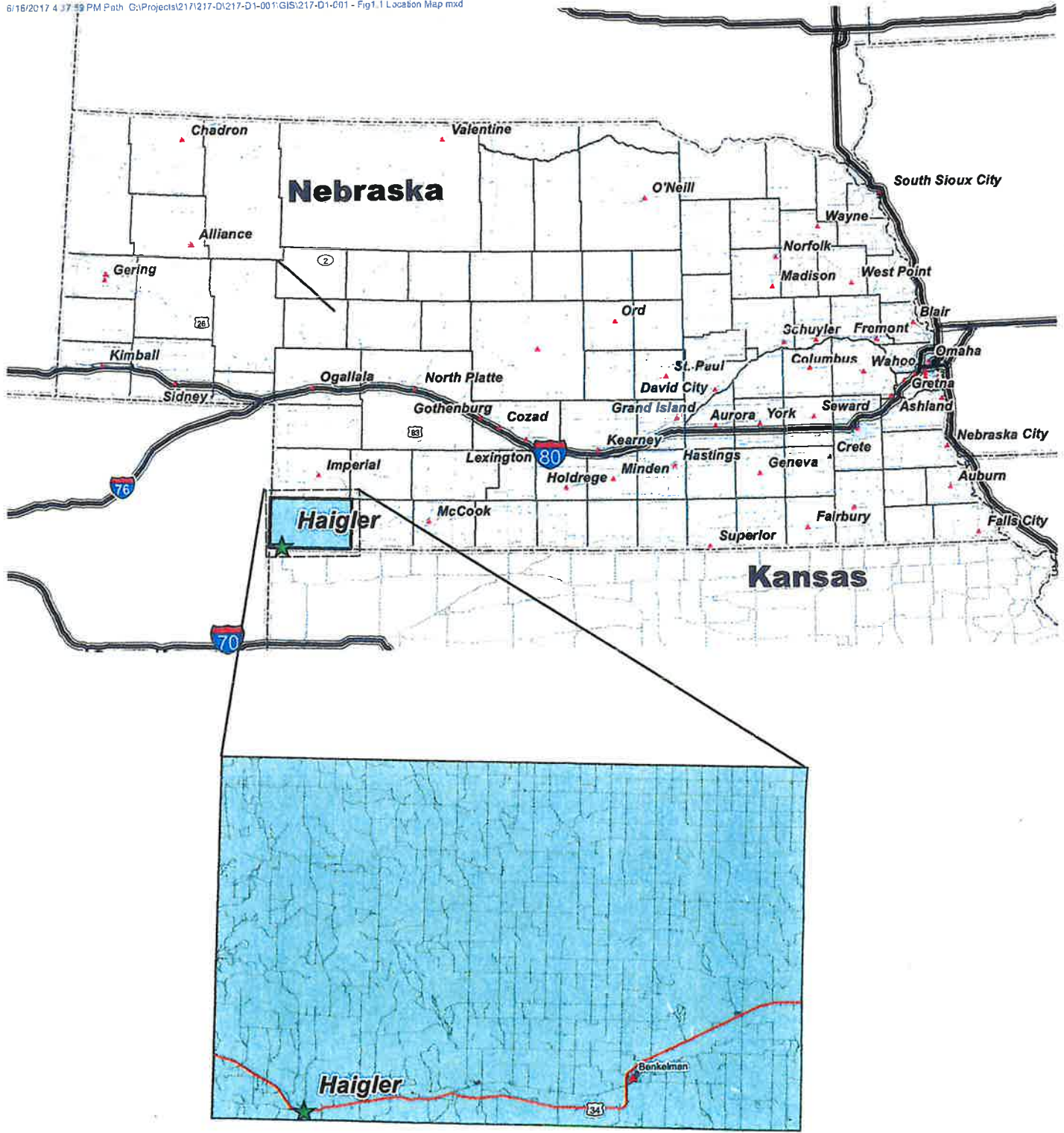
David Blau, P.E.
Miller & Associates
1111 Central Avenue
Kearney, NE 68847

LOCAL NEWSPAPER

Benkelman Post & News-Chronicle
513 Chief
Benkelman, NE 69021
(Public Information Only not for Public Notice)

Upper Republican NRD

PO Box 1140
511 East 5th Street
Imperial, NE 69033

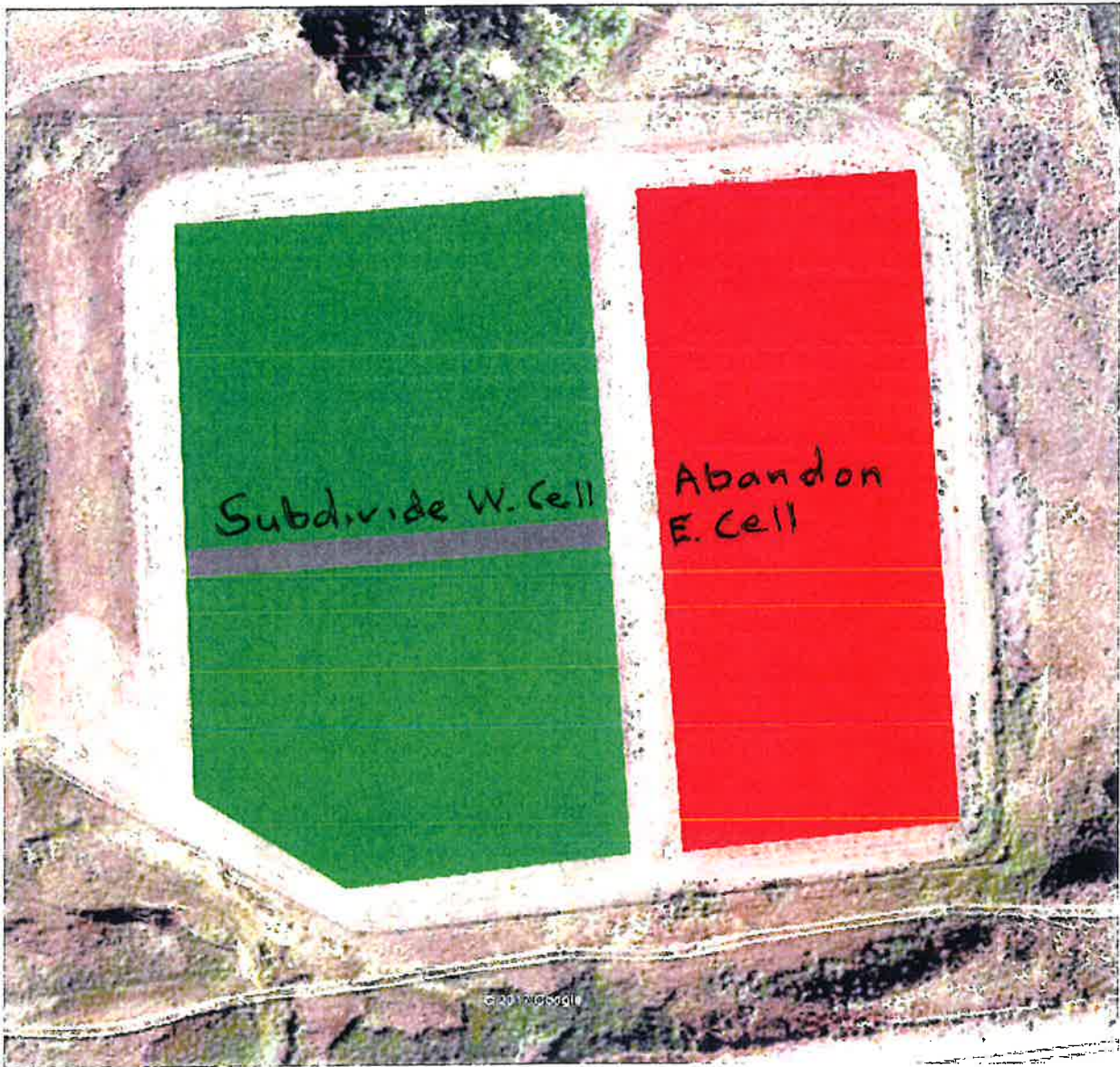


Prepared By:
MA
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Figure 1.1
Location Map
Project 217-D1-001
Dundy County, Nebraska

Figure 4.2
MAP OF RECONSTRUCTION AND SEALING ALTERNATIVES

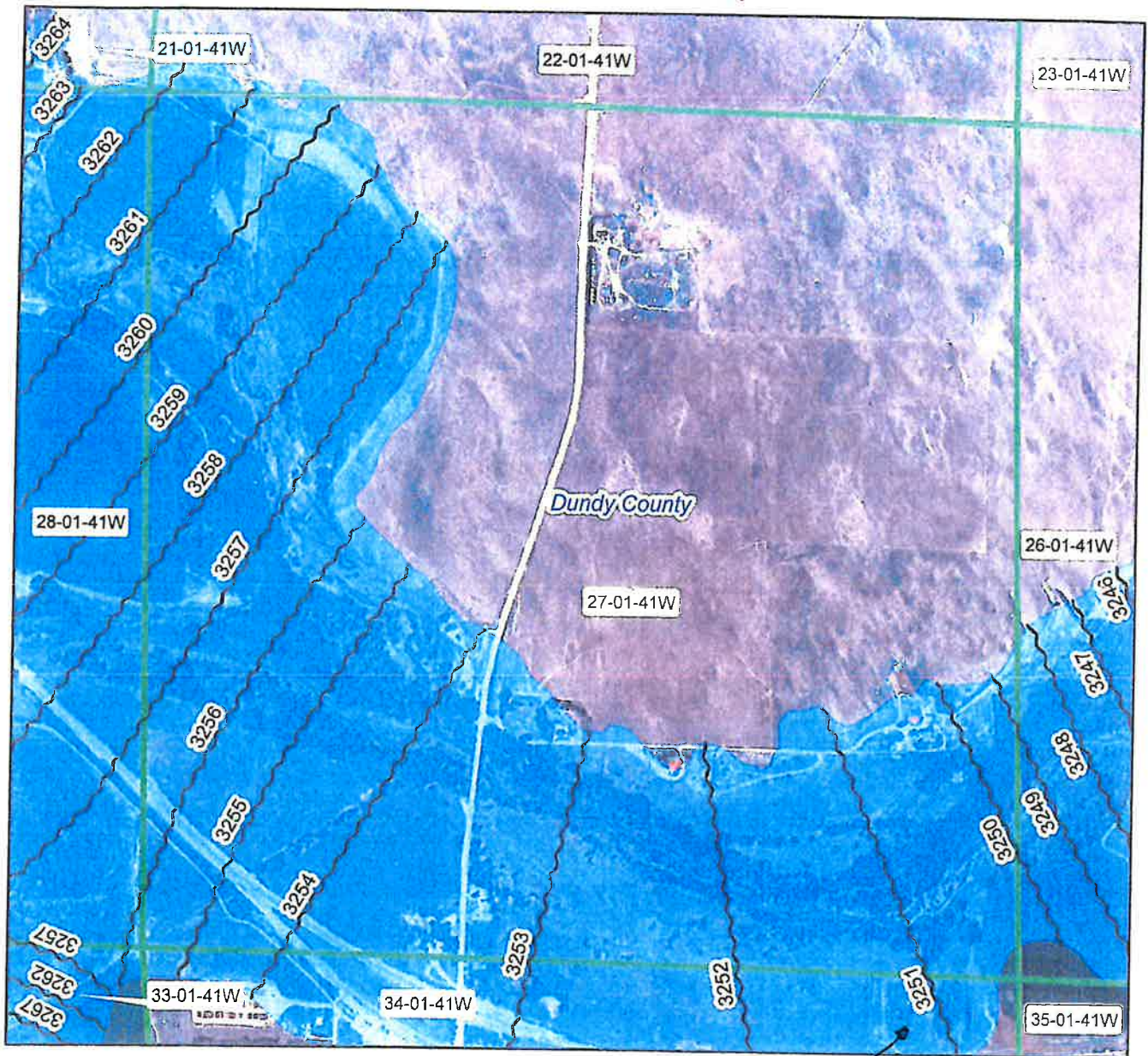


4.2.1.4 Environmental Impacts

The top of dike elevation of any new facility must be constructed a minimum of 1 foot above the 100-year flood level or Base Flood Elevation (BFE). The BFE is defined as the calculated water surface elevation during a storm with a 1% annual probability of being equaled or exceeded. Again **Figure 1.3 (Section 1)** identifies the effective flood zone for the area of Haigler. It is assumed for completion of this study that the existing facility elevation and proposed facility will meet siting requirements for floodplain. A BFE determination has been completed for this area and is included in **Appendix B**. The BFE at the existing lagoon site is **3251**

Base Flood Elevation Determination Section 27-01-41W, Dundy County, Nebraska

Valid: October 11, 2012 to October 11, 2017
(Effective FIRM dated: 10/4/02)



Use and Limitations

The Base Flood Elevation (BFE) is defined as the calculated water surface elevation during a flood with a 1% annual probability of being equaled or exceeded in any given year.

If a structure is located on one of the BFE contour lines, use the elevation associated with the line. For structures between two contour lines, use the higher value. Please note that contours are referenced to NAVD 1988. Elevations of unlabeled contours continue in a consistent pattern, and may be estimated from labeled contours nearby. Elevations in areas with an effective detailed study are for reference only; the official elevation should be determined from the published profile.

This determination may be used for floodplain management or permitting. For design of developments within the floodplain, the Nebraska Department of Natural Resources (NDNR) recommends that a professional engineer perform a site-specific analysis. NDNR provides floodplain information from best available data to other units of government based on authority from Nebraska state statutes.

The BFEs shown on this map are valid only for the dates listed above and may be superseded at any time if better data becomes available.

Legend

- BFE--NAVD 1988
- Sections
- Effective Flood Zone



Lagoon site



1,000 500 0 1,000 2,000 Feet

This BFE was determined by:

Katie Ringland

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Nebraska Dept. Natural Res., P.O. Box 94676, Lincoln, NE 68509

Digitally signed by Katie Ringland, PE, CFM
DN: cn=Katie Ringland, PE, CFM, o=Nebraska Department of Natural Resources, ou=Floodplain Management, email=Katie.Ringland@nebraska.gov, c=US
Date: 2012.10.18 12:02:39 -05'00'