



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 West Secondary Cell of Stratton's Two Cell Wastewater Lagoon System and Renovation of their Lift Station.

APPLICANT: Stratton, Nebraska

COUNTY: Hitchcock

POPULATION: 343 (2010 Census)

CWSRF PROJECT NUMBER: C318012

NDEQ ID No.: 58210

AWIN SUSTAINABILITY SCORE: 25

MEDIAN HOUSEHOLD INCOME: \$39,250

TOTAL PROJECT AMOUNT: \$675,905

ESTIMATED CWSRF LOAN AMOUNT: \$380,905

CWSRF LOAN FORGIVENESS: \$150,000

CWSRF SMALL TOWN GRANT: \$145,000

The Village of Stratton is planning a rehabilitation project for their Wastewater Lagoon Treatment Facility and a lift station renovation. The Village has applied for financial assistance through the Clean Water State Revolving Fund (CWSRF) loan program to construct this project.

Stratton's wastewater treatment system is a two cell complete retention lagoon system having a total water surface area of 9.3 acres. The Village has operated the east cell, 4.8 acre, (cell #1) as the primary cell with an interconnecting line to a 4.5 acre, secondary, west cell (cell #2). There is an existing lift station north of the Republican River which was constructed in 1945 which has only one pump operational. The wet well/dry well lift station needs rebuilding as a duplex, submersible pump, wet well and abandonment of the dry well. The submersible pumps will be on a rail for ease of removal allowing no entry to the hazardous space of the wet well. A valve vault will be constructed adjacent to the wet well for control valves and a flow meter.

The current status of the west cell of the lagoon system is that it has grassed over and lost its clay liner seal. This is a violation of NDEQ Title 123 Chapter 11.008.02 which requires the minimum wastewater depth of two feet for wastewater lagoons in order to keep emergent weed growth from growing and damaging the seal. Chapter 11.008.04 states when inactive cells are placed back into

service the permeability rate shall be restored to meet a maximum of 1/8 inch per day. The Engineer analyzed the current influent flow to the lagoon system and estimated a daily flow of 35,000 gallons per day. The current estimated influent flow to the system cannot support the full, 4.5 acre, secondary cell size. To rehabilitate the west cell of the lagoon system, the Engineer has proposed halving the cell with the construction of a new intermediate dike. The 2.0 acre new cell size will be resealed to a maximum seepage of 1/8 inch per day and provided with a new interconnecting line. The downsized secondary cell will have concrete riprap placed on the interior dike slopes for erosion control. Geotechnical work was conducted to analyze the in situ liner material in the secondary cell. Insufficient clay was found which would need supplemental addition of bentonite for the reworked 12 inch thick compacted clay liner. Seepage permeability tests will be conducted by a soils lab on the sides and floor after compaction to make sure the maximum seepage of 1/8 inch per day 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 FY2019 Intended Use Plan, planning list ranked at 55 points. Eligible costs include engineering and inspection of the project. Stratton's median household income is \$39,250, and has an Assessing Wastewater Infrastructure Needs (AWIN) high risk sustainability score of 25 which does qualify Stratton for loan forgiveness. Loan forgiveness is capped at \$150,000 and is dependent on the availability of funds. The Village is also eligible for CWSRF Small Town Grant up to approximately \$145,000, which also depends on availability of funds. The CWSRF loan will be at a term of 20 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 \$11.75 per month. The Village of Stratton has approximately 201 combined residential and commercial sewer connections. Sewer rates would need to be raised by \$10.00 per month to cover the debt service and a 10% coverage requirement. This would equate to an average projected residential sewer rate of approximately \$21.75 per month.

A request for comment was sent by the Village's Engineer to 13 other federal and state agencies. The Nebraska Game and Parks Commission commented that the project should comply with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act since the project lies along the riparian area of the Republican River. The only other environmental issue identified was that Stratton's lagoon system lies within the 100 year flood plain. The top of dikes and lift station deck are required to be one foot above the 100 year flood plain elevation of El 2788 NAVD 1988 or El 2789. These will be checked during development of plans and specifications and if top of existing dikes or lift station deck are not found at the required flood proof elevation, additional fill will be brought in to raise the top of dike or deck slab.

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 Stratton's secondary wastewater lagoon cell and rehabilitation of their 45 year old lift station.

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 and lift station project site is located in a designated 100-year flood plain for the unincorporated areas of Hitchcock County. The lagoon top of dikes and top of lift station deck will be flood proofed according to Nebraska Department of Natural Resources (NDNR) requirements by being elevated one foot above the 100 year flood elevation;
- 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 8th day of February, 2019.

Sincerely,

Jim Macy
Director

JM/tsf
Attachments: Distribution List
Maps

CATEGORICAL EXCLUSION DISTRIBUTION LIST
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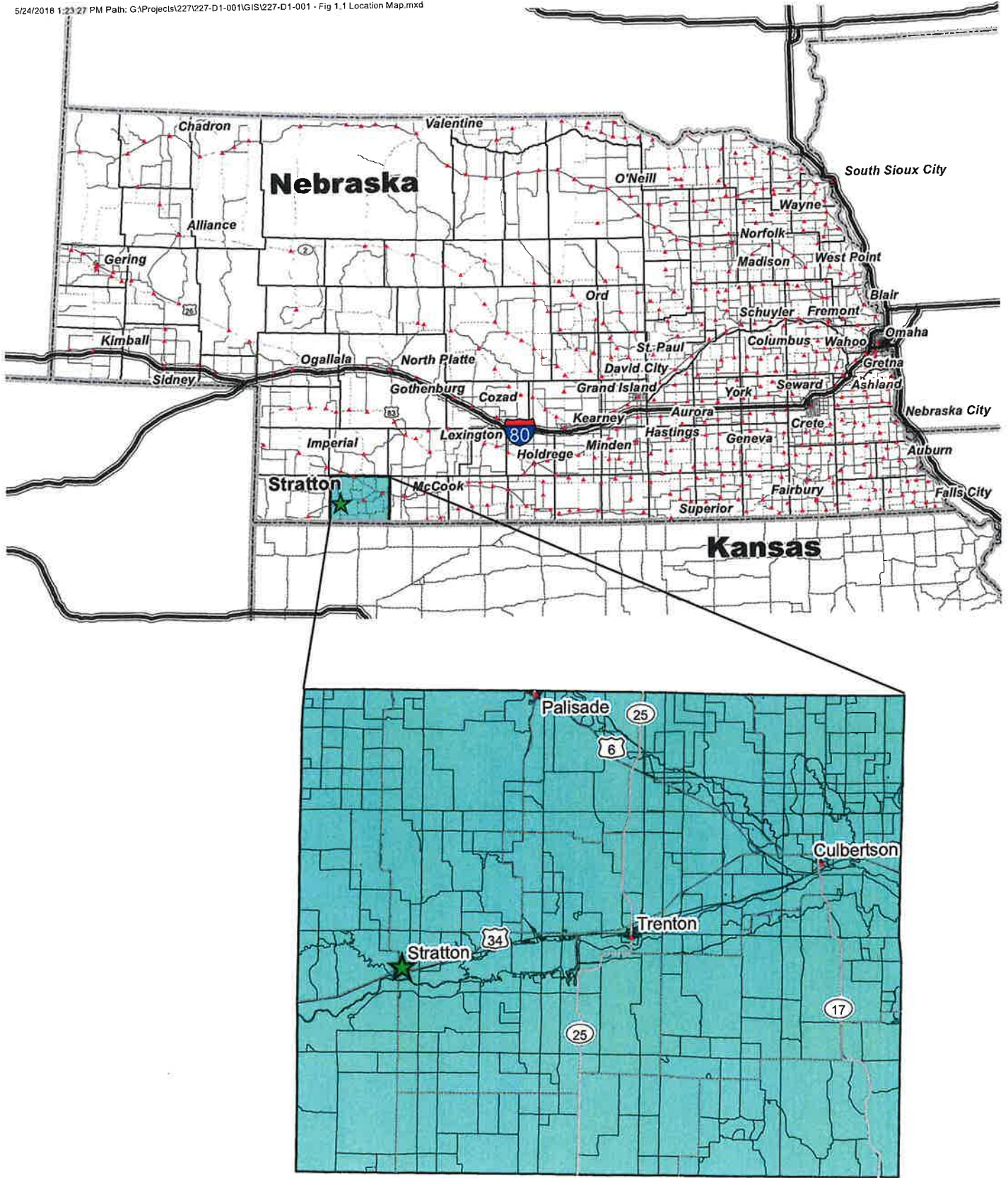
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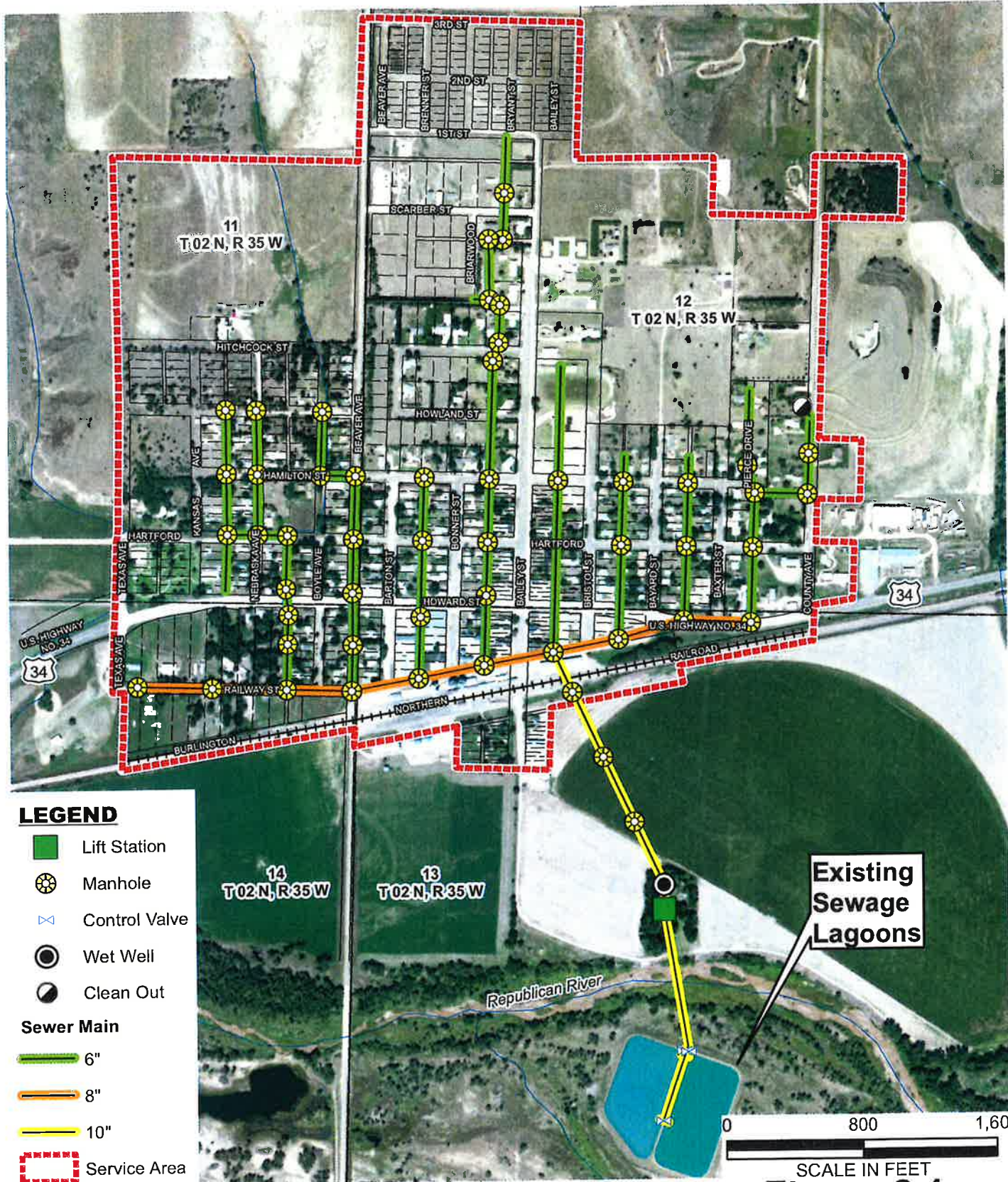


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CONSULTING ENGINEERS, P.C.
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Figure 1.1
Location Map
Project 227-D1-001
Stratton, Nebraska

R 35 W



LEGEND

- Lift Station
 - Manhole
 - Control Valve
 - Wet Well
 - Clean Out
- Sewer Main**
- 6"
 - 8"
 - 10"
 - Service Area

5/25/2018 1:46:07 PM Path: G:\Projects\227\227-D1-001\GIS\227-D1-001 - Fig 2.1 Existing.mxd

Existing Sewage Lagoons

0 800 1,600

SCALE IN FEET

Figure 2.1
Existing
Collection System
 Project 227-D1-001
 Stratton, Nebraska

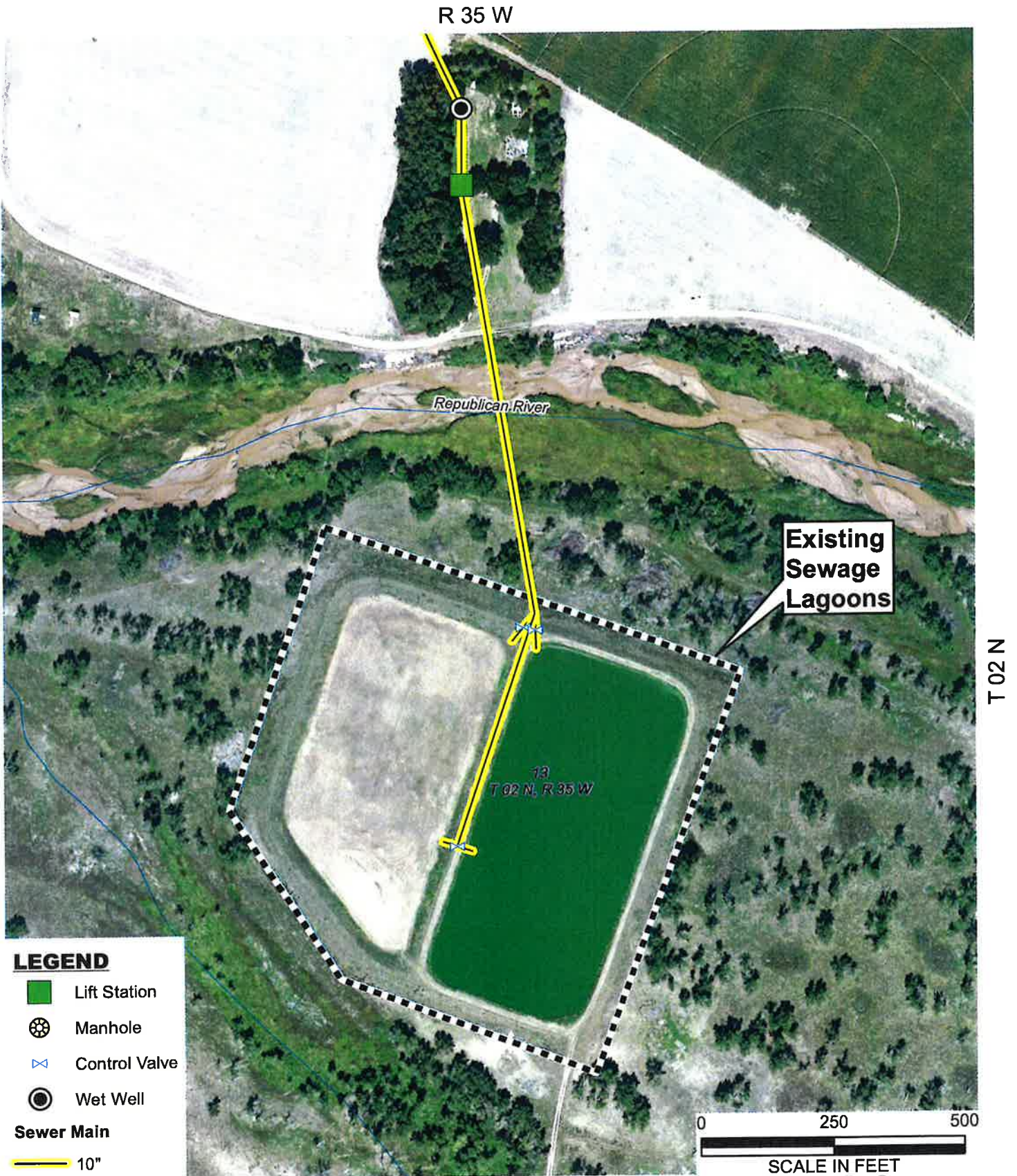
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Note:

1. Aerial Photography acquired from:
 ESRI, i-cubed, USDA FSA, USGS, AEX,
 GeoEye, Getmapping, AeroGrid, IGP



LEGEND

- Lift Station
- Manhole
- Control Valve
- Wet Well
- Sewer Main**
- 10"

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Note:

1. Aerial Photography acquired from:
ESRI, i-cubed, USDA FSA, USGS, AEX,
GeoEye, Getmapping, Aerogrid, IGP

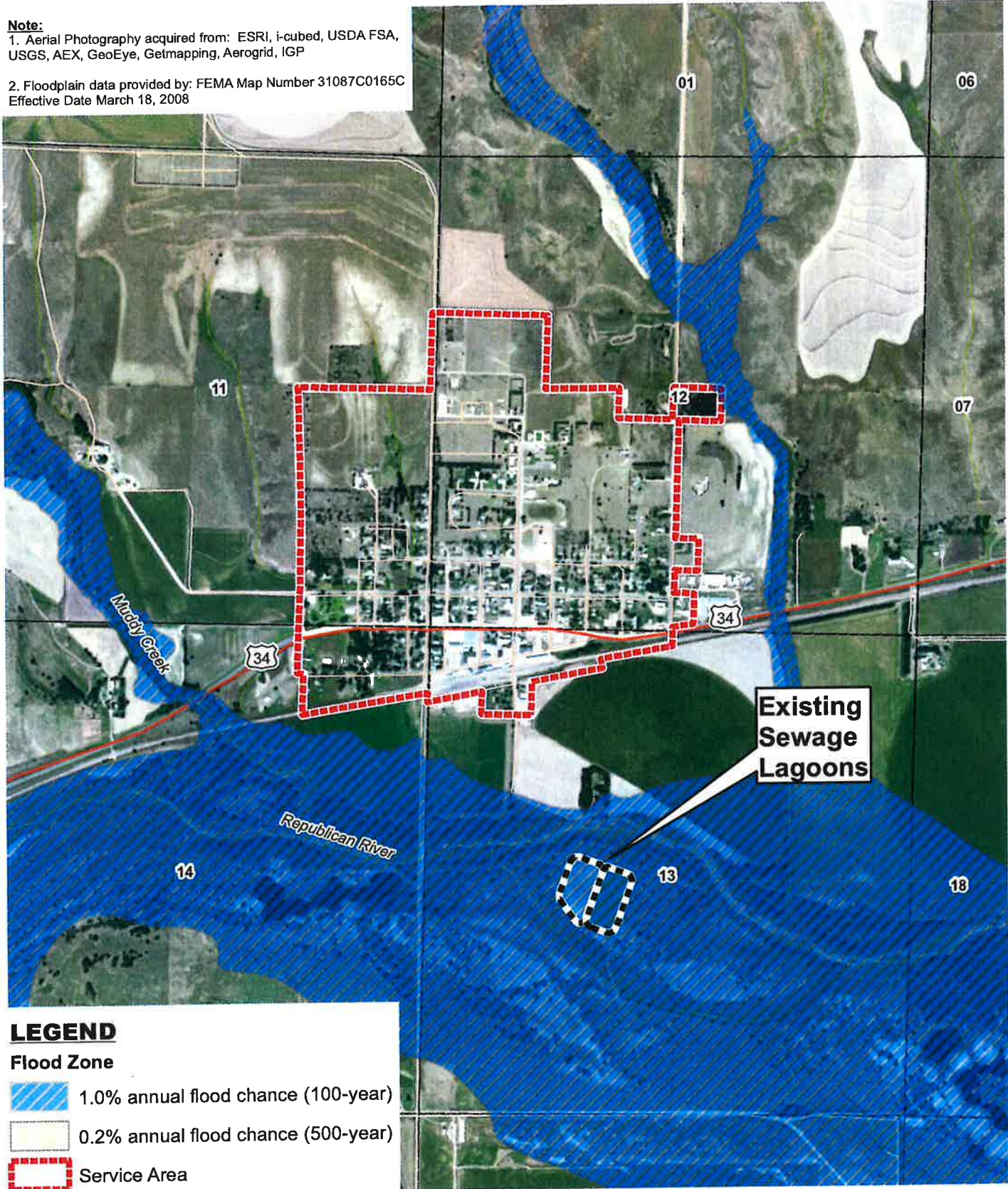
Figure 2.2
Existing Waste Stabilization Ponds
Project 227-D1-001
Stratton, Nebraska

R 35 W

Note:

1. Aerial Photography acquired from: ESRI, i-cubed, USDA FSA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGP




2. Floodplain data provided by: FEMA Map Number 31087C0165C Effective Date March 18, 2008



T 02 N

LEGEND

Flood Zone

-  1.0% annual flood chance (100-year)
-  0.2% annual flood chance (500-year)
-  Service Area

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Figure 1.3
Effective Flood Zone
Project 227-D1-001
Stratton, Nebraska

Figure 4.4
MAP OF PARTIAL RECONSTRUCTION OF CELL #2



4.3.2.4 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 Stratton. It is assumed for completion of this study that the existing facility elevation and proposed facility will meet siting requirements for floodplain. Confirmation of the BFE will be completed during design phase.

A preliminary search for wetlands in the area was made using the U.S. Fish and Wildlife Wetlands Mapper. **Figure 4.2 – Wetland Inventory Map** indicates there are some lakes and wetlands around the lagoon area, however, this alternative will not have construction outside of the existing lagoon perimeter. From an environmental perspective the use of a complete retention facility rather than a discharging facility is preferred because it eliminates discharge, reducing the potential impact to the surrounding surface waters.

4.3.2.5 Land Requirements

Again, no additional land would be required for the proposed alternative.

daily flow so it could keep up if high flows were presented. The Village has a portable generator available, so a new generator would not be included, however, the electrical improvements would include modifications to utilize the Village's generator.

4.2.2.3 Map

Figure 4.1 – Map of Lift Station identifies the location of the existing lift station (highlighted in red) and a schematic location of the proposed wet well and valve pit (highlighted in white).

Figure 4.1
MAP OF LIFT STATION



4.2.2.4 Environmental Impacts

The proposed facility elevation will need to meet siting requirements for 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 Stratton. With the lift station being located within this flood zone, a BFE determination will need to be requested prior to completion of design and a floodplain permit will need to be obtained prior to construction.