



DEPT. OF ENVIRONMENT AND ENERGY

**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 Environment and Energy encourages public input in this decision-making process.

PROJECT NAME: Kearney's Wastewater Treatment Works Phase II Upgrades
APPLICANT: Kearney, Nebraska
COUNTY: Buffalo
POPULATION: 32,174 (2013 estimate)
IIS PROJECT NO: 57745
CWSRF PROJECT NUMBER: C318020
ESTIMATED CWSRF LOAN AMOUNT: \$21,500,000

The City of Kearney, Nebraska, is planning to upgrade their mechanical wastewater treatment facility (WWTF) with construction of new influent screening and grit removal facility. In addition, a new primary pump station, new primary treatment system, and new secondary, activated sludge, MLE aeration basins will be constructed. The existing wastewater treatment plant was built in 1960 with upgrades in 1971 and 1996 and phase I upgrade in 2018 of the sludge dewatering facilities. Phase II will increase the capacity of the WWTF to 5.8 million gallons per day (mgd) up from current 3.8 mgd capacity. Design 20 year population was estimated at 43,200 population projecting 550 person per year growth. Treatment objectives to be met by phase II improvements are overall treatment capacity and improved treatment reliability for ammonia removal and future nutrient removal. In addition, better operational maintenance and safety will be integrated into the facilities. The proposed Design Criteria is summarized in the following chart:

	Present Conditions	Design 20 year Conditions
Population	32,174 (2013 Estimate)	43,200 (approx. 550 persons/yr)
Per Capita Wastewater Flow	112 gallons per capita per day	Domestic Flow 4.9 mgd plus 20% Industrial contribution = 5.8 mgd
Average and Peak Influent Flow	3.8 mgd avg.- 14.4 mgd peak	5.8 mgd avg. – 18.8 mgd peak
cBOD, carbonaceous biological oxygen demand	4,237 lbs/day average 7,005 lbs/day peak	8,942 lbs/day average for domestic and industrial contributions
TSS, Total Suspended Solids	6,561 lbs/day avg. 7,215 lbs/day peak	10,929 lbs/day average for domestic and industrial contributions
Ammonia	664 lbs/day avg. 950 lbs/day peak	1,242 lbs/day average for domestic and industrial contributions

In particular, the improvements based in conjunction with operator input are for the following processes:

1. Installation of a new headworks building to include new mechanical bar screens, vortex style grit removal and new primary pump station.
2. Installation of two new Primary Clarifiers with new splitter boxes as well as bypass gates.
3. The installation of new two stage MLE aeration basins with recycle for nitrogen removal.
4. Installation of a new vehicle storage vehicle building.
5. Installation of biofilter for odor control.
6. Conversion of old primary clarifier to sludge storage tank.
7. Miscellaneous improvements in electrical supply and SCADA upgrades.

Kearney's WWTF discharges treated effluent to the Platte River under the National Pollutant Discharge Elimination System (NPDES) permit NE0052647. The WWTF generates primary and waste activated secondary sludges which is dewatered and landfilled under Federal 40 CFR Part 503 Sludge Rules. Effluent discharges to surface waters are required to meet secondary discharge limitations which are found in their current NPDES permit as follows (expires March 31, 2023):

Parameter	Units	Discharge Limits	
		Monthly Average	7-Day Average
Carbonaceous Biochemical Oxygen Demand (cBOD)	mg/l	25.0	40.0
Total Suspended Solids (TSS)	mg/l	30.0	45.0
pH	SU	6.5 daily minimum	9.0 daily maximum
Spring Ammonia (March 1 - May 31)	mg/l	1.4	1.6
Summer Ammonia (June 1 – Oct.31)	mg/l	1.1	2.7
Winter Ammonia (Nov. 1 – Feb 28)	mg/l	3.9	8.9
E. Coli for Recreation Season (May 1 – September 30)	#/100 ml	126	
Total Nitrogen	mg/l	Report (future 8.0 est.)	Report
Total Phosphorus	mg/l	Report (future 1.0 est.)	Report

The City of Kearney has applied for financial assistance through the Clean Water State Revolving Fund (CWSRF) loan program to the WWTF phase II improvements. This project is listed in the SFY 2020 funding list Intended Use Plan which makes it eligible for financing through the CWSRF program. Kearney is eligible for a 30-year CWSRF loan at the current program per annum interest rate of 2.0 percent. In addition to principal and interest payments, an administrative fee of 0.5 percent of the outstanding principal balance would be assessed each year.

A public hearing was held on the project on September 24, 2019 having an 11 day advertised notice in the Kearney Hub. The engineer presented via a power point presentation the WWTF phase II project improvement objectives, design criteria and map. The sewer user rate impact was presented for the phase II upgrade which would require annual four percent increases for the next six years. The current 2018 monthly sewer rate is a base rate of \$3.73 plus a use rate of \$2.06 per hundred cubic feet (CCF) winter water use. This equates using an average household monthly winter water use of 8.36 CCF or 6,250 gallons to \$20.95 per month typical residential sewer rate. Four percent annual sewer rate increases through 2024 would increase the base rate to \$4.76 and usage rate to \$2.63 per CCF projecting the typical monthly household sewer rate up to \$26.75 for 8.36 CCF water use. No public opposition was expressed at the public hearing. The City Council voted 4-0 to proceed with the WWTF phase II project. The City Council adopted Resolution No. 2019-168 authorizing the Mayor to sign CWSRF financing respectively and the Clerk to sign all SRF outlay reimbursement requests and associated documents.

Sewer use fees would be pledged to repay the \$21.5 million CWSRF loan. The City of Kearney has approximately 10,265 sewer connections. The annual CWSRF loan repayment for a 30 year term, 2.0% per annum interest plus an annual 0.5% administrative fee on the outstanding principal balance is approximately \$1,063,353 which has a 10% coverage requirement. A surplus existed for the sewer fund for the last audited year September 30, 2018 of \$759,458. The sewer fund revenue requirements will be evaluated on an ongoing basis by the City of Kearney.

A Construction Storm Water General Permit will be required from NDEE if more than 1 acre of land will be disturbed. The community can designate the General Contractor as the authorized representative on the storm water permit notice of intent submitted to the NDEE. Authorization of storm water runoff from the construction activity must be in place prior to commencing construction and the areas disturbed during construction will be re-seeded with native grasses. The project will comply with the Migratory Bird Treaty Act and Eagle Act.

The proposed project was reviewed 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 to serve existing and future growth for the City of Kearney. All improvements will occur inside the existing WWTF property boundary. 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;
- 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 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 be consistent with state or local government, or federally-recognized Indian tribe approved land use plans or federal land management plans;
- 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 NDEE. 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 NDEE, who can be reached at (402) 471-4989 or email: tom.fuenning@nebraska.gov.

Signed this 24th day of October 2019.

Sincerely,



Jim Macy
Director

JM/tsf

Attachments: Distribution List

Maps:

- a. Area Map & WWTF Service Area
- b. Existing WWTF Site Plan
- c. Recommended Phase II Improvements
- d. Floodplain Map

CATEGORICAL EXCLUSION DISTRIBUTION LIST

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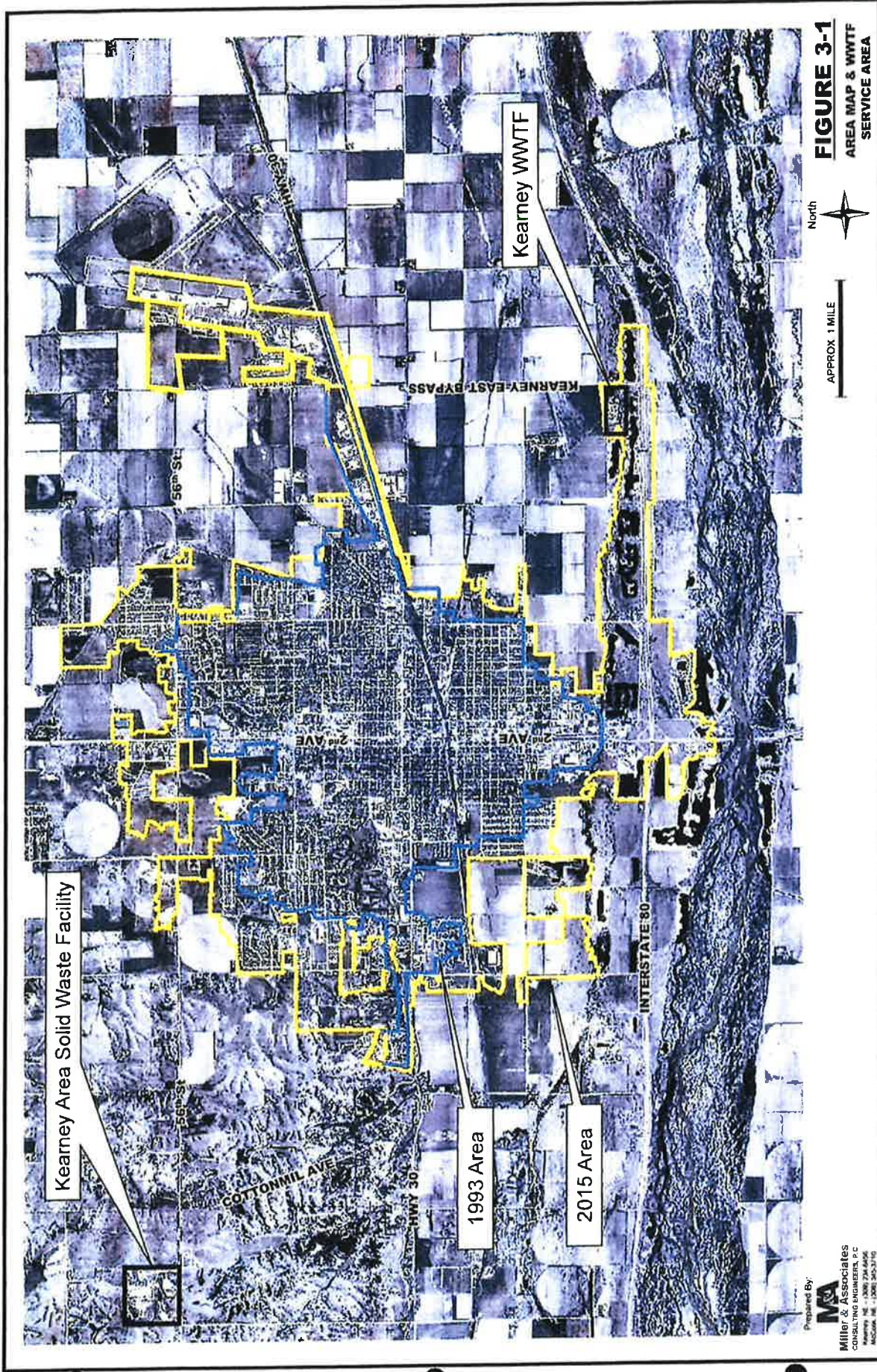
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(Public Information Only not for Public Notice)



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NOTE:
EXISTING OVERALL SITE PLAN IS ORIGINAL DESIGN DRAWING BY
CH2MHILL AND M&A, 1985.

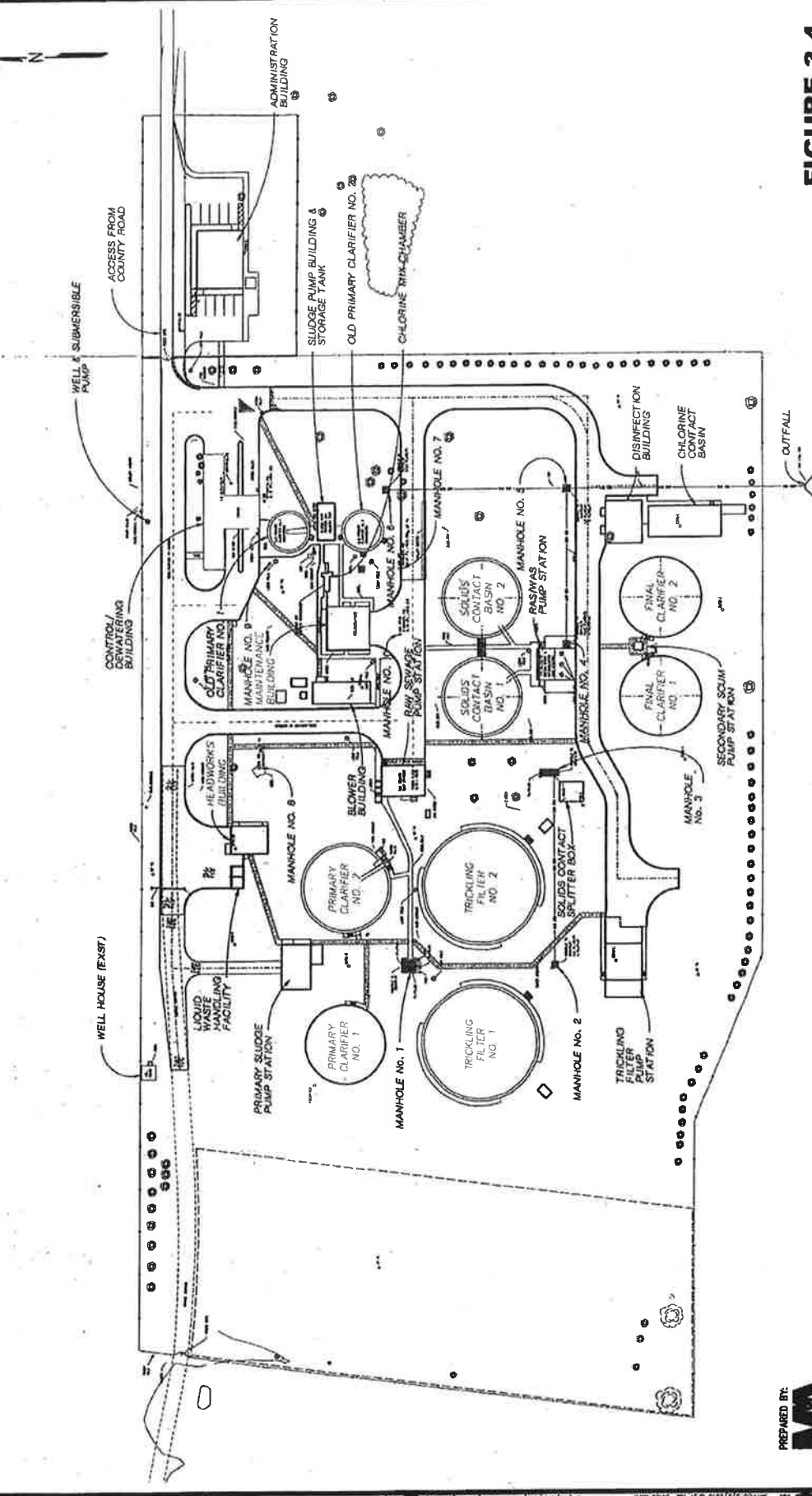
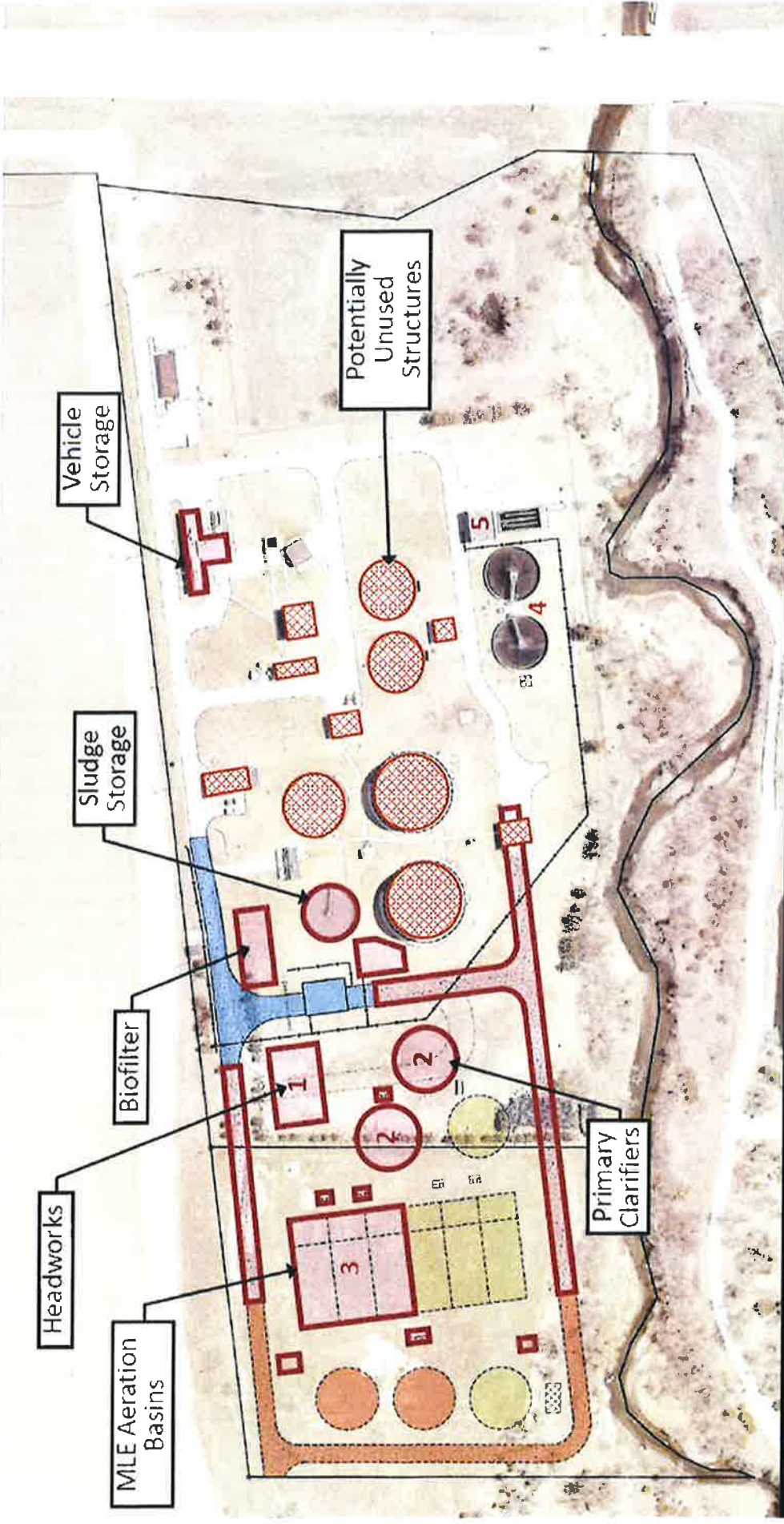


FIGURE 3-4
EXISTING WWTF
SITE PLAN

PREPARED BY:
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1111 CENTRAL AVENUE
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PROJECT NO. 27-2016
DATE: 02/27/2015 8:37 AM
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Recommended Phase II Improvements

- 1 – New headworks which has screening, grit, and primary pump station
- 2 – New primary clarifiers
- 3 – New aeration basins
- 4 – Utilize existing final clarifiers
- 5 – Utilize existing disinfection facilities

