Nebraska Department of Water, Energy, and Environment

NPDES and State Permits Section

245 Fallbrook Boulevard, Suite 100
Lincoln, NE 68521
Tel. (402) 471-2186
Fax (402) 471-2909

Fact Sheet
Nebraska Dairy
City of David City, Butler County, Nebraska
NPP NE0140503 / DWEE ID 3873

Table of Contents

A. Proposed Action – Tentative Determination 2
B. Applicant and Facility Information 2
C. Segment, Use Designations, and Impairment 2
D. Description of Discharge and Potential Pollutants 3
1. Description of Discharge 3
2. Compliance History 3
3. Potential Pollutants 3
E. Existing Permit Limits 3
F. Summary of the Proposed Changes in the Draft Permit 3
G. Basis for Requirements in the Draft Permit 3
1. Overview of Permit Requirements 3
2. Antidegradation Review 4
3. Outfall 001 – Basis for Monitoring and Limitations 4
4. Other Requirements and Conditions 6
H. Supporting Documentation 7
I. Information Requests 8
J. Submission of Formal Comments or Requests for Hearing 8

Attachment 1 – Site Maps
Attachment 2 – Treatment Capacity at the David City WWTF

A. Proposed Action – Tentative Determination

On the basis of a preliminary staff review, the Nebraska Department of Water, Energy, and Environment (DWEE) has made a tentative determination to issue Nebraska Pretreatment Program (NPP) Permit Number NE0140503 to Nebraska Dairy for the discharge of pretreated process, non-process and sanitary wastewater to the David City Wastewater Treatment Facility (WWTF).

B. Applicant and Facility Information

Applicant	Nebraska Dairy Products, Inc.
Facility	Nebraska Dairy
Mailing Address	325 N 3rd Street, David City, NE 68632
Facility Location	325 N 3rd Street, David City, NE 68632
Legal Description	SW ¼, SE ¼, Section 19, Township 15 N, Range 3 E, Butler County, NE
SIC Number(s)	2021
Other Information	Nebraska Dairy produces butter and buttermilk. Process wastewater at the facility is from clean in place (CIP) and washdown activities. Non-process wastewater is from boiler blowdown and cooling tower blowdown. The facility also discharges sanitary wastewater.

C. Segment, Use Designations, and Impairment

Nebraska Dairy discharges treated process, non-process and sanitary wastewater to the David City WWTF which discharges final effluent to Keyser Creek, an undesignated tributary to the North Fork Big Blue River, segment BB4-30200, in the Big Blue River Basin. Segment, basin, and use designation are set forth in DWEE Title 117, Chapter 5, *Nebraska Surface Water Quality Standards*. Impairments and pollutants are from the DWEE *2022 Water Quality Integrated Report*. Key species may include endangered, threatened, and/or sensitive species.

Receiving Stream for the POTW	Keyser Creek, an undesignated tributary to the North Fork Big Blue River
Basin / Segment	BB4-30200 in the Big Blue River Basin

Water Quality Usage Designations for the Undesignated Tributary (Keysor Creek)

Designated uses have not been assigned to Keysor Creek, the undesignated tributary that receives the discharge from the David City WWTF. DWEE Title 117, Chapter 2 002 sets forth that the water quality criteria which may be necessary to protect downstream beneficial uses are applicable to all surface waters, whether or not those uses are assigned to a given waterbody. Additionally, Chapter 2 009 sets forth that narrative and numerical water quality criteria associated with aesthetics and general criteria and acute toxicity criteria for protection of aquatic life apply to undesignated surface waters. Acute criteria which are applicable to undesignated surface waters include those applicable for the Warmwater Class B Aquatic Life use.

Water Quality Usage Designations for the North Fork Big Blue River

State Resource Water	No
Recreation	No
Aquatic Life	Warmwater B
Public Drinking Water Supply	No
Agriculture Water Supply	A
Industrial Water Supply	No

Aesthetics	Yes
Key Species	*Tadpole madtom*

Impairments and Parameters of Concern for the North Fork Big Blue River

Impairments (Causes)	None Known
TMDL	None
Comments/Actions	None

D. Description of Discharge and Potential Pollutants

1. Description of Discharge

The process, non-process and sanitary wastewater from Nebraska Dairy discharges as a pretreatment discharge through Outfall 001 to the David City WWTF. The discharge consists of process wastewater from clean in place and washdown activities, non-process wastewater from boiler blowdown water, cooling tower blowdown and sanitary wastewater. Nebraska Dairy is located at the site of the former Henningsen Foods, Inc and is a new discharger with an anticipated flow rate from Outfall 001 of 0.0723 million gallons per day (MGD). Clean in place wastewater, which is process wastewater, is anticipated to be roughly 0.06 MGD. Sanitary wastewater is anticipated to be 100 gallons per day. The cooling tower, boiler blowdown, and sanitary wastewater are anticipated to comingle with the process wastewater prior to discharge.

2. Compliance History

This facility is newly permitted and does not have a compliance history. The site used to be an NPP-permitted facility, Henningsen Foods, Inc. (NE0133108; Facility ID 3873) and has its own NPDES compliance history. The facility NPP permit for Henningsen was deactivated on July 11, 2024.

3. Potential Pollutants

Potential pollutants of concern include oil and grease, biochemical oxygen demand (BOD), total suspended solids (TSS), temperature, total Kjeldahl nitrogen (TKN) and pH.

E. Existing Permit Limits

This facility is newly permitted and does not have any previous permit limits.

F. Summary of the Proposed Changes in the Draft Permit

This is a new permit.

G. Basis for Requirements in the Draft Permit

1. Overview of Permit Requirements

In EPA's 40 CFR – *Code of Federal Regulations* – Requirements are set forth to determine if an industry is required to obtain a Nebraska Pretreatment Program (NPP) permit. According to 40 CFR Section 403.3(v), any industrial user, must apply for and have a permit to discharge to the WWTF. A significant industrial user is defined as an industrial user that discharges an average of 25,000 gallons per day or more of process wastewater to the POTW or contributes a process wastestream, which makes up 5 percent or more of the average hydraulic or organic capacity of the POTW or is subject to EPA effluent limit guidelines. Nebraska Dairy is anticipated to discharge up to 0.06 MGD of process wastewater, and is a significant industrial user based on the amount of process wastewater discharged to the David City WWTF.

a. Technology-Based Effluent Limits

The discharge from Outfall 001 is subject to the new source pretreatment categorical requirements set forth in 40 CFR Part 405 – *Dairy Products Processing Point Source Category*. Pretreatment

standards are reserved. DWEE has developed permit limits based on the treatment capacity of the City of David City WWTF.

b. Water Quality-Based Effluent Limits

Nebraska Dairy does not discharge directly to Waters of the State, so water quality-based effluent limits do not apply.

c. Best Professional Judgment

Best professional judgment (BPJ) is the method used by permit writers to develop technology based NPDES and NPP permit conditions when effluent guidelines and standards do not include limitations for an industrial category or subcategory. BPJ based limits are developed on a case-by-case basis using all reasonably available and relevant data. Technology-based treatment requirements, including BPJ, are adopted and incorporated by reference in 40 CFR Section 125.3(a)(2)(i)(B).

d. Schedule of Compliance

The NPDES regulations at DWEE Title 119 and 40 CFR Section 122.47 allow the Department to establish schedules of compliance to give permittees additional time to achieve compliance with the CWA and applicable regulations but may not extend the date for final compliance beyond compliance dates established in by the Clean Water Act. The Department may not establish a compliance schedule in a permit for technology based effluent limits (TBELs) because the statutory deadlines for meeting technology standards (i.e., secondary treatment standards and effluent guidelines) have passed. The facility shall install technology following a schedule as needed to meet applicable pretreatment standards as set forth in 40 CFR Section 403.8(f)(l)(iv) and meet the reporting requirements in 40 CFR Section 403.12.

e. Anti-backsliding

Anti-backsliding is a statutory provision that prohibits the renewal, reissuance, or modification of an existing NPDES or NPP permit that contains effluent limitations, permit conditions, or standards that are less stringent than those established in the previous permit. Anti-backsliding provisions and exceptions are promulgated in 40 CFR Section 122.44(l)(1). If any of the limitations are less stringent than limitations on the same pollutant or narrative in the previous NPDES permit, the permit writer then conducts an anti-backsliding analysis and, if necessary, revises the limitations accordingly.

2. Antidegradation Review

An antidegradation review was performed for purposes of developing the permit pursuant to 40 CFR Section 131.12. The results of the evaluation indicate that Keyser Creek, an undesignated tributary to the North Fork Big Blue River (Segment BB4-30200), the eventual receiving water body of the discharge addressed by the permit, is habitat for aquatic life. The designated uses of the North Fork Big Blue River and the water quality criteria applicable to both the undesignated tributary and the North Fork Big Blue River were considered during permit development. The limitations in the draft permit are protective of the Clean Water Act Section 101(a)(2) fishable/swimmable goals and ensure the existing quality of water in the receiving stream is not lowered.

3. Outfall 001 – Basis for Monitoring and Limitations

Outfall 001 is the discharge of process, non-process and sanitary wastewater to the David City WWTF via the sanitary sewer system. Process wastewater is from clean in place and washdown activities and non-process wastewater is from boiler blowdown water, cooling tower blowdown. The pretreatment process is regulated according to the requirements set forth in 40 CFR Part 405 – *Dairy Products Processing Point Source Category*. As pretreatment effluent limitation guidelines are reserved, the facility must meet the requirements of 40 CFR Part 403. The basis for the permit monitoring requirements and limitations are specified below.

DWEE anticipates that all wastewater sources will combine and equalize prior to discharge to the City. Permit limits are based on 40 CFR Part 403 requirements but the permit limits may apply to all types of wastewater.

a. Basis for Monitoring Frequencies

Monitoring frequencies are based on the Department's guidelines for pretreatment facilities discharging less than 0.1 MGD. Monitoring implemented by the Department does not supersede or interfere with monitoring requirements issued by the City of David City. Monitoring results for City testing may be used to satisfy weekly Department monitoring.

b. Basis for Flow Monitoring

40 CFR Section 122.44(i)(1)(ii) requires facilities to monitor the volume of effluent from each outfall. Measurements of flow from the facility will be used to determine the amount of wastewater discharged to the POTW. As there are no NPP permitted flow limits for the AGP David City facility, DWEE is not implementing flow limits during the interim period. Final flow limits are based on the David City and Nebraska Dairy agreement (see Attachment 2). Daily flow monitoring is implemented in the permit in order to obtain accurate discharge data.

c. Basis for pH Limits and Monitoring

The hydrogen ion concentration of the effluent discharge is expressed as pH. The pretreatment requirements for pH are established in 40 CFR Section 403.5(b)(2). In no case shall there be a pH lower than 5.0 standard units (S.U.). A pH minimum limit of 5.0 S.U. and a maximum limit of report only is implemented in the permit. Weekly monitoring is implemented in the permit based on the anticipated flow rate and to be protective of the receiving POTW. The pH limits are not impacted by the compliance schedule.

d. Basis for Temperature Limits and Monitoring

As set forth in 40 CFR Section 403.5(b)(5), no discharge shall have a temperature greater than 40 °C (104 °F) at the receiving POTW. As stated in the permit application, untreated dairy effluent is anticipated to be warm and variable. Wastewater temperatures from the facility are anticipated to range between 80 °F and 120 °F prior to treatment and/or equalization. David City does not have a temperature limit prior to entering the sewer. At this time, DWEE is implementing the prohibitive discharge standard set forth in 40 CFR Section 403.5(b)(5), though no Outfall 001 limit is set. At an average temperature of 80 °F, DWEE is not anticipating interference. DWEE may implement a permit limit if temperature is demonstrated to have negative impact on the POTW, or upon request from the City. The effluent limit will be report-only. Weekly monitoring is implemented based on the facility's effluent flow rate, to determine compliance with permit limits and to be protective of the receiving POTW. The temperature limits are not impacted by the compliance schedule.

e. Basis for Total Kjeldahl Nitrogen Monitoring

Monitoring for total Kjeldahl nitrogen is included in the permit based on the processes and associated volume of effluent flow generated at the facility as well as to monitor loadings to the David City WWTF. At the time of permit drafting, DWEE evaluated the potential pollutant loading and compared it to the remaining capacity of the planned David City WWTF. Based on the results, DWEE concluded that only monitoring is required during the interim period. Final limits are implemented based on the agreement between David City and the facility (see Attachment 2). Monthly report-only monitoring is implemented in the permit based on the anticipated flow rate and to be protective of the receiving POTW.

f. Basis for TSS Limits and Monitoring

Monitoring for total suspended solids (TSS) is included in the permit based on the processes and associated volume of effluent flow generated at the facility as well as to monitor loadings to the City of David City WWTF. At the time of permit drafting, DWEE evaluated the potential pollutant loading

and compared it to the remaining capacity of the David City WWTF. DWEE is implementing interim and final limits based on the treatment capacity of the WWTF and the Nebraska Dairy treatment system. Based on an agreement between the facility and David City, DWEE is implementing the TSS interim requirements based on the David City WWTF design capacity, the population loading, NPP permit limits for AGP (see Attachment 2). The remainder is allocated to Nebraska Dairy. After completion of the compliance schedule in the permit, the facility must meet the TSS limits that are from the agreement between David City and Nebraska Dairy. Weekly monitoring is implemented in the permit based on the anticipated flow rate and to be protective of the receiving POTW.

g. Basis for BOD Limits and Monitoring

Monitoring for biochemical oxygen demand (BOD) is included in the permit based on the processes and associated volume of effluent flow generated at the facility as well as to monitor loadings to the City of David City WWTF. At the time of permit drafting, DWEE evaluated the potential pollutant loading and compared it to the remaining capacity of the David City WWTF. DWEE is implementing interim and final limits based on the treatment capacity of the WWTF and the Nebraska Dairy treatment system. Based on an agreement between the facility and David City, DWEE is implementing the BOD interim requirements based on the David City WWTF design capacity, the population loading, NPP permit limits for AGP (see Attachment 2). The remainder is allocated to Nebraska Dairy. After completion of the compliance schedule in the permit, the facility must meet the BOD limits that are from the agreement between David City and Nebraska Dairy. Weekly monitoring is implemented in the permit based on the anticipated flow rate and to be protective of the receiving POTW.

h. Basis for Oil and Grease Limits and Monitoring

Limits and monitoring for oil and grease is included in the permit based on the processes and associated volume of effluent flow generated at the facility as well as to monitor loadings to the David City WWTF. Based on an agreement with the City and the facility, fats, oils, and greases are anticipated to be 100 mg/L. Therefore, to be protective of the WWTF, DWEE is implementing a monthly average limit of 100 mg/L after completion of the compliance schedule in the permit. Prior to completion, only monitoring is required as the WWTF is anticipated to have capacity. Monthly monitoring is implemented in the permit based on the anticipated flow rate and to be protective of the receiving POTW.

4. Other Requirements and Conditions

The *Other Requirements and Conditions* section has been updated. Method detection limit reporting requirements, additional monitoring, permit attachments, and permit modification and reopening requirements are included in Appendix A.

a. Prohibited Discharge Standards

Discharges from the facility that include fire hazards, corrosive damage, obstruction to flow, interference with the treatment facility, heat, toxic gases, petroleum oil, and hauled pollutants are prohibited based on the requirements in 40 CFR Section 403.5. Notification to the POTW of potential problems, including slug loads, is according to the requirements set forth in 40 CFR Section 403.12(f).

b. Dilution of Wastewater

The use of process wastewater or other dilution as a partial or total substitute for adequate treatment is prohibited in accordance with 40 CFR Section 403.6(d).

c. Notification of Additional Pollutant Potential

The requirement to report to the DWEE additional pollutant potential, system changes, changes to production, and/or use of new chemicals or additives that may result in a significant increase in the discharge of pollutants is according to 40 CFR Section 403.6(a)(1).

d. Notification Requirements

40 CFR Section 403.12(j) establishes the reporting requirements to the Department and to the City of David City WWTF. The requirement to report a permit violation within 24 hours is according to the requirements set forth in 40 CFR Section 403.12(g)(2).

e. Wastes Trucked or Hauled to the POTW

40 CFR Section 403.5(b)(8) establishes that any trucked or hauled pollutants are prohibited, except at discharge points designated by the POTW.

f. Best Management Practices

The permittee shall implement best management practices in accordance with 40 CFR Section 403.5(a)(1) and (b).

g. Effluent Violation Repeat Sampling

40 CFR Section 403.12(g)(2) establishes the additional sampling requirements.

h. Notice of Potential Problems

Notice of potential problems is established in 40 CFR Section 403.12(f).

i. Sludge Disposal or Use

The requirement to dispose of sludge in accordance with DWEE regulation is according to DWEE Rules and Regulations and the Nebraska Environmental Protection Act.

j. 90-Day Compliance Report

A requirement to submit a 90-day compliance report is according to the requirements set forth in 40 CFR Section 403.12(d).

H. Supporting Documentation

The following documents and regulations were used in the preparation of the draft permit.

1. DWEE Title 117, *Nebraska Surface Water Quality Standards*, June 24, 2019.
2. DWEE Title 118, *Ground Water Quality Standards and Use Classifications*, September 20, 2023.
3. DWEE Title 119, *Rules and Regulations Pertaining to the Issuance of Permits under the National Pollutant Discharge Elimination System*, September 20, 2023.
4. DWEE, *2022 Water Quality Integrated Report*, August 2, 2023.
5. *Technical Support Document for Water Quality-based Toxic Control* (EPA 505/2-90-001 PB91-127415, March 1991.
6. EPA's 40 CFR – *Code of Federal Regulations.*
7. National Sanitary Foundation (NSF) Standard No. 40.
8. Pretreatment permit application forms from Nebraska Dairy received on October 23, 2026.
9. DMR data and facility file data for Henningsen Foods, Inc., NPDES NE0133108; DWEE ID 3873.
10. DMR data and facility file data for Nebraska Dairy; NPDES NE0140503; DWEE ID 3873.

I. Information Requests

Inquiries concerning the draft permit, its basis or the public comment process may be directed to:

Kim Bubb Telephone: (402) 471-8830 Fax: (402) 471-2909

Individuals requiring special accommodations or alternate formats of materials should notify the Department by calling (402) 471-2186. TDD users should call (800) 833-7352 and ask the relay operator to call the Department at (402) 471-2186.

Copies of the application and other supporting material used in the development of the permit are available for review and copying at the Department's office between 8:00 A.M. and 5:00 P.M. on weekdays.

Location Address: 245 Fallbrook Boulevard, Lincoln, Nebraska

Mailing Address: NPDES and State Permits Section
Nebraska Department of Water, Energy, and Environment
245 Fallbrook Boulevard, Suite 100
Lincoln, Nebraska 68521

J. Submission of Formal Comments or Requests for Hearing

The date on which the public comment period ends is specified in the public notice. During the public notice period, the public may submit formal comments or objections, and/or petition the Department to hold a public hearing concerning the issuance of the draft permit. All such requests need to: be submitted in written form, state the nature of the issues to be raised, and present arguments and factual grounds to support them. The Department shall consider all written comments, objections and/or hearing petitions, received during the public comment period, in making a final decision regarding permit issuance.

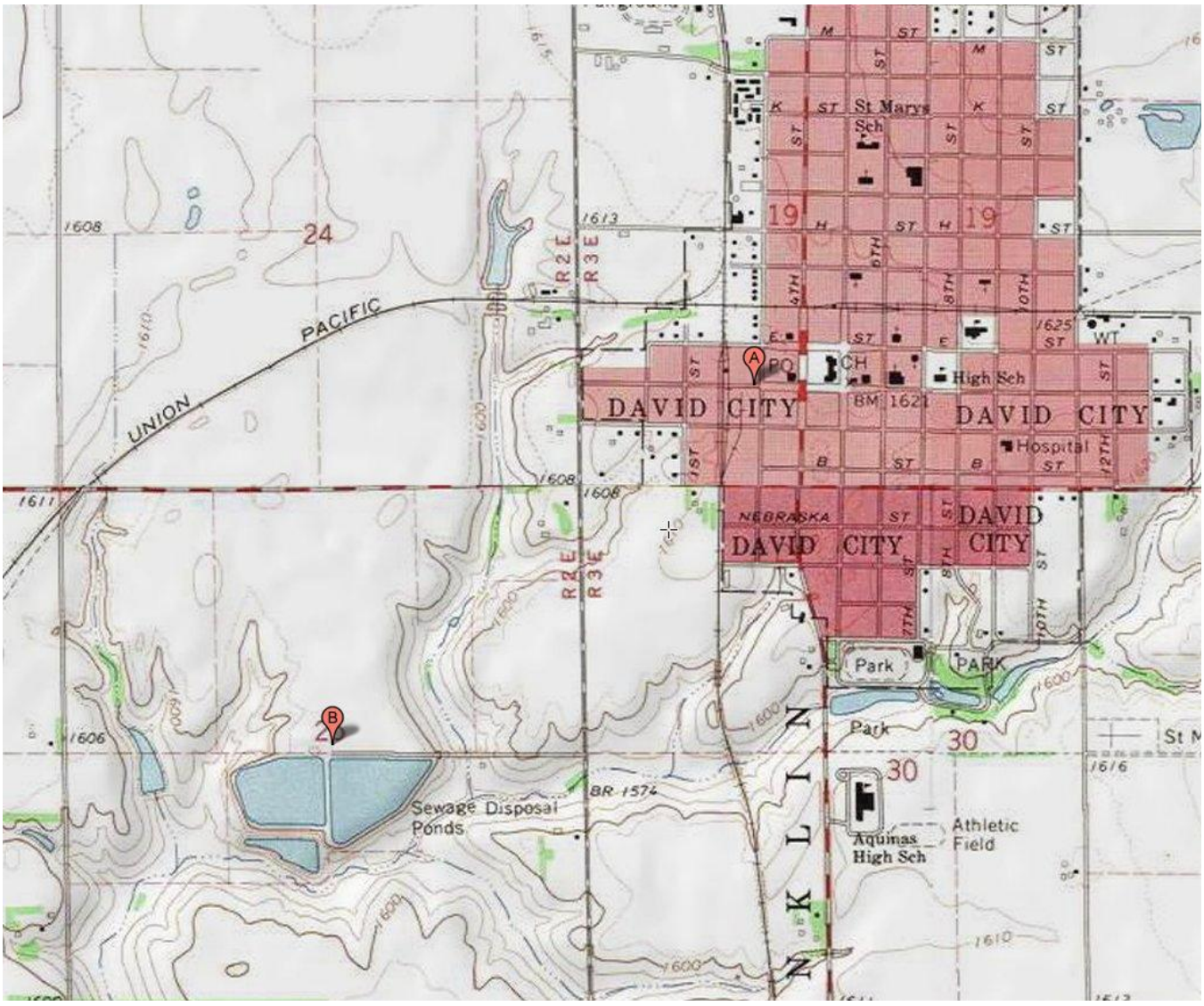
Formal comments, objections and/or hearing requests need to be submitted to:

Kim Bubb; NPDES and State Permits Section

Location Address: 245 Fallbrook Boulevard, Lincoln, Nebraska

Mailing Address: Nebraska Department of Water, Energy, and Environment
245 Fallbrook Boulevard, Suite 100
Lincoln, Nebraska 68521

Attachment 1 – Site Maps
Map 1 – Topographic Map
A – Nebraska Dairy
B – City of David City WWTF



Attachment 1 – Site Maps
Map 2 – Aerial Photograph
A – Nebraska Dairy



Attachment 2 – Treatment Capacity at the David City WWTF

Limits from JEO evaluation that are used for final limits

	SBR Design Parameters[1]	AGP Current[2]	Michaels Foods Allocation[3]	City 2040 Design Population[4]	Totals (Max Month)	Percent Remaining[5] (%)
Ave Flow (MGD)	1.3	0.094		0.533		
Max Day (MGD)	2.6	0.208	0.075	1.300	2.608	0%
Peak Day (MGD)	3.1	0.250		2.325[7]	3.1	0%
BOD (mg/L)	666					
BOD (lb/day)	7,221[6]	2,294	1,391	758	4,442	38%
TSS (mg/L)	356					
TSS (lb/day)	3,860[6]	1,043	350	861	2,254	42%
TKN (mg/L)	98					
TKN (lb/day)	1,063[6]	313	145	158	616	42%
FOG (mg/L)	90					
FOG (lb/day)	976[6]	313	N/A	222	535	45%

[1]Based upon Aqua Aerobics Process Design Report #170946
[2]Based upon AGP requested limits for the current facility
[3]Based upon David City agreement with Industry that has been transferred to NE Dairy.
[4]Design Population based upon prior reports and design flows/loads calculated based upon Ten States Standards.
[5]Based on current AGP loadings
[6]Lbs/day calculated based upon average day flows per Aqua Aerobics
[7]City flows due to I&I that exceed rated capacity of the SBR system will be automatically diverted to EQ lagoon(s)

DWEE Calculation of Available Capacity for Interim Limits

Treatment Capacity at David City WWTF				
	David City WWTF	Population	AGP	Leftover
Parameter				
BOD (lbs/day)	7221	758	4379	2084
TSS (lbs/day)	3860	861	1168	1831
TKN (lbs/day)	1063	222	584	257