BOGUE & BOGUE, LLP
LAW OFFICES

Cheryl Laurenz-Bogue
Eric H. Bogue

Respond to Faith Office

June 22, 2012

Tina Artemis
Regional Hearing Clerk (8RC)
U.S. EPA Region 8
1595 Wynkoop Street
Denver, CO 80202-1129

Re: In Re City of Dupree, NPDES Permit No. SDG589116; Docket No. CWA-08-2011-0040
Respondent's Prehearing Information Exchange

Dear Ms. Artemis:

Enclosed please find for filing in your office the Respondent's Prehearing Information Exchange documents and a Certificate of Service on the above referenced matter. These same documents have also been sent via electronic mail to your office at artemis.tina@epa.gov.

I have served a copy of these documents and this letter upon Amy Swanson, Enforcement Attorney for the EPA by both regular mail and via electronic mail at swanson.amy@epamail.epa.gov.

Thank you in advance for your time and consideration on this matter. If you have any questions or concerns, please don't hesitate to contact me at your earliest convenience.

Sincerely,

Eric H. Bogue
EHB/ehb
en:
cc: Client

DUPREE
Ziebach County Courthouse
200 Main St.
P.O. Box 400
Dupree, SD 57623-0400
605.365.5171 (tele)
605.365.5717 (fax)

FAITH
Butler Insurance Building, Suite 2
104 West 1st St.
P.O. Box 250
Faith, SD 57626-0250
605.967.2529 (tele)
605.967.2527 (fax)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 8

2012 JUN 29 AM 11:14

FILED
EPA REGION VIII
HEARING CLERK

In the Matter of:	)	Docket No. CWA-08–2011-0040
	)	
	)	
The City of Dupree, South Dakota	)	
Dupree, South Dakota	)	
NPDES Permit No. SDG589116	)	
	)	
	)	
Respondent	)	

RESPONDENT'S PREHEARING INFORMATION EXCHANGE

Respondent, City of Dupree, files this RESPONDENT'S PREHEARING EXCHANGE pursuant to 40 CFR §22.19(a) and ORDER TO FILE PREHEARING INFORMATION EXCHANGE of the Presiding Officer issues January 12, 2012, and as revised by ORDER ON RESPONDENT'S MOTION TO RESCHEDULE SECOND PREHEARING CONFERENCE AND FOR EXTENSION OR STAY OF TIME FOR RESPONDENT TO FILE PREHEARING EXCHANGE.

I. WITNESSES WHO MAY BE CALLED

A. Raymond Lenk
Mayor of Dupree
City of Dupree
P.O. Box 52
Dupree, SD 57623

Mr. Lenk is the current Mayor of the City of Dupree and may be called to testify regarding the Respondent's knowledge of the City's efforts to repair the alleged discharge and general compliance with the City's NPDES permit.

Sandra Lemke
Former Acting Mayor
City of Dupree

Ms. Lemke was the Acting Mayor of the City of Dupree and may be called to testify regarding the Respondent's knowledge of the alleged discharge, efforts to repair the discharge and general compliance with the City's NPDES permit.

Ian Pistulka
Former Maintenance Manager
City of Dupree

Mr. Pistulka was the Maintenance Manger for the City of Dupree during the period of the alleged overflow at issue in this matter and may be called to testify regarding the Respondent's knowledge of the alleged discharge, efforts to repair the discharge and general compliance with the City's NPDES permit.

James Veit
Maintenance Manager
City of Dupree

Mr. Veit was an employee of the City of Dupree's Maintenance Department during the period of the alleged overflow at issue in this matter and is the current Maintenance Manager and may be called to testify regarding the Respondent's knowledge of the alleged discharge, efforts to repair the alleged discharge and general compliance with the City's NPDES permit.

Mr. Veit may establish through testimony the basis for admitting into evidence Respondent's Exhibit 1 and 2.

Chancey E. Shrake, PE
Project Engineer
Brosz Engineering, Inc.
PO Box 23
Pierre, SD 57501

Mr. Shrake is an engineer employed by the City of Dupree an may be called to testify regarding the Respondent's efforts to repair the alleged discharge and general compliance with the City's NPDES permit.

Mr. Shrake may establish through testimony the basis for admitting into evidence Respondent's Exhibits 3 and 4.

II. RESERVATIONS

A. Respondent reserves the right to add witnesses to rebut Complainant's case, to call as a hostile witness any witness endorsed or noticed by Complainant, to subpoena any witness who is an employee, agent, or contractor of the Complainant or is endorsed or noticed by Complainant and to cross-examine any witness examined by Complainant at any time.

B. Respondent respectfully reserves the right to supplement this Prehearing Exchange upon adequate notice to Complainant.

III. RESPONDENT'S EXHIBIT LIST

1. Municipal Vouchers and Invoices with accompanying photographs demonstrating work performed at municipal lagoon and pump house.
2. South Dakota Department of Health, Public Health Laboratory wastewater testing results from period March 22, 2011 to September 20, 2011.
3. Draft of Capacity, Management, Operation, and Maintenance (CMOM) report for the City of Dupree, prepared by Brosz Engineering with attachments.
4. Draft CMOM Self Assessment Checklist for the CMOM (Exhibit 3 above).

Respectfully submitted this 22nd day of June, 2012.

Eric H. Bogue
Attorney for Respondent
P.O. Box 250
Faith, SD 57626
(605) 967-2529

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 8

In the Matter of:	)	Docket No. CWA-08–2011-0040
	)	
The City of Dupree, South Dakota	)	
Dupree, South Dakota	)	CERTIFICATE OF SERVICE
NPDES Permit No. SDG589116	)	
	)	
Respondent	)	

The undersigned hereby certifies that true and correct copies of the Respondent's Prehearing Information Exchange in the above entitled matter was served upon the following by electronic mail and by first-class mail, postage pre-paid:

Amy Swanson
Enforcement Attorney (8ENF-L)
U.S. EPA Region 8
1595 Wynkoop Street
Denver, CO 80202-1129
swanson.amy@epamail.epa.gov

Tina Artemis
Regional Hearing Clerk (8RC)
U.S. EPA Region 8
1595 Wynkoop Street
Denver, CO 80202-1129
artemis.tina@epa.gov

on this 25th day of June, 2012.

Eric H. Bogue
Attorney for Respondent
P.O. Box 250
Faith, South Dakota 57626
(605) 967-2529

Exhibit 1

City of Dupree
PO Box 276
Dupree, SD 57623

Municipal Voucher

Check # 5495
Total $2,527.00

	Amount
432.5-429 Sewer Other	2,527.00
	2,527.00

To: BENDER'S SEWER & DRAIN
Address: PO BOX 362 MITCHELL, SD 57301

Date	Itemized description of materials and supplies or personal service and travel information	Quanity	Unit Price	Total

I declare and affirm under the penalties of perjury that this claim has been examined by me, and to the best of my knowledge and belief, is in all things true and correct. I further certify that the above services were rendered, or that the attached invoice listed materials were received in an acceptable condition and the above claim is hereby approved by me for payment

Signed: Jessica Donovan
Finance Officer

December 6, 2011
Date

Audited and approved by City Council

Signed:
Mayor

December 6, 2011
Date

BENDER'S
SEWER & DRAIN
PO Box 362
Mitchell, SD 57301

605-996-1765

Invoice

DATE	INVOICE #
11/29/2011	12225

BILL TO

City of Dupree
PO Box 276
Dupree SD 57623

P.O. NO.	TERMS	PROJECT
verb Jim	Net 10	

SERVICED	DESCRIPTION	AMOUNT
11/29/2011	Use of jetting unit to cleanout 4 obstructed drain lines at lagoon site (4 hrs)	625.00
	2 men, 8 manhours	360.00
	Mobilization	1,542.00

Thank you for your business.

Total $2,527.00

City of Dupree
PO Box 276
Dupree, SD 57623

Municipal Voucher

Check # 5547
Total **$2,789.49**

	Amount
432.5-429 Sewer Other	2,789.49
	2,789.49

To: **Dakota Pump & Control**
Address: **PO Box 725 Watertown, SD 57201**

Date	Itemized description of materials and supplies or personal service and travel information	Quanity	Unit Price	Total

I declare and affirm under the penalties of perjury that this claim has been examined by me, and to the best of my knowledge and belief, is in all things true and correct. I further certify that the above services were rendered, or that the attached invoice listed materials were received in an acceptable condition and the above claim is hereby approved by me for payment

Signed: Jessica Donavan — Finance Officer — 1-10-12 — Date

Audited and approved by City Council

Signed: Raymond Pike — Mayor — 1-10-12 — Date

705 Quadee Drive SW | P.O. Box 725 | Watertown, SD 57201
605-886-4672 Toll Free 800-310-4672 Fax 605-886-4674

www.dpc.us.com

Invoice

Date	Invoice #
12/20/2011	16820

Bill To	Ship To
Dupree (City of) PO Box 276 Dupree, SD 57623-0276	

P.O. Number	Terms	Rep	Ship	Via	F.O.B.	Project
	NET 30 Days		12/20/2011			11.12.S.014 - Service Call

Quantity	Description	U/M	Price Each	Amount
	Service call 12.14.2011 to remove and replace old pump; pulled new wires, installed new floats and wired in the exterior alarm light.			
245	Mileage		1.00	245.00
245	Fuel Surcharge		0.56	137.20
14.25	On-Site Labor/Travel Time		130.00	1,852.50
1	Per Diem Expense, 2 guys, 1 night		225.00	225.00
2	30' Normally Closed Float Conery		55.00	110.00
1	50' Normally Closed Float Conery		75.00	75.00
2	4" Red Rubber Gasket		4.00	8.00
8	1/2" x 3" sst bolts		3.125	25.00
16	5/8" x 2 1/2 sst bolts		1.5625	25.00
16	5/8" SST nuts		0.375	6.00
1	Misc. Electrical Supplies		25.00	25.00
1	Excise Tax (2.041% Applied to Invoice Total after applicable Taxes)		55.79482	55.79
	Sales Tax		0.00%	0.00

Total $2,789.49


15/11/2011

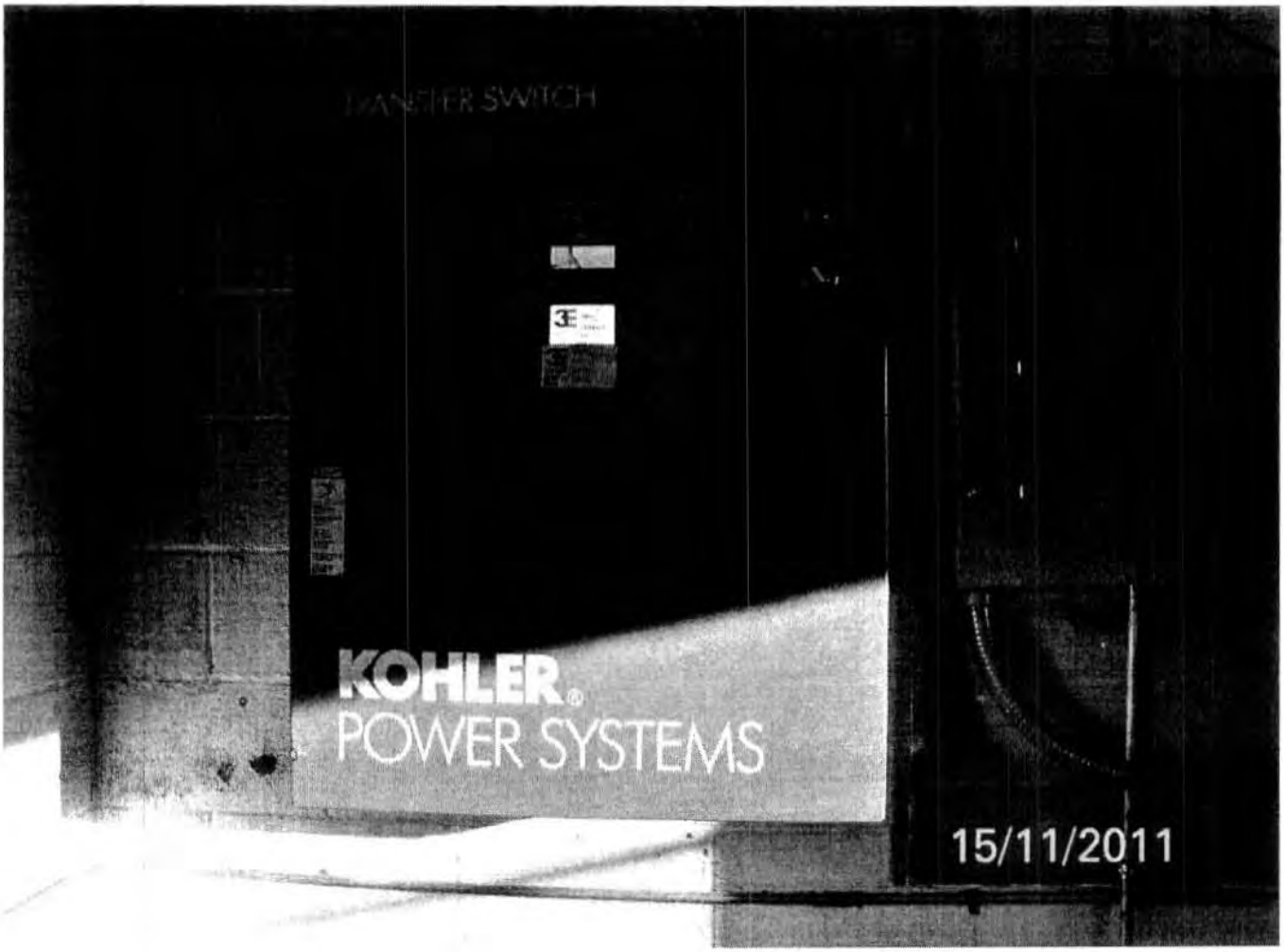

15/11/2011

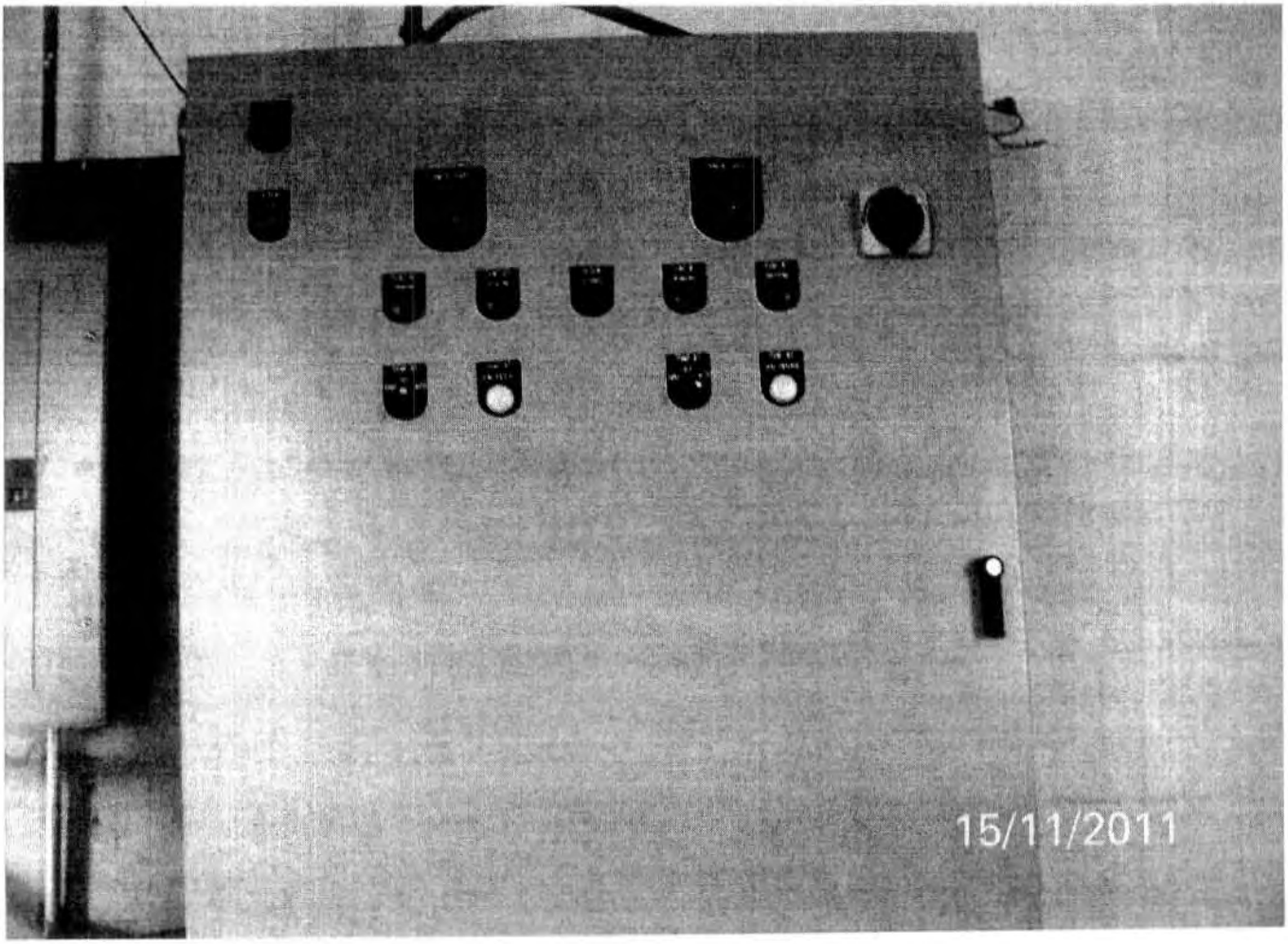

15/11/2011


15/11/2011


15/11/2011


15/11/2011


KOHLER.
POWER SYSTEMS
15/11/2011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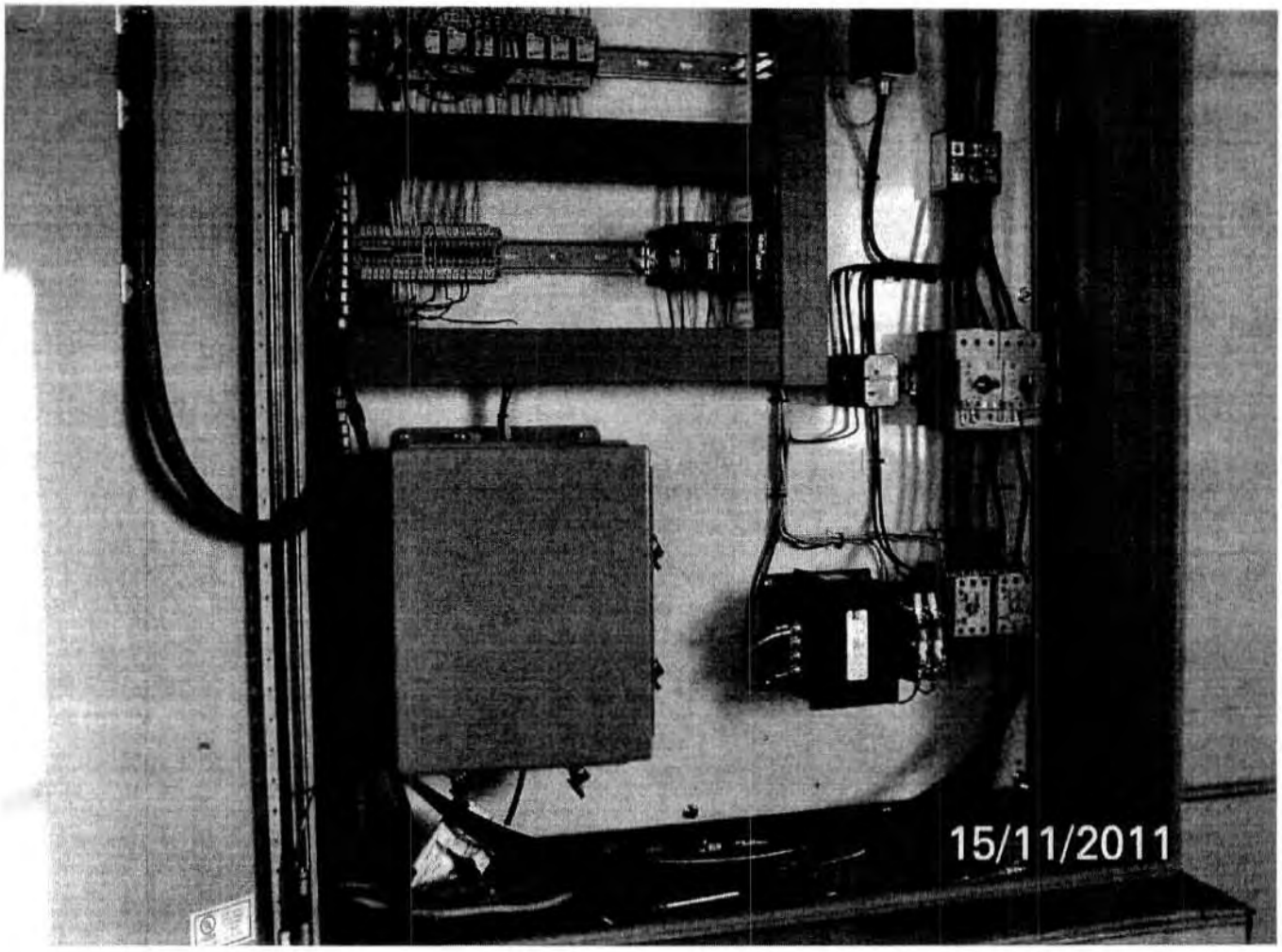
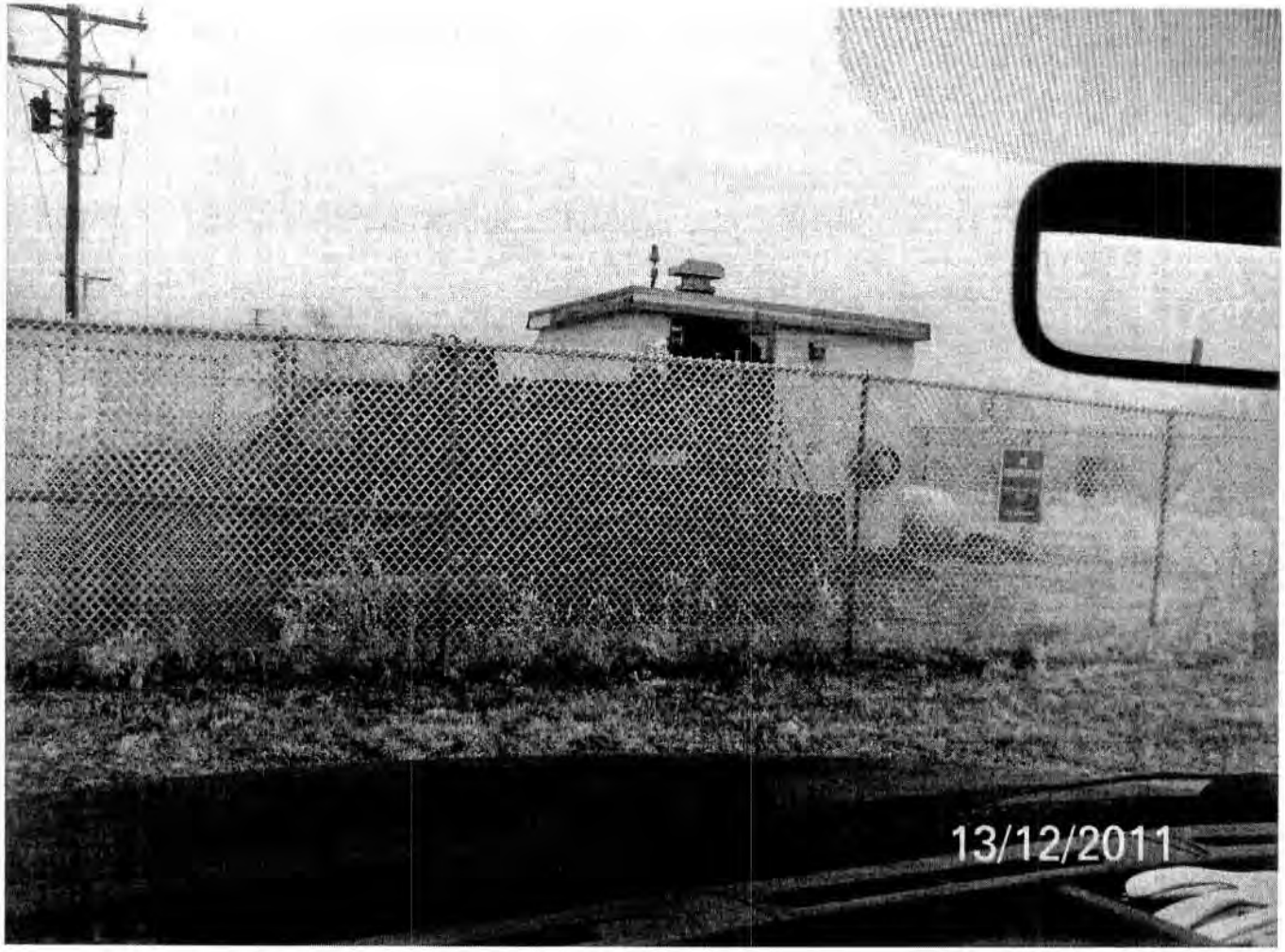

15/11/2011


15/11/2011


13/12/2011


30513 C
13/12/2011


13/12/2011


13/12/2011

Exhibit 2

SOUTH DAKOTA DEPARTMENT OF HEALTH

DIVISION OF ADMINISTRATION

Public Health Laboratory

615 East Fourth Street
Pierre, South Dakota 57501-1700
605/773-3368 FAX: 605/773-6129
www.state.sd.us/doh/lab/index.htm

Submitter copy to: ** DUPLICATE REPORT ** Date: 3/22/2011

DUPREE,CITY OF-0110
PO BOX 276
DUPREE, SD 57623-0276

Spec #: E11EC001053
Subm #:
Lab: ENV CHEMISTRY
Tel #: (605)773-3368

Source

DUPREE EFFLUENT

Date Rcvd: 3/17/2011	Chlorin Eff?: No
Time Rcvd: 0708	Discharging?: Yes
Date Coll: 3/16/2011	Field pH: 6.96
Time Coll: 0915	Water Temp: 3.1 C
Spec Type: WATER	medium WATER
Coll By: IAN PISTULKA	pH 6.96

Final Results

BOD-EPA METHOD 405.1		7 mg/L
BOD SET UP 3/17/11 1110 KG		
Solids (Suspended)		7 mg/L
EPA METHOD 160.2		
TSS SET UP 3/17/11 KG		
AMMONIA/WW		1.16 mg/L
TOTAL COLIFORM - 25TUBE	Total Coliform	9400 / 100 mL

SOUTH DAKOTA DEPARTMENT OF HEALTH

DIVISION OF ADMINISTRATION

Public Health Laboratory

615 East Fourth Street
Pierre, South Dakota 57501-1700
605/773-3368 FAX: 605/773-6129
www.state.sd.us/doh/lab/index.htm

Submitter copy to: ** DUPLICATE REPORT ** Date: 4/27/2011

DUPREE,CITY OF-0110
PO BOX 276
DUPREE, SD 57623-0276

Spec #: E11EC001960
Subm #:
Lab: ENV CHEMISTRY
Tel #: (605)773-3368

Source
DUPREE WWTF EFFLUENT

Date Rcvd: 4/21/2011
Time Rcvd: 0738
Date Coll: 4/20/2011
Time Coll: 0900
Spec Type: WATER
Coll By: IAN PISTULKA

Chlorin Eff?: No
Field pH: 7.5
Site Location: CELL NUMBER 4
Water Temp: 40 F
medium WATER
pH 7.5

Final Results

BOD-EPA METHOD 405.1		58 mg/L
BOD SET UP 4/21/11 1210 KG		
Solids (Suspended)		14 mg/L
EPA METHOD 160.2		
TSS SET UP 4/21/11 KG		
PH		7.88 pH UNITS
EPA Method 150.1		
AMMONIA/WW		19.7 mg/L
TOTAL COLIFORM - 25TUBE	Total Coliform	35000 / 100 mL

SOUTH DAKOTA DEPARTMENT OF HEALTH

DIVISION OF ADMINISTRATION

Public Health Laboratory

615 East Fourth Street
Pierre, South Dakota 57501-1700
605/773-3368 FAX: 605/773-6129
www.state.sd.us/doh/lab/index.htm

Submitter copy to: ** DUPLICATE REPORT ** Date: 6/20/2011

DUPREE,CITY OF-0110
PO BOX 276
DUPREE, SD 57623-0276

Spec #: E11EC003442
Subm #:
Lab: ENV CHEMISTRY
Tel #: (605)773-3368

Source
DUPREE WWTF EFFLUENT

Date Rcvd: 6/14/2011
Time Rcvd: 0818
Date Coll: 6/13/2011
Time Coll: 1030
Spec Type: WATER
Coll By: IAN PISTULKA
Chlorin Eff?: No

Discharging?: Yes
Field pH: 8.6
Site Location: CELL NUMBER 4
Water Temp: 65 F
medium WATER
pH 8.6

Final Results

BOD-EPA METHOD 405.1		13 mg/L
BOD SET UP 6/15/11 835 KG		
Solids (Suspended)		67 mg/L
EPA METHOD 160.2		
TSS SET UP 6/14/11 KG		
PH		8.87 pH UNITS
EPA Method 150.1		
AMMONIA/WW		4.76 mg/L
TOTAL COLIFORM - 25TUBE	Total Coliform	24000 / 100 mL
FECAL COLIFORM - 25TUBE	Fecal Coliform	700 / 100 mL

Specimen Comments:
NO BOTTLE FOR OIL & GREASE TEST RECEIVED

SOUTH DAKOTA DEPARTMENT OF HEALTH

DIVISION OF ADMINISTRATION

Public Health Laboratory

615 East Fourth Street
Pierre, South Dakota 57501-1700
605/773-3368 FAX: 605/773-6129
www.state.sd.us/doh/lab/index.htm

Submitter copy to: ** DUPLICATE REPORT ** Date: 6/21/2011

DUPREE,CITY OF-0110
PO BOX 276
DUPREE, SD 57623-0276

Spec #: E11EC003609
Subm #:
Lab: ENV CHEMISTRY
Tel #: (605)773-3368

Source
DUPREE WWTF EFFLUENT

Date Rcvd: 6/16/2011
Time Rcvd: 0731
Date Coll: 6/15/2011
Time Coll: 0830
Spec Type: WATER
Coll By: IAN PISTULKA
Chlorin Eff?: No
Discharging?: Yes

Field pH: 9.0
Sample Type: GRAB
Site Location: CELL NUMBER 4
Type of Sample: GRAB
Water Temp: 68 F
medium WATER
pH 9.0

Final Results

BOD-EPA METHOD 405.1		20 mg/L
BOD SET UP 6/16/11 1100 KG		
Solids (Suspended)		41 mg/L
EPA METHOD 160.2		
TSS SET UP 6/16/11 KG		
PH		8.71 pH UNITS
EPA Method 150.1		
AMMONIA/WW		5.26 mg/L
Phosphorus,total		1.71 mg/L
TOTAL COLIFORM - 25TUBE	Total Coliform	17000 / 100 mL
FECAL COLIFORM - 25TUBE	Fecal Coliform	7900 / 100 mL

Specimen Comments:
NO BOTTLE RECEIVED FOR OIL & GREASE TEST

SOUTH DAKOTA DEPARTMENT OF HEALTH

DIVISION OF ADMINISTRATION

Public Health Laboratory

615 East Fourth Street
Pierre, South Dakota 57501-1700
605/773-3368 FAX: 605/773-6129
www.state.sd.us/doh/lab/index.htm

Submitter copy to: ** DUPLICATE REPORT ** Date: 9/1/2011

DUPREE,CITY OF-0110
PO BOX 276
DUPREE, SD 57623-0276

Spec #: E11EC005990
Subm #:
Lab: ENV CHEMISTRY
Tel #: (605)773-3368

Source
DUPREE WWTF EFFLUENT

Date Rcvd: 8/26/2011
Time Rcvd: 0710
Date Coll: 8/25/2011
Time Coll: 1330
Spec Type: WATER
Coll By: IAN PISTULKA
Chlorin Eff?: No

Discharging?: Yes
Field pH: 8.0
Flow-gpm: 500 GPM
Site Location: CELL NUMBER 4
medium WATER
pH 8.0

Final Results

BOD-EPA METHOD 405.1		22 mg/L
BOD SET UP ON 8/26/11 1015 KD		
Solids (Suspended)		66 mg/L
EPA METHOD 160.2		
TSS SET UP 8/26/11 KD		
AMMONIA/WW		0.05 mg/L
TOTAL COLIFORM - 25TUBE	Total Coliform	54000 / 100 mL
FECAL COLIFORM - 25TUBE	Fecal Coliform	24000 / 100 mL

SOUTH DAKOTA DEPARTMENT OF HEALTH

DIVISION OF ADMINISTRATION

Public Health Laboratory

615 East Fourth Street
Pierre, South Dakota 57501-1700
605/773-3368 FAX: 605/773-6129
www.state.sd.us/doh/lab/index.htm

Submitter copy to: ** DUPLICATE REPORT ** Date: 9/13/2011

DUPREE,CITY OF-0110
PO BOX 276
DUPREE, SD 57623-0276

Spec #: E11EC006245
Subm #:
Lab: ENV CHEMISTRY
Tel #: (605)773-3368

Source
DUPREE WWTF EFFLUENT

Date Rcvd: 9/8/2011
Time Rcvd: 0715
Date Coll: 9/7/2011
Time Coll: 0735
Spec Type: WATER
Coll By: IAN PISTULKA
Chlorin Eff?: No
Discharging?: Yes

Field pH: 8.4
Flow-gpm: 500
Sample Type: GRAB
Type of Sample: GRAB
Water Temp: 64 F
medium WATER
pH 8.4

Final Results

BOD-EPA METHOD 405.1		28 mg/L
BOD SET UP 9/8/11 1100 KG		
Solids (Suspended)		92 mg/L
EPA METHOD 160.2		
TSS SET UP 9/8/11 KD,KG		
AMMONIA/WW		0.70 mg/L
TOTAL COLIFORM - 25TUBE	Total Coliform	>160000 / 100 mL
FECAL COLIFORM - 25TUBE	Fecal Coliform	54000 / 100 mL

SOUTH DAKOTA DEPARTMENT OF HEALTH

DIVISION OF ADMINISTRATION

Public Health Laboratory

615 East Fourth Street
Pierre, South Dakota 57501-1700
605/773-3368 FAX: 605/773-6129
www.state.sd.us/doh/lab/index.htm

Submitter copy to: ** DUPLICATE REPORT ** Date: 9/20/2011

DUPREE,CITY OF-0110
PO BOX 276
DUPREE, SD 57623-0276

Spec #: E11EC006568
Subm #:
Lab: ENV CHEMISTRY
Tel #: (605)773-3368

Source
DUPREE WWTF EFFLUENT

Date Rcvd: 9/15/2011
Time Rcvd: 0727
Date Coll: 9/14/2011
Time Coll: 0800
Spec Type: WATER
Coll By: IAN PISTULKA
Chlorin Eff?: No
Discharging?: Yes

Field pH: 8.9
Sample Type: GRAB
Site Location: CELL NUMBER 4
Type of Sample: GRAB
Water Temp: 63 F
medium WATER
pH 8.9

Final Results

BOD-EPA METHOD 405.1		34 mg/L
BOD SET UP 9/15/11 945 KG		
Solids (Suspended)		98 mg/L
EPA METHOD 160.2		
TSS SET UP 9/15/11 KG		
AMMONIA/WW		0.14 mg/L
TOTAL COLIFORM - 25TUBE	Total Coliform	>160000 / 100 mL
FECAL COLIFORM - 25TUBE	Fecal Coliform	160000 / 100 mL

Exhibit 3

Final Report

Capacity, Management, Operation, and Maintenance (CMOM)

Prepared for

City of Dupree, SD

February 2012

Brosz Engineering, Inc.
Architecture Engineering Surveying

3030 Airport Road, Suite A, Pierre, SD 57501
Phone:(605) 224-1123; Fax (605) 224-0659

CITY OF DUPREE
CAPACITY, MANAGEMENT, OPERATION, AND MAINTENANCE PROGRAM
(CMOM)

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CITY OF DUPREE
CAPACITY, MANAGEMENT, OPERATION, AND MAINTENANCE PROGRAM
(CMOM)

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Chapter 1.0
INTRODUCTION

This document constitutes the Capacity, Management, Operation & Maintenance (CMOM) Program for the City of Dupree Wastewater System. The format of the CMOM Program follows the outline of the Environmental Protection Agency's Proposed Rule to Protect Communities from Overflowing Sewers, Paragraph 122.42 (2), Components of CMOM Program, dated January 2001.

1.1 PURPOSE

The City of Dupree operates its own wastewater infrastructure facilities, and services customers within the City limits. A sanitary sewer overflow (SSO) in the spring 2011 has caused concern over the procedures that are currently in place to mitigate and eliminate these possible occurrences. The community of Dupree has authorized Brosz Engineering, Inc. (BEI), to prepare a document, which will provide a basis for establishing a proactive quality control program of the current wastewater system.

Implementation of this program will provide for an adequate and dependable wastewater system for existing and future customers. It will also serve as a tool in order for the City to make effective decisions.

1.2 GOALS

The City of Dupree operates and maintains approximately 15,000 linear feet of sanitary sewer and one wastewater lift station. Continuing growth, urbanization, changing hydrologic conditions, and age contribute to strain on this infrastructure. In addition, new regulations have imposed additional issues and constraints. The purpose of this document is to detail a formal Capacity, Management, Operations and Maintenance (CMOM) Program.

The Program's goals are:

- Properly manage, operate and maintain, at all times, all parts of the collection system.
- Install a routine preventive maintenance schedule for lift stations, manholes, and main line sewer to prolong the design life of the collection system and to ensure all components are adequate for their intended uses.
- Take all feasible steps to stop, and mitigate the impact of, sanitary sewer overflows for all parts of the collection system.
- Provide notification to parties with a reasonable potential for exposure to pollutants associated with an overflow event.

1.3 ACKNOWLEDGEMENTS

Brosz Engineering wishes to acknowledge and thank Ray Lenk, Jim Viet, and Jessica Donovan for their assistance and cooperation. Their cooperation and courtesy in obtaining a variety of necessary information was extremely valuable in completing and producing this report.

Chapter 2.0
ADMINISTRATIVE AND MAINTENANCE FUNCTIONS

This chapter presents introductory information regarding the community of Dupree, future population estimates, and all necessary environmental review information required to complete funding considerations by SD DENR and any other applicable funding agencies.

2.1 CITY OF DUPREE ORGANIZATION

The City of Dupree has one full time employee (Jim Viet) on staff to operate and maintain all of the city's water and sewer services. This individual is responsible for water distribution, as well as, wastewater collection and treatment.

2.1.1 OPERATIONS AND MAINTENANCE

All water and sewer related Operations and Maintenance (O&M) activities are performed by the full time employee. Responsibilities related to the sanitary sewer system include response to emergencies such as a sanitary sewer overflow (SSO), response to customer calls; sewer line preventive maintenance; location of underground utilities; identification of system inadequacies; and other related functions. The staff performs maintenance work on both collection and service lines and tap installation.

2.1.2 ENGINEERING

Engineering for wastewater treatment and collection is performed by Brosz Engineering, Inc., Pierre, SD. Brosz is employed, on an as needed basis, to determine that Dupree's water and wastewater infrastructure is sufficient and appropriate to meet the needs of its customer base. Prior wastewater engineering services that have been performed in the last 30 years include:

- Design and construction inspection of smaller lift station (1978).
- Design and construction inspection of main lift station (1986).

2.1.3 BUSINESS SERVICES

The Finance Officer (Jessica Donovan) supports the collection system effort directly through accounting, billing, and customer service duties. Approximately one fourth the efforts of this section support directly the collection system effort.

Additionally, the activities of this Division include the following: 1. Financial planning; 2. Water and sewer rate development; 3. Revenue forecasts and collection; 4. Customer billing; 5. Customer service; 6. Personnel coordination; 7. Customer interaction, and; 8. Accounting.

2.2 SANITARY SEWER OVERFLOW REPORTING REQUIREMENTS

The Sanitary Sewer Overflow Reporting Procedures are designed to comply with the reporting requirements set forth in the South Dakota Surface Water Discharge Permit.

The city is alerted to potential sanitary sewer overflows through telephone calls originating from customers, regulatory agencies, and employees. These calls or notifications are immediately transferred to one of the full time employees in order to assess, control, and remediate the overflow.

All potential sanitary sewer overflows are reported to the full time city employee.

The city maintains an emergency contact list for these types of situations in order to contact all necessary groups and individuals. The standard operating procedures for responses to sanitary sewer overflows are presented later in this document.

Chapter 3.0
CURRENT AND FUTURE MEASURES AND ACTIVITIES

3.1 COLLECTION SYSTEM DESCRIPTION

The city of Dupree wastewater collection system has more than 240 service connection. There are approximately 215 residential connections and 25 commercial connections to the system. It is the responsibility of the city to maintain more than 2.85 miles of sewer lines to serve these customers. Within this large amount of mainline sewer, 85 percent of the mainline piping is made from vitrified clay and the other 15 percent is PVC pipe. Almost the entire mainline sewer within the city of Dupree is between 8 and 10 inches in diameter.

The entire collection system flows into a main lift station on the north part of town. The main lift station is located approximately 100 feet from Bear Creek. This lift station forces wastewater approximately 1.5 miles into the primary cell of the wastewater treatment lagoons.

Within the collection system there are 44 manholes which are either clay brick or precast concrete. All manholes are in varying degrees of condition.

3.2 MAINTENANCE FACILITIES AND EQUIPMENT

All repairs and routine maintenance is performed out of the central shop facility to support all of the public works facilities. All activities are conducted in the central maintenance shop, which houses all equipment, materials, and supplies.

The single lift station is inspected on a daily basis in order to keep it in good working order. Equipment that is readily available and used by the city for routine and emergency repairs include:

1 – Front End Loader.
1 – Front End Loader with Backhoe attachment.
1 – Hydro-Jetter.

Various coupling and pipe sizes are also kept in inventory in case of emergency repairs.

3.3 COLLECTION SYSTEM MAPS

The city of Dupree is in the process of updating the map of the collection system. All lift stations, manholes and main line sewer are documented on this map. The map will be updated regularly to reflect accurate representation of the collection system. This system of record keeping will enable easy and effective updating of the collection system for the city.

3.4 Routine Preventive Operation and Maintenance

It has been recognized that the city of Dupree needs to implement a routine preventive operation and maintenance schedule. The city already has some routine operation and maintenance procedures in place, however, a detailed plan has not been implemented. This will provide the city with many benefits such as: 1. Advanced awareness of any problems within the collection system; 2. Reduced occurrences of sanitary sewer overflows, and; 3. Increased life of collection system and lift stations.

3.4.1 Collection System

Prior maintenance and inspection of the sewer system in Dupree has been previously accomplished on an as-needed basis.

Due to the age and type of material of the collection system, it is imperative that a routine schedule of inspection be implemented in order to circumvent any potential problems that may have occurred due to not inspecting the system on a routine basis.

South Dakota Rural Water Association or a commercial sewer line inspection contractor will be contacted on a yearly basis to conduct TV camera inspection of the collection system. A percentage (10% - 20%) of the collection system will be inspected each year. Previous inspections and current conditions show that TV inspection of the entire system is not required every year.

Emphasis of rehabilitation and replacement will be placed on areas where roots, debris deposition, grease, or other discontinuities within the pipeline restrict design flow conditions with the potential for causing wastewater overflows and spills. In addition, frequent inspections of areas where extraneous flows are thought to be entering the system, primarily along creeks or in other low-lying areas, will be performed. Manholes in critical areas will be inspected more frequently.

3.4.2 Infiltration / Inflow Control

It is currently undetermined if Infiltration and Inflow contribute any significant flow to the collection or treatment systems. Due to the age of the collection system and the type of pipe material (vitrified clay), routine inspection is needed to ensure adequate capacity is maintained and that the integrity of the pipe is not compromised.

Yearly TV camera inspection of the collection system will acknowledge any I/I problems within the system. In addition to TV camera inspection, smoke testing will be performed on a section of the system each year (10% - 20%). These two routine inspections techniques will lead to the repair of virtually all traditional inflow sources within the public portion of the sewer system. Sources associated with individual private residences have generally not been addressed, nor have private sewer lines within apartment complexes, commercial developments, or industrial areas.

3.4.3 Lift Stations

The sole wastewater lift station is the main lift station for the city. This lift station collects all of the flow from the city and transfers it to the treatment system, which is located

approximately 1.5 miles to the Northeast. This lift station is a duplex wet well / dry well system. Each pump has a rated capacity of 400 gallons per minute.

The station has a secondary power source with automatic transfer of power within less than one minute of primary source failure.

Lift station maintenance histories have not been fully maintained. Accurate maintenance records will aid in the development of an appropriate preventive maintenance program and provide data for station evaluation. Weekly, monthly, semi-annual, and annual maintenance activities will be scheduled and tracked by the full time employees.

Monitoring of the lift station is currently done via manual inspection only to verify that the current lift station is in proper working condition.

3.4.4 Hydraulic Cleaning / Television Inspection

Television inspection and pipeline hydraulic cleaning has been performed previously on an as-needed basis. As outlined in section 3.4.1, a routine maintenance schedule will be implemented to detect areas where deposition issues are chronic or where flow problems are occurring. Hydraulic cleaning will then be used to eliminate these issues.

3.4.5 Root Control

The intrusion of roots into sewer lines, particularly collector sewers in established subdivisions, has not been a concern of the city. However, extensive root intrusion, if allowed to continue without attention, can result in reduced system capacity and, ultimately, blockage of the pipe. Problems associated with root intrusion are sometimes exacerbated by the presence of grease in the flow stream, which tends to attach to any roots present and cause more rapid impact on flow conditions.

Therefore, a routine maintenance schedule which includes TV camera inspection of the system will identify any root control problem areas. After these areas are identified, a commercial contractor will be used to eliminate root control problems.

3.4.6 Collection System and Treatment Facilities Capacity

Capacity requirements for both the wastewater collection and wastewater treatment systems serving the city of Dupree are adequate in meeting average, as well as peak design flows.

TV camera inspection, as well as smoke testing will prolong this adequacy by eliminating significant intrusion of additional water, identifying areas with obstructions, corrosion problems, and potential failure possibilities.

3.4.7 Rehabilitation Identification and Prioritization

Areas inspected by TV camera and smoke testing will be coded as either satisfactory, marginal, or needs replacement or rehabilitation. Areas identified by the city of Dupree for sewer rehabilitation will be listed and prioritized. These rehabilitation projects will then be scheduled into the city of Dupree Capital Improvements Plan (CIP) and budgeted,

accordingly. Due to the small revenue generated from sewer service, it will be imperative to detect problem areas as early as possible, in order to budget for any larger than average replacement or rehabilitation projects.

3.4.8 TRAINING

The city of Dupree uses the formal technical training program offered by South Dakota Rural Water Association and the South Dakota Department of Environment and Natural Resources. These training classes have been beneficial to the full time staff and will continue to be utilized on a regular basis.

In addition, the city of Dupree encourages technical competence in the form of water and wastewater certifications. The city recognizes staff members who become certified.

3.4.9 REPLACEMENT PARTS

The city of Dupree maintains the necessary replacement and spare parts inventory that is critical for lift station operation. All other parts are readily available and ordered on an as needed basis from Dakota Pump and Controls, located in Watertown, SD.

Chapter 4.0
MONITORING, MEASUREMENT &PROGRAM MODIFICATIONS

This chapter proposes improvement alternatives to the water storage and distribution facilities. These improvements will be evaluated based on the system's technical requirements, cost effectiveness, and operational reliability. In addition, cost estimating and life cycle analysis are presented herein.

4.1 Program Implementation and Effectiveness

A summary of the anticipated functionality of the system is provided below:

- Inventory capability for all water, sewer, and treatment facility assets.
- Reporting and archiving of inspection results.
- Convenient accesses to historical information such as plugged lines and overflows.
- Preventive maintenance scheduling.

City staff is alerted to corrective maintenance responses through telephone calls originating from customers, regulatory agencies, and others. Calls are received and passed along to the Superintendent. The one full time employee is on call 24 hours per day.

4.2 Development of Preventive Maintenance Schedules

The city wastewater staff regularly conducts inspections of the lift stations on a daily basis. Manholes and the collection system has previously been inspected on an as needed basis. In order to provide for a successful CMOM program, it is necessary to develop preventive maintenance schedules which will accomplish the objectives set forth in this document.

Inspection forms will be developed which will be similar to the forms attached at the end of this document. From these inspection forms, the wastewater staff and Finance Officer will develop preventive maintenance schedules for the main line sewer, manholes, and lift stations. Once these schedules have been developed, they will become an integral part of the CMOM program. All inspection forms and preventive maintenance schedules once finalized, will be attached to the end of this document for reference. If any revisions are made to the forms or schedules, the newest revision of said document will be inserted into this document and the old document will be taken out.

Chapter 5.0
OVERFLOW EMERGENCY RESPONSE PLAN

This chapter establishes protocol for the responses to emergency overflows. Formal recommendations are made based upon system requirements and operational reliability.

5.1 AWARENESS

Emergency contact lists are located in the maintenance shop and finance office. These lists show whom to contact in case of an emergency situation. The full time employee is available to handle any emergency repairs after regular business hours, on weekends, or on holidays.

5.2 RESPONSE

When a wastewater spill has been identified that could be a potential hazard to the environment, standard procedures will be followed as detailed in the NDPES permit, issued to the City of Dupree.

Notification to state government is made within 24 hours of the initial overflow and any individuals in the immediate area are contacted immediately after discovering the overflow. Samples will be taken, whenever possible, in accordance with the Surface Water Discharge Permit.

5.3 OFFICIAL NOTIFICATION

To comply with the NDPES Surface Water Discharge Permit, spills of raw wastewater, whether they originate from a manhole, a broken line, or through a designated bypass, are reported to both Region 8 EPA in Denver and also the CRST Environmental Program Office. Notification of a spill is made at the time of discovery, but no later than 24 hours after the initial discovery of the spill. All sewer backup calls are immediately assessed to determine if there is a related spill.

All SSO events require direct notification to both aforementioned parties whether or not they reach a watercourse.

5.4 TRAINING

All city employees have been trained as to the required overflow emergency response plan. This emergency response plan has not been documented in the past. The series of steps to respond to a sanitary sewer overflow will be documented and become a part of this document for future reference.

5.5 EMERGENCY OPERATIONS

On occasion during emergency events, it is necessary to have repairs performed by approved contractors through an accelerated procurement process using previously

negotiated Unit Price Contracts. City personnel recognize the priority placed on the correction of sewer overflows and respond accordingly.

Chapter 6.0
SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

6.1 HYDRAULIC EVALUATION AND CAPACITY ENHANCEMENT MEASURES

The city of Dupree has not previously maintained a long-range hydraulic evaluation and capacity enhancement measures plan, including a 5-year Capital Improvement Plan (CIP), for all collection system improvements. The long-range plan includes the upgrade of existing lines, the installation of new lines, and the installation of lift stations. The Capital Improvement Plan, when available will be presented in this document for future reference.

6.2 PLAN UPDATES

The City of Dupree through an annual budget process provides funding for operation, maintenance, and upgrade of the sanitary sewer system from system revenues. The approved FY 2012 Operating (non-personnel) Budget for System Maintenance is $X.XX. If revenue is left over from the previous year, it is put into an emergency use fund. Currently, the city of Dupree has accumulated $8,000 towards any emergency repair or maintenance activities that cost more than the annual revenue for the city.

6.3 APPENDICES

Appendices are included on the following pages. Appendices 7.4 through 7.6 are in development and will be attached to the end of this document upon completion of those forms.

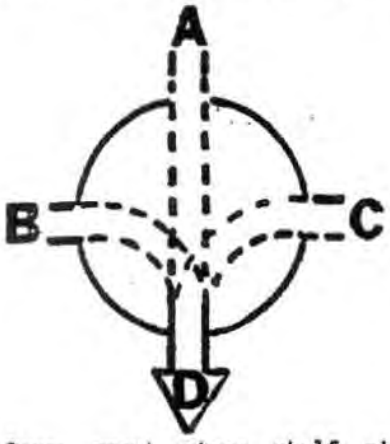
Water and Sewer

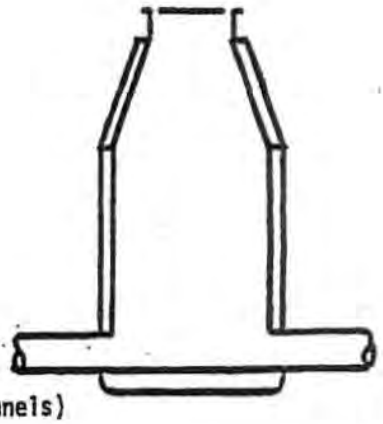
MANHOLE INSPECTION REPORT

Map No. _____ DATE _____ TIME _____ INSPECTOR _____

MH No. _____ DEPTH TO INVERT _____ CLEANLINESS _____

TYPE CONSTRUCTION _____ STREET REFERENCES _____





DEFECTS:
(Cover, frame, grout, steps, shelf, pipes, or channels)

1. _____
2. _____
3. _____
4. _____
5. _____

	PIPE SIZE	LENGTH	TO MH#	EST. FLOW	TYPE FLOW
A-					
B-					
C-					
D-					

REMARKS:
(Include need for repairs)

_____

_____

Manhole Inspection Report - Blank Form

10/21/2003 8:47:19 AM

Inspection Date: Section Number: Station Number:

Interceptor Name:

City/Town: SAMS Number:

Address:

Weather: Inspector:

Gas Meter Readings: O2: LEL: H2S:

Manhole Cover MWRA: MET: Other: Manhole Diameter: in.

Manhole Cover Conditio Loose: Tight: Sealed: Bolted: Buried:

Frame and Cover Status: Raise: Lower: OK: Replace Replace Frame:

Manhole Type: Apron: Through: Stop Plank:

Manhole Interior Construction Brick: Concrete: Other:

Manhole Interior Rungs: Excellent: Fair: Poor: None:

Grit: in. Root Intrusion (y/n)

Infiltration into Manhole: Low: Medium: High: None:

Manhole Depth: ft. Manhole Access: DA-1: DA-2: DA-3: DA-4:

Police Detail Required (y/n):

Connections Entering Manhole:

Type: Connection Number: Diameter:

Comments:

ALEWIFE BROOK STATION

ROVING CREW FACILITY CHECK LIST

DAILY

DATE / /
SHIFT

EQUIPMENT DESCRIPTION TASK DESCRIPTION	TIME IN ____OUT____	EMPLOYEE/COMMENTS
PARAMETER SECURITY CHECK		
TOTAL FLOW (10 DIGITS)		
CHART CHANGED	YES / NO	
PUMP SEQUENCE		
PUMP #1 HOURS		
PUMP #2 HOURS		
PUMP #3 HOURS		
PUMP #4 HOURS		
AIR COMPRESSOR BLOW DOWN	YES / NO	
ANNUNCIATOR PANEL CHECKED *NOTIFY NUT ISLAND BEFORE TESTING*		
GAS DETECTOR ALARM STATUS		
SCREEN ROOM VISUAL CHECK		
SCREEN ACCESS DOORS MUST BE CLOSED DURING OPERATIONS	YES / NO	
SCREEN #1	ON / OFF	
SCREEN #2	ON / OFF	
GRINDER CHUTES CLEAR	YES / NO	
AIR EXHAUST FILTER CLEAR	YES / NO	
PUMP ROOM VISUAL CHECK		
#1 ELECTRIC READING #2 ELECTRIC READING		
MULTIPLY BY 320		
WATER READING		
SUMP PUMP EMPTY	YES / NO	
PUMP 1 - 4 PACKING GLAND DRAINING PROPERLY	YES / NO	
GENERATOR ROOM		
FUEL READING ***REORDER AT 800***		
HOURS ON GENERATOR		
SECURITY SYSTEM RE-ACTIVATED		

OPERATOR

AREA SUPERVISOR

MANAGER

Pump Station Standard Operation Inspection

Inspection Tasks:

Daily: Requires one operator. Approx /5 min.

Ensure proper daily operation

Weekly: Requires one operator. Approx. 45 min.

1) Ck. hyd. unit and lines for leaks.
2) Ck. sump pump operation, test alarm float.
3) Ck. HVAC operation in screen room.
4) Inspect screen room, clean-up as needed.
5) Ck. flow and level meter operation.
6) General housekeeping.
7) Ck. pumps and motors for noise or vibration.
8) Ck. alarm page, record data and pursue corrections.

10) Ck. heaters (cold weather).
11) Ck. exhaust fans (warm weather).
12) Visually inspect wet well for debris or excessive grease. Clean as needed.

Monthly: Requires one operator. Approx. 4 hrs.

1) Change lead/lag sequence.
2) Exercise and inspect pumps 2 and 4, on a rotating basis.

Bi-annually: Requires 2 operators. Approx. 2 hrs.

1) Pump down wet well, inspect for grit.

Main Line Sewer
TV Camera
Inspection Sheet

Reason for televising

Start Finish

Date / / Time : AM /PM Street

Service # Work order # video #

MH # TO MH #

Operator Depth of main Weather condition

Manhole condition Type of manhole Brick /Perform Pipe size

Storm / Sanitary / combination Pipe material

Ft	Comment

Total Footage

Exhibit 4

General Information

CHECKLIST COMPLETED BY:

Name _____ Date _____

Daytime Telephone Number _____

UTILITY CONTACT INFORMATION

Utility Name _____

LOCATION

Street Address _____

Street Address (continued) _____

City _____ State _____ Zip _____

STAFF

Name _____

Title _____

Email _____

Phone (___) ___ - ____ Fax (___) ___ - ____

PERMITTED TREATMENT & COLLECTION FACILIITES

NPDES or STATE PERMIT #	PERMITTEE/CO-PERMITTEE/JURISDICTIONS	PERMIT COVERAGE WWTP Effluent	Collection System	Wet-Weather Facility
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐

Collection System Description

SYSTEM INVENTORY

[ ] NUMBER # of Treatment facilities

Treatment Facilities

WWTP design capacity [ ] MGD

Average daily flow [ ] MGD

Average dry weather fow [ ] MGD

Access & Maintenance

Manholes [ ] NUMBER

Number of air vacuum relief valves [ ] NUMBER

Conveyance & Pumping

	Gravity Sewers	Force Mains	Pump Stations
Pipes and pumps Length/quantity	[ ] MILES	[ ] MILES	[ ] NUMBER
Age of system 0 - 25 years old	[ ] % PERCENT	[ ] % PERCENT	[ ] % NUMBER
26 - 50 years old	[ ] % PERCENT	[ ] % PERCENT	[ ] % NUMBER
51 - 75 years old	[ ] % PERCENT	[ ] % PERCENT	[ ] % NUMBER
>76 years old	[ ] % PERCENT	[ ] % PERCENT	[ ] % NUMBER

Number of inverted siphons _____

SERVICE AREA CHARACTERISTICS

Service area [ ] ACRES

Service population [ ] PEOPLE

Annual precipitation [ ] INCHES

Number of Service Connections

Residential		Commercial		Industrial		TOTAL
[ ] NUMBER	+	[ ] NUMBER	+	[ ] NUMBER	=	[ ] NUMBER

Collection system service lateral responsibility *(check one)*

- ☐ At main line connection only
- ☐ From main line to property line or easement/cleanout
- ☐ Beyond property line/clean out
- ☐ Other: _____

Combined Sewer Systems

What percent of sewer system is served by combined sewers (i.e., sanitary sewage and storm water in the same pipe)? [ ] % PERCENT

Collection System Description

	Gravity Sewers	Force Mains
PIPE DIAMETER		
8 inches or less	% PERCENT	% PERCENT
9 - 18 inches	% PERCENT	% PERCENT
19 - 36 inches	% PERCENT	% PERCENT
>36 inches	% PERCENT	% PERCENT
PIPE MATERIALS		
Prestressed concrete cylinder pipe (PCCP)	% PERCENT	% PERCENT
High density polyethylene (HDPE)	% PERCENT	% PERCENT
Reinforced concrete pipe (RCP)	% PERCENT	% PERCENT
Polyvinyl chloride (PVC)	% PERCENT	N/A PERCENT
Vitrified clay pipe (VCP)	% PERCENT	N/A PERCENT
Ductile iron	% PERCENT	% PERCENT
Non-reinforced concrete pipe	% PERCENT	% PERCENT
Asbestos cement pipe	% PERCENT	% PERCENT
Cast iron	% PERCENT	% PERCENT
Brick	% PERCENT	% PERCENT
Fiberglass	% PERCENT	% PERCENT
Other (*Explain*)_____	% PERCENT	% PERCENT

Engineering Design (ED)

ED-01	Is there a document which includes design criteria and standard construction details?	YES	NO
ED-02	Is there a document that describes the procedures that the utility follows in construction design review?	YES	NO
ED-03	Are WWTP and O&M staff involved in the design review process?	YES	NO
ED-04	Is there a procedure for testing and inspecting new or rehabilitated system elements both during and after the construction is completed?	YES	NO
ED-05	Are construction sites supervised by qualified personnel (such as professional engineers or certified engineering technicians) to ascertain that the construction is taking place in accordance with the agreed upon plans and specifications?	YES	NO
ED-06	Are new manholes tested for inflow and infiltration?	YES	NO
ED-07	Are new gravity sewers checked using closed circuit TV inspection?	YES	NO
ED-08	Does the utility have documentation on private service lateral design and inspection standards?	YES	NO
ED-09	Does the utility attempt to standardize equipment and sewer system components?	YES	NO

Satellite Communities and Sewer Use Ordinance (SUO)

SUO-01	Does the utility receive flow from satellite communities? IF NO, GO TO PAGE 6	YES	NO
SUO-02	What is the total area from satellite communities that contribute flow to the collection system? *(Acres or square miles)* _____		
SUO-03	Does the utility require satellite communities to enter into an agreement? IF NO, GO TO QUESTION SUO-06.	YES	NO
SUO-04	Does the agreement include the requirements listed in the sewer use ordinance (SUO)?	YES	NO
SUO-05	Do the agreements have a date of termination and allow for renewal under different terms?	YES	NO
SUO-06	Does the utility maintain the legal authority to control the maximum flow introduced into the collection system from satellite communities?	YES	NO
SUO-07	Are standards, inspections, and approval for new connections clearly documented in a SUO?	YES	NO
SUO-08	Does the SUO require satellite communities to adopt the same industrial and commercial regulator discharge limits as the utility?	YES	NO
SUO-09	Does the SUO require satellite communities to adopt the same inspection and sampling schedules as required by the pretreatment ordinance?	YES	NO
SUO-10	Does the SUO require that satellite communities or the utility to issue control permits for significant industrial users?	YES	NO
SUO-11	Does the SUO contain provisions for addressing overstrength wastewater from satellite communities?	YES	NO

SUO-12 Does the SUO contain procedures for the following? *(Check all that apply)*

☐ Inspection standards ☐ Pretreatment requirements ☐ Building/sewer permit issues

SUO-13 Does the SUO contain general prohibitions of the following materials? *(Check all that apply)*

☐ Fire and explosions hazards ☐ Corrosive materials ☐ Obstructive materials

☐ Oils or petroleum ☐ Material which may cause interference at the wastewater treatment plant

SUO-14 Does the SUO contain procedures and enforcement actions for the following? *(Check all that apply)*

☐ Fats, oils, and grease (FOG) ☐ Storm water connections to sanitary lines (downspouts)

☐ Infiltration and inflow ☐ Defects in service laterals located on private property

☐ Building structures over the sewer lines ☐ Sump pumps, air conditioner connections

Organizational Structure (OC)

OC-01 Is an organizational chart available that shows the overall personnel structure for the utility, including operation and maintenance staff? YES NO

OC- 02 Are up-to-date job descriptions available that delineate responsibilities and authority for each position? YES NO

OC-03 Are the following items discussed in the job descriptions? *(Check all that apply)*

- ☐ Nature of work to be performed
- ☐ Examples of the types of work
- ☐ Minimum requirements for the position
- ☐ List of licenses required for the position
- ☐ Necessary special qualifications or certifications
- ☐ Performance measures or promotion potential

OC-04 What percent of staff positions are currently vacant? _____ %

OC-05 On average how long do positions remain vacant? *(months)* _____

OC-06 What percent of utility work is contracted out? _____ %

Internal Communications (IC)

IC-01 Which of the following methods are used to communicate with utility staff? *(Check all that apply)*

☐ Regular meetings ☐ Bulletin boards ☐ E-mail ☐ Other (walkie talkie/pager)

IC-02 How often are staff meetings held? *(e.g., Daily, Weekly, Monthly, etc.)* _____

IC-03 Are incentives offered to employees for performance improvements? YES NO

IC-04 Does the utility have an "Employee of the Month/Quarter/Year" program? YES NO

IC-05 How often are performance reviews conducted? *(e.g. Semi-annually, Annually, etc.)* _____

IC-06 Does the utility regularly communicate/coordinate with other municipal departments? YES NO

Budgeting (BUD)

BUD-01	What is the average annual fee for residential users?	$ _____
BUD-02	How often are user charges evaluated and adjusted? *(e.g. annually, biannually, etc.)*	_____
BUD-03	Are utility-generated funds used for non-utility programs?	YES NO
BUD-04	Are costs for collection system operation and maintenance (O&M) separated from other utility services such as water, storm water, and treatment plants? IF NO, GO TO QUESTION BUD-07.	YES NO
BUD-05	What is your average annual (O&M) budget?	$ _____
BUD-06	What percentage of the utility's overall budget is allocated to maintenance of the collection system?	_____ %
BUD-07	Does the utility have a Capital Improvement Plan (CIP) that provides for system repairs/replacements on a prioritized basis?	YES NO
BUD-08	What is your average annual CIP budget?	$ _____

BUD-09 What percentage of the maintenance budget is allotted to the following maintenance?

Predictive maintenance (tracking design, life span, and scheduled parts replacements)	_____ %
Preventive maintenance (identifying and fixing system weaknesses which, if left unaddressed, could lead to overflows)	_____ %
Corrective maintenance (fixing system components that are functioning but not at 100% capacity/efficiency; for example partially blocked lines)	_____ %
Emergency maintenance (reactive maintenance, overflows, equipment breakdowns)	_____ %

BUD-10	Does the utility have a budgeted program for the replacement of under-capacity pipes?	YES NO
BUD-11	Does the utility have a budgeted program for the replacement of over-capacity pipes?	YES NO

Training (TR)

TR-01 Does the utility have a formal job knowledge, skills, and abilities (KSA) training program? YES NO

TR-02 Does the training program address the fundamental mission, goals, and policies of the utility? YES NO

TR-03 Does the utility have mandatory training requirements identified for key employees? YES NO

TR-04 What percentage of employees met or exceeded their annual training goals during the past year? _____ %

TR-05 Does the utility provide training in the following areas? *(Check all that apply)*

- ☐ Safety
- ☐ Traffic control
- ☐ Public relations
- ☐ Routine line maintenance
- ☐ Record keeping
- ☐ SSO/Emergency response
- ☐ Confined space entry
- ☐ Electrical and instrumentation
- ☐ Pump station operations and maintenance
- ☐ Other
- ☐ Pipe repair
- ☐ CCTV and trench/shoring
- ☐ Bursting CIPP

TR-06 Are operator and maintenance certification programs used? IF NO, GO TO QUESTION TR-08 YES NO

TR-07 Are operator and maintenance certification programs required? YES NO

TR-08 Is on-the-job training progress and performance measured? YES NO

TR-09 Which of the following methods are used to assess the effectiveness of the training? *(Check all that apply)*

☐ None ☐ Periodic testing ☐ Drills ☐ Demonstrations

TR-10 What percentage of the training offered by the utility is in the form of the following?

Manufacturer training _____ % In-house classroom training _____ %

On-the-job training _____ % Industry-wide training _____ %

Safety (SAF)

SAF-01	Does the utility have a written safety policy?	YES	NO
SAF-02	How often are safety procedures reviewed and revised? *(e.g. Semiannually, Annually, etc.)*	YES	NO
SAF-03	Does the utility have a safety committee?	YES	NO
SAF-04	Are regular safety meetings held with the utility employees?	YES	NO
SAF-05	Does the utility have a safety training program?	YES	NO
SAF-06	Are records of employee safety training kept up to date?	YES	NO

SAF-07 Does the utility have written procedures for the following? *(Check all that apply)*

- ☐ Lockout/tagout
- ☐ Material safety date sheets (MSDS)
- ☐ Chemical handling
- ☐ Confined spaces permit program
- ☐ Trenching and excavations safety
- ☐ Biological hazards in wastewater
- ☐ Traffic control and work site safety
- ☐ Electrical and mechanical systems
- ☐ Pneumatic and hydraulic systems safety

SAF-08 What is your agency's lost-time injury rate? _____ % or _____ hours

SAF-09 Are the following equipment items available and in adequate supply? *(Check all that apply)*

- ☐ Rubber/disposable gloves
- ☐ Confined space ventilation equipment
- ☐ Hard hats, safety glasses, rubber boots
- ☐ Antibacterial soap and first aid kit
- ☐ Tripods or non-entry rescue equipment
- ☐ Fire extinguishers
- ☐ Equipment to enter manholes
- ☐ Portable crane/hoist
- ☐ Atmospheric testing equipment and gas detectors
- ☐ Oxygen sensors
- ☐ H_2S Monitors
- ☐ Full body harness
- ☐ Protective clothing
- ☐ Traffic/public access control equipment
- ☐ 5-minute escape breathing devices
- ☐ Life preservers for lagoons
- ☐ Safety buoy at activated sludge plants
- ☐ Fiberglass or wooden ladders for electrical work
- ☐ Respirators and/or self contained breathing apparatus
- ☐ Methane gas or optical vector (OVA) analyzer
- ☐ Lower explosion limit (LEL) metering

SAF-10	Are safety monitors clearly identified?	YES	NO

Customer Service (CS)

CS-01 Does the utility have a customer service and public relations program? IF NO GO TO QUESTION CS-03 YES NO

CS-02 Does the customer service program include giving formal presentations on the wastewater field to the following? *(Check all that apply)*

- ☐ Schools and universities
- ☐ Local officials
- ☐ Media
- ☐ Building Inspector(s)
- ☐ Community gatherings
- ☐ Businesses
- ☐ Citizens
- ☐ Public utility officials

CS-03 Are employees of the utility specifically trained in customer service? YES NO

CS-04 Are there sample correspondence, Q/A's, or "scripts" to help guide staff through written or oral responses to customers? YES NO

CS-05 What methods are used to notify the public of major construction or maintenance work? *(Check all that apply)*

- ☐ Door hangers
- ☐ Newspaper
- ☐ Fliers
- ☐ Signs
- ☐ Other
- ☐ None
- ☐ Public radio or T.V. announcements

CS-06 Is a homeowner notified prior to construction that his/her property may be affected? YES NO

CS-07 Do you provide information to residents on cleanup and safety procedures following basement backups and overflows from manholes when they occur? YES NO

CS-08 Does the utility have a customer service evaluation program to obtain feedback from the community? YES NO

CS-09 Do customer service records include the following information? *(Check all that apply)*

- ☐ Personnel who received the complaint or request
- ☐ Name, address, and telephone number of customer
- ☐ Nature of the complaint or request
- ☐ Location of the problem
- ☐ To whom the follow-up action was assigned
- ☐ Date the follow up action was assigned
- ☐ Date of the complaint or request
- ☐ Cause of the problem
- ☐ Date the complaint or request was resolved
- ☐ Feedback to customer
- ☐ Total days to end the problem

CS-10 Does the utility have a goal for how quickly customer complaints (or emergency calls) are resolved? IF NO, GO TO THE NEXT PAGE. YES NO

CS-11 What percentage of customer complaints (or emergency calls) are resolved within the timeline goals? _____ %

Equipment and Collection System Maintenance (ESM)

ESM-01 Is a maintenance card or record kept for each piece of mechanical equipment within the collection system? IF NO, GO TO QUESTION ESM-03. YES NO

ESM-02 Do equipment maintenance records include the following information? *(Check all that apply)*

- ☐ Maintenance recommendations
- ☐ Maintenance schedule
- ☐ Instructions on conducting the specific maintenance activity
- ☐ A record of maintenance on the equipment to date
- ☐ Other observations on the equipment

ESM-03 Are dated tags used to show out-of-service equipment? YES NO

ESM-04 Is there an established system for prioritizing equipment maintenance needs? YES NO

ESM-05 What percent of repair funds are spent on emergency repairs? _____ %

ESM-06 Are corrective repair work orders backlogged more than six months? YES NO

ESM-07 Do collection system personnel coordinate with state, county, and local personnel on repairs, before the street is paved? YES NO

Equipment Parts Inventory (EPI)

EPI-01	Have critical spare parts been identified?	YES	NO
EPI-02	Are adequate supplies on hand to allow for two point repairs in any part of the system?	YES	NO
EPI-03	Is there a parts standardization policy in place?	YES	NO
EPI-04	Does the utility have a central location for storing spare parts?	YES	NO
EPI-05	Does the utility maintain a stock of spare parts on its maintenance vehicles?	YES	NO
EPI-06	Does the utility have a system in place to track and maintain an accurate inventory of spare parts?	YES	NO
EPI-07	For those parts which are not kept in inventory, does the utility have a readily available source or supplier?	YES	NO

Management Information System (MIS)

MIS-01 Does the utility have a management information system (MIS) in place for tracking maintenance activities? *(Either electronic or good paper files)* IF NO, GO TO PAGE 15. YES NO

MIS-02 Are the MIS records maintained for a period of at least three years? YES NO

MIS-03 Is the MIS able to distinguish activities taken in response to an overflow event? YES NO

MIS-04 Are there written instructions for managing and tracking the following information? *(Check all that apply)*

- ☐ Complaint work orders
- ☐ Scheduled work orders
- ☐ Customer service
- ☐ Scheduled preventive maintenance
- ☐ Scheduled inspections
- ☐ Sewer system inventory
- ☐ Safety incidents
- ☐ Scheduled monitoring/ sampling
- ☐ Compliance/overflow tracking
- ☐ Equipment/tools tracking
- ☐ Parts inventory

MIS-05 Do the written instructions for tracking procedures include the following information? *(Check all that apply)*

- ☐ Accessing data and information
- ☐ Instructions for using the tracking system
- ☐ Updating the MIS
- ☐ Developing and printing reports

MIS-06 How often is the management information system updated? *(Check one)*

- ☐ Immediately
- ☐ Monthly
- ☐ Within one week of the "incident"
- ☐ As time permits

System Mapping (MAP)

MAP-01 Are "as built" plans (record drawings) or maps available for use by field crews in the office and in the field? YES NO

MAP-02 Is there a procedure for field crews to record changes or inaccuracies in the maps and update the mapping system? YES NO

MAP-03 Do the maps show the date the map was drafted and the date of the last revision? YES NO

MAP-04 Do the sewer line maps include the following? *(Check all that apply)*

- ☐ Scale
- ☐ North arrow
- ☐ Date the map was drafted
- ☐ Date of last revision
- ☐ Service area boundaries
- ☐ Property lines
- ☐ Other landmarks (Roads, water bodies, etc.)
- ☐ Manhole and other access points
- ☐ Location of building laterals
- ☐ Street names
- ☐ SSOs occurrences/CSOs outfalls
- ☐ Flow monitors
- ☐ Force mains
- ☐ Pump stations
- ☐ Lined sewers
- ☐ Main, trunk, and interceptor sewers
- ☐ Easement lines and dimensions
- ☐ Pipe material
- ☐ Pipe diameter
- ☐ Installation date
- ☐ Slope
- ☐ Manhole rim elevation
- ☐ Manhole coordinates
- ☐ Manhole invert elevation
- ☐ Distance between manholes

MAP-05 Are the following sewer attributes recorded? *(Check all that apply)*

- ☐ Size
- ☐ Shape
- ☐ Invert elevation
- ☐ Material
- ☐ Separate/combined sewer
- ☐ Installation Date

MAP-06 Are the following manhole attributes recorded? *(Check all that apply)*

- ☐ Shape
- ☐ Depth
- ☐ Age
- ☐ Type (e.g., precast, cast in place, etc.)
- ☐ Material

MAP-07 Is there a systematic numbering and identification method/system established to identify sewer system manhole, sewer lines, and other items (pump stations, etc.)? YES NO

Internal TV Inspection (TVI)

TVI-01 Does the utility have a standardized pipeline condition assessment program? YES NO

TVI-02 Is internal TV inspection used to perform condition assessment? IF NO, GO TO PAGE 17. YES NO

TVI-03 Are there written operation procedures and guidelines for the internal TV inspection program? YES NO

TVI-04 Do the internal TV record logs include the following? *(Check all that apply)*

- ☐ Pipe size, type, length, and joint spacing
- ☐ Distance recorded by internal TV
- ☐ Results of the internal TV inspection (including a structural rating)
- ☐ Internal TV operator name
- ☐ Cleanliness of the line
- ☐ Location and identification of line being televised by manholes

TVI-05 Is a rating system used to determine the severity of the defects found during the inspection process? YES NO

TVI-06 Is there documentation explaining the codes used for internal TV results reporting? YES NO

TVI-07 Approximately what percent of the total defects determined by TV inspection during the past 5 years were the following?

Failed coatings or linings	%	Line deflection	%
House connection leaks	%	Joint separation	%
Illegal connections	%	Crushed pipes	%
Pipe corrosion (H_2S)	%	Collapsed pipes	%
Fats, oil, and grease	%	Offset joints	%
Broken pipes	%	Root intrusions	%
Debris	%	Minor cracks	%
Other	%		

TVI-08 Are main line and lateral repairs checked by internal TV inspection after the repair(s) have been made? YES NO

Sewer Cleaning (CLN)

CLN-01 What is the system cleaning frequency? (the entire system is cleaned every "X" years) _____

CLN-02 What is the utility's plan for system cleaning (% or frequency in years)? _____

CLN-03 What percent of the sewer lines are cleaned, even high/repeat cleaning trouble spots, during the past year? _____ %

CLN-04 Is there a program to identify sewer line segments, with chronic problems, that should be cleaned on a more frequent schedule? YES NO

CLN-05 Does the utility have a root control program? YES NO

CLN-06 Does the utility have a fats, oils, and grease (FOG) program? YES NO

CLN-07 What is the average number of stoppages experienced per mile of sewer pipe per year? _____ %

CLN-08 Has the number of stoppages increased, decreased, or stayed the same over the past 5 years?

☐ Increased ☐ Decreased ☐ Stayed the same

CLN-09 Are stoppages plotted on maps and correlated with other data such as pipe size and material or location? YES NO

CLN-10 Do the sewer cleaning records include the following information? *(Check all that apply)*

☐ Date and time	☐ Method of cleaning	☐ Identity of cleaning crew
☐ Cause of stoppage	☐ Location of stoppage or routine cleaning activity	☐ Further actions necessary/initiated

CLN-11 If sewer cleaning is done by a contractor are videos taken of before and after cleaning? YES NO

Manhole Inspection and Assessment (MAN)

MAN-01 Does the utility have a routine manhole inspection and assessment program? IF NO, GO TO QUESTION MAN-06. YES NO

MAN-02 Are the results and observations from the routine manhole inspections recorded? YES NO

MAN-03 Does the utility have a goal for the number of manholes inspected annually? YES NO

MAN-04 How many manholes were inspected during the past year? _____

MAN-05 Do the records for manhole/pipe inspection include the following? *(Check all that apply)*

- ☐ Conditions of the frame and cover
- ☐ Evidence of surcharge
- ☐ Offsets or misalignments
- ☐ Atmospheric hazards measurements (especially hydrogen sulfide)
- ☐ Details on the root cause of cracks or breaks in the manhole or pipe including blockages
- ☐ Recording conditions of (corbel, walls, bench, trough, and pipe seals)
- ☐ Presence of corrosion
- ☐ If repair is necessary
- ☐ Manhole identifying number/location
- ☐ Wastewater flow characteristics (flowing freely or backed up)
- ☐ Accumulations of grease, debris, or grit
- ☐ Presence of infiltration, location, and estimated quantity
- ☐ Inflow from manhole covers

MAN-06 Does the utility have a grouting program? YES NO

Pump Stations (PS)

PS-01	Are Standard Operation Procedures (SOPs) and Standard Maintenance Procedures (SMPs) used for each pump station?	YES	NO
PS-02	Are there enough trained personnel to properly maintain all pump stations?	YES	NO
PS-03	Is there an emergency operating procedure for each pump station?	YES	NO
PS-04	Is there an alarm system to notify personnel of pump station failures and overflow?	YES	NO
PS-05	Percent of pump stations with back up power sources	____ %	
PS-06	Does the utility use the following methods when loss of power ocurs? *(Check all that apply)* ☐ On-site electrical generators ☐ Portable electric generators ☐ Alternate power source ☐ Other ☐ Vacuum trucks to bypass pump station		
PS-07	Is there a procedure for manipulating pump operations (manually or automatically) during wet weather to increase in-line storage of wet weather flows?	YES	NO
PS-08	Are wet well operating levels set to limit pump start/stops?	YES	NO
PS-09	Are the lead, lag, and backup pumps rotated regularly?	YES	NO
PS-10	Are operation logs maintained for all pump stations?	YES	NO
PS-11	Are the original manuals that contain the manufacturers recommended maintenance schedules for all pump station equipment easily available?	YES	NO
PS-12	On average, how often were pump stations inspected during the past year?	YES	NO
PS-13	Are records maintained for each inspection?	YES	NO
PS-14	Average annual labor hours spent on pump station inspection	____	
PS-15	Percent of pump stations with pump capacity redundancy	____ %	
PS-16	Percent of pump stations with dry weather capacity limitations	____ %	
PS-17	Percent of pump stations with wet weather capacity limitations	____ %	
PS-18	Percent of pump stations calibrated annually	____ %	
PS-19	Percent of pump stations with permanent flow meters	____ %	

Capacity Assessment (CA)

CA-01	Does the utility have a flow monitoring program?	YES	NO
CA-02	Does the utility have a comprenhensive capacity assessment and planning program?	YES	NO
CA-03	Are flows measured prior to allowing new connections?	YES	NO
CA-04	Do you have a tool (hydraulic model, spreadsheet, etc.) for assessing whether adequate capacity exists in the sewer system? IF NO, GO TO QUESTION CA-06.	YES	NO
CA-05	Does your capacity assessment tool produce results consistent with conditions observed in the system?	YES	NO

CA-06 What is the ratio of peak wet weather flow to average dry weather flow at the wastewater treatment plant? _____

CA-07 How many permanent flow meters are currently in the system? *(Include meters at pump stations and wastewater treatment plants)* _____

CA-08 How frequently are the flow meters checked? *(e.g. Daily, Weekly, Monthly, etc.)* _____

CA-09 Do the flow meter checks include the following? *(Check all that apply)*

- ☐ Independent water level
- ☐ Velocity reading
- ☐ Downloading data
- ☐ Checking the desiccant
- ☐ Cleaning away debris
- ☐ Battery condition

CA-10	Are records maintained for each inspection? IF NO, GO TO QUESTION CA-12.	YES	NO

CA-11 Do the flow monitoring records include the following? *(Check all that apply)*

- ☐ Descriptive location of flow meter
- ☐ Frequency of flow meter inspection
- ☐ Type of flow meter
- ☐ Frequency of flow meter calibration

CA-12	Does the utility maintain any rain gauges or have access to local rainfall data?	YES	NO
CA-13	Does the utility have any wet weather capacity problems?	YES	NO
CA-14	Are low points or flood-plain areas monitored during rain events?	YES	NO
CA-15	Does the utility have any dry weather capacity problems?	YES	NO
CA-16	Is flow monitoring used for billing purposes, capacity analysis, and/or inflow and infiltration investigations?	YES	NO

Tracking SSOs (TRK)

TRK-01 How many SSO events have been reported in the past 5 years? _____

TRK-02 What percent of the SSOs were less than 1,000 gallons in the past 5 years ? _____ %

TRK-03 Does the utility document and report all SSOs regardless of size? YES NO

TRK-04 Does the utility document basement backups? YES NO

TRK-05 Are there areas that experience frequent basement or street flooding? YES NO

TRK-06 Approximately what percent of SSOs discharges were from each of the following in the last 5 years?

Manholes _____ % Main and trunk sewers _____ % Structural bypasses _____ %

Pump stations _____ % Lateral and branch sewers _____ %

TRK-07 Approximately what percent of SSOs discharges were caused by the following in the last 5 years?

Debris buildup _____ % Root intrusion _____ % Excessive infiltration and inflow _____ %

Collapsed pipe _____ % Capacity limitations _____ % Fats, oil, and grease _____ %

Vandalism _____ %

TRK-07A What percentage of SSOs were released to:

Soil _____ % Basements _____ % Paved area _____ %

Surface water (rivers/lakes/streams) _____ % Coastal, ocean, beaches _____ %

TRK-07B For surface water releases, what percent are to areas that could affect:

Contact recreation (beaches, swimming, areas) _____ % Drinking water sources _____ %

Shellfish growing areas _____ %

TRK-08 How many chronic SSO locations are in the collection system? _____

TRK-09 Are pipes with chronic SSOs being monitored for sufficient capacity and/or structural condition? YES NO

TRK-10 Prior to collapse, are structurally deteriorating pipelines being monitored for renewal or replacement? YES NO

Overflow Emergency Response Plan (OERP)

OERP-01 Does the utility have a documented OERP available for utility staff to use? IF NO, GO TO QUESTION OERP-04. YES NO

OERP-02 How often is the OERP reviewed and updated? *(Annually, Biannually, etc.)* _____

OERP-03 Are specific responsibilities detailed in the OERP for personnel who respond to emergencies? YES NO

OERP-04 Are staff continuously trained and drilled to respond to emergency situations? YES NO

OERP-05 Do work crews have immediate access to tools and equipment during emergencies? YES NO

OERP-06 Does the utility have standard procedures for notifying state agencies, local health departments, the NPDES authority, the public, and drinking water authorities of significant overflow events? YES NO

OERP-07 Does the procedure include a current list of the names, titles, phone numbers, and responsibilities of all personnel involved? YES NO

OERP-08 Does the utility have a public notification plan? YES NO

OERP-09 Does the utility have procedures to limit public access to and contact with areas affected with SSOs? *(Procedure can be delegated to another authority)* YES NO

OERP-10 Does the utility use containment techniques to protect the storm drainage systems? YES NO

OERP-11 Do the overflow records include the following information? *(Check all that apply)*

- ☐ Date and time
- ☐ Location
- ☐ Any remediation efforts
- ☐ Cause s)
- ☐ How it was stopped
- ☐ Estimated flow/volume discharged
- ☐ Names of affected receiving water(s)
- ☐ Duration of overflow

OERP-12 Does the utility have signage to keep public from effected area? YES NO

Smoke and Dye Testing (SDT)

SDT-01	Does the utility have a smoke testing program to identify sources of inflow and infiltration?	YES	NO
SDT-01A	Does the utility have a smoke testing program to identify sources of inflow and infiltration in illegal connectors?	YES	NO
SDT-01B	Does the utility have a smoke testing program to identify sources of inflow and infiltration in house laterals (private service laterals)?	YES	NO
SDT-02	Are there written procedures for the frequency and schedule of smoke testing?	YES	NO
SDT-03	Is there a documented procedure for isolating line segments?	YES	NO
SDT-04	Is there a documented procedure for notifying local residents that smoke testing will be conducted in their area?	YES	NO
SDT-05	What is the guideline for the maximum amount of the line to be tested at one time? *(Feet or Miles)*	_____	
SDT-06	Are there guidelines for the weather conditions under which smoke testing should be conducted?	YES	NO
SDT-07	Does the utility have a goal for the percent of the system smoke tested each year?	YES	NO
SDT-08	What percent of the system has been smoke tested over the past year?	_____ %	
SDT-09	Do the written records contain location, address, and description of the smoking element that produced a positive result?	YES	NO
SDT-10	Does the utility have a dye testing program?	YES	NO
SDT-11	Are there written procedures for dye testing?	YES	NO
SDT-12	Does the utility have a goal for the percent of the system dye tested each year?	YES	NO
SDT-13	What percent of the main collection system has been dye tested over the past year?	_____ %	
SDT-14	Does the utility share smoke and dye testing equipment with another utility?	YES	NO

Hydrogen Sulfide Monitoring and Control (HSMC)

HSMC-01 How would you rate the systems vulnerability for hydrogen sulfide corrosion? *(Check only one)*

☐ Not a problem ☐ Only in a few isolated areas ☐ A major problem

HSCM-02 Does the utility have a corrosion control program? YES NO

HSCM-03 Does the utility take hydrogen sulfide corrosion into consideration when designing new or replacement sewers? YES NO

HSCM-04 Does the utility have written procedures for the application of chemical dosages? YES NO

HSCM-05 Are the chemical dosages, dates, and locations documented? YES NO

HSCM-06 Does the utility document where odor is a continual problem in the system? YES NO

HSCM-07 Does the utility have a program in place for renewing or replacing severely corroded sewer lines to prevent collapse? YES NO

HSCM-08 Are the following methods used for hydrogen sulfide control? *(Check all that apply)*

☐ Aeration ☐ Chlorine ☐ Potassium permanganate
☐ Iron salts ☐ Sodium hydroxide ☐ Biofiltration
☐ Enzymes ☐ Hydrogen peroxide ☐ Other
☐ Activated charcoal canisters

HSCM-09 Does the system contain air relief valves at the high points of the force main system? YES NO

HSCM-10 How often are the valves maintained and inspected? *(Weekly, Monthly, etc.)* _____

HSMC-11 Does the utility enforce pretreatment requirements? YES NO

Infrastructure Security

Although outside the scope of a CMOM program, municipal wastewater utilities should also consider security vulnerabilities. To reduce the threat of both intentional and natural disasters, the utility should take steps to implement appropriate countermeasures and develop or update emergency response plans.