



N64W23760 Main Street
Sussex, Wisconsin 53089
Phone (262) 246-5200
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**AGENDA
PUBLIC WORKS COMMITTEE
VILLAGE OF SUSSEX
6:00 P.M. TUESDAY, JUNE 2, 2020
SUSSEX CIVIC CENTER- VILLAGE BOARD ROOM 2nd FLOOR
N64W23760 MAIN STREET**

THIS MEETING CAN ALSO BE ACCESSED VIRTUALLY:

1. BY CALLING 1-312-626-6799 AND ENTERING MEETING ID: 824 7431 3759
2. CLICKING THE FOLLOWING LINK: <https://us02web.zoom.us/j/82474313759>

THE MEETING MATERIALS WILL BE AVAILABLE AT WWW.VILLAGESUSSEX.ORG.

Pursuant to the requirements of Section 19.84, Wis. Stats., notice is hereby given of a meeting of the Village of Sussex Public Works Committee, at which a quorum of the Village Board may attend in order to gather information about a subject which they have decision making responsibility. The meeting will be held at the above noted date, time and location. Notice of Village Board Quorum, (Chairperson to announce the following if a quorum of the Village Board is in attendance at the meeting: Please let the minutes reflect that a quorum of the Village Board is present and that the Village Board members may be making comments under the Public Comments section of the agenda, during any Public Hearing(s) or if the rules are suspended to allow them to do so.)

1. Roll call.
2. Consideration and possible action minutes of the May 5, 2020 Public Works meeting.
3. Consideration and possible action on bills for payment.
4. Consideration and possible action on Utility Items:
 - A. Resolution accepting the Compliance Maintenance Annual Report.
5. Consideration and possible action on Sidewalk and Street Items:
 - A. Homeowner restoration concern at N71W23378 Homestead Road as a result of stormwater improvements during the Good Hope Road Reconstruction Project.
 - B. 2021 Annual Road Program
6. Consideration and possible action on Other Public Works Items:
7. Staff report, update and issues, and possible action regarding subdivision, developments, and projects:
 - A. Engineer's Report
8. Other discussion for future agenda topics

9. Adjournment.

Scott Adkins
Chairperson

Jeremy Smith
Village Administrator

Please note that, upon reasonable notice, efforts will be made to accommodate the needs of disabled individuals through appropriate aids and services. For additional information or to request this service, contact the Village Clerk at 246-5200.

**DISCLAIMER- THE FOLLOWING ARE DRAFT MINUTES FROM
THE PUBLIC WORKS COMMITTEE AND ARE
SUBJECT TO CHANGE UPON APPROVAL OF THE VILLAGE BOARD**

**VILLAGE OF SUSSEX
SUSSEX, WISCONSIN**

**Minutes of the Public Works Committee of
May 5, 2020**

1. Roll Call

The meeting was called to order by Chairman Adkins at 6:00 p.m.

Members present: Trustee Scott Adkins, Trustee Lee Uecker, Trustee Michael Bartzen, and Mike Schulist.

Also present: Village Administrator Jeremy Smith, Assistant Village Administrator Kelsey McElroy-Anderson, Village Engineer/Public Works Director Judith Neu, and members of the Public.

A quorum of the Village Board was present at the meeting.

2. Consideration and possible action on minutes

A motion by Uecker, seconded by Bartzen to approve the March 3, 2020 meeting minutes as presented.

Motion carried 4-0.

3. Consideration and possible action on bills for payment:

A motion by Uecker, seconded by Schulist to recommend to the Village Board approval of bills for payment in the amended amount of \$901,022.05.

Motion carried 4-0.

4. Consideration and possible action on Utility Items:

A. Water Utility Vehicle Replacement

A motion by Schulist, seconded by Bartzen to recommend to the Village Board the purchase of the truck chassis from Badger Truck Center in the amount of \$34,967 and the service body from Casper's Truck Equipment in the amount of \$16,669.

Motion carried 4-0.

5. Consideration and possible action on Sidewalk and Street Items:

A. Maple Avenue Reconstruction Update

Mrs. Neu summarized the Maple Avenue reconstruction update memo included in the meeting packet. No action was taken by the Committee.

6. Consideration and possible action on Other Public Works Items:

None

7. Staff Reports, update and issues, and possible action regarding subdivision, developments, and projects:

A. Engineer's Report

Mrs. Neu summarized the Engineer's Report included in the meeting packet.

8. Other discussion for future agenda topics

The Committee asked if staff has heard back from the railroad in regards to the crossing on Main Street. The railroad also now needs to address Silver Spring. Ms. Neu will again reach out to the railroad company. Staff will also put the railroad contact information on the website for any residents who may want to vocalize concerns.

10. Adjournment

A motion by Uecker, seconded by Adkins to adjourn the meeting at 6:42 p.m.

Motion carried 4-0.

Respectfully submitted,

Kelsey McElroy-Anderson
Assistant Village Administrator

VILLAGE OF SUSSEX				
PUBLIC WORKS COMMITTEE				
BILLS FOR PAYMENT				
6/2/2020				
VENDOR	AMOUNT		%COMPLETED	NOTES
GRAEF	\$ 1,580.00	MAPLE AVE RECON - PROF. SERV. THRU 4/4/2020	100.00%	
RUEKERT & MIELKE, INC.	\$ 3,312.68	SUSSEX COMMERCE CENTER/THE HIGHLANDS - PROF. SERV. 2/11-5/08/2020	ONGOING	BILL TO DEVELOPER - WANGARD
SELZER-ORNST CONSTRUCTION CO., LLC	\$ 236,778.00	SUSSEX PARK PAVILION - PROF. SERV THRU 4/30/2020	93.00%	
SIGMA GROUP	\$ 1,975.81	SUSSEX PRESERVE PHASE 2 - PROF. SERV. THRU 4/30/220	ONGOING	PREPAID - BILL TO DEVELOPER - SAWALL DEVELOPMENT
STARK PAVEMENT CORP.	\$ 214,571.75	MAPLE AVE RECON #2 - APPLICATON #2	8.70%	
SUPER WESTERN, INC.	\$ 952,734.59	MAPLE AVE RECON - PROF. SERV. THRU 4/30/2020	21.40%	
WE ENERGIES	\$ 92,206.99	LIGHTING MAPLE/JOHANSEN/TO GOOD HOPE-MAPLE AVE RECON.	27.00%	Prepaid - work order.
TOTAL	\$ 1,503,159.82			

STATE OF WISCONSIN

VILLAGE OF SUSSEX

COUNTY OF WAUKESHA

RESOLUTION No. 20-18

A Resolution to Accept the Compliance Maintenance Annual Report

WHEREAS: The Department of Natural Resources requires a Compliance Maintenance Annual Report for the Sussex Regional Wastewater Treatment Facility; and

WHEREAS: The Assistant Director of Public Works has prepared said report; and

WHEREAS: The Public Works Committee and the Village Board have reviewed and discussed said report.

NOW THEREFORE, BE IT RESOLVED by the Village Board of the Village of Sussex, Waukesha County, Wisconsin, that:

SECTION 1: The Village Board has reviewed the Compliance Maintenance Annual Report which is attached to this resolution.

SECTION 2: The Village Clerk and Assistant Director of Public Works are hereby authorized and directed to forward a copy of this resolution to the Department of Natural Resources.

Adopted this _____ day of _____, 2020

VILLAGE OF SUSSEX

Anthony LeDonne
Village President

ATTEST

Samuel Liebert
Village Clerk



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MEMORANDUM

To: Public Works Committee
From: Dennis Wolf, Assistant Public Works Director Operations
Date: May 25, 2020
Re: Compliance Maintenance Annual Report

Each year, staff prepares the Compliance Maintenance Annual Report for the Sussex Regional Wastewater Treatment Facility, as required by the Department of Natural Resources. This report must be reviewed and accepted by the Board by Resolution. The facility received an "A" rating for 2019. A few highlights from the report include:

- Chloride limit exceeded once, in February, compared to three times in 2018. Staff continually work on implementing the chloride Source Reduction Measures as listed in our DNR WPDES Permit.
- All biosolids field application rates, metal quality limits, and field soil tests, met required DNR criteria.
- Over the past year, we have had several piping valve failures. Staff has been able to repair or replace the valves. With the age of the facility, this may be an ongoing issue.
- A control panel installed in 1994 needed new electrical supply wiring. As there has been some problems with this panel in recent years, staff is evaluating it's replacement.

Compliance Maintenance Annual Report

Sussex Wastewater Treatment Facility

Last Updated: Reporting For:

5/19/2020

2019

Influent Flow and Loading

1. Monthly Average Flows and BOD Loadings

1.1 Verify the following monthly flows and BOD loadings to your facility.

Influent No. 701	Influent Monthly Average Flow, MGD	x	Influent Monthly Average BOD Concentration mg/L	x	8.34	=	Influent Monthly Average BOD Loading, lbs/day
January	2.6583	x	139	x	8.34	=	3,071
February	2.7926	x	167	x	8.34	=	3,881
March	3.2327	x	128	x	8.34	=	3,449
April	2.9596	x	124	x	8.34	=	3,059
May	3.3449	x	101	x	8.34	=	2,805
June	2.8003	x	104	x	8.34	=	2,440
July	2.7678	x	129	x	8.34	=	2,982
August	2.4766	x	174	x	8.34	=	3,595
September	2.5405	x	150	x	8.34	=	3,183
October	3.5633	x	139	x	8.34	=	4,121
November	3.2378	x	134	x	8.34	=	3,607
December	2.9486	x	120	x	8.34	=	2,956

2. Maximum Monthly Design Flow and Design BOD Loading

2.1 Verify the design flow and loading for your facility.

Design	Design Factor	x	%	=	% of Design
Max Month Design Flow, MGD	5.1	x	90	=	4.59
		x	100	=	5.1
Design BOD, lbs/day	6790	x	90	=	6111
		x	100	=	6790

2.2 Verify the number of times the flow and BOD exceeded 90% or 100% of design, points earned, and score:

	Months of Influent	Number of times flow was greater than 90% of	Number of times flow was greater than 100% of	Number of times BOD was greater than 90% of design	Number of times BOD was greater than 100% of design
January	1	0	0	0	0
February	1	0	0	0	0
March	1	0	0	0	0
April	1	0	0	0	0
May	1	0	0	0	0
June	1	0	0	0	0
July	1	0	0	0	0
August	1	0	0	0	0
September	1	0	0	0	0
October	1	0	0	0	0
November	1	0	0	0	0
December	1	0	0	0	0
Points per each		2	1	3	2
Exceedances		0	0	0	0
Points		0	0	0	0
Total Number of Points					0

0

Compliance Maintenance Annual Report

Sussex Wastewater Treatment Facility

Last Updated: Reporting For:

5/19/2020

2019

3. Flow Meter

3.1 Was the influent flow meter calibrated in the last year?

- ☒ Yes Enter last calibration date (MM/DD/YYYY)

04/09/2019

☐ No

If No, please explain:

4. Sewer Use Ordinance

4.1 Did your community have a sewer use ordinance that limited or prohibited the discharge of excessive conventional pollutants ((C)BOD, SS, or pH) or toxic substances to the sewer from industries, commercial users, hauled waste, or residences?

☒ Yes

☐ No

If No, please explain:

4.2 Was it necessary to enforce the ordinance?

☐ Yes

☒ No

If Yes, please explain:

5. Septage Receiving

5.1 Did you have requests to receive septage at your facility?

Septic Tanks

Holding Tanks

Grease Traps

☐ Yes

☒ Yes

☐ Yes

☒ No

☐ No

☒ No

5.2 Did you receive septage at your facility? If yes, indicate volume in gallons.

Septic Tanks

☐ Yes

gallons

☒ No

Holding Tanks

☒ Yes

10,320,700 gallons

☐ No

Grease Traps

☐ Yes

gallons

☒ No

5.2.1 If yes to any of the above, please explain if plant performance is affected when receiving any of these wastes.

Plant performance is not affected due to receiving holding tank waste.

6. Pretreatment

6.1 Did your facility experience operational problems, permit violations, biosolids quality concerns, or hazardous situations in the sewer system or treatment plant that were attributable to commercial or industrial discharges in the last year?

☐ Yes

☒ No

If yes, describe the situation and your community's response.

6.2 Did your facility accept hauled industrial wastes, landfill leachate, etc.?

Compliance Maintenance Annual Report

Sussex Wastewater Treatment Facility

Last Updated: Reporting For:
5/19/2020 **2019**

<div><div><input type="radio"/> Yes</div><div><input checked="" type="radio"/> No</div></div> <div>If yes, describe the types of wastes received and any procedures or other restrictions that were in place to protect the facility from the discharge of hauled industrial wastes.</div> <div></div>	
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Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

Compliance Maintenance Annual Report

Sussex Wastewater Treatment Facility

Last Updated: Reporting For:
5/19/2020 **2019**

Effluent Quality and Plant Performance (BOD/CBOD)

1. Effluent (C)BOD Results

1.1 Verify the following monthly average effluent values, exceedances, and points for BOD or CBOD

Outfall No. 001	Monthly Average Limit (mg/L)	90% of Permit Limit > 10 (mg/L)	Effluent Monthly Average (mg/L)	Months of Discharge with a Limit	Permit Limit Exceedance	90% Permit Limit Exceedance
January	10	10	0	1	0	0
February	10	10	0	1	0	0
March	10	10	2	1	0	0
April	10	10	0	1	0	0
May	10	10	1	1	0	0
June	10	10	0	1	0	0
July	10	10	0	1	0	0
August	10	10	0	1	0	0
September	10	10	0	1	0	0
October	5	5	0	1	0	0
November	10	10	0	1	0	0
December	10	10	0	1	0	0

* Equals limit if limit is ≤ 10

Months of discharge/yr	12		
Points per each exceedance with 12 months of discharge		7	3
Exceedances		0	0
Points		0	0
Total number of points			0

NOTE: For systems that discharge intermittently to state waters, the points per monthly exceedance for this section shall be based upon a multiplication factor of 12 months divided by the number of months of discharge. Example: For a wastewater facility discharging only 6 months of the year, the multiplication factor is $12/6 = 2.0$

1.2 If any violations occurred, what action was taken to regain compliance?

2. Flow Meter Calibration

2.1 Was the effluent flow meter calibrated in the last year?

☒ Yes Enter last calibration date (MM/DD/YYYY)

04/09/2019

☐ No

If No, please explain:

3. Treatment Problems

3.1 What problems, if any, were experienced over the last year that threatened treatment?

None

4. Other Monitoring and Limits

4.1 At any time in the past year was there an exceedance of a permit limit for any other pollutants such as chlorides, pH, residual chlorine, fecal coliform, or metals?

☒ Yes

☐ No

Compliance Maintenance Annual Report

Sussex Wastewater Treatment Facility

Last Updated: Reporting For:
5/19/2020 **2019**

<p>If Yes, please explain:</p> <div>The chloride variance limit of 511 mg/L was exceeded in February 2019 with a monthly average of 551 mg/L.</div> <p>4.2 At any time in the past year was there a failure of an effluent acute or chronic whole effluent toxicity (WET) test?</p> <p><input type="radio"/> Yes</p> <p><input checked="" type="radio"/> No</p> <p>If Yes, please explain:</p> <div></div> <p>4.3 If the biomonitoring (WET) test did not pass, were steps taken to identify and/or reduce source(s) of toxicity?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p><input checked="" type="radio"/> N/A</p> <p>Please explain unless not applicable:</p> <div></div>	
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Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

Compliance Maintenance Annual Report

Sussex Wastewater Treatment Facility

Last Updated: Reporting For:

5/19/2020

2019

Effluent Quality and Plant Performance (Total Suspended Solids)

1. Effluent Total Suspended Solids Results

1.1 Verify the following monthly average effluent values, exceedances, and points for TSS:

Outfall No. 001	Monthly Average Limit (mg/L)	90% of Permit Limit >10 (mg/L)	Effluent Monthly Average (mg/L)	Months of Discharge with a Limit	Permit Limit Exceedance	90% Permit Limit Exceedance
January	10	10	1	1	0	0
February	10	10	1	1	0	0
March	10	10	3	1	0	0
April	10	10	1	1	0	0
May	10	10	4	1	0	0
June	10	10	1	1	0	0
July	10	10	1	1	0	0
August	10	10	1	1	0	0
September	10	10	1	1	0	0
October	10	10	1	1	0	0
November	10	10	1	1	0	0
December	10	10	2	1	0	0

* Equals limit if limit is ≤ 10

Months of Discharge/yr	12		
Points per each exceedance with 12 months of discharge:		7	3
Exceedances		0	0
Points		0	0
Total Number of Points		0	

NOTE: For systems that discharge intermittently to state waters, the points per monthly exceedance for this section shall be based upon a multiplication factor of 12 months divided by the number of months of discharge.

Example: For a wastewater facility discharging only 6 months of the year, the multiplication factor is $12/6 = 2.0$

1.2 If any violations occurred, what action was taken to regain compliance?

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

Compliance Maintenance Annual Report

Sussex Wastewater Treatment Facility

Last Updated: Reporting For:
5/19/2020 **2019**

Effluent Quality and Plant Performance (Ammonia - NH3)

1. Effluent Ammonia Results

1.1 Verify the following monthly and weekly average effluent values, exceedances and points for ammonia

Outfall No. 001	Monthly Average NH3 Limit (mg/L)	Weekly Average NH3 Limit (mg/L)	Effluent Monthly Average NH3 (mg/L)	Monthly Permit Limit Exceed ance	Effluent Weekly Average for Week 1	Effluent Weekly Average for Week 2	Effluent Weekly Average for Week 3	Effluent Weekly Average for Week 4	Weekly Permit Limit Exceed ance
January	5		0	0					
February	5		0	0					
March	5		0	0					
April	5		0	0					
May	5		0	0					
June	5		.005882353	0					
July	5		0	0					
August	5		.047058824	0					
September	5		0	0					
October	3.8		.083333333	0					
November	5		.0125	0					
December	5		0	0					
Points per each exceedance of Monthly average:									10
Exceedances, Monthly:									0
Points:									0
Points per each exceedance of weekly average (when there is no monthly average):									2.5
Exceedances, Weekly:									0
Points:									0
Total Number of Points									0

NOTE: Limit exceedances are considered for monthly OR weekly averages but not both. When a monthly average limit exists it will be used to determine exceedances and generate points. This will be true even if a weekly limit also exists. When a weekly average limit exists and a monthly limit does not exist, the weekly limit will be used to determine exceedances and generate points.

1.2 If any violations occurred, what action was taken to regain compliance?

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

Compliance Maintenance Annual Report

Sussex Wastewater Treatment Facility

Last Updated: Reporting For:
5/19/2020 **2019**

Effluent Quality and Plant Performance (Phosphorus)

1. Effluent Phosphorus Results

1.1 Verify the following monthly average effluent values, exceedances, and points for Phosphorus

Outfall No. 001	Monthly Average phosphorus Limit (mg/L)	Effluent Monthly Average phosphorus (mg/L)	Months of Discharge with a Limit	Permit Limit Exceedance
January	.85	0.553	1	0
February	.85	0.234	1	0
March	.85	0.187	1	0
April	.85	0.122	1	0
May	.85	0.634	1	0
June	.85	0.310	1	0
July	.85	0.068	1	0
August	.85	0.153	1	0
September	.85	0.479	1	0
October	.85	0.310	1	0
November	.85	0.103	1	0
December	.85	0.243	1	0
Months of Discharge/yr			12	
Points per each exceedance with 12 months of discharge:				10
Exceedances				0
Total Number of Points				0

0

NOTE: For systems that discharge intermittently to waters of the state, the points per monthly exceedance for this section shall be based upon a multiplication factor of 12 months divided by the number of months of discharge.

Example: For a wastewater facility discharging only 6 months of the year, the multiplication factor is $12/6 = 2.0$

1.2 If any violations occurred, what action was taken to regain compliance?

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

Compliance Maintenance Annual Report

Sussex Wastewater Treatment Facility

Last Updated: Reporting For:
5/19/2020 **2019**

Biosolids Quality and Management

1. Biosolids Use/Disposal

1.1 How did you use or dispose of your biosolids? (Check all that apply)

- ☒ Land applied under your permit
- ☐ Publicly Distributed Exceptional Quality Biosolids
- ☒ Hauled to another permitted facility
- ☐ Landfilled
- ☐ Incinerated
- ☐ Other

NOTE: If you did not remove biosolids from your system, please describe your system type such as lagoons, reed beds, recirculating sand filters, etc.

1.1.1 If you checked Other, please describe:

2. Land Application Site

2.1 Last Year's Approved and Active Land Application Sites

2.1.1 How many acres did you have?

1056.90 acres

2.1.2 How many acres did you use?

178.9 acres

2.2 If you did not have enough acres for your land application needs, what action was taken?

2.3 Did you overapply nitrogen on any of your approved land application sites you used last year?

o Yes (30 points)

● No

2.4 Have all the sites you used last year for land application been soil tested in the previous 4 years?

● Yes

o No (10 points)

o N/A

0

3. Biosolids Metals

Number of biosolids outfalls in your WPDES permit:

3.1 For each outfall tested, verify the biosolids metal quality values for your facility during the last calendar year.

Outfall No. 002 - Liquid Sludge

Parameter	80% of Limit	H.Q. Limit	Ceiling Limit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	80% Value	High Quality	Ceiling
Arsenic		41	75			3.47	3.63				3.69		<13				0	0
Cadmium		39	85			<5.4	<5.6				<5.5		<6.5				0	0
Copper		1500	4300			403	399				530		245				0	0
Lead		300	840			51.4	<22.4				<22.1		<25.9				0	0
Mercury		17	57			.379	<.369				.611		.416				0	0
Molybdenum	60		75			10.3	9.39				9.16		4.43			0		0
Nickel	336		420			13.5	13.1				14.8		10.1			0		0
Selenium	80		100			<42.9	<44.7				<44.2		<51.9			0		0
Zinc		2800	7500			436	416				561		295				0	0

3.1.1 Number of times any of the metals exceeded the high quality limits OR 80% of the limit for molybdenum, nickel, or selenium = 0

Exceedence Points

● 0 (0 Points)

Compliance Maintenance Annual Report

Sussex Wastewater Treatment Facility

Last Updated: Reporting For:
5/19/2020 **2019**

- ☐ 1-2 (10 Points)
- ☐ > 2 (15 Points)
- 3.1.2 If you exceeded the high quality limits, did you cumulatively track the metals loading at each land application site? (check applicable box)
 - ☐ Yes
 - ☐ No (10 points)
 - N/A - Did not exceed limits or no HQ limit applies (0 points)
 - ☐ N/A - Did not land apply biosolids until limit was met (0 points)
- 3.1.3 Number of times any of the metals exceeded the ceiling limits = 0
Exceedence Points
 - 0 (0 Points)
 - ☐ 1 (10 Points)
 - ☐ > 1 (15 Points)
- 3.1.4 Were biosolids land applied which exceeded the ceiling limit?
 - ☐ Yes (20 Points)
 - No (0 Points)
- 3.1.5 If any metal limit (high quality or ceiling) was exceeded at any time, what action was taken? Has the source of the metals been identified?

0

4. Pathogen Control (per outfall):

4.1 Verify the following information. If any information is incorrect, use the Report Issue button under the Options header in the left-side menu.

Outfall Number:	002
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	01/01/2019 - 12/31/2019
Density:	310,000
Sample Concentration Amount:	MPN/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	
Process Description:	

Outfall Number:	002
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	04/01/2019 - 06/30/2019
Density:	310,000
Sample Concentration Amount:	MPN/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	
Process Description:	

Compliance Maintenance Annual Report

Sussex Wastewater Treatment Facility

Last Updated: Reporting For:
5/19/2020 **2019**

Outfall Number:	002
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	07/01/2019 - 09/30/2019
Density:	172,563
Sample Concentration Amount:	MPN/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	
Process Description:	

Outfall Number:	002
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	10/01/2019 - 12/31/2019
Density:	75,534
Sample Concentration Amount:	MPN/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	
Process Description:	

4.2 If exceeded Class B limit or did not meet the process criteria at the time of land application.

4.2.1 Was the limit exceeded or the process criteria not met at the time of land application?

☐ Yes (40 Points)

☒ No

If yes, what action was taken?

5. Vector Attraction Reduction (per outfall):

5.1 Verify the following information. If any of the information is incorrect, use the Report Issue button under the Options header in the left-side menu.

Outfall Number:	002
Method Date:	12/31/2019
Option Used To Satisfy Requirement:	Injection when land apply
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	
Results (if applicable):	

Outfall Number:	002
Method Date:	06/30/2019
Option Used To Satisfy Requirement:	Injection when land apply
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	
Results (if applicable):	

Compliance Maintenance Annual Report

Sussex Wastewater Treatment Facility

Last Updated: Reporting For:
5/19/2020 **2019**

Outfall Number:	002		
Method Date:	09/30/2019		
Option Used To Satisfy Requirement:	Injection when land apply		
Requirement Met:	Yes		
Land Applied:	Yes		
Limit (if applicable):			
Results (if applicable):			
Outfall Number:	002		0
Method Date:	12/31/2019		
Option Used To Satisfy Requirement:	Injection when land apply		
Requirement Met:	Yes		
Land Applied:	Yes		
Limit (if applicable):			
Results (if applicable):			
<p>5.2 Was the limit exceeded or the process criteria not met at the time of land application?</p> <p><input type="radio"/> Yes (40 Points)</p> <p><input checked="" type="radio"/> No</p> <p>If yes, what action was taken?</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>			
<p>6. Biosolids Storage</p> <p>6.1 How many days of actual, current biosolids storage capacity did your wastewater treatment facility have either on-site or off-site?</p> <p><input checked="" type="radio"/> >= 180 days (0 Points)</p> <p><input type="radio"/> 150 - 179 days (10 Points)</p> <p><input type="radio"/> 120 - 149 days (20 Points)</p> <p><input type="radio"/> 90 - 119 days (30 Points)</p> <p><input type="radio"/> < 90 days (40 Points)</p> <p><input type="radio"/> N/A (0 Points)</p> <p>6.2 If you checked N/A above, explain why.</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>			0
<p>7. Issues</p> <p>7.1 Describe any outstanding biosolids issues with treatment, use or overall management:</p> <div style="border: 1px solid black; padding: 5px; min-height: 30px;"> <p>None at this time. Our contracted hauler properly keeps site management and nutrient application records.</p> </div>			

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

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Sussex Wastewater Treatment Facility

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Staffing and Preventative Maintenance (All Treatment Plants)

<p>1. Plant Staffing</p> <p>1.1 Was your wastewater treatment plant adequately staffed last year?</p> <ul style="list-style-type: none">● Yes○ No <p>If No, please explain:</p> <div></div> <p>Could use more help/staff for:</p> <div></div> <p>1.2 Did your wastewater staff have adequate time to properly operate and maintain the plant and fulfill all wastewater management tasks including recordkeeping?</p> <ul style="list-style-type: none">● Yes○ No <p>If No, please explain:</p> <div></div>	
<p>2. Preventative Maintenance</p> <p>2.1 Did your plant have a documented AND implemented plan for preventative maintenance on major equipment items?</p> <ul style="list-style-type: none">● Yes (Continue with question 2) <input type="checkbox"/><input type="checkbox"/>○ No (40 points)<input type="checkbox"/><input type="checkbox"/> <p>If No, please explain, then go to question 3:</p> <div></div> <p>2.2 Did this preventative maintenance program depict frequency of intervals, types of lubrication, and other tasks necessary for each piece of equipment?</p> <ul style="list-style-type: none">● Yes○ No (10 points) <p>2.3 Were these preventative maintenance tasks, as well as major equipment repairs, recorded and filed so future maintenance problems can be assessed properly?</p> <ul style="list-style-type: none">● Yes<ul style="list-style-type: none">○ Paper file system○ Computer system● Both paper and computer system○ No (10 points)	0
<p>3. O&M Manual</p> <p>3.1 Does your plant have a detailed O&M and Manufacturer Equipment Manuals that can be used as a reference when needed?</p> <ul style="list-style-type: none">● Yes○ No	
<p>4. Overall Maintenance /Repairs</p> <p>4.1 Rate the overall maintenance of your wastewater plant.</p> <ul style="list-style-type: none">○ Excellent● Very good○ Good○ Fair○ Poor <p>Describe your rating:</p>	

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Preventative maintenance is performed at scheduled intervals, however, the main portion of the plant was built in 1994, with an up-grade in 2008. Due to it's age, the plant has experienced an increase in valve failures, some control panel and electrical wiring problems. These issues are addressed when they arise, but cause equipment downtime, as well as increased maintenance costs.

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

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Operator Certification and Education

1. Operator-In-Charge

1.1 Did you have a designated operator-in-charge during the report year?

- Yes (0 points)
- No (20 points)

Name:

DENNIS T WOLF

Certification No:

12156

0

2. Certification Requirements

2.1 In accordance with Chapter NR 114.56 and 114.57, Wisconsin Administrative Code, what level and subclass(es) were required for the operator-in-charge (OIC) to operate the wastewater treatment plant and what level and subclass(es) were held by the operator-in-charge?

Sub Class	SubClass Description	WWTP	OIC		
		Advanced	OIT	Basic	Advanced
A1	Suspended Growth Processes	X			X
A2	Attached Growth Processes		X		
A3	Recirculating Media Filters				
A4	Ponds, Lagoons and Natural		X		
A5	Anaerobic Treatment Of Liquid				
B	Solids Separation	X			X
C	Biological Solids/Sludges	X			X
P	Total Phosphorus	X			X
N	Total Nitrogen				
D	Disinfection	X			X
L	Laboratory	X			X
U	Unique Treatment Systems				
SS	Sanitary Sewage Collection	X	NA	X	NA

2.2 Was the operator-in-charge certified at the appropriate level and subclass(es) to operate this plant? (Note: Certification in subclass SS, N and A5 not required in 2019; subclass SS is basic level only.)

- Yes (0 points)
- No (20 points)

0

3. Succession Planning

3.1 In the event of the loss of your designated operator-in-charge, did you have a contingency plan to ensure the continued proper operation and maintenance of the plant that includes one or more of the following options (check all that apply)?

- ☒ One or more additional certified operators on staff
- ☐ An arrangement with another certified operator
- ☐ An arrangement with another community with a certified operator
- ☐ An operator on staff who has an operator-in-training certificate for your plant and is expected to be certified within one year
- ☐ A consultant to serve as your certified operator
- ☐ None of the above (20 points)

If "None of the above" is selected, please explain:

0

4. Continuing Education Credits

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4.1 If you had a designated operator-in-charge, was the operator-in-charge earning Continuing Education Credits at the following rates?

OIT and Basic Certification:

- Averaging 6 or more CECs per year.
- Averaging less than 6 CECs per year.

Advanced Certification:

- Averaging 8 or more CECs per year.
- Averaging less than 8 CECs per year.

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

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Financial Management

1. Provider of Financial Information

Name:

Nancy Whalen

Telephone:

(262)246-5225

(XXX) XXX-XXXX

E-Mail Address
(optional):

nwhalen@villagesussex.org

2. Treatment Works Operating Revenues

2.1 Are User Charges or other revenues sufficient to cover O&M expenses for your wastewater treatment plant AND/OR collection system ?

● Yes (0 points) ☐

○ No (40 points)

If No, please explain:

2.2 When was the User Charge System or other revenue source(s) last reviewed and/or revised?
Year:

2019

● 0-2 years ago (0 points) ☐

○ 3 or more years ago (20 points) ☐

○ N/A (private facility)

2.3 Did you have a special account (e.g., CWP required segregated Replacement Fund, etc.) or financial resources available for repairing or replacing equipment for your wastewater treatment plant and/or collection system?

● Yes (0 points)

○ No (40 points)

0

REPLACEMENT FUNDS [PUBLIC MUNICIPAL FACILITIES SHALL COMPLETE QUESTION 3]

3. Equipment Replacement Funds

3.1 When was the Equipment Replacement Fund last reviewed and/or revised?

Year:

2019

● 1-2 years ago (0 points) ☐

○ 3 or more years ago (20 points) ☐

○ N/A

If N/A, please explain:

3.2 Equipment Replacement Fund Activity

3.2.1 Ending Balance Reported on Last Year's CMAR

\$ 815,375.66

3.2.2 Adjustments - if necessary (e.g. earned interest, audit correction, withdrawal of excess funds, increase making up previous shortfall, etc.)

\$ 0.00

3.2.3 Adjusted January 1st Beginning Balance

\$ 815,375.66

3.2.4 Additions to Fund (e.g. portion of User Fee, earned interest, etc.)

+

\$ 66,000.00

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3.2.5 Subtractions from Fund (e.g., equipment replacement, major repairs - use description box 3.2.6.1 below*)

- \$ 24,909.88

3.2.6 Ending Balance as of December 31st for CMAR Reporting Year

\$ 856,465.78

All Sources: This ending balance should include all Equipment Replacement Funds whether held in a bank account(s), certificate(s) of deposit, etc.

3.2.6.1 Indicate adjustments, equipment purchases, and/or major repairs from 3.2.5 above.

Grit Room Valves

3.3 What amount should be in your Replacement Fund? \$ 736,622.42

0

Please note: If you had a CWFPP loan, this amount was originally based on the Financial Assistance Agreement (FAA) and should be regularly updated as needed. Further calculation instructions and an example can be found by clicking the SectionInstructions link under Info header in the left-side menu.

3.3.1 Is the December 31 Ending Balance in your Replacement Fund above, (#3.2.6) equal to, or greater than the amount that should be in it (#3.3)?

● Yes

○ No

If No, please explain.

4. Future Planning

4.1 During the next ten years, will you be involved in formal planning for upgrading, rehabilitating, or new construction of your treatment facility or collection system?

● Yes - If Yes, please provide major project information, if not already listed below. ☐ ☐

○ No

Project #	Project Description	Estimated Cost	Approximate Construction Year
1	Inspect -Repair or replace Sanitary Sewer Main on Maple Ave.	300000	2020
2	Inspect - Repair or replace Sanitary Sewer Main on Silver Spring	150000	2021

5. Financial Management General Comments

ENERGY EFFICIENCY AND USE

6. Collection System

6.1 Energy Usage

6.1.1 Enter the monthly energy usage from the different energy sources:

COLLECTION SYSTEM PUMPAGE: Total Power Consumed

Number of Municipally Owned Pump/Lift Stations: 2

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	Electricity Consumed (kWh)	Natural Gas Consumed (therms)
January	4,677	7
February	4,225	7
March	4,177	8
April	3,307	6
May	2,679	9
June	2,257	6
July	2,150	7
August	2,228	8
September	2,629	6
October	2,844	6
November	3,787	7
December	5,857	9
Total	40,817	86
Average	3,401	7

6.1.2 Comments:

6.2 Energy Related Processes and Equipment

6.2.1 Indicate equipment and practices utilized at your pump/lift stations (Check all that apply):

- ☐ Comminution or Screening
- ☐ Extended Shaft Pumps
- ☒ Flow Metering and Recording
- ☐ Pneumatic Pumping
- ☒ SCADA System
- ☒ Self-Priming Pumps
- ☐ Submersible Pumps
- ☒ Variable Speed Drives
- ☒ Other:

Electric Heaters

6.2.2 Comments:

6.3 Has an Energy Study been performed for your pump/lift stations?

● No

○ Yes

Year:

By Whom:

Describe and Comment:

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6.4 Future Energy Related Equipment

6.4.1 What energy efficient equipment or practices do you have planned for the future for your pump/lift stations?

Nothing at this time.

7. Treatment Facility

7.1 Energy Usage

7.1.1 Enter the monthly energy usage from the different energy sources:

TREATMENT PLANT: Total Power Consumed/Month

	Electricity Consumed (kWh)	Total Influent Flow (MG)	Electricity Consumed/ Flow (kWh/MG)	Total Influent BOD (1000 lbs)	Electricity Consumed/ Total Influent BOD (kWh/1000lbs)	Natural Gas Consumed (therms)
January	125,100	82.41	1,518	95.20	1,314	4,139
February	107,100	78.19	1,370	108.67	986	4,865
March	126,000	100.21	1,257	106.92	1,178	4,911
April	117,000	88.79	1,318	91.77	1,275	2,548
May	136,200	103.69	1,314	86.96	1,566	1,823
June	141,600	84.01	1,686	73.20	1,934	890
July	125,400	85.80	1,462	92.44	1,357	86
August	135,900	76.77	1,770	111.45	1,219	73
September	141,900	76.22	1,862	95.49	1,486	74
October	140,700	110.46	1,274	127.75	1,101	370
November	135,600	97.13	1,396	108.21	1,253	2,556
December	149,400	91.41	1,634	91.64	1,630	4,128
Total	1,581,900	1,075.09		1,189.70		26,463
Average	131,825	89.59	1,488	99.14	1,358	2,205

7.1.2 Comments:

Electrical use was down 2.1% compared to the previous year, while total influent flow increased 9.6%. Gas use was down 22.2% compared to the previous year due to a milder winter.

7.2 Energy Related Processes and Equipment

7.2.1 Indicate equipment and practices utilized at your treatment facility (Check all that apply):

- ☐ Aerobic Digestion
- ☐ Anaerobic Digestion
- ☒ Biological Phosphorus Removal
- ☐ Coarse Bubble Diffusers
- ☒ Dissolved O2 Monitoring and Aeration Control
- ☒ Effluent Pumping
- ☐ Fine Bubble Diffusers
- ☒ Influent Pumping
- ☐ Mechanical Sludge Processing
- ☐ Nitrification
- ☒ SCADA System
- ☒ UV Disinfection
- ☒ Variable Speed Drives

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☒ Other:

Phosphorus Chemical Pumping
Secondary Filtration Pumping
Sludge Storage Tank Mixing/Truck Filling

7.2.2 Comments:

7.3 Future Energy Related Equipment

7.3.1 What energy efficient equipment or practices do you have planned for the future for your treatment facility?

Nothing at this time.

8. Biogas Generation

8.1 Do you generate/produce biogas at your facility?

☒ No

☐ Yes

If Yes, how is the biogas used (Check all that apply):

☐ Flared Off

☐ Building Heat

☐ Process Heat

☐ Generate Electricity

☐ Other:

9. Energy Efficiency Study

9.1 Has an Energy Study been performed for your treatment facility?

☒ No

☐ Yes

☐ Entire facility

Year:

By Whom:

Describe and Comment:

☐ Part of the facility

Year:

By Whom:

Describe and Comment:

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Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

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Sanitary Sewer Collection Systems

1. Capacity, Management, Operation, and Maintenance (CMOM) Program

1.1 Do you have a CMOM program that is being implemented?

☒ Yes

☐ No

If No, explain:

1.2 Do you have a CMOM program that contains all the applicable components and items according to Wisc. Adm Code NR 210.23 (4)?

☒ Yes

☐ No (30 points)

☐ N/A

If No or N/A, explain:

1.3 Does your CMOM program contain the following components and items? (check the components and items that apply)

☒ Goals [NR 210.23 (4)(a)]

Describe the major goals you had for your collection system last year:

1. Clean 25% of sewer collection system.
2. Have new employees trained in confined space, blood borne pathogens and lockout/tagout with six months of hire.
3. Identify areas of inflow and infiltration
4. Update GIS mapping and data base for new construction
5. Complete CMAR and add to the CMOM program

Did you accomplish them?

☐ Yes

☒ No

If No, explain:

New staff did not complete all of the training requirements due to availability of classes.

☒ Organization [NR 210.23 (4) (b)] ☐ ☐

Does this chapter of your CMOM include:

☒ Organizational structure and positions (eg. organizational chart and position descriptions)

☒ Internal and external lines of communication responsibilities

☒ Person(s) responsible for reporting overflow events to the department and the public

☒ Legal Authority [NR 210.23 (4) (c)]

What is the legally binding document that regulates the use of your sewer system?

Sewer Use Ordinance

If you have a Sewer Use Ordinance or other similar document, when was it last reviewed and revised? (MM/DD/YYYY) 10/08/2019

Does your sewer use ordinance or other legally binding document address the following:

☒ Private property inflow and infiltration

☒ New sewer and building sewer design, construction, installation, testing and inspection

☐ Rehabilitated sewer and lift station installation, testing and inspection

☒ Sewage flows satellite system and large private users are monitored and controlled, as necessary

☒ Fat, oil and grease control

☒ Enforcement procedures for sewer use non-compliance

☒ Operation and Maintenance [NR 210.23 (4) (d)]

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Does your operation and maintenance program and equipment include the following:

- ☒ Equipment and replacement part inventories
- ☒ Up-to-date sewer system map
- ☒ A management system (computer database and/or file system) for collection system information for O&M activities, investigation and rehabilitation
- ☒ A description of routine operation and maintenance activities (see question 2 below)
- ☐ Capacity assessment program
- ☒ Basement back assessment and correction
- ☒ Regular O&M training

☒ Design and Performance Provisions [NR 210.23 (4) (e)] ☐ ☐

What standards and procedures are established for the design, construction, and inspection of the sewer collection system, including building sewers and interceptor sewers on private property?

- ☒ State Plumbing Code, DNR NR 110 Standards and/or local Municipal Code Requirements
- ☒ Construction, Inspection, and Testing
- ☐ Others:

0

☒ Overflow Emergency Response Plan [NR 210.23 (4) (f)] ☐ ☐

Does your emergency response capability include:

- ☒ Responsible personnel communication procedures
- ☐ Response order, timing and clean-up
- ☒ Public notification protocols
- ☐ Training
- ☒ Emergency operation protocols and implementation procedures

☒ Annual Self-Auditing of your CMOM Program [NR 210.23 (5)] ☐ ☐

☐ Special Studies Last Year (check only those that apply):

- ☐ Infiltration/Inflow (I/I) Analysis
- ☐ Sewer System Evaluation Survey (SSES)
- ☐ Sewer Evaluation and Capacity Management Plan (SECAP)
- ☐ Lift Station Evaluation Report
- ☐ Others:

2. Operation and Maintenance

2.1 Did your sanitary sewer collection system maintenance program include the following maintenance activities? Complete all that apply and indicate the amount maintained.

Cleaning	<input type="text" value="25"/>	% of system/year
Root removal	<input type="text" value="0"/>	% of system/year
Flow monitoring	<input type="text" value="10"/>	% of system/year
Smoke testing	<input type="text" value="0"/>	% of system/year
Sewer line televising	<input type="text" value="1"/>	% of system/year
Manhole inspections	<input type="text" value="30"/>	% of system/year
Lift station O&M	<input type="text" value="4"/>	# per L.S./year
Manhole rehabilitation	<input type="text" value="1"/>	% of manholes rehabbed
Mainline rehabilitation	<input type="text" value="0"/>	% of sewer lines rehabbed

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Private sewer inspections % of system/year

Private sewer I/I removal % of private services

River or water crossings % of pipe crossings evaluated or maintained

Please include additional comments about your sanitary sewer collection system below:

3. Performance Indicators

3.1 Provide the following collection system and flow information for the past year.

Total actual amount of precipitation last year in inches

Annual average precipitation (for your location)

Miles of sanitary sewer

Number of lift stations

Number of lift station failures

Number of sewer pipe failures

Number of basement backup occurrences

Number of complaints

Average daily flow in MGD (if available)

Peak monthly flow in MGD (if available)

Peak hourly flow in MGD (if available)

3.2 Performance ratios for the past year:

Lift station failures (failures/year)

Sewer pipe failures (pipe failures/sewer mile/yr)

Sanitary sewer overflows (number/sewer mile/yr)

Basement backups (number/sewer mile)

Complaints (number/sewer mile)

Peaking factor ratio (Peak Monthly:Annual Daily Avg)

Peaking factor ratio (Peak Hourly:Annual Daily Avg)

4. Overflows

LIST OF SANITARY SEWER (SSO) AND TREATMENT FACILITY (TFO) OVERFLOWS REPORTED **

Date	Location	Cause	Estimated Volume (MG)
None reported			

** If there were any SSOs or TFOs that are not listed above, please contact the DNR and stop work on this section until corrected.

5. Infiltration / Inflow (I/I)

5.1 Was infiltration/inflow (I/I) significant in your community last year?

☐ Yes

☒ No

If Yes, please describe:

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5.2 Has infiltration/inflow and resultant high flows affected performance or created problems in your collection system, lift stations, or treatment plant at any time in the past year?

☐ Yes

☒ No

If Yes, please describe:

5.3 Explain any infiltration/inflow (I/I) changes this year from previous years:

No significant changes were noticed.

5.4 What is being done to address infiltration/inflow in your collection system?

During road reconstruction projects, we have relayed or relined old clay sewer pipe in the system, as well as replaced the sewer laterals in the right of way. We have also repaired manholes, installed solid manhole covers, and grouted leaks in both pipes and manholes.

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

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Grading Summary

WPDES No: 0020559

SECTIONS	LETTER GRADE	GRADE POINTS	WEIGHTING FACTORS	SECTION POINTS
Influent	A	4	3	12
BOD/CBOD	A	4	10	40
TSS	A	4	5	20
Ammonia	A	4	5	20
Phosphorus	A	4	3	12
Biosolids	A	4	5	20
Staffing/PM	A	4	1	4
OpCert	A	4	1	4
Financial	A	4	1	4
Collection	A	4	3	12
TOTALS			37	148
GRADE POINT AVERAGE (GPA) = 4.00				

Notes:

A = Voluntary Range (Response Optional)

B = Voluntary Range (Response Optional)

C = Recommendation Range (Response Required)

D = Action Range (Response Required)

F = Action Range (Response Required)

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Resolution or Owner's Statement

Name of Governing
Body or Owner:

Date of Resolution or
Action Taken:

Resolution Number:

Date of Submittal:

ACTIONS SET FORTH BY THE GOVERNING BODY OR OWNER RELATING TO SPECIFIC CMAR SECTIONS (Optional for grade A or B. Required for grade C, D, or F):

Influent Flow and Loadings: Grade = A

Effluent Quality: BOD: Grade = A

Effluent Quality: TSS: Grade = A

Effluent Quality: Ammonia: Grade = A

Effluent Quality: Phosphorus: Grade = A

Biosolids Quality and Management: Grade = A

Staffing: Grade = A

Operator Certification: Grade = A

Financial Management: Grade = A

Collection Systems: Grade = A

(Regardless of grade, response required for Collection Systems if SSOs were reported)

ACTIONS SET FORTH BY THE GOVERNING BODY OR OWNER RELATING TO THE OVERALL GRADE POINT AVERAGE AND ANY GENERAL COMMENTS

(Optional for G.P.A. greater than or equal to 3.00, required for G.P.A. less than 3.00)

G.P.A. = 4.00



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Website: www.villagesussex.org

MEMORANDUM

Date: October 31, 2019 – updated May 28, 2020
To: Public Works Committee
From: Judith Neu, Sussex Village Engineer/Public Works Director
Re: Good Hope Road Reconstruction – Homeowner Restoration Concern
N71W23378 Homestead Road

This issue was originally discussed at the November 5, 2019 Public Works Committee. The result of that meeting was to table the discussion to the next meeting to allow for Committee members to visit the site in person. The property owners requested that the continuation of the discussion be postponed due to their schedules and due to winter conditions. We told them that the date to return to the Committee for further discussion was up to them. They reached out again in late April asking to be on the agenda for May or June. Given the situation in late April, staff felt June was a better choice. The property owners intend to attend by video conference and have submitted additional photos of their property. Below is the original memo in its entirety from October 31, 2019. All of the original documents and photos listed in the memo below are also in the packet.

The property owners at N71W23378 Homestead Road have asked to bring their grading and restoration concerns to the Public Works Committee. They are primarily displeased with the elevations in the side yard after installing the storm sewer as part of the Good Hope Road Reconstruction Project.

The side yard was restored in accordance with the plat of survey for the property that was prepared when the home was built, which showed a small swale in the side yard between the two houses. The swale drains storm water to the catch basin on Homestead rather than across the property line to the neighbor's property. That is standard practice, which can be seen on many approved grading plans throughout the Village. The property owner is unhappy with this swale, instead wanting the side yard to drain straight easterly across the side yard to the neighbor's lot. Staff is concerned about the impact this runoff could have on the neighbor. Without this swale, the water would run onto the neighbor's property and possibly next to the neighbor's house.

The property owner has measured the drop in elevation from the driveway to the center of the swale at 16 inches. According to the County's topographic map, prior to construction there was a one foot of drop from the driveway to the new storm sewer location measured a few feet in front of the garage. The easement granted to the Village by the Brummonds states that the elevation will not be altered by more than 4 inches without the owner's written consent.

Staff has met with the Brummonds several times since the grading and restoration was completed, starting in late Spring 2019. The Brummonds initially requested that the Village regrade the side yard to fill in the small swale. The Village's contractor verbally quoted a price of \$15,000 to regrade / fill and re-restore the easement area. Upon receiving that quote, staff met with the Brummonds again at the end of May, 2019 to discuss other options. The Brummonds

agreed at that time that they would accept the Staff's recommendation to "Harley rake" the edges of the excavation to smooth out the humps at the edges of the excavation, but they wanted to have the option to reconsider having the swale filled in if they were dissatisfied with the results. The cost of the Harley rake work was \$1,055.00 and was completed on July 24, 2019.

After completing that work this summer, Staff heard nothing from the Brummonds until they contacted President Goetz a few weeks ago. At the request of the Village President, Staff met with Mrs. Brummond, who again asked that the swale be filled in. The result of that meeting was that Staff offered to fill in some low spots in the yard that stay soft between rains, but staff told Mrs. Brummond that due to the high cost, staff could not authorize the work to fill in the swale between the lots without authorization from the Public Works Committee.

The estimated cost to fill in the low spots in the yard is about \$2,000, and that work could be done by Village staff. To fill in the swale, which is our understanding of what the homeowner is asking, will cost an estimated \$10,000 and will need to be performed by a contractor.

Attached is a copy of the plat of survey that staff relied on when regrading the yard, the County's topographic map, some photographs of the "Harley rake" operation, some photographs from Google Earth that shows the grades prior to the installation of the storm sewer, and a series of photographs taken about a week ago. The Brummonds also submitted photos, which are included in the packet.

PLAT OF SURVEY

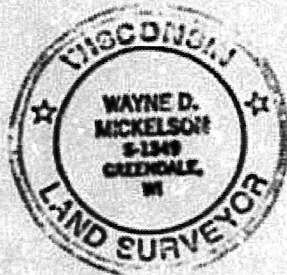
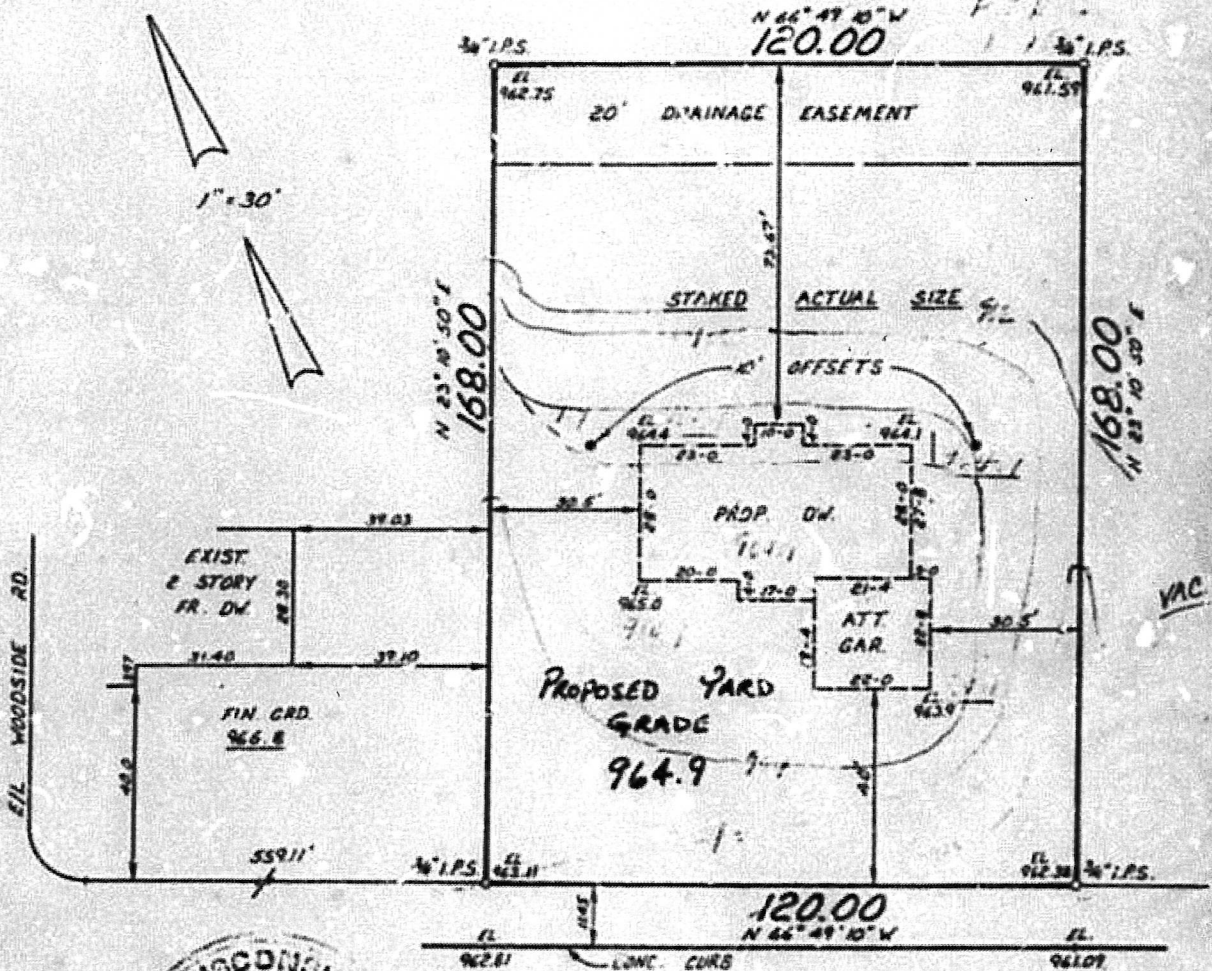
LOCATION:

Homestead Road, Sussex, Wisconsin

LEGAL DESCRIPTION: Lot 9 in Block 7 in PRIDES CROSSING ADD'N. NO. 3, being a Subdivision of part of the SW 1/4 & NW 1/4 of the NE 1/4 of Section 23, T 8 N, R 19 E, in the Village of Sussex, Waukesha County, Wisconsin.

Feb. 19, 1990

Survey No. 76271



* SEE MASTER GRADING PLAN
HOMESTEAD RD.
(60' R.O.W.)

METROPOLITAN SURVEY SERVICE, INC.

REGISTERED LAND SURVEYORS

941 W. FOREST HOME AVE., SUITE 107 HALES CORNERS, WI 53130
529-5380

I HEREBY CERTIFY THAT I HAVE SURVEYED THE ABOVE DESCRIBED PROPERTY AND THAT THE ABOVE MAP IS A TRUE REPRESENTATION THEREOF AND SHOWS THE SIZE AND LOCATION OF THE PROPERTY ITS EXTERIOR BOUNDARIES, THE LOCATION OF ALL VISIBLE STRUCTURES AND DIMENSIONS OF ALL PREVIOUS BUILDINGS THEREON, BOUNDARY TIES, APPARENT EASEMENTS AND ROADWAYS AND VISIBLE ENCROACHMENTS, IF ANY.

THIS SURVEY IS MADE FOR THE EXCLUSIVE USE OF THE PRESENT OWNERS OF THE PROPERTY AND ALSO THOSE WHO PURCHASE, MORTGAGE OR GUARANTEE THE TITLE THERE TO WITHIN ONE YEAR FROM DATE HEREOF.

Wayne D. Mickelson

Wayne D. Mickelson
Registered Land Surveyor S-1349



Village of Sussex Homestead Easement

DISCLAIMER:

This map is not a survey of the actual boundary of any property this map depicts.

The Village of Sussex does not guarantee the accuracy of the material contained here in and is not responsible for any misuse or misrepresentation of this information or its derivatives.



SCALE: 1 = 50'



Village of Sussex
N64 W23760 Main Street
Sussex, WI 53089
262-246-5200

Print Date: 10/31/2019

Village Photos



Photo 1: Brummond Lawn



Photo 2: Brummond Lawn

Before Construction



Photo 1: East Side Grade



Photo 2: East Side Grade

Before Construction



Photo 3: East Side Grade



Photo 4: Grade & Grass Quality



Photo 5: Grade & Grass Quality

Before Construction



Photo 6: Grade & Grass Quality



Photo 7: Grade & Grass Quality

Before Construction



Photo 8: Grade & Grass Quality



Photo 9: Grade & Grass Quality

Before Construction



Photo 10: Grade & Grass Quality



Photo 11: Grade & Grass Quality

Before Construction



Photo 12: Grade & Grass Quality



Photo 13: Grade & Grass Quality



Photo 14: Grade & Grass Quality

Before Construction



Photo 15: Grade & Grass Quality

Before Construction



Photo 12: Grade & Grass Quality



Photo 13: Grade & Grass Quality



Photo 14: Grade & Grass Quality

After Construction



Photo 16: Grade & Grass Quality



Photo 17: Grade & Grass Quality

After Construction



Photo 18: Grade & Grass Quality



Photo 19: Grade & Grass Quality

After Construction



Photo 20: Grade & Grass Quality



Photo 21: Grade & Grass Quality

After Construction



Photo 22: Grade & Grass Quality



Photo 23: Grade & Grass Quality

After Construction



Photo 24: Grade & Grass Quality



Photo 25: Grade & Grass Quality

After Construction



Photo 26: Grade & Grass Quality



Photo 27: Grade & Grass Quality

After Construction



Photo 28: Standing Water Locations



Photo 29: Standing Water Locations

After Construction



Photo 30: Standing Water Locations



N64W23760 Main Street
Sussex, Wisconsin 53089
Phone (262) 246-5200
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Website: www.villagesussex.org

MEMORANDUM

To: Public Works Committee
From: Judith A. Neu, Village Engineer
Date: May 28, 2020
Re: 2021 Annual Road Program

The Village's annual road program is laid out in the 2021-2030 Capital Improvement Plan (CIP). The 2021 Road Program consists of repairing concrete and asphalt pavements on Hi-Tech Drive, Miller Way, and Sussex Road and Village Drive in the Industrial Park, and repairing the concrete pavement on Good Hope Road from Waukesha Avenue to just west of the railroad tracks and on Waukesha Avenue from Keystone Drive to Good Hope Road. The work will consist of pavement repairs, joint sealing and repairs, repairing catch basins, repairing storm and sanitary manholes and pipes, and repairing or replacing water valves and hydrants. In addition, we intend to wrap in some water and sanitary repairs along Silver Spring Drive between Waukesha Avenue and Hickory Drive. We also plan to construct sidewalk along both sides of Silver Spring Drive in this section. All of the work on Silver Spring Drive can be done without disturbing the newly repaved road. The Silver Spring Drive work was reviewed and approved by the Committee and Board in October 2018.

The goal of the Village's road program is to perform maintenance on all Village roads and the associated infrastructure under those roads about every 13 years. By actively pursuing pavement repairs and resurfacing of our asphalt subdivision roads on this cycle and by repairing concrete roads in our industrial parks and arterial streets about every 20-25 years, we can postpone the need to completely reconstruct those roads. Reconstruction is much more expensive (easily 4 times the cost on a concrete road) and much more intrusive to the residents and businesses. That doesn't mean we will never have to reconstruct these roads, but maintaining them on a regular basis allows us to postpone the reconstruction for decades.

The primary cause of road deterioration is water intrusion under the pavement and/or deterioration of the associated infrastructure. The Village's road program helps combat both by repairing the infrastructure and sealing the pavement. Cracks are bound to form in asphalt pavement as it ages and becomes more brittle. Joints are necessary in concrete pavements to allow expansion and contraction of the concrete. Sealing these cracks and joints is critical. Water saturates the gravel underneath the pavement, causing soft areas which become potholes or cause joint deterioration. In addition to the road program, the Village has a robust crack sealing program wherein we seal pavement cracks about every 3-5 years after a road is resurfaced or reconstructed, helping minimize the repairs necessary when we return for the next road program cycle. Even with that program, by about the 10-12 year mark, asphalt roads tend to have deteriorated to the point where patching and resurfacing are necessary and at 20-25 years, concrete roads will start to show signs of decline including spalling of the concrete joints, potholes, and fractured slabs. If we can catch the pavement at that point and do some maintenance on those roads and the infrastructure underneath it, we can slow the deterioration and allow the road to function much longer without the need to completely reconstruct.

However, if we do not take care of the maintenance at that point, the deterioration accelerates, leading to the need to reconstruct the roads much sooner. From a benefit-cost perspective, maintenance makes a lot more sense than reconstruction.

Every 2 years (odd years), the Village is required by the DOT to rate the condition of every road in the Village. This is called the Pavement Condition Rating (PCR). A PCR of 10 is perfect – a newly built road. A PCR of 0 is extremely poor - a road that used to be asphalt or concrete but is now gravel. At a PCR of 4, a road is beyond the maintenance stage and will need to be reconstructed. The goal of the road program is to keep the roads from reaching that point. I've attached two snap shots of the Village's overall pavement condition rating. The first is from 2018 when we were preparing the Capital Improvement Plan. The second is from this year. As you can see, the condition of our arterials has improved from 6.90 to 7.63 (we reconstructed Good Hope Road). That rating will be higher in the next round because we are reconstructing Maple Avenue. However, we haven't had a local road project since 2015 while we've been focused on reconstructing our arterials. In just the last 2 years, the condition of our local roads has deteriorated from 7.38 to 6.94 and our collector streets have deteriorated from 7.44 to 7.02. While the overall rating is still in the good to very good range, if we do not continue to invest in these roads, the rate of decline will accelerate.

The east industrial park roads are deteriorating. The industrial park dates back to about 1990 and the PCR is at 6. Hi Tech Drive PCR is at 3, and Miller Way is at 7. The intersection of Waukesha and Good Hope has deteriorated from a PCR of 7 in 2018 to a PCR of 5 and 6 today.

The estimated cost of the work in the 2021 Road Program is \$1,550,000. Cash Capital, General Fund Borrowing (G.O. Debt), and storm, water and sewer utility funds will be used to cover the cost of the work. Those costs break down as follows:

Cash Capital/General Fund	\$1,070,000
Sewer Utility	\$325,000
Water Utility	\$97,000
Storm Utility	\$58,000
Total	\$1,550,000

These are rough planning level budgetary estimates based on average costs for similar types of work done in the past. We will not have actual cost estimates until we have completed the detailed inspection of the pavements and infrastructure. The actual cost in each of the categories above and the overall cost of the project could change as the final scope of the work on each road is defined.

Policy Questions:

- What questions or concerns do the committee members have regarding the 2021 Road Program?
- Should staff proceed with the design of the 2021 Road Program as previously approved?

2021 Road Program



Photo 1: Good Hope Road Pavement



Photo 2: Good Hope Road Pavement

2021 Road Program



Photo 3: Hi-Tech Drive Pavement



Photo 4: Industrial Park CB

2021 Road Program



Photo 5: Industrial Park MH



Photo 6: Industrial Park Pavement

2021 Road Program



Photo 7: Waukesha Avenue Pavement



Photo 8: Miller Way Pavement



N64W23760 Main Street

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MEMORANDUM

To: Public Works Committee

From: Judith A. Neu, Village Engineer

Date: May 29, 2020

Re: Engineering Monthly Report – May 2020

Maple Avenue:

- Main Street resurfacing is complete except for pavement markings, restoration and street lighting pole installation. Delivery of the street light poles is expected in mid-late June. The pavement markings and restoration will be completed within the next week, weather permitting.
- Final grading and curb installation have started in the south section. The first round of mainline paving is expected late next week. The second round will take place about a week later. Letters have been sent to all properties within 700 feet of the south section informing them of the paving and the overnight saw cutting operations.
- The intersection of Clover and Maple will be closed starting June 3, 2020 for about 3-4 weeks to allow for pavement installation and curing.
- Grading and culvert extension work will take place in the center section over the next several weeks. This work was delayed due to heavy rains in mid-May. Storm, sanitary and water work will continue after grading is nearly complete.
- The traffic pattern between Main Street and the Railroad Tracks will be one way southbound beginning June 1, 2020.
- Grading, storm and sanitary sewer installation and water main work continues in the north section. That work is expected to be completed in about a month. Once that work is done, the next step will be preparation for paving.
- All sections of the project are either on or just ahead of their original schedules.

Miscellaneous

- Staff continues to monitor the grass growth along Good Hope Road. Last October, we had the entire road corridor re-seeded and also completed a weed and feed application. The long cold spring has slowed the germination of that additional seed. Staff the corridor with the contractor and landscaper to review the condition of the turf restoration and trees and shrubs planted along the corridor. The west end and east end of the project are in good shape. The contractor plans to be on site next week, weather permitting, to address bare spots in the central section, along with replacements of a few dead trees.
- Staff has reached out to the railroad twice regarding the crossings on Main Street and Silver Spring Drive and we are still waiting for a response. We will continue to pursue this issue with the railroad.

Developments:

- Woodland Trails: Blasting operations should wrap up in the next week, and grading activities are underway throughout the development. Utility and pond installations are progressing. Gravel, curb installation and paving is scheduled to start mid to late June. Trucking of material into the site along Woodland Creek Drive will be ramping up for a few days at a time for each of these operations. Residents along Woodland Creek Drive have been notified.
- Highlands / Basting Farm: Construction along CTH K and STH 164 is underway with the goal of completion by July. The developer plans to construct portions of the interior roads from both CTH K and STH 164 in the coming weeks to accommodate the Kwik Trip construction and a future industrial user.
- Sussex Preserve: The plans for the last phase (phase 3) of this development have been reviewed. The developer intends to complete the top lift of asphalt in phase 1 of the development in the coming months.
- Dunkin Donuts: The plans for a combination Dunkin Donuts and Baskin Robbins to be constructed next to Taco Bell are expected to be submitted for the June Plan Commission meeting.
- The Courtyard at Sussex: There is no word from the developer as to when the construction will begin.