State of Ohio

OHIO PUBLIC WORKS FOR YOU

Public Works Commission

Application for Financial Assistance

IMPORTANT: Please consult "Instructions for Financial Assistance for Capital Infrastructure Projects" for guidance in completion of this form.

Applicant

Applicant: Village of New Lebanon Subdivision Code: 113-54852

District Number: 4 County: Montgomery Date: 08/24/2022

Contact: Kaye Borchers Phone: (937) 497-0200
(The individual who will be available during business hours and who can best answer or coordinate the response to questions)

Email: kmb@choiceoneengineering.com FAX:

Project

Project Name: Sanitary Rehab Phase 20 Zip Code: 45345

Subdivision Type	Project Type (Select single largest component by $)	Funding Request Summary (Automatically populates from page 2)	
Village	1. Road	Total Project Cost:	199,894 .00
	2. Bridge/Culvert	1. Grant:	0 .00
	3. Water Supply	2. Loan:	199,894 .00
	X 4. Wastewater	3. Loan Assistance/ Credit Enhancement:	0 .00
	5. Solid Waste		
	6. Stormwater	Funding Requested:	199,894 .00

District Recommendation (To be completed by the District Committee)

Funding Type Requested (Select one)

- ☐ State Capital Improvement Program
- ☐ Local Transportation Improvement Program
- ☐ Revolving Loan Program
- ☐ Small Government Program

District SG Priority: _____

SCIP Loan - Rate: ____ % Term: ____ Yrs Amount: _____ .00

RLP Loan - Rate: ____ % Term: ____ Yrs Amount: _____ .00

Grant: Amount: _____ .00

LTIP: Amount: _____ .00

Loan Assistance / Credit Enhancement: Amount: _____ .00

For OPWC Use Only

STATUS

Project Number: _____

Release Date: _____

OPWC Approval: _____

Grant Amount: _____ .00

Loan Amount: _____ .00

Total Funding: _____ .00

Local Participation: _____ %

OPWC Participation: _____ %

Loan Type: ☐ SCIP ☐ RLP

Date Construction End: _____

Date Maturity: _____

Rate: _____ %

Term: _____ Yrs

1.0 Project Financial Information (All Costs Rounded to Nearest Dollar)

1.1 Project Estimated Costs

Engineering Services

Preliminary / Final Design: 15,000 .00

Construction Administration: 0 .00

Total Engineering Services:	a.)	15,000 .00	8.9 %
Right of Way:	b.)	0 .00	
Construction:	c.)	168,086 .00	
Permits, Advertising, Legal:	e.)	0 .00	
Construction Contingencies:	f.)	16,808 .00	
Total Estimated Costs:	g.)	199,894 .00	

1.2 Project Financial Resources

Local Resources

Local In-Kind or Force Account:	a.)	0 .00	
Local Revenues:	b.)	0 .00	
Other Public Revenues:			
Local / ODOT - Let:	d.)	0 .00	
ODOT PID:			
OEPA / OWDA:	e.)	0 .00	
CDBG:	f.)	.00	
Other:	g.)	0 .00	
Subtotal Local Resources:	i.)	0 .00	0 %

OPWC Funds (Check all requested and enter Amount)

Grant: 0 % of OPWC Funds	j.)	0 .00	
Loan: 100 % of OPWC Funds	k.)	199,894 .00	30 yrs
Loan Assistance / Credit Enhancement:	l.)	0 .00	
Subtotal OPWC Funds:	m.)	199,894 .00	100 %
Total Financial Resources:	n.)	199,894 .00	100 %

1.3 Availability of Local Funds

Attach a statement signed by the Chief Financial Officer listed in section 5.2 certifying all local resources required for the project will be available on or before the earliest date listed in the Project Schedule section. The OPWC Agreement will not be released until the local resources are certified. Failure to meet local share may result in termination of the project. Applicant needs to provide written confirmation for funds coming from other funding sources.

2.0 Repair / Replacement or New / Expansion

2.1 Total Portion of Project New / Expansion: 0 .00

3.0 Project Schedule

3.1 Engineering / Design / Right of Way	Begin Date:	03/15/2023	End Date:	05/15/2023
3.2 Bid Advertisement and Award	Begin Date:	06/15/2023	End Date:	07/15/2023
3.3 Construction	Begin Date:	08/01/2023	End Date:	11/30/2023

Construction cannot begin prior to release of executed Project Agreement and issuance of Notice to Proceed.

Failure to meet project schedule may result in termination of agreement for approved projects. Modification of dates must be requested in writing by project official of record and approved by the Commission once the Project Agreement has been executed.

4.0 Project Information

If the project is multi-jurisdictional, information must be consolidated in this section.

4.1 Useful Life / Cost Estimate / Age of Infrastructure

Project Useful Life: 40 Years Age: 1965 (Year built or year of last major improvement)

Attach Registered Professional Engineer's statement, with seal or stamp and signature confirming the project's useful life indicated above and detailed cost estimate.

4.2 User Information

Road or Bridge: Current ADT _____ Year _____

Water / Wastewater: Based on monthly usage of 4,500 gallons per household; attach current ordinances.

Residential Water Rate	Current $	0	Number of households served:	
Residential Wastewater Rate	Current $	25	Number of households served:	40

Stormwater: Number of households served: _____

4.3 Project Description

A: SPECIFIC LOCATION (Supply a written location description that includes the project termini; a map does not replace this requirement.) 2000 character limit.

This project will include the rehabilitation of existing 8" and 10" sanitary sewer along backyards of W. Main Street between Swanson Street and Bell Lane for 3,616 feet.

B: IDENTIFY THE PROBLEM (Describe the issue to be addressed) 2000 character limit.

The condition of the existing sanitary sewer system in this area is poor. Inflow and infiltration is common, as the existing sewer is well past its useful and causing undue stress on the Village's wastewater treatment plant.

This project will continue the rehabilitation of the Municipality's sewer in Phases 1-19 of this same initiative. The rehabilitation has been recommended by the Ohio EPA in the attached "Comprehensive Performance Evaluation" by the Ohio EPA.

C: PROJECT SCOPE (Describe the work to be completed) 2000 character limit.

To correct this, the existing sanitary sewer in the proposed project will be lined and sealed. The sanitary sewer in this area consists of 8" and 10" sewer and service laterals will be reconnected. 15 manholes will also be lined and sealed. This method of rehabilitation will avoid open trench restoration costs and inconvenience to Village residents.

The project consists of the following:
3,616 feet of
8" and 10" sanitary lining and sealing
15 manholes rehabilitated
and sealed
47 laterals reconnected.

5.0 Project Officials

Changes in Project Officials must be submitted in writing from an officer of record.

5.1 Chief Executive Officer

(Person authorized in legislation to sign project agreements)

Name: Glena Madden

Title: Municipal Manager

Address: 198 S. Clayton Road

City: New Lebanon State: OH Zip: 45345

Phone: 937-687-1341

FAX:

E-Mail: gmadden@newlebanonoh.org

5.2 Chief Financial Officer

(Can not also serve as CEO)

Name: Phil Hinson

Title: Fiscal/loan officer

Address: 198 South Clayton Road

City: New Lebanon State: OH Zip: 45345

Phone: (937) 687-1341

FAX:

E-Mail: phinson@newlebanonoh.org

5.3 Project Manager

Name: Michael Seeger

Title: Project Manager

Address: 440 E. Hoewisher

City: Sidney State: OH Zip: 45365

Phone: 937-497-0200

FAX:

E-Mail: mls@choiceoneengineering.com

6.0 Attachments / Completeness review

Confirm in the boxes below that each item listed is attached (Check each box)

x A certified copy of the legislation by the governing body of the applicant authorizing a designated official to sign and submit this application and execute contracts. This individual should sign under 7.0, Applicant Certification, below.

x A certification signed by the applicant's chief financial officer stating the amount of all local share funds required for the project will be available on or before the dates listed in the Project Schedule section. If the application involves a request for loan (RLP or SCIP), a certification signed by the CFO which identifies a specific revenue source for repaying the loan also must be attached. Both certifications can be accomplished in the same letter.

x A registered professional engineer's detailed cost estimate and useful life statement, as required in 164-1-13, 164-1-14, and 164-1-16 of the Ohio Administrative Code. Estimates shall contain an engineer's seal or stamp and signature.

A cooperative agreement (if the project involves more than one subdivision or district) which identifies the fiscal and administrative responsibilities of each participant.

Farmland Preservation Review - The Governor's Executive Order 98-IIV, "Ohio Farmland Protection Policy" requires the Commission to establish guidelines on how it will take protection of productive agricultural and grazing land into account in its funding decision making process. Please include a Farm Land Preservation statement for projects that have an impact on farmland.

Capital Improvements Report. CIR Required by O.R.C. Chapter 164.06 on standard form.

x Supporting Documentation: Materials such as additional project description, photographs, economic impact (temporary and/or full time jobs likely to be created as a result of the project), accident reports, impact on school zones, and other information to assist your district committee in ranking your project. Be sure to include supplements which may be required by your local District Public Works Integrating Committee.

7.0 Applicant Certification

The undersigned certifies: (1) he/she is legally authorized to request and accept financial assistance from the Ohio Public Works Commission as identified in the attached legislation; (2) to the best of his/her knowledge and belief, all representations that are part of this application are true and correct; (3) all official documents and commitments of the applicant that are part of this application have been duly authorized by the governing body of the applicant; and, (4) should the requested financial assistance be provided, that in the execution of this project, the applicant will comply with all assurances required by Ohio Law, including those involving Buy Ohio and prevailing wages.

Applicant certifies that physical construction on the project as defined in the application has NOT begun, and will not begin until a Project Agreement for this project has been executed with the Ohio Public Works Commission. Action to the contrary will result in termination of the agreement and withdrawal of Ohio Public Works Commission funding from the project.

_____

Certifying Representative (Printed form, Type or Print Name and Title)

_____

Original Signature / Date Signed

RESOLUTION 2022-11
BY
MAYOR RAYMOND ARRIOLA

A RESOLUTION AUTHORIZING THE MUNICIPAL MANAGER TO SUBMIT OHIO PUBLIC WORKS COMMISSION STATE CAPITAL IMPROVEMENT PROGRAM APPLICATIONS FOR THE SANITARY SEWER REHABILITATION PROJECT PHASE 20 IN THE MUNICIPALITY OF NEW LEBANON FOR ROUND 2022-2023 FROM THE OHIO PUBLIC WORKS COMMISSION AND FURTHER AUTHORIZING THE MUNICIPAL MANAGER TO ENTER INTO ANY AGREEMENTS AS MAY BE NECESSARY FOR OBTAINING FINANCIAL ASSISTANCE RELATED TO SAID GRANT APPLICATIONS.

WHEREAS, the Municipality of New Lebanon has identified the Sanitary Sewer Rehabilitation Project Phase 20, and;

WHEREAS, the Municipality of New Lebanon would be unable to fund these projects without the grant and loan awards;

NOW THEREFORE, Be it Resolved by the Council of the Municipality of New Lebanon that

SECTION 1. That the Municipal Manager is hereby authorized to submit OPWC grant and loan applications to The Ohio Public Works Commission, 65 East State Street, Suite 312, Columbus, Ohio 43215 for projects requesting assistance for the improvement of Sanitary Sewer Rehabilitation Project Phase 20, in the Municipality of New Lebanon.

SECTION 2. That the Municipal Manager is hereby authorized to enter into any agreements as may be necessary for obtaining financial assistance from OPWC related to the above listed projects.

SECTION 3. The effective date of this Resolution shall be from and after the earliest period allowed by law.

Passed this 5th day of July, 2022.

Approved:

Raymond Arriola
Mayor

Attest:

Sandra F. Wright
Clerk of Council

Effective Date: July 5, 2022

CERTIFICATION

I, Sandra F. Wright, Clerk of Council for the Municipality of New Lebanon, Ohio do hereby certify the foregoing is a true and correct copy of Resolution 2022-11 as passed by Council and approved by the Mayor and that the same has been published as required by Section 2.17 of the Charter of the Municipality of New Lebanon.

Sandra F. Wright
Clerk of Council

CHIEF FINANCIAL OFFICER'S CERTIFICATION OF LOCAL FUNDS / LOAN REPAYMENT LETTER

Date: 8/16/2022

I, **Finance and Records** of the **Municipality of New Lebanon**, hereby certify that **Municipality of New Lebanon** has / will have / will collect the amount of **$199,894.00** in the **Construction Projects Fund** and that this amount will be used to repay the Ohio Public Works Commission SCIP or RLP loan requested for the **Sanitary Rehab, Phase 20** over a **30-year** term.

Phil Hinson

Phil Hinson, Chief Financial Officers

SANITARY SEWER REHAB, PHASE 20
VILLAGE OF NEW LEBANON
ENGINEER'S ESTIMATE

August 5, 2022

ITEM NO.	DESCRIPTION	UNIT OF MEASURE	APPROX. QTY.	UNIT PRICE	TOTAL
SPEC	LINING AND SEALING EXISTING 8" SANITARY SEWER	FT.	2980	$36.00	$107,280.00
SPEC	LINING AND SEALING EXISTING 10" SANITARY SEWER	FT.	636	$40.00	$25,440.00
SPEC	SANITARY SEWER MANHOLE 46 REHABILITATION, AS PER PLAN	VERT. FT.	9.7	$197.00	$1,910.90
SPEC	SANITARY SEWER MANHOLE 47 REHABILITATION, AS PER PLAN	VERT. FT.	10.0	$197.00	$1,970.00
SPEC	SANITARY SEWER MANHOLE 48 REHABILITATION, AS PER PLAN	VERT. FT.	10.5	$197.00	$2,068.50
SPEC	SANITARY SEWER MANHOLE 49 REHABILITATION, AS PER PLAN	VERT. FT.	12.3	$197.00	$2,423.10
SPEC	SANITARY SEWER MANHOLE 50 REHABILITATION, AS PER PLAN	VERT. FT.	11.8	$197.00	$2,324.60
SPEC	SANITARY SEWER MANHOLE 51 REHABILITATION, AS PER PLAN	VERT. FT.	13.8	$197.00	$2,718.60
SPEC	SANITARY SEWER MANHOLE 52 REHABILITATION, AS PER PLAN	VERT. FT.	10.0	$197.00	$1,970.00
SPEC	SANITARY SEWER MANHOLE 53 REHABILITATION, AS PER PLAN	VERT. FT.	10.8	$197.00	$2,127.60
SPEC	SANITARY SEWER MANHOLE 54 REHABILITATION, AS PER PLAN	VERT. FT.	9.0	$197.00	$1,773.00
SPEC	SANITARY SEWER MANHOLE 55 REHABILITATION, AS PER PLAN	VERT. FT.	8.0	$197.00	$1,576.00
SPEC	SANITARY SEWER MANHOLE 56 REHABILITATION, AS PER PLAN	VERT. FT.	8.5	$197.00	$1,674.50
SPEC	SANITARY SEWER MANHOLE 57 REHABILITATION, AS PER PLAN	VERT. FT.	8.8	$197.00	$1,733.60
SPEC	SANITARY SEWER MANHOLE 58 REHABILITATION, AS PER PLAN	VERT. FT.	8.5	$197.00	$1,674.50
SPEC	SANITARY SEWER MANHOLE 59 REHABILITATION, AS PER PLAN	VERT. FT.	8.0	$197.00	$1,576.00
SPEC	SANITARY SEWER MANHOLE 65 REHABILITATION, AS PER PLAN	VERT. FT.	10.0	$197.00	$1,970.00
SPEC	RECONNECTION OF SEWER LATERALS	EACH	47	$125.00	$5,875.00
	CONSTRUCTION SUBTOTAL				**$168,085.90**
	10% CONTINGENCY				$16,808.10
	CONSTRUCTION TOTAL				**$184,894.00**
	ENGINEERING				$15,000.00
	TOTAL PROJECT COST				**$199,894.00**

ChoiceOne Engineering

We make no warranty, express or implied, that the actual construction cost of the work associated with these estimated quantities and costs will not vary. The cost reflects our opinion of current probable construction cost.

Michael L. Seeger, P.E.

8/18/2022
Date

STATE OF OHIO
MICHAEL LEWIS SEEGER
E-81748
REGISTERED PROFESSIONAL ENGINEER

A weighted useful life statement stamped/sealed and signed by a licensed professional engineer must be included with the project application.

This spreadsheet has formulas to make a weighted useful life calculation and is populated with an example for illustrative purposes. Items can be added to column a.

NEW LEBANON SANITARY REHAB PHASE 20

Weighted Useful Life & Design Service Capacity Calculations

Major Component	Cost ($1,000)	Portion Repair / Replacement (%)	Repair / Replace Product	Useful Life (Years)	Useful Life Product
Full-depth road construction w/ drainage				25	
Full-depth road construction w/o drainage				25	
Partial-depth road construction w/ drainage				15	
Partial-depth road construction w/o drainage				15	
Storm Sewers				40	
Sanitary Sewers	184.894	100	18489.4	40	7395.76
Water Lines				40	
Bridge				75	
Pumps, Lift Stations				15	
Sidewalks				25	
Bike Facility				7	
Totals	184.894		18489.4		7395.76

Weighted Useful Life: 40.0 Years

Design Service Capacity (Project Application, Section 2.0):

Portion Repair / Replace 100 %

Portion New / Expansion %

Michael L. Seeger, P.E.

8/18/2022

Date

OHIO PUBLIC WORKS COMMISSION
DISTRICT 4
Round 2022-2023 Supplemental Questionnaire

Applicant: Municipality of New Lebanon

Project Title: Sanitary Sewer Rehabilitation, Phase 20

Application Summary:

Briefly describe the project:

This project will include the rehabilitation of 15 manholes and the lining and sealing of existing 8" and 10" sanitary sewer along the backyards of W. Main Street between Swanson Street and Bell Lane for a total of approximately 3,616 feet.

The condition of the existing sanitary sewer system in this area is poor. Inflow and infiltration is common, as the existing sewer is well past its useful and causing undue stress on the Village's wastewater treatment plant.

To correct this, the existing sanitary sewer in the proposed project will be lined and sealed. The sanitary sewer in this area consists of 8" sewer and service laterals will be reconnected. 15 manholes will also be lined and sealed.

This method of rehabilitation will avoid open trench restoration costs and inconvenience to Village residents.

This project will continue the rehabilitation of the Municipality's sewer in Phases 1-19 of this same initiative. The rehabilitation has been recommended by the Ohio EPA in the attached "Comprehensive Performance Evaluation" by the Ohio EPA.

Priority:

Is this application your priority project? (Circle One)	
Yes ◉	No ○

Generation of Revenue:

Will new user fees or assessments be assessed as part of this project? (Circle One)	
Yes ○	No ◉
What will the new user fees or assessments be used for?	

Additional Funding:

Will OPWC match, in part, a committed grant or loan? (Circle One)	
Yes ○	No ◉
If no, was the project submitted to an appropriate agency for funding, but denied due to lack of funding? (Circle One)	
Yes – Appropriate Documentation Attached ○	No ◉

Readiness of Project:

Will this project be substantially underway on or before June 1, 2024? (Circle One)	
Yes ◉	No ○

Health & Safety:

Describe the specific health or safety issue being addressed by this project. What deficiency or condition is causing the health or safety issue?
The existing sewers in this section have cracks and bad joints as identified when the sewers we cameraed. The condition of the sewers creates inflow and infiltration which overwhelms the capacity of the sewers and creates undue stress on the wastewater treatment plant. Additionally, the cracks and bad joints present opportunities for the sewers to break or create major back-ups into homes or the surrounding environment. This potential hazard to health and safety can be corrected with the proposed project. The Municipality completed a "Comprehensive Performance Evaluation of the New Lebanon WWTP Facility" with the Ohio EPA, and the inflow and infiltration issue was identified as a top priority for correction to improve the health and safety of the Municipality. The rehabilitation has been recommended by the Ohio EPA in the attached "Comprehensive Performance Evaluation" by the Ohio EPA.

Addresses District Infrastructure Needs:

Is this project located in more than one community? (Circle One)	
Yes ○	No ◉
What percentage of the community will be served by this project? (Circle One)	
Less than 25% ◉	25% to 40% ○
More than 40% ○	

Economic Development

How many jobs are being created as a result of this project?	
How many jobs will be retained as a result of this project?	
Why is it necessary to fund this improvement to secure this development?	
What type of industry is proposed in this development?	

Relieve Existing Traffic Congestion:

What is the level of service?	

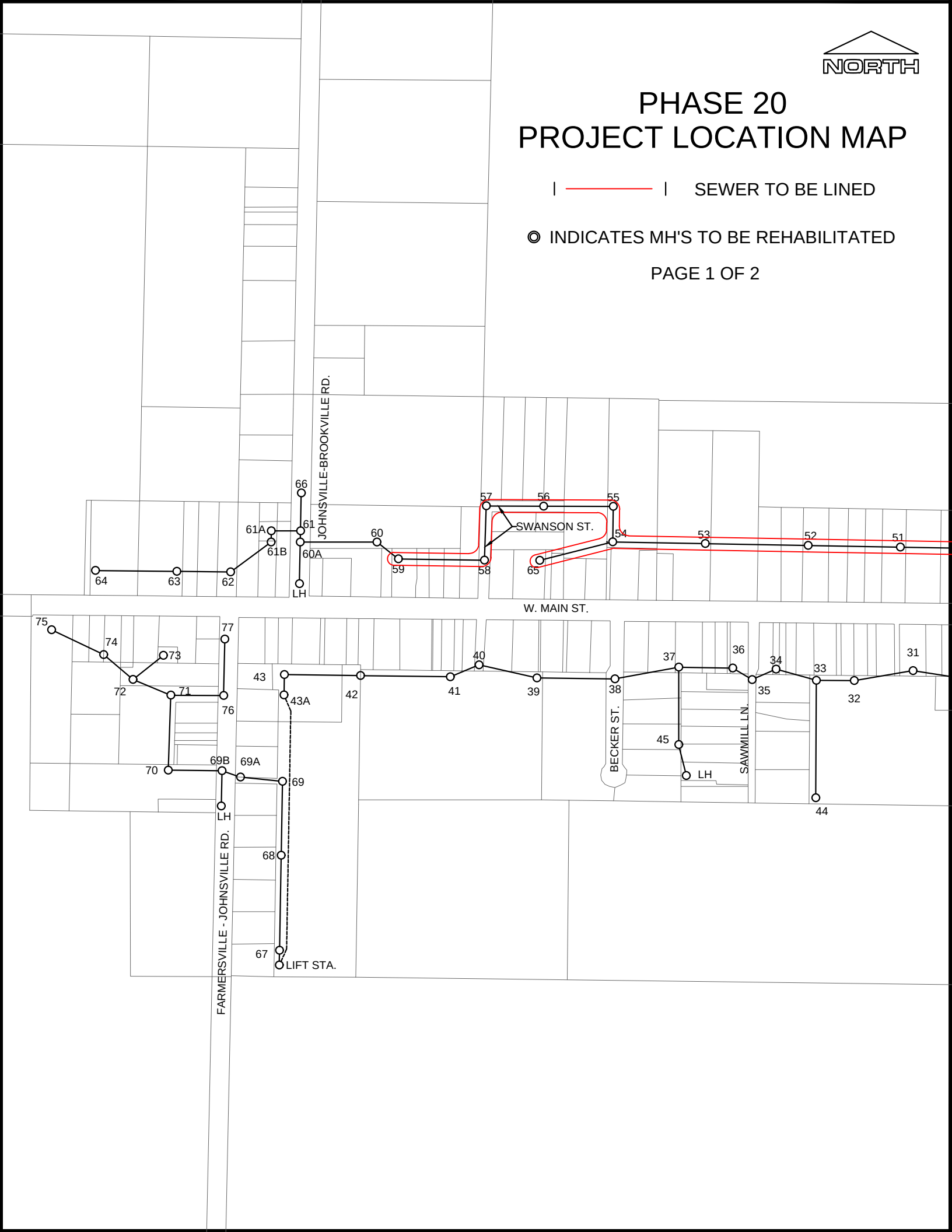
Other Factors

What other factors exist that make this project more important than other like projects?

The Municipality is dedicated to the health and safety of its residents and is committed to correcting the sewer issues. As this is Phase 20 of an extensive multi-phase project, it is clear the Municipality is willing to correct the problem as funds allow. Furthermore, the Municipality is willing to accept 100% loan for this project, showing a willingness to commit local funds as needed to correct this health and safety issue.

The 8" and 10" size of the project's sewers to be rehabilitated service more than just the households directly connected along the route, as the effluent in this area is collected from the surrounding areas and transported to the treatment plant. Therefore, the entity of the Municipality will benefit from this project, as the reduced inflow and infiltration reduces stress on the WWTP and increases it's efficiency, impacting costs to customers both upstream and downstream.

The Municipality will progress with phases of this project to see the complete rehabilitation of the sewers within the community that area priority to address. To date, the Municipality has completed 18 phases of this sewer rehabilitation with Phase 19 under construction.

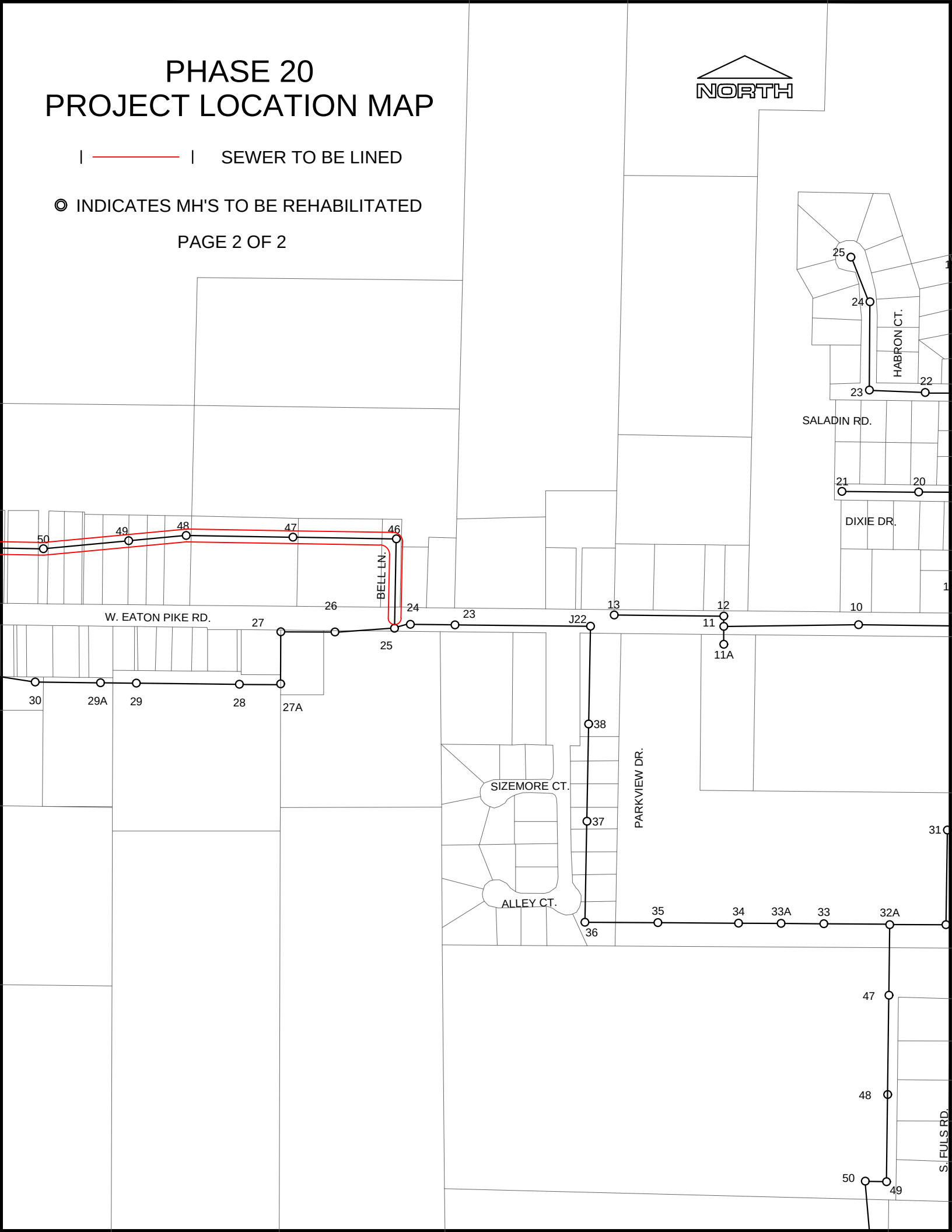

NORTH
PHASE 20
PROJECT LOCATION MAP
SEWER TO BE LINED
INDICATES MH'S TO BE REHABILITATED
PAGE 1 OF 2
JOHNSVILLE-BROOKVILLE RD.
SWANSON ST.
W. MAIN ST.
BECKER ST.
SAWMILL LN.
FARMERSVILLE - JOHNSVILLE RD.
LIFT STA.
LH
LH
LH
64
63
62
61A
61B
61
66
60A
LH
60
59
58
57
56
55
65
54
53
52
51
75
74
73
72
71
77
76
70
69B
69A
69
LH
68
67
43
43A
42
41
40
39
38
37
36
35
34
33
32
31
45
LH
44

PHASE 20
PROJECT LOCATION MAP

| —— | SEWER TO BE LINED

◎ INDICATES MH'S TO BE REHABILITATED

PAGE 2 OF 2



No photos are associated with the Sanitary Rehab Phase 20; project deals with underground sewer piping and plans/estimates are based on written reports of the impacted manholes and sewer pipes.

Results of the

Comprehensive Performance Evaluation

of the

Village of New Lebanon

Wastewater Treatment Facility

Ohio EPA NPDES Permit No. 1PB00021*DD

Field evaluation: November 18 - 22, 1996

Prepared by:

The Compliance Assistance Unit
Division of Surface Water
Ohio Environmental Protection Agency
Columbus, Ohio

November 22, 1996

INTRODUCTION

A comprehensive performance evaluation (CPE) is a thorough revie and analysis of a WWTP's design capabilities and associated administrative, operational and maintenance practices. It is conducted to provide information for WWTP administrators and facility supervisors to make decisions regarding efforts necessary to improve plant performance.

The primary objective is to determine if significant improvements in treatment can be achieved without major capital expenditures.

This objective is accomplished by:

1. assessing the capability of each major unit process,
2. identifying those factors that limit the performance of each unit process,
3. prioritizing limiting factors as to their effect on attaining compliance,
4. and provide recommendations to eliminate factors which limit optimum performance.

FACILITY DESCRIPTION

The New Lebanon WWTP facility was constructed in the 1950s with the last major modification completed in 1988. The current facility is designed for an average flow of 0.8 MGD. The current plant consists of a manually cleaned bar screen, hydrosieves, oxidation ditch, secondary clarifiers, aerobic digesters, and chlorine disinfection.

Wastewater flows through the manually cleaned bar screen and the hydrosieves. Water is then pumped to the oxidation ditch. Flows from this process flow to the secondary clarifiers. Clarifier effluent flows to chlorine disinfection prior to discharge to the Little Bear Creek.

Sludge that is wasted from the system is pumped to an aerobic digester. Sludge can then be sent to land application via liquid land application.

PLANT PERFORMANCE & EFFLUENT LIMITATIONS

New Lebanon WWTP Facility NPDES Effluent Limitations:

Parameter	Maximum 30 Day Average *	Maximum 7 Day Average *	Monitoring Frequency Required	Sample Type Required
$CBOD_5$ (summer)	15	25	2/week	composite
(winter)	25	40	2/week	composite
Suspended Solids	30	45	2/week	composite
Ammonia (summer)	2.5	4.0	2/week	composite
(winter)	6.0	9.0	2/week	composite
F. Coli #/100 ml (Summer)	1000	2000	1/week	grab
Chlorine Residual (Summer)	Not to be > 0.025 mg/l		daily	grab
pH	Not < 6.5 or > 9.0 S.U.		daily	grab
D.O.	Not < 5.0 mg/l		daily	grab
Oil & Grease	Not > 10.0 mg/l		1/qtr.	grab

* Indicates mg/l concentration unless specified.

MAJOR UNIT PROCESS EVALUATION

Major unit processes are evaluated to assess their potential to achieve desired performance levels. Results of major unit processes can be summarized by categorization of plant type.

Type 1 facilities are WWTPs where a CPE shows that current performance difficulties are not caused by limitations in the size or capabilities of the existing major unit processes.

Type 2 facilities are WWTPs where a CPE shows where marginal capacity of major unit processes will potentially prohibit the ability to achieve the desired performance.

Type 3 facilities are WWTPs where a CPE shows that the existing major unit processes are inadequate and that performance cannot be expected to improve significantly until physical limitations of major unit processes are eliminated.

The major unit processes evaluated at the New Lebanon WWTP facility were the primary clarifier, trickling filter, secondary clarifiers, and sludge handling capabilities. Unit processes were rated as follows:

Type 1, aeration tank, secondary clarifiers.

Type 3, sludge handling.

Type 3 - Sludge Handling

The current capacity of the sludge digestion facilities does not provide sufficient detention time to allow for digestion and storage of sludge that is produced by the facility. Also, there is no capacity for sludge dewatering.

PERFORMANCE LIMITING FACTORS

The factors limiting the optimum performance of the New Lebanon WWTP treatment facility were identified. These "Performance Limiting Factors" were then rated and prioritized as to their direct effect on non-compliance with current permit requirements.

The rating system used to prioritize limiting factors was:

" A " This limiting factor has a direct effect on plant performance on a continuous basis or is a direct violation of the NPDES permit.

" B " This limiting factor has a minimum indirect effect on plant performance on a continuous basis or a major direct effect on plant performance on a periodic basis.

" C " This limiting factor has a minor indirect effect on plant performance on a periodic basis.

The following is a discussion of the performance limiting factor which include recommendations to correct the limiting factors.

RECOMMENDATIONS

1. Rating A1 Inflow and Infiltration.

The WWTP experiences flows that are greater than the peak design flow of the system during and shortly after rain events. Infiltration and inflow are extraneous clear water sources that enter the collection system and are treated at the WWTP. Infiltration is ground water that enters through cracks and joints in sewer pipe. Inflow is clear water that typically enters through sump pumps, foundation drains, roof leaders, and other sources. I/I takes up valuable capacity in the collection system and at the WWTP and represents an unbillable treatment cost that must be passed on to customers. In this case, I&I also causes plant bypasses which is the primary reason for the proposed Findings and Orders that have been sent to the Village.

Recommendation:

Measures to identify and eliminate sources of I/I should be considered thereby reducing unnecessary costs and relieving hydraulic stresses on plant headworks. The Village should initiate a program to find and eliminate I&I into the sanitary sewer system. At a minimum, this program should include:

1. Determine nighttime flows at key manholes during periods of dry weather (baseline), high groundwater (infiltration), and rainfall (inflow).

2. Measure pollutant concentrations at various areas of the Village to determine sources of dilution.

3. Identify and replace vented manhole covers throughout the Village, and raise manholes that are known to be in low-lying areas.

4. Conduct smoke and/or dye testing to identify illegal clean water connections or cross connections to the storm sewers.

5. Enforce existing sewer use ordinances (i.e. sewer use fees/penalties based on the amount of "clean water" attributed to a property from roof drains, sump pumps, and foundation drains).

2. Rating A2 Influent Hydraulic Design and Metering.

Currently, only four of the six raw influent pumps are capable operating during high flows. The two 350 gpm pumps are not capable of being used when all four 700 gpm pumps are running. This problem is caused by the smaller pumps' inability to pump with enough pressure to open the check valves against the pressure generated by the other four larger pumps. To prevent flooding of the plant basement, influent flows are throttled bac causing plant bypasses. In addition to the above, there is no influent flow metering that could be used to determine the amour of wastewater entering the plant during rain events and the amount of wastewater bypassing the plant.

Recommendation:

The Village should work with a engineering consulting firm to determine what remedy should be implemented to remedy the pumpin problem. The Village should also investigate the installation o: an influent meter in order to get an accurate measurement of the I&I problem. As a short term solution to the bypassing problem, a trash pump large enough to pump excess water should be available for use during wet weather. This pump would be used tc pump the excess flows directly to the oxidation ditch.

3. Rating A3 Process Modification.

The current operation of the oxidation ditch does not achieve adequate wastewater treatment. Analysis of wastewater within the oxidation ditch reveals an excessive amount of filamentous microorganisms. The presence of these microorganisms in high amounts inhibit the necessary settling of solids in the clarifiers.

Recommendation:

Modify the existing operation of the oxidation ditch to improve the settling of solids. Modifying the operation will change the environmental conditions in the ditch which in turn will eliminate the conditions responsible for promoting filament growth. Once these conditions are properly managed and sludge is wasted / returned appropriately (process control), settling of solids in the clarifiers will improve, resulting in improved effluent quality.

The original design of the oxidation ditch provides for flexible operation. Several operational configurations are available to the operators where they can create an environment which promotes the growth of the desired bacteria for treatment. Presently, the evaluation team is assisting the WWTP staff in determining which configuration will result in the best effluent quality. It is recommended that the staff continue to work with the evaluation team until the configuration is identified that provides the best effluent quality.

The above modifications to the oxidation ditch operation involve "shutting down" one-half of the ditch's capacity. The change will result in improved settling of sludge in the clarifiers and the creation of empty tank space. This empty tank space can be utilized for equalization of I&I flows (see A1).

4. Rating A4 Sludge Treatment and Dewatering.

Currently, there is approximately 50 days of detention time available for sludge treatment and storage. In Ohio, a minimum of 90 days storage / digestion space is required and 120 days is recommended. While the facility is able to haul the needed amount of sludge, it is doubtful that the sludge land applied during the winter is in accordance with the Federal "503" regulations.

Recommendation:

The Village should investigate the installation of additional sludge storage / digestion capacity, or other methods for dewatering and storage of sludge.

5. Rating A5 Manpower / Staffing.

The effective operation and maintenance (O&M) of a WWTP is dependent upon proper plant staffing levels. Current staffing levels do not provide sufficient coverage for preventative maintenance, process control testing, performance monitoring, process operation and other monitoring duties (water plant and lift station).

Recommendation: Begin evaluating responsibilities and associated workhours necessary to maintain effective plant performance. Evaluate the adequacy of the current plant staffing levels to accommodate the additional O&M associated with preventative maintenance, process control testing, performance monitoring, process operation, and the monitoring of outside facilities.

6. Rating A6 Process Control Testing.

Necessary process control testing is not performed on a day to day basis due to lack of staff time.

Recommendation: Additional procedures and tests should be implemented to provide a complete process control program. The evaluation staff will continue to provide assistance in developing this program during follow-up visits.

7. Rating A7 Process Flexibility / Sludge Return Pumping.

Presently, the WWTP is incapable of metering the amounts of waste activated sludge and return activated sludge. Proper metering of these flows is essential to the proper operation of the WWTP. Also, when clarifier #3 was installed, the return sludge line was tied into the sludge line from clarifier #1. This created a situation where the two clarifiers are "competing" against each other to return sludge. This has resulted in degraded process performance as well as many operational headaches.

Recommendation:

Repair / replace the flow metering equipment that is available on the waste / return activated sludge lines. Install a sperate sludge return line for the #3 clarifier so that return flows can be equalized between all "on-line" clarifiers.

8. Rating A8 Laboratory and Process Monitoring Equipment.

Lack of specific lab and process control equipment limits the staff's ability to make timely process control decisions.

Recommendation: Purchase or replace the following items: core sampler, settleometers, portable D.O. meter, chlorine residual probe, pH probe, laboratory D.O. probe, sampling equipment, and various reagents, standards, and chemicals. The above equipment cost should be less than $3000 total.

9. Rating B1 Alarm System.

Lack of an alarm system to notify plant personnal of problems in the collection system and at the plant can result in the discharge of inadequately treated sewage, plant bypasses, or damage to equipment due to flooding.

Recommendation: While a contractor has been hired to repair the current malfunctioning system, the Village should upgrade the alarm system to include:

- High/low water indicators at the pump station, overflow points, plant influent, plant effluent, influent pumps, sludge pumps, etc.
- Chlorine leaks.
- Power outages.

The alarm system should have the capability to notify plant personnal during after hours emergencies.

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9. Rating B1 Alarm System.

Lack of an alarm system to notify plant personnel of problems in the collection system and at the plant can result in the discharge of inadequately treated sewage, plant bypasses, or damage to equipment due to flooding.

Recommendation: While a contractor has been hired to repair the current malfunctioning system, the Village should upgrade the alarm system to include:

- High/low water indicators at the pump station, overflow points, plant influent, plant effluent, influent pumps, sludge pumps, etc.
- Chlorine leaks.
- Power outages.

The alarm system should have the capability to notify plant personnal during after hours emergencies.

10. Rating B2 Preventative Maintenance / Spare Parts.

The New Lebanon WWTP has few spare parts in inventory. In general, WWTPs should have a minimum of spare parts on hand allow continued operation of WWTP process units and the individual equipment. The New Lebanon WWTP is in need of s parts. Spare parts on hand are needed in order to bring equipment back "on line" quickly should a major piece of equipment fail and need repair or replacement. Additionall New Lebanon WWTP has no formal preventative maintenance pro where periodic required maintenance activities can be sched and tracked.

Recommendation:

Plant personnel should be allowed to purchase a limited numb necessary spare parts (bearings, seals, impellers, etc.) and lubricants. A formalized preventative maintenance program s be implemented so that needed maintenance activities can be scheduled and tracked when completed.

11. Rating B3 Application of Concepts / Guidance / Training.

Operation decisions are made based on "handed down" training the Operations and Maintenance (O&M) manual. The manual is adequate for normal operations, but does not address abnormal situations (i.e. filaments). While this is not unique to New Lebanon, it is something that will be improved upon during th coming months. In addition, operators need to be provided th opportunity to attend training related to their duties.

Recommendation: The evaluation team will work with the WWTP staff to "fine-tune" the decision making process and provide necessary training related to process control. In addition, plant staff should be encouraged to attend specific training opportunities as they become available.

12. Rating B4 Work Environment / Equipment Problems.

While it may not seem like an important factor in evaluating t performance of a WWTP, an employee's work environment is essential to maintaining employee's health, safety, and morale therefore, some workplace factors have been added to the repor Due to the location of the laboratory and office, hydrogen sulfide gas is drawn into the lab. Hydrogen sulfide is a corrosive gas that has and will continue to damage sensitive electronic equipment used in the laboratory. Also, hydrogen sulfide has an offensive odor that may impact the employees willingness to spend the needed amount of time in the laborato

The placement of the blower room also impacts the work environment by producing high noise levels throughout the administration / laboratory building.

Also, the lack of storage space creates a cluttered look to the laboratory. The use of the electrical control room as a storage area is also a potential safety hazard.

Recommendation:

Investigate the installation of "positive pressure" ventilation in the laboratory for the short term. Also, additional ventilation should be installed in the screening and grit rooms. As a long term solution, the construction of a separate laboratory building should be investigated. Noise insulation should be installed in the blower room to reduce the amount noise that is heard within the building, or relocate the blower room away from the administration building. Also, storage space should be constructed where plans, chemicals, spare parts, cleaning supplies, etc. can be placed.

13. Rating Of Safety.

The most important resource the Village has available is its human resources. Thus, the most severe set back for the facility would be the loss of workhours or even worse the loss of an employee. Hazardous conditions will always exist in wastewater treatment due to the nature of the industry. Accidents are never intentional; thus action must be taken to prevent or reduce the potential situations which cause accidents.

Recommendation:

Continue to utilize existing safety equipment and follow current policies. Also, continue to evaluate and correct unsafe conditions as they are identified. Some specific examples or areas of concern are:

1. Proper confined spaced entry practices should be utilized, including the use of a gas detection meter that the Village should purchase.

2. Utilize a "buddy system" to ensure that there is help available while completing hazardous activities at the WWTP.

3. Grates, chains, kick plates, and steps in areas of the plant need to be installed/replaced/repaired (splitter box and #3 clarifier). Also, uneven surfaces (i.e. heaving or cracking concrete) may cause trips and falls.

4. There is no formal safety training program. Employees should be encouraged to attend safety related training programs.

5. Establish O&M procedures for the proper maintenance and handling of the chlorine gas.

6. Continue to evaluate and correct any unsafe conditions.

14. Rating C2 Certification.

The Village's NPDES discharge permit requires that the treatment plant be operated by someone with a Class II Wastewater Operator Certification.

Recommendation:

Although the city currently has a technical supervisor to meet this requirement, the operators should pursue obtaining a Class II Wastewater Certification. It would also be beneficial for the operators to continue pursuing the Water II Certification. These classes/certifications will help with understanding the treatment processes.

15. Rating C3 Preliminary Treatment / Grit Removal.

The current practice of removing grit and screenings from the basement is inefficient as well as dangerous to the employees. Staff remove grit and screenings by physically lifting very heavy barrels and then utilizing a hoist to move the barrels to ground level.

Recommendation:

An automated approach to removing grit from the basement is needed. An automated system, such as a conveyor, will reduce the amount of staff time needed to conduct the task as well as reduce the chances of injury to an employee.

16. Rating C4 Standard Operating Procedures / Plant Log.

While an Operations and Maintenance (O&M) Manual has been provided to the operators to use for daily O&M of the WWTP, it fails to provide any standard operating procedures (SOP). SOPs can provide useful information regarding routine daily operation, maintenance, and preventative maintenance. Also, if the current operator would be unavailable there are no "instructions" on how a new operator should operate the plant on a daily basis.

Recommendation:

The plant staff should begin developing step by step SOPs for the daily operation and maintenance of the WWTP. For example, the SOPs should include all steps required to perform sludge wasting including what valves need to be turned, pumps to run, how to measure sludge wasted, and normal operating parameters for the pumps (i.e. sounds, heat, etc.). The SOPs should also include step by step procedures for preventative and corrective maintenance activities.

17. Rating C5 Municipal Compliance Maintenance Program (MCMP).

The Village of New Lebanon upgraded its wastewater treatment facility in 1988. As time passes, the treatment facility will need maintenance, upgrade, retrofit, replacement, or new construction under the pressures of new development and more stringent effluent limits. There will be similar needs as the facility reaches the end of its useful life expectancy.

Recommendation:

In order to assist the Village in its planning efforts, the Village should initiate participation in the MCMP by submitting an "Annual Municipal Performance Evaluation Report" to Ohio EPA.

PERSONNEL INVOLVED IN EVALUATION

New Lebanon Officials

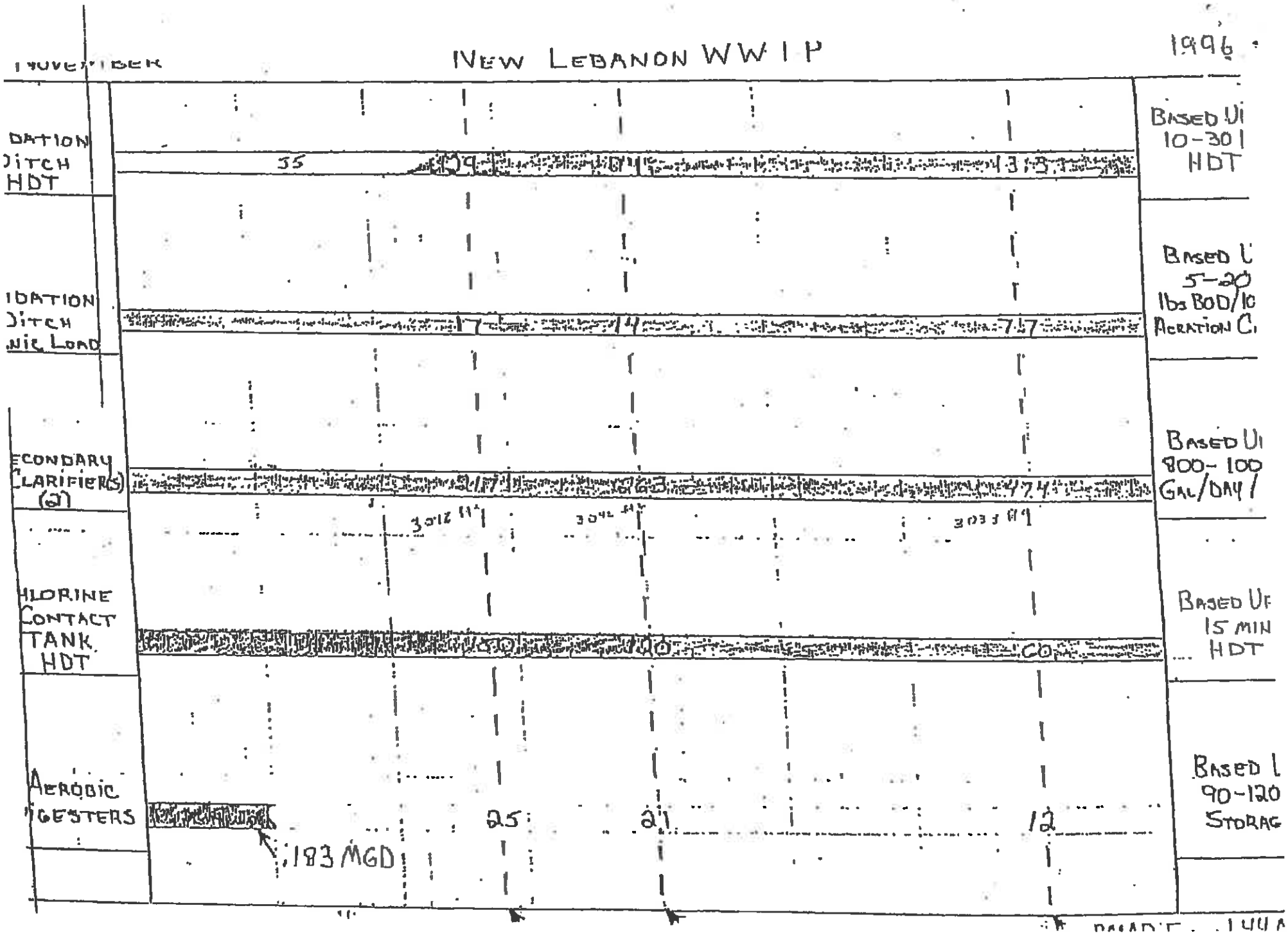
Ted Ryan	Village Administrator

Facility

Dave McQueen	Acting Service Director
Amy Brandt	WWTP Operator

Evaluators

Jim Borton	Ohio EPA, CO, CACU
Scott Ankrom	Ohio EPA, CO, CACU
Patrick Fellrath	Ohio EPA, CO, PTI Unit
Dave Combs	Ohio EPA, SWDO


NOVEMBER
NEW LEBANON WWTP
1996
DATION
DITCH
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55
BASED U
10-30
HDT
IDATION
DITCH
AIR LOAD
BASED U
5-20
lbs BOD/1
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BASED U
800-100
GAL/DAY
HLORINE
CONTACT
TANK
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AEROBIC
IGESTERS
25
21
12
1.83 MGD
BASED
90-120
STORAG

Print

New Lebanon, OH Code of Ordinances

§ 51.01 SANITARY SEWERAGE SYSTEM RATES AND CHARGES.

(A) The following rates shall be charged by the municipality for use of its sanitary sewage plant and system by the municipality, its inhabitants, and other users thereof, these rates to be premised on the metered consumption of all water:

(1) The minimum charge shall be $2.00 per month, except for customers whose water usage is either not metered, or not connected to the water system of the municipality, the minimum charge shall be $20 per month.

(2) The consumption charge shall be $1.20 per 1,000 gallons of water, except that for a non-residential customer, located within the corporation limits, who consumes 200,000 or more gallons of water in the quarter, the rate shall be $1.00 per 1,000 gallons commencing with 100,000 gallons.

(a) Effective January 1, 1999, and on January 1 in each succeeding year, the consumption charge shall be increased as follows:

Year	*Rate*
2014	$4.50
2015	$4.73
2016	$4.97
2017	$5.22
2018	$5.48

and shall remain at $5.48 unless further amended by Council.

(3) Users located outside the corporate limits of the municipality shall be charged 150% of the foregoing rates.

(B) The rates established above shall be reflected in all sewer service bills rendered after the date of adoption of this chapter, except that no sewer service rendered shall be charged for at a rate in excess of the rate schedule during the period such service was furnished.

(C) All references to the corporation line, Municipality of New Lebanon, mean the corporation line as recorded March 13, 1969.

(D) The municipality reserves the right to increase the rates established in the event that the revenues of the sewer system should at any time prove insufficient to pay the operation and maintenance expenses of the sewer system, the principal of and interest revenues, and the required deposits to reserve funds and other funds of any such outstanding bonds.

('80 Code, § 50.01) (Ord. 845, passed 7-5-77; Am. Ord. 83-8, passed 7-19-83; Am. Ord. 88-2, passed 1-5-88; Am. Ord. 96-17, passed 5-21-96; Am. Ord. 98-42, passed 11-17-98; Am. Ord. 99-07, passed 4-6-99; Am. Ord. 2013-05, passed 12-3-13)

§ 51.03 WATERWORKS RATES AND CHARGES.

(A) (1) The minimum charge shall be $3.00 per month except for customers whose water usage is either not metered or not connected to the water system of the municipality, the minimum charge shall be $25.00 per month.

(a) Minimum charge:

Size of meter	*Rate per month*
inch	$ 3.00/Month
¾ inch	4.00/ Month
1 inch	5.00/Month
1½ inch	6.00/Month
2 inch	11.00/Month
3 inch	16.00/Month
4 inch	21.00/Month
Service outside corporation	31.00 extra per Month

(b)

Year	*Rate*
2009	$4.45
2010	$4.68
2011	$4.92
2012	$5.17
2013	$5.43

(2) The foregoing charges are minimum charges, not maximum charges, and the municipality reserves the right and is obligated to increase the same at any time should the revenues of the waterworks system prove insufficient to pay the operating and maintenance expenses and the debt service charges of the bonds issued to extend and improve the waterworks system. The municipality shall review the scheduled consumption charges during the month of July, beginning in 2010 and at least every other year thereafter.

(3) There shall be an assessment of $1.75 per month due from each water consumer for a period of one year commencing January, 2009 and continuing through December, 2009.

(4) There shall be an assessment of $5.00 per month due from each sewer consumer for a period of one year commencing January, 2018 and continue through December, 2018.

(Ord. 887, passed 10-17-78; Am. Ord. 83-8, passed 7-19-83; Am. Ord. 92-25, passed 1-19-93; Am. Ord. 93-21, passed 1-6-94; Am. Ord. 98-41, passed 11-17-98; Am. Ord. 2002-18, passed 9-3-02; Am. Ord. 2008-13, passed 12-2-08; Am. Ord. 2008-14, passed 12-2-08; Am. Ord. 2017-05, passed 12-19-17)

(B) The Manager may enter into special contracts for the waterworks system with the Board of Education, large commercial and industrial consumers, and trailer parks, as may be authorized or approved by the Council.

(C) Charges for services furnished the municipality and its inhabitants and other users by the waterworks system shall be rendered monthly by the Director of Finance and Records and shall be paid at the same time.

(D) The owner of private property which is served by the waterworks system by pipes connected with the system to convey water therefrom, as well as the lessee of the premises, shall be liable to the municipality for all water used for the premises.

('80 Code, § 50.03) (Ord. 543, passed 7-17-62; Am. Ord. 83-8, passed 7-19-83; Am. Ord. 96-17, passed 5-21-96)