



Village of Superior,  
Douglas County Wisconsin  
PO Box 3065, 6702 Ogden Avenue,  
Superior, WI 54880  
715-392-8551-Office,  
715-395-8361- Fax

On Thursday, November 11, 2021, the regular monthly board meeting for the Village of Superior was held at 7 P.M. at the Village Hall, 6702 Ogden Avenue. At 6:30 P.M. accounts payable vouchers will be approved.

***SUBJECT: Regular Board Meeting MINUTES***

Meeting called to order. Roll call; President John Wick, Trustees, Joe Podgorak, Greg Young, and Clerk-Treasurer Marsha Wick and 5 residents.

Open Meeting Compliance Check: notice posted at Village Hall, Four Star Construction, Udeen Trucking and the Village bowl.

- Park & Rec Committee – no other updates except that the triple shooter will be installed in the spring.
- Neighborhood watch committee- update on activities, Katie Gallagher Have had 2 meetings with 22 people attending, more people getting involved throughout the village, looking at safety items for the winter newsletter and will be holding a meet and greet event at the village hall in December.
- **Communications**
  - Mitch Routh, attorney for the village; seeking an inspection of the property at 6614 John ave for unsafe buildings and possible blighting conditions; At the request of the village board.
- **Reports of Village Officers:**
  - **Greg Young, Trustee:** fall discharge completed October 29th., everything running as it should.
  - **Joe Podgorak, Trustee:** crew in and striped the parking lot, preparing all equipment for the plowing season, oils changed everything greased. Parts ordered for the sander, bad bearing.
  - **John Wick, President:** We missed the LRIP meeting this year, so we are unable to get any funding (app. \$7,000) just a mix up in dates. The next available is in two years. The next road job on the schedule is Hughitt Ave, from 76<sup>th</sup> to Albright in 2023
- Motion made by Greg seconded by Joe to approve the treasurers report of October 14, 2021
- Motion made by Greg, seconded by Joe to approve the signed vouchers
- Motion made by Greg, seconded by Joe to approve the Board Meeting Minutes of October 14, 2021

- Old Business:

- Tabled from the October meeting was Discussion in regards to possible no parking on the Streets throughout the village and maintaining calendar parking on the Avenues. The streets running East and West in the Village are narrower than the avenues therefore making two-way traffic impossible when nearing a parked vehicle. After some discussion, Greg made a motion to have calendar parking throughout the village, seconded by Joe, all in favor.
- MSA, Pat Morrow- update on potential regionalization with the city of superior and other information (see attached)

New Business:

- NONE
- Motion to open meeting to Public Comments, (notice received by clerk, for agenda items ONLY) Alex Grymala would like to speak re: old business items
- Adjournment. Motion made by Greg to adjourn seconded by Joe, meeting adjourned at 8:05pm

*Marsha K. Wick*

*Clerk/Treasurer*



## VILLAGE OF SUPERIOR, WI

### CLIENT LIAISON:

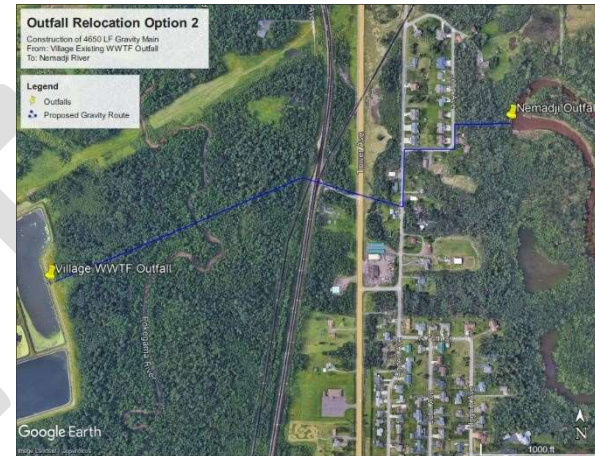
Pat Morrow, P.E.

Phone: (608) 355-8910 Cell: (608) 963-2094

pmorrow@msa-ps.com

### DATE:

November 11, 2021



An aerial view of gravity route for Outfall Relocation

## WASTEWATER FACILITY PLAN

### General Overview

We will review and briefly discuss population, flow and loading projections with the Village at the meeting.

Ultimately, the ability to move the outfall vs. the need to regionalize with the City will come down to whichever option is most cost-effective for the Village and also satisfy the DNR/EPA antidegradation and anti-backsliding requirements as previously discussed with the Village.

Next steps include the Effluent Limits Request, finalization of cost estimates and 20-year present value analyses, setting up a meeting with the City and Village, and evaluating the economics and possible sewer rate impacts of each option.

### Outfall Relocation to Nemadji River

We have evaluated relocation of the discharge to the Nemadji River where phosphorus and most likely all other limits will be within the facility's current operating capabilities. A potential route and preliminary cost estimate for this alternative has been completed and will be discussed with the Village at the meeting. We will share the results of the Effluent Limits Request with the Village when available.

Regionalization with the City of Superior

A potential route and preliminary cost estimate for this alternative has been completed and will be discussed with the Village at the meeting.

The City of Superior has reviewed a portion of the Village's historical data and are currently reviewing additional data, including 20-year design flows and loadings. The City has offered up a tour of their wastewater treatment facility and meeting with the Village to discuss the potential connection.

In terms of sewer rates, the City's agreement with Parkland was such that Parkland paid a monthly volume charge in \$/100 cubic feet that was equal to the volume charge paid by City customers

---

## UPDATE

Page 1 of 2

G:\07\07799\! Village of Superior WI\2021 Updates\Project Update 11082021\07799003 Project Update 11112021.docx



Village of Superior, WI

## PROJECT UPDATE

November 8, 2021

---

plus an additive component to the volume charge that was proportional to the number of users served and the total annual flow. This will be evaluated and discussed with the Village as we move further along in the planning process.

As part of the regionalization alternative, the current WWTF would need to be abandoned in accordance with Wisconsin DNR requirements. Abandonment would consist of sludge removal and disposal (within 2 years of being off-line), re-grading to prevent standing water, breaching the berms/dikes, and re-vegetating to prevent soil erosion.

Recent sludge test results indicate elevated levels of various metals in the sludge from the primary lagoons. The levels are near or above the allowable thresholds for land application. DNR has recently discussed with the Village and MSA as to possible sources. Historically (2016 and 2010 sampling events), sludge was collected from the secondary lagoons, and that sludge did not have elevated levels of metals.

There are possible ways of mixing/blending the sludge to enable land application. However, to be conservative in cost estimating we have based the cost estimates on landfilling the sludge, which is more costly than land-applying to agricultural fields.

This means the cost estimates at this time would be based upon the costliest option, which is important for planning purposes and evaluations.

We recommend that the Village take sludge depth measurements this fall or perhaps winter (through the ice) and get a better idea of sludge quantities and perhaps collect additional metals samples at that time. This would be important for evaluating whether a sludge blending option exists, with the goal of avoiding the expenses of landfilling. We also recommend that the source of the metals be investigated.

DRAFT

Table 0-0  
Village of Superior Population Projections

Year	Historical Population (U.S. Census)	DOA Population Projections	Facility Plan Projections
1970	476	-	-
1980	580	-	-
1990	481	-	-
2000	500	-	-
2010	664	-	-
2011	661	663	663
2012	648	662	662
2013	591	661	661
2014	653	671	671
2015	700	680	680
2016	731	688	688
2017	726	696	696
2018	781	704	704
2019	802	712	712
2020	-	720	720
2025	-	760	760
2030	-	800	800
2035	-	830	830
2040	-	850	850
2041	-	854	854

\*Projections in Red are interpolations from DOA Estimates

### HISTORIC

Historic Growth Rate, 1970 - 1980	10.4	capita/yr
Historic Growth Rate, 1980 - 1990	-9.9	capita/yr
Historic Growth Rate, 1990 - 2000	1.9	capita/yr
Historic Growth Rate, 2000 - 2010	16.4	capita/yr
Historic Growth Rate, 2010-2020	5.6	capita/yr
Historic Growth Rate, 1970 - 2020	4.9	capita/yr
1970-2020 Population Increase, as %	51%	
2010-2015 Average	667	
2016-2020 Average	704	

### DOA PROJECTED

DOA Projected Growth, 2020 - 2041	134	capita
2020-2041 Population Increase, as %	18.6%	
Annual Population Increase	6.4	capita/yr

### DESIGN

Projected Population, 2041	854 capita
Design Population (peak pop. during period)	854 capita

MSA Professional Services G:\07\07799\07799003\Calculations\07799003 Superior SWAMP  
Data 2016-2020.xlsx

# Village of Superior Historical

## Village of Superior Influent Flow Projection

2041 Design Population		854
Per Capita Domestic Baseflow (gpcd)	x	34
Domestic Baseflow (gpd)		29,036
Industrial and Public Authority (gpd)	+	34
Future Baseflow (no I/I)		29,070
Landfill Leachate (gpd)	+	200
Average Annual I/I (gpd)	+	61,980
Average Daily Flow (gpd)		91,250
10% Unplanned Industrial Growth (gpd)	+	9,125
Average Annual Design Flow (gpd)		100,375
Average Annual Design Flow (MGD)		0.100
Average Annual Design Flow (MGD)		0.100
Historic Peak Month Peaking Factor	x	1.8
Maximum Monthly (MGD)		0.179
Average Annual Design Flow (MGD)		0.100
Historic Peak Week Peaking Factor	x	2.3
Maximum Weekly Flow (MGD)		0.229
Average Annual Design Flow (MGD)		0.100
Historic Peak Day Peaking Factor	x	3.4
Maximum Day Flow (MGD)		0.343
Average Annual Design Flow (MGD)		0.100
Estimated Peak Hour Peaking Factor	x	5.1
Maximum Hour Flow (MGD)		0.514

\*Baseflow and I&I based on 2018-2020 data

\*\*Landfill Leachate flow estimate to be confirmed by DLS.

VILLAGE OF SUPERIOR DESIGN FLOWS & LOADS (HISTORICAL FLOWS & LOADS METHOD)

Parameter		HISTORICAL	DESIGN	
		(2016-2020)	DESIGN 2003	DESIGN 2041
Flow (MGD)	Average	0.078	0.087	0.100
	Maximum Month	0.140	0.160	0.179
	Maximum Week	0.178	0.280	0.229
	Maximum Day	0.267	0.375	0.343
	Maximum Hour (gpm)	278	391	357
BOD (lbs/day)	Average	128	142	160
	Maximum Month	355	-	225
	Maximum Week	355	-	257
	Maximum Day	355	-	385
TSS (lbs/day)	Average	113	-	186
	Maximum Month	280 280	-	278
	Maximum Week	280	-	316
	Maximum Day		-	483

\*Design peaking factors, per capita loads, and typical concentrations were obtained from Metcalf & Eddy Wastewater Engineering Treatment and Resource Recovery, 5th Edition 2014 \*\*Grab samples are taken 2x/month per the Village's WPDES Permit. Therefore, peak month and peak week results are not typical of 30-day and 7-day peaks

MSA Professional Services  
 G:\07\07799\07799003\Calculations\07799003 Superior SWAMP  
 Data 2016-2020.xlsx Required Storage Based on Flow

Flow Scenario	Flow (MGD)	180 Day (MG)	360 Day (MG)
Historical Daily Average Flow, MGD	0.078	14.1	28.1
2003 Design Daily Average Flow, MGD	0.087	15.7	31.3
2041 Design Daily Average Flow, MGD	0.100	18.1	36.1

\*Current storage capacity of lagoons is 31.35 MG

BOD Loading at Current and Future Projections

Loading Scenario	Load (lbs/day)	Resultant BOD5 Loading (lbs/day/acre)
Historical Daily Average Load, lbs/day	128	8.4
2003 Design Daily Average Load, lbs/day	142	9.3
2041 Design Daily Average Flow, lbs/day	160	10.5

\*BOD5 Loading per acre may vary based on lagoon performance. Maximum allowed BOD5 Loading is 20 lbs/day/acre.