City of Reedsburg
134 South Locust Street, P.O. Box 490
Reedsburg, WI 53959
Ph. 608-524-6404 Fax. 608-524-8458
www.reedsburgwi.gov

COMMON COUNCIL AGENDA

June 28, 2021

REEDSBURG CITY HALL COUNCIL CHAMBERS

6:00 PM

DUE TO THE RESTRICTIONS CAUSED BY THE COVID-19 PANDEMIC, SOME VOTING MEMBERS MAY BE PRESENT VIA TELECONFERENCE OR VIDEO CONFERENCE, AS PROVIDED BY THE RECOMMENDATIONS OF THE WISCONSIN DEPARTMENT OF JUSTICE. HTTPS://WWW.DOJ.STATE.WI.US/NEWS-RELEASES/OFFICE-OPEN-GOVERNMENT-ADVISORY-CORONAVIRUS-DISEASE-2019-COVID-19-AND-OPEN-MEETINGS

CALL TO ORDER:

ROLL CALL:

PLEDGE OF ALLEGIANCE:

THE COUNCIL WILL RECEIVE INFORMATION ON NON-AGENDA TOPICS BROUGHT BEFORE THE COUNCIL BY MEMBERS OF THE PUBLIC. THE COUNCIL WILL NOT DISCUSS THESE TOPICS, AND WILL NOT TAKE ACTION ON ANY OF THEM AT THIS MEETING.

I. CONSENT AGENDA (ONE MOTION APPROVES ALL ITEMS):

1. Approve minutes for the meeting held on June 14, 2021
2. Mayoral Appointment: Sonny Hyde to the Plan Commission

II. GENERAL BUSINESS:

1. Approve/Deny: First reading and set a Public Hearing for July 26, 2021 for Ordinance 1921-21 Annexation of parcels 030-0400-10000 & 030-0400-20000 from the Town of Reedsburg to the City of Reedsburg, generally located at E7185 State Road 23/33.
2. Presentation: Tax Incremental Districts and Tax Incremental Financing - Kurt Muchow, Principal, Vierbicher.

III. RECOMMENDATIONS FROM BOARDS, COMMITTEES AND COMMISSIONS:

1. Parks & Recreation Committee: Approve/Deny: Nishan Park Maintenance & Improvements
2. Public Works: Approve/Deny: Resolution 4443-21 Approving Roadway Functional Classification Changes.
3. Public Works: Approve/Deny option and location for Wastewater Treatment Plant - Facilities Plan Presentation.
4. Arts Committee: Approve/Deny: Provide $500 to Wormfarm Institute for maintenance of Peace Posts at City Park.
5. Arts Committee: Share selection of artist for Nishan Park mural.

IV. COMMISSION, COMMITTEE, BOARD AND STAFF REPORTS:

The City of Reedsburg does not discriminate on the basis of disability in the admissions or access to, or treatment of or employment in, its programs or activities. Disability-related aids or services, including printed information in alternate formats, to enable persons with disabilities to participate in public meetings and programs are available by calling (608) 524-6404. To be able to meet the needs of a request for a different format contact the City Clerk-Treasurer at 134 S. Locust Street, Reedsburg, WI at least 48 hours prior to the commencement of the meeting so that any necessary arrangements can be made to accommodate each request.

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1. 2nd Meeting Committees: Parks & Recreation, RICDC, Public Works, Utility Commission, Library Board, Zoning Board, CDA, Arts Committee (any other committees or commissions with report).

V. OFFICE OF THE MAYOR:

VI. ADJOURN:

City of Reedsburg Meeting of the Common Council
May 24, 2021

Present:	Mayor Dave Estes, Alderpersons Darrin Frye, Craig Braunschweig, Jason Schulte, Mike Gargano, Missy Frenz, Phil Peterson, and, Dave Knudsen.
Absent:	Alderpersons Tom Seamonson and Adam Kaney
Others Present:	City Administrator Tim Becker, City Clerk-Treasurer/Finance Director Jacob Crosetto, Police Chief Pat Cummings, City Attorney Derek Horkan, Parks and Recreation Director Matt Scott, Library Director Kucher, Citizens, Press.

Mayor Dave Estes called the regular session of the Common Council to order at 6:00 p.m. in the Common Council Chambers.

Approve Consent Agenda: consisting of the minutes from the Common Council meeting held on May 24, 2021; Approval of the May 2021 Paid Bills; Approval of the Alcohol Beverage License Application (Beer Only), Lake Mills Hospitality, DBA Quality Inn, 2115 E. Main Street; Approval of the Annual 2021 - 2022 Alcohol Beverage, Cigarette and Amusement Licenses; Approval of the 2021 Emergency Operations Plan; and receiving the Building Permit Report - May 2021.

Motion: Gargano, Second: Schulte to approve the consent agenda. Motion carried 7-0.

GENERAL BUSINESS

A. Approve/Deny: Upgrade of the communications system at the Police Department
    a. **Motion: Gargano, Second: Frye to approve the upgrade of the communications system as presented. Motion carried 7-0 on a roll call vote.**

B. Approve/Deny: Memorandum of Understanding with South School Estates, LLC for the renovation of the former South School, 420 Plum Street
    a. **Motion: Peterson, Second: Schulte to approve the Memorandum of Understanding with South School Estates, LLC as presented. Motion carried 7-0**

RECOMMENDATIONS FROM BOARDS, COMMITTEES AND COMMISSIONS

A. Plan Commission: Approve/Deny: Resolution 4442-21 Certified Survey Map E5724 County Road K, Town of Reedsburg, Parcel 030-0295-00000 - Extraterritorial Zone.
    a. **Motion: Knudsen, Second: Gargano to approve Resolution 4442-21 and the CSM as presented. Motion carried 7-0.**

Motion: Gargano, Second: Frye to enter Closed Session per section 19.85(1)(e) of the Wisconsin statutes for the purpose of deliberating or negotiating the purchasing of public properties, the investing of public funds, or conducting other specified public business, whenever competitive or bargaining reasons require a closed session.

Motion carried 7-0. Time: 6:28 p.m.

Motion: Knudsen, Second: Peterson to exit Closed Session.

Motion carried 7-0. Time: 6:49 p.m.

Motion: Gargano, Second: Frye to adjourn.

Motion carried 7-0. Meeting adjourned at 6:49 p.m.

Respectfully submitted,

Jacob Crosetto
City Clerk-Treasurer/Finance Director

About

Sonny Hyde's Bio:

Sonny Hyde is the lead and founding pastor of Cornerstone Baptist Church in Reedsburg, WI.

Sonny, his wife, Kari, and eldest daughter, Caitlyn moved to Reedsburg, WI, from Redlands, CA, where Sonny was a physical therapist and co-owned a physical therapy practice, and Kari worked as a dental hygienist in a thriving pediatric dental office.

Since moving to Reedsburg in May of 2000, Sonny, Kari and their family have been an active and involved part of the Reedsburg community. They also welcomed another daughter, Camryn, to their family in November of 2003.

- Sonny has coached both boys and girls soccer at RAHS for more than 20 years and continues to be involved with the Girls' Soccer Program today.
- He has partnered with and helped to initiate and implement many charitable efforts throughout the Reedsburg Area, including the Reedsburg Food Pantry, Helping Hands, Safe Harbor Homeless Shelter, Habitat For Humanity, multiple coat, food, and clothing drives, as well as volunteering and mobilizing volunteers for flood recovery and cleanup.

- Kari is a First Grade Teacher at Westside Elementary School and spends a great deal of her extra time working alongside Sonny, either at the church, or in the community.

- Caitlyn is a 2015 graduate of RAHS, having grown up in Reedsburg and attending the public schools in town. Caitlyn is married to Riley Steiner and she works for LK Design and Photography as a designer, photographer, and social media manager.

- Camryn was born in Reedsburg and will be starting her senior year at RAHS in the fall. Her desire, at this time, is to attend UW Eau Claire and study history with a focus on becoming a high school history teacher.

We have lived in and absolutely loved the community of Reedsburg for over 21 years and would love to see this community continue to be a growing, thriving, welcoming community for many…and for many years to come.

ORDINANCE NO. 1921-21
(Annexation – Parcels # 030-0400-10000 & 030-0400-20000)

WHEREAS, A Petition for Direct Annexation by Unanimous Approval (the "Petition") pursuant to the provisions of Wis. Stat. sec. 66.0217(2) was filed with the City of Reedsburg on June 17, 2021; and,

WHEREAS, the Petition complies with the requirements of Wis. Stat. sec. 66.0217(5) with respect to information contained therein; and,

WHEREAS, the Wisconsin Department of Administration has reviewed the information in the petition pertaining to the proposed annexation pursuant to Wis. Stat. sec. 66.0217(6) and has determined that the proposed annexation is in the public interest; and,

WHEREAS, the City of Reedsburg Planning Commission has reviewed and recommended acceptance of the Petition; and,

WHEREAS, the Common Council finds the proposed annexation is in the best interests of the City, will promote the economic prosperity of the City and is consistent with the City's planning and growth objectives;

NOW THEREFORE, the Common Council of the City of Reedsburg, Sauk County, Wisconsin, does hereby ordain as follows:

SECTION I: ANNEXATION AND DESCRIPTION OF ANNEXED TERRITORY:

The Petition is hereby accepted, and the territory described and depicted therein is hereto and incorporated herein, is hereby annexed to the City of Reedsburg. The MBR number is **14407.**

A parcel of land being all of Sauk County Certified Survey Map #6469, located in the Northwest Quarter of the Southeast Quarter and the Northeast Quarter of the Southeast Quarter, Section 12, Town 12 North, Range 04 East, Town of Reedsburg, Sauk County, Wisconsin, described as follows:

> Beginning at the Southwest Corner of Section 12, Town 12 North, Range 04 East; thence along the east line of the SE1/4 of said Section 12, N00°06'44"W, 1316.41 feet to the southeast corner of the NE1/4 of the SE 1/4 of said Section 12; thence along the south line of said NE1/4 of the SE1/4, S89°09'19"W, 100.26 feet to the southeasterly corner of Lot 2, CSM 6469; thence along the south line of said CSM 6469, S89°09'19"W, 1563.64 feet to the southwesterly corner thereof; thence along the west line of said CSM 6469, N00°23'49"W, 1238.76 feet to the northwesterly corner thereof and the southerly right-of-way of STH 23 & 33; thence along the north line of said CSM 6469 and said southerly right-of-way, N89°25'33"W, 1424.52 feet to the northeasterly corner thereof; thence along the east line of said CSM 6469, S00°08'48"E, 286.07 feet to the northeasterly corner of Lot 1, K&J Estates; thence along the north line of said Lot 1, K&J Estates, S89°34'32"W, 287.00 feet to the northwesterly corner thereof; thence along the west line of Lot 1 and Lot 2, K&J Estates and the west line of Lot 2, CSM 3210, S00°07'18"E, 725.04 feet to the southwesterly corner of said Lot 2, CSM 3210; thence along the south line of said Lot 2, CSM 3210, N89°38'38"E, 431.86 feet to the westerly right-of-way of STH 136; thence along said westerly right-of-way of STH 136, S00°07'17"E, 219.41 feet to the Point of Beginning.
>
> Containing 1,580,160 sq. ft. or 36.28 Acres more or less.

SECTION II: MAP:

> The map attached to the Petition reasonably shows the boundaries of the annexed territory and the relation of the annexed territory to the affected municipalities.

SECTION III: POPULATION:

> The population of the territory annexed is one (1).

SECTION IV: FILING:

> The City Clerk shall record a copy of this ordinance with the Sauk County Register of Deeds and send a certified copy of this ordinance to the Department of Administration, any company that provides utility service to the annexed property, and the School District of Reedsburg.

SECTION V: WARD:

The annexed territory is hereby added to the City of Reedsburg Ward 16, Aldermanic District 4. The City of Reedsburg petitions the Sauk County Board of Supervisors that the annexed territory be moved from Supervisor District 6 to Supervisor District 10.

SECTION VI: VALIDITY

Should any section, clause or provision of the Ordinance be declared by the Courts to be invalid, the same shall not affect the validity of the Ordinance as a whole or any part thereof, other than the part so declared to be invalid.

SECTION VII: CONFLICTING PROVISIONS REPEALED:

All ordinances in conflict with any provision of this Ordinance are hereby repealed.

SECTION VIII: EFFECTIVE DATE:

This ordinance shall be in force from and after its introduction and publication as provided by statute.

SECTION IX: PART OF CODE:

This Ordinance becomes part of the zoning map of the City of Reedsburg.

Dated this 26th day of July, 2021.

David G. Estes, Mayor	Jacob Crosetto, Clerk/Treasurer
1st Reading at Council:	June 28, 2021
Public Hearing Noticed:	July 8, 2021 & July 15, 2021
2nd Reading at Council/Public Hearing:	July 26, 2021
Published, Enactment Date:	August 5, 2021

20 Jan 2021 - 2:41p R:\Reedsburg, City of\200308 - Annexation Description\CADD\210026 - Varnes Annexation Sketch.dwg by: sdis

vierbicher
planners | engineers | advisors
Phone: (800) 261-3898

EXISTING CITY LIMITS

E. QUARTER CORNER
SECTION 12, T12N, R4E

R/W

E-W QUARTER LINE

R/W

STH 23/33

N89°25'33"E 1424.52'

R/W

LOT 2
CSM 6543

"40" LINE

S0°08'48"E
286.07'

S89°34'32"W
287.00'

CSM
5623

LOT 1

K&J
ESTATES

LOT 2

LOT 3

725.04'

S0°07'18"E

R/W

N0°23'49"W 1238.76'

PARCEL #030-0400-10000
LOT 1, CSM 6469
NW1/4-SE1/4 & NE1/4-SE/4
SECTION 12, T12N, R4E

PARCEL #030-0400-20000
LOT 2, CSM 6469
NE1/4-SE/4
SECTION 12, T12N, R4E

LOT 2
CSM 6543

LOT 2
CSM 3210

STH 136

N89°38'38"E 431.86'

S0°07'17"E
219.41'

P.O.B.

EXISTING CITY LIMITS

S89°09'19"W 1563.64'

SW1/4-SE1/4

LOT 42 LOT 41 LOT 40 LOT 39 LOT 37

LOT 43

N. OAK CREST DR

OAK CREST PARK

N. OAK CREST DR

R/W

N
W E
S

GRAPHIC SCALE FEET
0 75 150 300

REVISIONS	SCALE
CHECKED: MLON	
DRAFTER: SDIS	
FILE	
JOB NO.: 210026	
DATE: 01/20/21	

SHEET

OF

Nishan Park Improvements

Project Name	Bid Amount	Cost Estimate
New Legion Scoreboard	$24,550	$24,550
Parking Lot Improvements		$25,000
Painting Dugouts/Buildings	$9,782	$9,782
Concrete Slabs For Bleachers/Garbage cans	$15,668	$15,668
Fencing/Backstops		$50,000
Total		$125,000

T AND M GENERAL CONTRACTORS INC.
COMMERCIAL INDUSTRIAL

Concrete Work / Metal Buildings / Architectural Metal Work / Crane Service
230 King St. Reedsburg, WI 53959 / Ph 608-524-4417 / Fax 608-524-1404
www.tmgeneralcontractors.com

Proposal To:

Nm: C.O.R. Parks Dept.
St:
City:
Attn: **Matt Scott**

Date 06/01/21
Ph.
Fax
Cell
email
P.O.# & f.n.

MATERIALS & SPECIFICATIONS:

Per Slab:

Install an 11'x17' concrete slab under bleachers at nishan.

Estimated project cost		$1,313.00
SCHEDULE OF PAYMENTS		
Down Payment Required before material ordered or project starts	40%	$525.20
Progress Payment due upon completion of		
Final payment due upon completion of job.	60%	$787.80

Delay of timely payments will result in delay of work activities.
All payments are due UPON RECEIPT OF INVOICE.
A FINANCE CHARGE computed by the "periodic rate" of 1-1/2% per month or 18% annual rate

Pat Farber Painting Plus
E6878 Ski Hill Rd Reedsburg, WI
53959. Phone 524-6527

ESTIMATE

Date: 5/11/2021

To:

City of Reedsburg
Locust Street
Reedsburg, WI 53959

Salesperson	Job	Payment Terms	Due Date
	Nishan	Due on receipt	

Qty	Description	Unit Price	Line Total
	Power wash dug outs and score tower		
	Scrape where needed		
	Paint 4 doors		320
	Labor		7712
	Materials		1750

TOTAL 9,782.00

½ down payment at startup
Make all checks payable to Pat Farber

Paintingplus60@gmail.com

paintingplus60@gmail.com

QUOTATION

Bill to:
CITY OF REEDSBURG
MATT SCOTT

Ship to:

2814 Bryant Rd Madison, WI 53725-9068 608.274.1353

Product #	Qty	Description	Price	Total
8335LS	1	BASEBALL/SOFTBALL SCOREBOARD	########	$14,500.00
				$0.00
C8000	1	WIRELESS CONTROLLER	$750.00	$750.00
				$0.00
				$0.00
		OPTIONS		$0.00
				$0.00
SHIP	1	SHIPPING TO REEDSBURG	$500.00	$500.00
				$0.00
INSTALL	1	INSTALLATION/DELIVERY	########	$6,000.00
				$0.00
AD	2	AD PANELS	########	$2,800.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00
				$0.00

Shipping
TOTAL COST $24,550.00

Additional Notes
INSTALL INCLUDES DELIVERY, PUTTING UP AND TAKING DOWN OLD SCOREBOARDS/AD PANELS - TAKING OLD SCOREBOARD AWAY

Sales Representative ***Jeff Howard*** Quotation Expiration Date ***JUNE 24th, 2021***

RESOLUTION
Approving Roadway Functional Classification Changes

FILE NO. 4443-21

WHEREAS, the Wisconsin Department of Transportation conducts periodic reviews and updates to the functional classification system of roadways across the state of Wisconsin; and

WHEREAS, the Federal Highway Administration has issued guidance related to the development of functional classification of roadways; and

WHEREAS, the Wisconsin Department of Transportation has submitted recommended changes to the functional classification system of roadways in the City of Reedsburg; and

WHEREAS, the changes proposed to the functional classification system of streets in the City of Reedsburg are shown in the change list, as shown in Exhibit 1 to this Resolution; and

WHERAS, after review by the City Engineer and staff, the proposed classification changes have been found to be justified.

NOW, THEREFORE, BE IT RESOLVED by the Common Council of the City of Reedsburg, Sauk County, Wisconsin that the City informs the Wisconsin Department of Transportation that the roadway functional classification changes as outlined in the change list, as shown in Exhibit 1 to this Resolution are approved and that the above actions were taken by the Common Council of the City of Reedsburg.

ADOPTED on this 28th day of June, 2021.

_____
Dave Estes, Mayor

_____
Jacob Crosetto, City Clerk - Treasurer

Respectfully Submitted:

The above resolution has been authorized by the governing body of the City of Reedsburg by Resolution No. 4443-21, dated June 28, 2021.

Date Passed: June 28, 2021

Vote: _____

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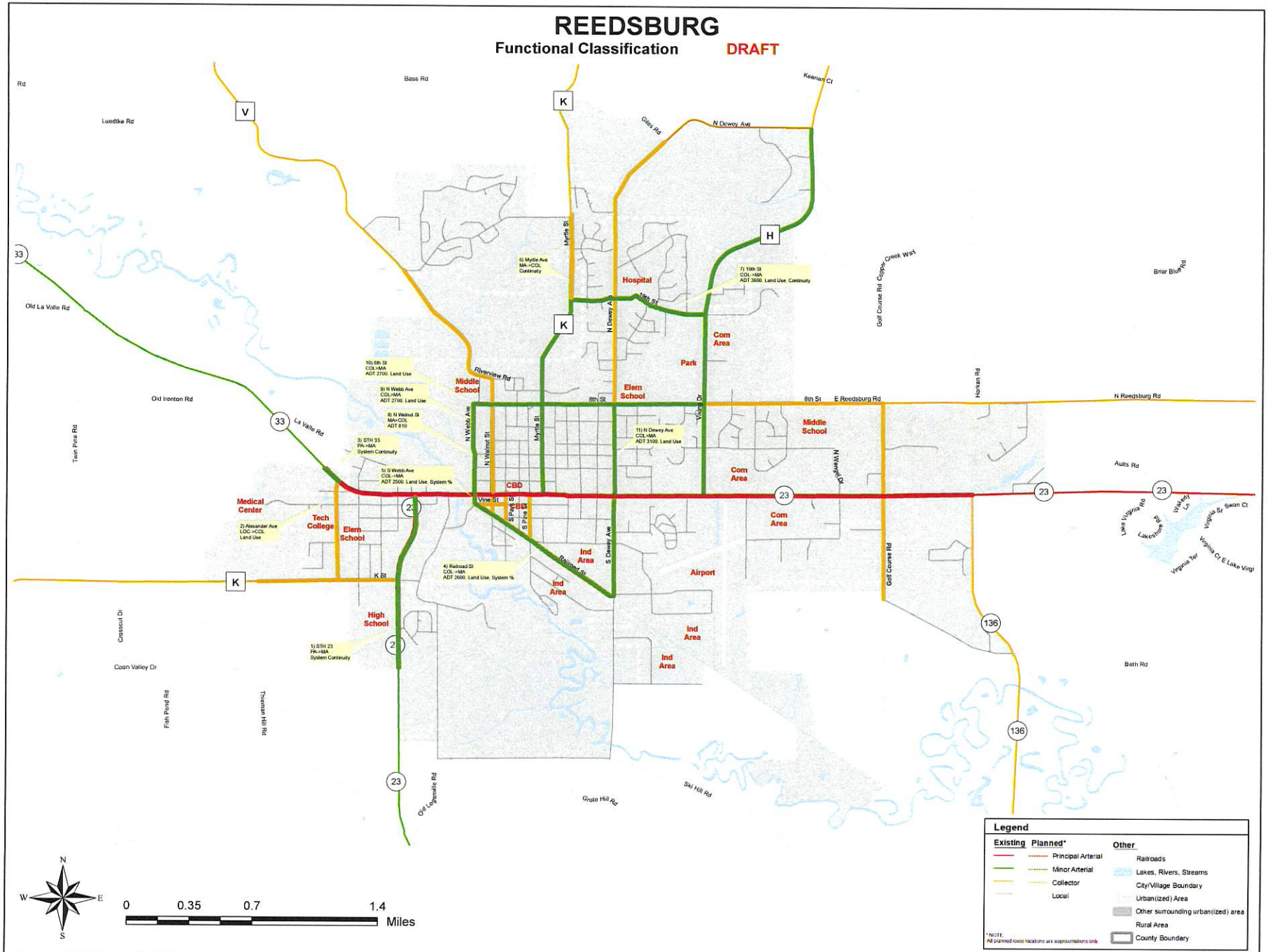


WisDOT Bureau of Planning and Economic Development
FHWA Approval Date: DRAFT
PDF Created: 02/15/2021
Edgerton

RECOMMENDED FUNCTIONAL CLASSIFICATION CHANGES

WisDOT Region:	South West (SW)
County:	Sauk
Urban(ized) Area:	Reedsburg
Population:	9,200

Urban Area:

REEDSBURG

	IH	PA	MA	COL	LOC	TOTAL
Starting Mileage:		4.69	5.86	8.97	49.86	69.38

No.	Route	Limits	From	To	IH	PA	MA	COL	LOC	Reason
1	STH 23	UAB - STH 33	uPA	uMA		-0.97	0.97			System Continuity
2	Alexander Ave	CTH K - STH 33	uLOC	uCOL				0.53	-0.53	Serves Tech College, Elem School, Medical Center
3	STH 33	UAB - Alexander Ave	uPA	uMA		-0.12	0.12			System Continuity
4	Railroad St	Vine St - S Dewey Ave	uCOL	uMA			0.93	-0.93		ADT 2600, Land Use, System %
5	S Webb Ave	STH 23 - Vine St	uCOL	uMA			0.04	-0.04		ADT 2500, Land Use, System %
6	Myrtle Ave	19th St - UAB	uMA	uCOL			-0.46	0.46		System Continuity
7	19th St	Myrtle Ave - Viking Dr	uCOL	uMA			0.79	-0.79		ADT 3600, Land Use, Continuity
8	N Walnut St	STH 33 - 8th St	uMA	uCOL			-0.50	0.50		ADT 810, below MA threshold N Webb Ave makes more sense
9	N Webb Ave	STH 33 - 8th St	uCOL	uMA			0.50	-0.50		ADT 2700, Land Use (Middle School)
10	8th St	N Webb Ave - N Walnut St	uCOL	uMA			0.11	-0.11		ADT 2700, Land Use (Middle School)
11	N Dewey Ave	STH 23 - 8th St	uCOL	uMA			0.52	-0.52		ADT 3100, Land Use
12										
13										
14										
15										
16										
17										
18										
19										
20										

	IH	PA	MA	COL	LOC	
Change:	0	-1.09	3.02	-1.4	-0.53	
End Mileage:	0	3.6	8.88	7.57	49.33	69.38
End %:	0.0%	5.2%	12.8%	10.9%	71.1%	
desirable range		5% - 12%	10% - 15%	5% - 11%	65% - 80%	

City of Reedsburg
WWTP Facilities Plan
Discussion Topics
June 22, 2021

1. Projections Refresher
2. Site and Outfall Locations
3. Effluent Limits Request
4. Alternatives Analysis
    a. Alternatives
    b. Capital Costs
    c. Cost Effectiveness Evaluation (Net Present Worth)
    d. Other Considerations
    e. Recommendations/Approach Discussion
5. Next Steps

Reedsburg WWTF

Future Loadings Projections

2040 Population Projection = 12,800

Peaking Factors:

Flow		BOD		SS		TKN		Phosphorus	
Max Week PF	153%	Max Week PF	139%	Max Week PF	160%	Max Week PF		Max Week PF	152%
Max Day PF	204%	Max Day PF	211%	Max Day PF	382%	Max Day PF		Max Day PF	307%

		Data Base Quantity	Units	Rate	Flow Units	Flow	BOD Rate	BOD Units	BOD Loading	SS Rate	SS Units	SS Loading	TKN Rate	TKN Units	TKN Loading	Phosphorus Rate	Phosphorus Units	Phosphorus Loading
						mgd			lbs/day			lbs/day			lbs/day			lbs/day
1	City Base Loadings																	
	Residential	9,639	capita															
	Annual			37	gpcd	0.352												
	Max Month			41	gpcd	0.396												
	Commercial	376	cust.															
	Annual			552	gpcd	0.208												
	Max Month			609	gpcd	0.229												
	Public	47	cust.															
	Annual			1,057	gpcd	0.050												
	Max Month			1,740	gpcd	0.082												
	General Industrial	36	cust.															
	Annual			4,540	gpcd	0.163												
	Max Month			5,965	gpcd	0.215												
	Annual Average					0.773			2,806			3,081	40	mg/l	258			57
	Current Max Month					0.921			3,104			3,579			307			66
2	Future City Increases																	
	Population Growth	3,161	capita															
	Annual			37	gpcd	0.116	0.20	ppcd	632	0.23	ppcd	727	40	mg/l	39	7	mg/l	7
	Max Month			41	gpcd	0.130	0.20	ppcd	632	0.25	ppcd	790	40	mg/l	43	7	mg/l	8
	Commercial Expansion	76	cust															
	Annual			552	gpcd	0.042	250	mg/l	88	250	mg/l	88	40	mg/l	14	7	mg/l	2
	Max Month			609	gpcd	0.046	250	mg/l	96	250	mg/l	96	40	mg/l	15	7	mg/l	3
	Public Sector Growth	10	cust															
	Annual			1,057	gpcd	0.011	250	mg/l	22	250	mg/l	22	40	mg/l	4	7	mg/l	1
	Max Month			1,740	gpcd	0.017	250	mg/l	36	250	mg/l	36	40	mg/l	6	7	mg/l	1
	General Industrial Expansion	8	cust															
	Annual			4,540	gpcd	0.036	250	mg/l	76	250	mg/l	76	40	mg/l	12	7	mg/l	2
	Max Month			5,965	gpcd	0.048	250	mg/l	100	250	mg/l	100	40	mg/l	16	7	mg/l	3
	Future Annual Average					0.204			817			912			68			12
	Future Max Month					0.241			864			1,023			80			14
3	Additional Contributors																	
	Septage Hauling					0.008	3,640	mg/l	243	20,000	mg/l	1,334	400	mg/l	27	180	mg/l	12
	Medium Septage Hauling					0.0005	2,000	mg/l	8	10,000	mg/l	42	200	mg/l	1	100	mg/l	0
	Holding Tank Waste					0.018	600	mg/l	88	1,000	mg/l	146	200	mg/l	29	24	mg/l	4
	Additional Contributor Annual					0.026			339			1,522			57			16
4	Major Industrial Contributions																	
	Foremost																	
	Annual					0.128			1,745			1,528			135			39
	Max Month					0.188	138%		2,403			2,868			186			53
	Saputo																	
	Annual					0.117			3,581			1,033			47			56
	Max Month					0.131	121%		4,350			1,357			57			65
	Bioriginal																	
	Annual					0.204			1,217			315			50			60
	Max Month					0.314	197%		2,393			833			98			148

Reedsburg WWTF

Future Loadings Projections

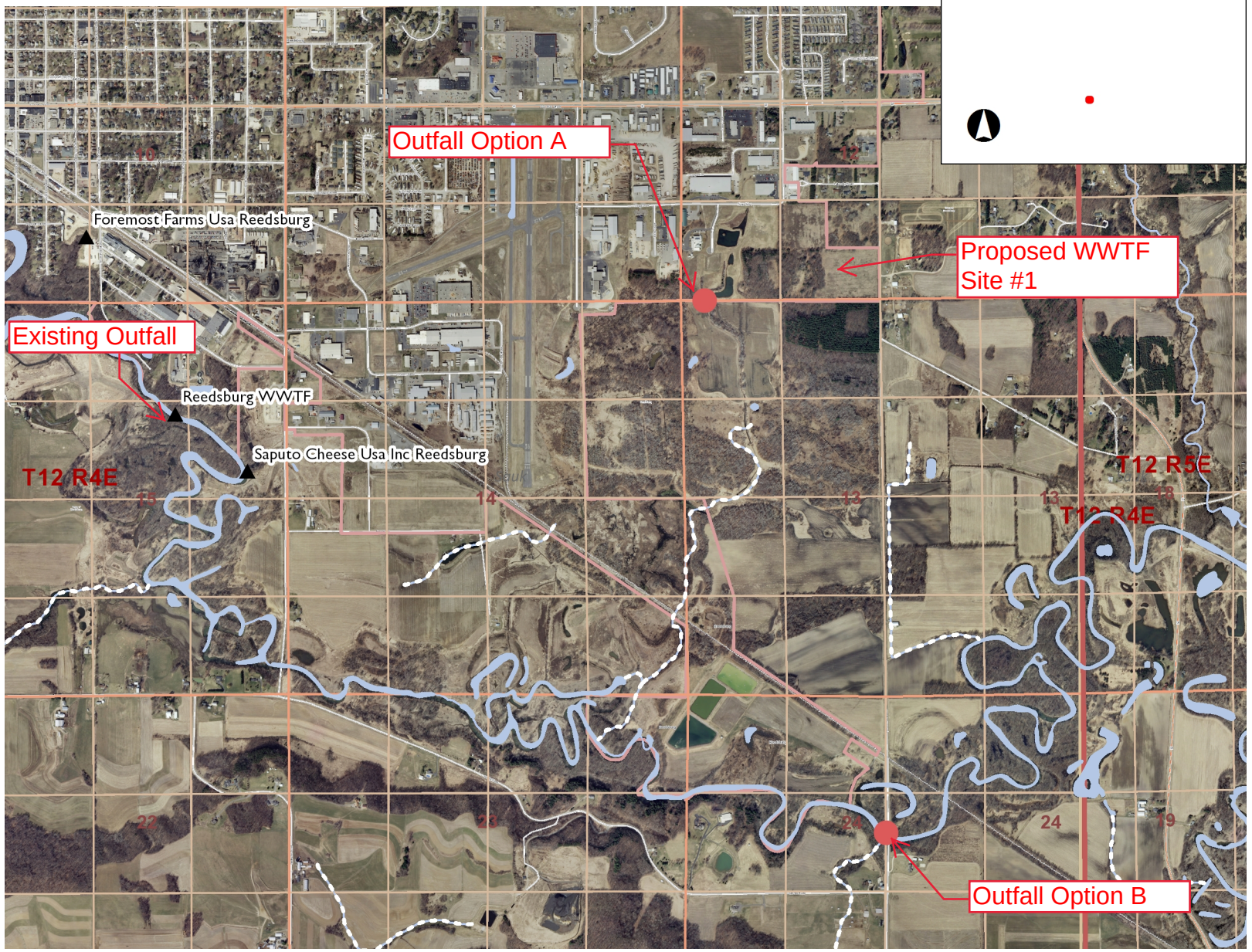
2040 Population Projection = 12,800

Peaking Factors:

Flow		BOD		SS		TKN		Phosphorus	
Max Week PF	153%	Max Week PF	139%	Max Week PF	160%	Max Week PF		Max Week PF	152%
Max Day PF	204%	Max Day PF	211%	Max Day PF	382%	Max Day PF		Max Day PF	307%

	Data Base Quantity	Units	Flow Rate	Units	Flow	BOD Rate	Units	Loading	SS Rate	Units	Loading	TKN Rate	Units	Loading	Phosphorus Rate	Units	Loading
Unallocated Industrial	25%																
Annual	of total industrial				0.112			1,636			719			58			39
Max Month					0.158			2,287			1,264			85			67
Industrial Annual					0.561			8,179			3,595			290			194
Industrial Max Month					0.791			11,434			6,321			427			333
5 Clear Water Infiltration/Inflow																	
Existing Dry Weather Infiltration					0.870												
Existing Max Month I/I					2.087												
Future Max Month I/I	3,161	capita	40		0.126												
Proj. Max Month I/I Reduction																	
Daily Wet Weather Inflow					3.772												
Instantaneous Inflow					7.090												
Maximum Weekly					2.932												
Annual Average					1.216												
6 Loadings Projections																	
Average Dry Weather					2.561												
Average Annual					2.907			12,141			9,110			673			279
Maximum Month					**4.192**			**15,741**			**12,444**			**871**			**429**
Maximum Weekly					5.435			16,816			14,607			1,012			424
Maximum Daily					7.059			25,616			34,804			2,018			854
Peak Hourly					10.377												
			7202	gpm													
7 Start Up					3.825			14,877			11,422			791			415
Rated Facility Capacity					2.646			6,331			5,048			815			205

Reedsburg WWTF Proposed Outfall Locations



Legend

- Surface Water Outfalls
- Township
- Section
- Quarter-Quarter
- County Boundary
- Cities, Towns & Villages
  - City
  - Village
  - Civil Town
- Municipality
- State Boundaries
- County Boundaries
- Major Roads
  - Interstate Highway
  - State Highway
  - US Highway
- County and Local Roads
  - County HWY
  - Local Road
- Railroads
- Tribal Lands
- Rivers and Streams
- Intermittent Streams
- Lakes and Open water
- Index to EN_Image_Basemap_Leaf_Off

Notes

0.8 0 0.38 0.8 Miles

NAD_1983_HARN_Wisconsin_TM

1: 23,760

Reedsburg WWTF Proposed Outfall Locations

Legend

- Surface Water Outfalls
- Township
- Section
- Quarter-Quarter
- County Boundary
- Cities, Towns & Villages
  - City
  - Village
  - Civil Town
- Municipality
- State Boundaries
- County Boundaries
- Major Roads
  - Interstate Highway
  - State Highway
  - US Highway
- County and Local Roads
  - County HWY
  - Local Road
- Railroads
- Tribal Lands
- Rivers and Streams
- Intermittent Streams
- Lakes and Open water
- Index to EN_Image_Basemap_Leaf_Off

Notes

0.5 0 0.25 0.5 Miles

NAD_1983_HARN_Wisconsin_TM

1: 15,840

City of Reedsburg
WWTP Facilities Plan
Summary of Changes - Effluent Limits Request
May 11, 2021

Existing Site

BOD & TSS:	No change
Ammonia:	No change
Phosphorus:	No change*
Mercury	No change

Site #1, Outfall A

Mercury	No longer qualified for mercury variance, site deemed infeasible

Site #1, Outfall B

BOD:	Slight lowering of weekly limits**
TSS:	No change
Ammonia:	Slight lowering of limits**
Phosphorus:	No change*
Mercury	No change

Site #2, Outfall C

BOD:	Significant lowering of weekly limits**
TSS:	No change
Ammonia:	Moderate lowering of limits**
Phosphorus:	No change*
Mercury	Additional testing required to confirm upstream water quality not impaired by additional discharge. May result in this site being infeasible.

*Phosphorus limits based upon TMDL allocations, which will become more restrictive with the passing of the site-specific criteria limits in the future. This applies regardless of site.

**Based upon DNR estimated 1/3 assimilative capacity. Stringency of limits could be reduced if antidegradation evaluation is completed.

MEMORANDUM

Date: May 19, 2021 *(updated June 22, 2021)*

To: City of Reedsburg
Public Works Committee

From: Ben Heidemann, P.E. – Vice President
Town and Country Engineering

Subject: Reedsburg WWTF Facilities Plan
Summary of Alternatives

The City of Reedsburg is in the process of completing a Facilities Planning effort for their wastewater treatment facility to address capacity and flooding concerns. This memo serves as a general summary of the alternatives being considered for the facilities plan. Attached to this memo is a bulleted list outlining the scope of each alternative.

Alternative 1 – Upgrade Existing Facility

Design WWTF Capacity: 4.2 MGD, 15,750 lbs/day BOD

Alternatives 1A and 1B would utilize the existing facility. The existing facility needs additional capacity to be able to treat the projected loadings that it will be experiencing. Alternative 1A would upgrade/replace the majority the existing equipment/processes and add several new processes to achieve the required flow and BOD capacity. The sludge produced during the treatment process would remain being treated to a Class A biosolid via lime stabilization and an off-site sludge storage building would be built near the new public works building. Alternative 1B would require similar WWTF improvements to Alternative 1A, however sludge would be treated to Class A biosolids via temperature phased anaerobic digestion (TPAD).

Alternative 2 – Upgrade Existing Facility and Industrial Pre-treatment

Design WWTF Capacity: 4.2 MGD, 8,500 lbs/day BOD

Design Pretreatment Capacity: 0.6 MGD, 8,000 lbs/day BOD

Alternative 2 would be similar to Alternative 1A, requiring upgrades to the existing facility to achieve an increased flow and BOD capacity, however the BOD capacity improvements would be limited as industrial pre-treatment would also be constructed to treat Saputo and Bioriginal to a domestic strength waste. For the purposes of this plan it has been assumed that the pre-treatment facilities would be built near the newt public works facilities. Industrial waste would undergo pre-treatment and the effluent would be discharged to the existing treatment via the existing gravity sanitary sewer. Sludge would be produced at the industrial pre-treatment site, but because there would be no human waste being treated; the sludge would not need treatment. Improvements to the existing WWTP would be limited as compared with Alternative 1. A sludge storage building would also be built at the pretreatment site to provide additional storage for the municipal biosolids.

Alternative 3 – New WWTF

Design WWTF Capacity: 4.2 MGD, 15,750 lbs/day BOD

Alternatives 3A, 3B and 3C considers construction of a new wastewater treatment facility to treat 100% of the wastewater generated within the City. For the purposes of this evaluation the dog park property, located adjacent to the public works garage, has been assumed as the new site. Should the City decide to move forward with a new facility a more formal siting investigation could be pursued. A new lift station would be built near the existing plant (SE of Nuk USA) with a dual

force main extending to the location of the new WWTF. The new treatment processes are outlined for each of three options below. Effluent from the plant would discharge to the Baraboo River, with the currently assumed routing following S Golf Course Road. For all alternatives Class A sludge treatment is assumed.

Alternative 3A would utilize conventional activated sludge treatment and Class A lime stabilization.

Alternative 3B would utilize conventional activated sludge treatment and Class A temperature phased anaerobic digestion.

Alternative 3C would utilize conventional activated sludge treatment, class B mesophilic digestion, and Class A sludge drying.

Alternative 3C would utilize conventional activated sludge treatment, no digestion, and Class A sludge drying.

Alternative 4– New WWTF with Industrial Pre-treatment

Design WWTF Capacity: 4.2 MGD, 8,500 lbs/day BOD

Design Pretreatment Capacity: 0.6 MGD, 8,000 lbs/day BOD

Alternatives 4A, 4B, and 4C would be similar to their Alternative 3 counterparts, however; the new treatment plant would be designed for a hydraulic capacity of 4.2 MGD and a BOD capacity of 8,000 lbs/day and a pretreatment facility (similar to Alternative 2) would be constructed for Saputo and Bioriginal waste. One exception to the similarity to Alternative 3 would be Alternative 4A, which would not utilize conventional activated sludge treatment, and instead use an oxidation ditch.

Reedsburg Facilities Plan Alternatives

1A: Existing Site Upgrade

- Average Flow: 4.2 MGD
- Peak Flow: 10 MGD
- Average BOD Loading: 15,750 lbs/day

In additional to the existing site facilities, the following will be added:

- Primary filters
- Chemically enhanced primary treatment
- Upgrade activated sludge to IFAS
- Tertiary disc filtration for phosphorus removal
- UV treatment
- Effluent pumping
- DAF WAS thickening
- Additional centrifuge
- Additional Bioset in Sludge Bay
- Off-site sludge storage
- Upgrade Zinga lift station

1B: Existing Site plus Class A TPAD

- Average Flow: 4.2 MGD
- Peak Flow: 10 MGD
- Average BOD Loading: 15,750 lbs/day

In additional to the existing site facilities, the following will be added:

- Primary filters
- Upgrade activated sludge to IFAS
- Chemically enhanced primary treatment
- Tertiary disc filtration for phosphorus removal
- UV treatment
- Effluent pumping
- DAF WAS thickening
- Additional Centrifuge
- Repurpose sludge and centrate storage to thermophilic digesters, add mesophilic digester
- New sludge processing building with sludge batch tanks, sludge pumping, digester heating, and biogas utilization
- New centrate storage
- Off-site sludge storage
- Upgrade Zinga lift station

2: Existing Site plus Industrial Pre-treatment at New Site

- Average Flow: 4.2 MGD
- Peak Flow: 10 MGD
- Average BOD Loading: 8,500 lbs/day

In additional to the existing site facilities, the following will be added:

- Primary filters
- Additional aeration basin
- Tertiary disc filtration for phosphorus removal

- UV treatment
- Effluent pumping
- DAF WAS thickening
- Off-site sludge storage

New Site Industrial Pretreatment:

- Average Flow: 0.6 MGD
- Average BOD Loading: 8,000 lbs/day

- Saputo & Bioriginal pump station to new site
- Industrial equalization tank
- DAF primary treatment
- MBBR biological treatment
- Clarification
- Anaerobic treatment of biosolids
- Centrifuge dewatering of industrial waste
- Sludge storage for municipal and industrial waste
- Upgrade Zinga lift station

3A: New Site: Conventional Treatment plus Class A Lime Stabilization

- Average Flow: 4.2 MGD
- Peak Flow: 10 MGD
- Average BOD Loading: 15,750 lbs/day

To convey flow to the new site:

- New pump station near Nuk
- (2) 18" FM

The facilities at the new site will consist of:

- Headworks (screening and grit removal)
- Selector basins
- Aeration basins
- Blower building
- Final clarifiers
- Tertiary disc filtration for phosphorus removal
- UV Treatment
- DAF WAS thickening
- Sludge Holding
- Centrifuge
- Centrate holding
- Bioset/lime stabilization
- Sludge storage
- Upgrade Zinga lift station

3B: New Site: Conventional Treatment plus Class A TPAD

- Average Flow: 4.2 MGD
- Peak Flow: 10 MGD
- Average BOD Loading: 15,750 lbs/day

To convey flow to the new site:

- New pump station near Nuk
- (2) 18" FM

The facilities at the new site will consist of:

- Headworks (screening and grit removal)
- Primary clarifiers
- Selector basins
- Aeration basins
- Blower building
- Final clarifiers
- Tertiary disc filtration for phosphorus removal
- UV Treatment
- DAF WAS thickening
- Solids Treatment Building with batch tank, heat exchangers, thermophilic and mesophilic digesters, and centrifuge
- Centrate Storage
- Sludge storage
- Upgrade Zinga lift station
- Beneficial gas utilization (enhancement)
- Sidestream P treatment (enhancement)

3C: New Site: Conventional Treatment plus Class B Digestion plus Class A Drying

- Average Flow: 4.2 MGD
- Peak Flow: 10 MGD
- Average BOD Loading: 15,750 lbs/day

To convey flow to the new site:

- New pump station near Nuk
- (2) 18" FM

The facilities at the new site will consist of:

- Headworks (screening and grit removal)
- Primary clarifiers
- Selector basins
- Aeration basins
- Blower building
- Final clarifiers
- Tertiary disc filtration for phosphorus removal
- UV Treatment
- DAF WAS thickening
- Solids treatment building with heat exchangers, mesophilic digesters, sludge storage and centrifuge.
- Centrate Storage
- Class A sludge drying
- Silo biosolids storage
- Upgrade Zinga lift station
- Beneficial gas utilization (enhancement)
- Sidestream P treatment (enhancement)

3D: New Site: Conventional Treatment plus Class A Drying

- Average Flow: 4.2 MGD
- Peak Flow: 10 MGD
- Average BOD Loading: 15,750 lbs/day

To convey flow to the new site:

- New pump station near Nuk
- (2) 18” FM

The facilities at the new site will consist of:

- Headworks (screening and grit removal)
- Primary clarifiers
- Selector basins
- Aeration basins
- Blower building
- Final clarifiers
- Tertiary disc filtration for phosphorus removal
- UV Treatment
- DAF WAS thickening
- Solids treatment building with sludge storage and centrifuge.
- Centrate Storage
- Class A sludge drying
- Silo biosolids storage
- Upgrade Zinga lift station

4A: New Site: Ditch plus Lime with Industrial Pretreatment

- Average Flow: 4.2 MGD
- Peak Flow: 10 MGD
- Average BOD Loading: 8,500 lbs/day

To convey flow to the new site:

- New pump station near Nuk
- (2) 18” FM

The municipal facilities at the new site will consist of:

- Headworks (screening and grit removal)
- Oxidation ditch activated sludge
- Final clarifiers
- Tertiary disc filtration for phosphorus removal
- UV Treatment
- DAF WAS thickening
- Sludge holding
- Centrifuge
- Centrate holding
- Bioset/lime stabilization
- Sludge storage for municipal and industrial waste

New Site Industrial Pretreatment:

- Average Flow: 0.6 MGD
- Average BOD Loading: 8,000 lbs/day

  - Saputo & Bioriginal pump station to new site
  - Industrial equalization tank
  - DAF primary treatment
  - MBBR biological treatment
  - Clarification
  - Anaerobic treatment of biosolids
  - Centrifuge dewatering of industrial waste
  - Sludge storage for municipal and industrial waste

4B: New Site: Conventional plus TPAD with Industrial Pretreatment

- Average Flow: 4.2 MGD
- Peak Flow: 10 MGD
- Average BOD Loading: 8,500 lbs/day

To convey flow to the new site:

- New pump station near Nuk
- (2) 18" FM

The facilities at the new site will consist of:

- Headworks (screening and grit removal)
- Primary clarifiers
- Selector basins
- Aeration basins
- Blower building
- Final clarifiers
- Tertiary disc filtration for phosphorus removal
- UV treatment
- DAF WAS thickening
- Solids treatment building with batch tank, heat exchangers, thermophilic and mesophilic digesters, and centrifuge
- Centrate storage
- Sludge storage for municipal and industrial waste

New Site Industrial Pretreatment:

- Average Flow: 0.6 MGD
- Average BOD Loading: 8,000 lbs/day

- Saputo & Bioriginal pump station to new site
- Industrial equalization tank
- DAF primary treatment
- MBBR biological treatment
- Clarification
- Anaerobic treatment of biosolids
- Centrifuge dewatering of industrial waste
- Sludge storage for municipal and industrial waste

4C: New Site: Conventional plus Class B Meso plus Drying with Industrial Pretreatment

- Average Flow: 4.2 MGD
- Peak Flow: 10 MGD
- Average BOD Loading: 8,500 lbs/day

To convey flow to the new site:

- Pump Station at Nuk
- (2) 18" FM

The facilities at the new site will consist of:

- Headworks (screening and grit removal)
- Primary clarifiers
- Selector basins
- Aeration basins
- Blower building

- Final clarifiers
- Tertiary disc filtration for phosphorus removal
- UV Treatment
- DAF WAS thickening
- Solids treatment building with heat exchangers, mesophilic digesters, sludge storage and centrifuge.
- Centrate Storage
- Class A sludge drying
- Silo biosolids storage
- Upgrade Zinga lift station
- Beneficial gas utilization (enhancement)

New Site Industrial Pretreatment:

- Average Flow: 0.6 MGD
- Average BOD Loading: 8,000 lbs/day

  - Saputo & Bioriginal pump station to new site
  - Industrial equalization tank
  - DAF primary treatment
  - MBBR biological treatment
  - Clarification
  - Anaerobic treatment of biosolids
  - Centrifuge dewatering of industrial waste
  - Sludge storage for municipal and industrial waste

City of Reedsburg
WWTP Facilities Plan
Alternatives Capital Cost Summary

Alternative Capital Costs		
ALT	DESCRIPTION	Cost Estimate
1A	Upgrade Existing + Lime	$ 43,076,000
1B	Upgrade Existing + TPAD	$ 52,898,000
2	Upgrade Existing with Industrial Pre-Treatment	$ 53,561,000
3A	Conventional Treatment + Lime	$ 70,495,000
3B	Conventional Treatment + TPAD	$ 81,461,000
3C	Conventional + Class B Meso + Drying	$ 85,594,000
3D	Conventional + Aerated Sludge +Drying	$ 74,830,000
4A	Industrial Pre-Treatment + Ditch + Lime	$ 81,297,000
4B	Industrial Pre-Treatment + Conventional + TPAD	$ 90,147,000
4C	Industrial Pre-Treatment + Conventional + Class B Meso + Drying	$ 94,252,000

Alternative Capital Costs by Component

		Alternative										
Number	Description	1A	1B	2	3A	3B	3C	3D	4A	4B	4C	AVG $
1.0	Sitework at Existing Site	$ 2,014,312	$ 2,145,651	$ 2,014,312								$ 2,058,092
1.1	Sitework for Off Site Sludge Storage	$ 430,444	$ 430,444									$ 430,444
1.2	Sitework at New WWTP				$ 4,190,633	$ 4,697,513	$ 4,712,513	$ 4,646,513	$ 4,687,283	$ 5,254,883	$ 5,269,883	$ 4,779,888
1.3	Sitework at Existing Site + DEMO				$ 770,860	$ 770,860	$ 770,860	$ 770,860	$ 770,860	$ 770,860	$ 770,860	$ 770,860
1.4	Sitework at Existing Site for New Main LS				$ 1,323,007	$ 1,323,007	$ 1,323,007	$ 1,323,007	$ 1,323,007	$ 1,323,007	$ 1,323,007	$ 1,323,007
1.5	Sitework at Off Site Industrial Pretreatment			$ 916,975								$ 916,975
2.0	Existing Site Process Upgrades	$ 8,703,036	$ 7,593,553	$ 7,120,949								$ 7,805,846
3.0	18" Forcemain From New Main LS to New WWTP				$ 3,256,111	$ 3,256,111	$ 3,256,111	$ 3,256,111	$ 3,256,111	$ 3,256,111	$ 3,256,111	$ 3,256,111
5.0	Construct SALSNES Filter Room	$ 2,154,204	$ 2,154,204	$ 2,154,204								$ 2,154,204
6.0	Add IFAS Tank onto Existing STR. 35	$ 2,218,493	$ 2,218,493									$ 2,218,493
6.1	Add 4th Aeration Basin to Existing STR. 35			$ 905,599								$ 905,599
7.0	Construct Disc Filter Building	$ 2,764,519	$ 2,764,519	$ 2,764,519								$ 2,764,519
7.1	NEW Disc Filter and UV Treatment Building				$ 3,146,436	$ 3,146,436	$ 3,146,436	$ 3,146,436	$ 3,146,436	$ 3,146,436	$ 3,146,436	$ 3,146,436
10.0	UV and Effluent Pumping	$ 1,041,043	$ 1,041,043	$ 1,041,043								$ 1,041,043
15.0	Off Site Sludge Storage	$ 1,299,710	$ 1,117,527	$ 706,427								$ 1,041,221
15.1	Sludge Storage				$ 3,422,929	$ 998,391			$ 909,130	$ 844,330	$ 706,427	$ 1,376,241
15.2	Sludge Storage Silos						$ 1,750,278	$ 2,595,278			$ 1,530,278	$ 1,958,611
18.0	Sludge Treatment Building	$ 2,647,472	$ 5,328,992	$ 2,587,472	$ 10,055,133	$ 8,081,233	$ 10,739,927	$ 11,570,645	$ 9,925,133	$ 7,951,233	$ 10,689,927	$ 7,957,717
19.0	NEW Mesophilic Digester		$ 2,244,327			$ 3,015,092	$ 3,827,504			$ 3,249,791	$ 3,036,377	$ 3,074,618
19.1	NEW Thermophilic Digester					$ 1,590,802				$ 1,413,357		$ 1,502,080
20.0	NEW Industrial Pre Treatment			$ 9,867,635					$ 9,957,635	$ 9,957,635	$ 9,957,635	$ 9,935,135
21.0	NEW Main Lift Station				$ 4,085,296	$ 4,085,296	$ 4,085,296	$ 4,085,296	$ 4,085,296	$ 4,085,296	$ 4,085,296	$ 4,085,296
22.0	NEW On-Site Lift Station			$ 162,374	$ 162,374	$ 162,374	$ 162,374	$ 162,374	$ 162,374	$ 162,374	$ 162,374	$ 162,374
25.0	NEW Headworks Building (single story)				$ 2,012,233				$ 2,012,233			$ 2,012,233
25.1	NEW Headworks Building (w/basement)					$ 2,659,305	$ 2,659,305	$ 2,659,305		$ 2,559,305	$ 2,659,305	$ 2,639,305
26.0	NEW Selector Tanks & Aeration Basins				$ 3,906,374	$ 3,070,170	$ 3,070,170	$ 3,070,170		$ 1,938,565	$ 1,938,565	$ 2,832,336
27.0	NEW Blower Building				$ 1,345,077	$ 1,245,077	$ 1,245,077	$ 1,245,077		$ 1,345,077	$ 1,345,077	$ 1,295,077
28.0	NEW Final Clarifiers				$ 3,197,838	$ 3,197,838	$ 3,197,838	$ 3,197,838	$ 3,197,838	$ 3,197,838	$ 3,197,838	$ 3,197,838
28.1	NEW Primary Clarifiers					$ 2,014,329	$ 2,014,329	$ 2,014,329		$ 2,014,329	$ 2,014,329	$ 2,014,329
29.0	NEW Oxidation Ditch								$ 4,970,733			$ 4,970,733
30.0	NEW Waste Receiving Station				$ 689,797	$ 689,797	$ 689,797	$ 689,797	$ 689,797	$ 689,797	$ 689,797	$ 689,797
31.0	48" Plant Effluent				$ 1,786,500	$ 1,786,500	$ 1,786,500	$ 1,786,500	$ 1,786,500	$ 1,786,500	$ 1,786,500	$ 1,786,500
32.0	Side Stream Phosphorus Removal					$ 3,097,449	$ 3,097,449					$ 3,097,449
33.0	New COGEN Building		$ 1,579,548			$ 1,579,548	$ 1,579,548			$ 1,579,548	$ 1,579,548	$ 1,579,548
34.0	New Admin Building				$ 1,254,035	$ 1,254,035	$ 1,254,035	$ 1,254,035	$ 1,254,035	$ 1,254,035	$ 1,254,035	$ 1,254,035
34.1	New Service Garage				$ 1,245,160	$ 1,245,160	$ 1,245,160	$ 1,245,160	$ 1,245,160	$ 1,245,160	$ 1,245,160	$ 1,245,160
35.0	Zinga LS Upgrades	$ 170,400	$ 170,400	$ 170,400	$ 170,400	$ 170,400	$ 170,400	$ 170,400				$ 170,400
36.0	Generators (note industrial includes generators)				$ 351,667	$ 351,667	$ 351,667	$ 351,667	$ -	$ -	$ -	$ 351,667
	Subtotal:	**$ 23,443,634**	**$ 28,788,701**	**$ 30,411,908**	**$ 46,371,860**	**$ 53,488,388**	**$ 56,135,580**	**$ 49,240,797**	**$ 53,379,561**	**$ 59,025,467**	**$ 61,644,764**	**$ 46,193,066**
	Electrical	$ 4,688,727	$ 5,757,740	$ 5,300,101	$ 7,253,528	$ 8,534,503	$ 9,010,998	$ 7,769,937	$ 8,340,872	$ 9,357,135	$ 9,828,609	$ 7,584,215
	Contractor Margin	$ 4,501,178	$ 5,527,431	$ 4,864,315	$ 3,804,073	$ 4,475,873	$ 4,725,768	$ 4,074,900	$ 4,374,324	$ 4,907,298	$ 5,154,559	$ 4,640,972
	Contingencies	$ 4,895,031	$ 6,011,081	$ 6,086,449	$ 5,742,946	$ 6,649,876	$ 6,987,235	$ 6,108,563	$ 6,609,476	$ 7,328,990	$ 7,662,793	$ 6,408,244
	Engineering, Admin, Legal	$ 4,242,360	$ 5,209,603	$ 5,274,922	$ 5,742,946	$ 6,649,876	$ 6,987,235	$ 6,108,563	$ 6,609,476	$ 7,328,990	$ 7,662,793	$ 6,181,676
	Resident Observation	$ 1,305,342	$ 1,602,955	$ 1,623,053	$ 1,579,310	$ 1,662,469	$ 1,746,809	$ 1,527,141	$ 1,982,843	$ 2,198,697	$ 2,298,838	$ 1,752,746
	Total:	**$ 43,076,000**	**$ 52,898,000**	**$ 53,561,000**	**$ 70,495,000**	**$ 81,461,000**	**$ 85,594,000**	**$ 74,830,000**	**$ 81,297,000**	**$ 90,147,000**	**$ 94,252,000**	**$ 72,761,000**

City of Reedsburg
WWTP Facilities Planning
Present Worth Analysis - Base and Enhancements

Net Present Worth Summary - Base							Net Present Worth Summary - with Enhancements			
Alternatives	**Capital Cost Estimate**	**Startup O&M Estimate**	**Design O&M Estimate**	**Replacement Fund Costs**	**Salvage Costs**	**Base Total Present Worth**	**Enhancements[1]**		**Additional Capital Cost**	**Total Present Worth**
1A	$43,076,000	$1,666,500	$2,366,100	$390,500	$4,352,000	$77,271,000				$77,271,000
1B	$50,449,316	$1,509,600	$1,973,100	$436,300	$5,589,700	$83,804,000	Cogen		$2,448,684	$84,884,000
2	$53,561,000	$1,742,100	$2,120,700	$506,600	$6,552,000	$89,465,000				$89,465,000
3A	$70,495,000	$1,860,200	$2,450,900	$388,800	$16,273,000	$112,175,000				$112,175,000
3B	$74,207,936	$1,577,400	$1,971,000	$437,100	$16,656,700	$116,591,000	Cogen, Sidestream		$7,253,064	$119,271,000
3C	$78,340,936	$1,676,200	$2,040,300	$523,300	$16,120,400	$117,922,000	Cogen, Sidestream		$7,253,064	$125,497,000
3D	$74,830,000	$1,895,000	$2,503,100	$520,600	$14,543,000	$118,079,751				$118,080,000
4A	$81,297,000	$1,739,700	$2,150,800	$502,000	$18,524,000	$122,847,000				$122,847,000
4B	$87,698,316	$1,699,900	$2,018,100	$572,300	$18,902,700	$129,284,000	Cogen		$2,448,684	$131,873,000
4C	$91,803,316	$1,776,100	$2,155,500	$662,200	$18,593,700	$135,872,000	Cogen		$2,448,684	$138,462,000

[1] Enhancements include a Cogeneration Facility for biogas utilization and Sidestream Treatment with sludge dewatering for phosphorus removal/recovery

Enhancements	**Capital Cost Estimate**	**Startup O&M Estimate**	**Design O&M Estimate**	**Replacement Fund Costs**	**Salvage Costs**
Sidestream	$4,804,380	No Change	No Change	$3,421	$389,300
Cogen Building	$2,448,684	No Change	No Change	$27,191	$304,300

City of Reedsburg
WWTP Facilities Plan
Alternatives Analysis – Other Considerations
May 19, 2021 *(updated June 22, 2021)*

Alternative 1:

- Very crowded site with no future expansion capacity
- High construction risk associated with tight construction with significant phasing
- Flood risk remains high

Alternative 2:

- Fewer improvements to site compared with Alternative 1
- Still high construction risk associated with tight construction and significant phasing
- Flood risk remains high
- Staff at two sites (WWTF and Industrial/sludge)

Alternative 3:

- Requires site acquisition for pump station and WWTF site (potentially)
- Biosolids considerations
- Greatly reduces flood risk (pump station likely still located in flood plain, but constructed significantly above flood elevation)
- Large expansion potential

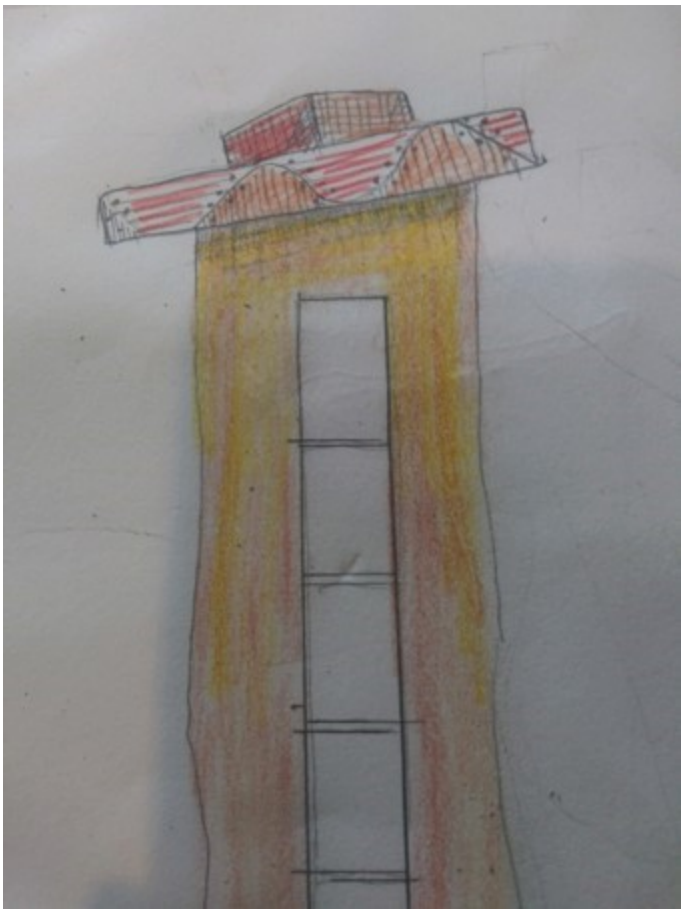
Alternative 4:

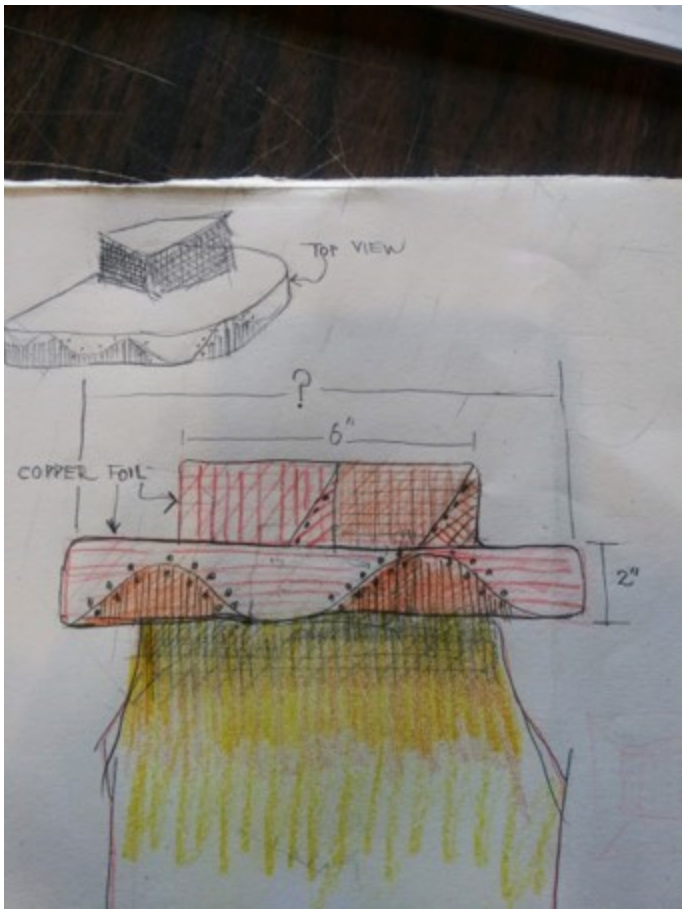
- Requires site acquisition for pump station and WWTF site (potentially)
- Operations of more processes (WWTF plus Industrial WWTF)
- Greatly reduces flood risk (pump station likely still located in flood plain, but constructed significantly above flood elevation)
- Large expansion potential

Alternative 3 and 4 Sludge Treatment:

- Class A Lime Stabilization
    - 100% of today's biosolids production
    - High O&M cost associated with lime and sludge production (inflation not included in NPW analysis)
    - Larger quantity of sludge if PFAS are elevated significantly above standards
    - Simple treatment process
    - High value to farmers for lime content
- Class A Temperature Phased Anaerobic Digestion
    - 52% of today's biosolids production
    - More involved treatment process with potential for biological upset
    - Potential concentration of PFAS (if concentration is near standards)
    - 50+% reduction in biosolids volume
    - Potential for beneficial re-use of biogas
- Class A Sludge Drying with Anaerobic Digestion
    - 13% of today's biosolids production
    - Moderately involved treatment process with involved mechanical equipment
    - Energy intensive, though utilizes biogas for heat requirements
    - Explosion potential of dust
    - Higher potential for concentration of PFAS (if concentration is near standards)

    - 90% reduction of sludge volume
    - Moderate potential for beneficial re-use of biogas (may be limited as both digestion and drying require biogas)
- Class A Sludge Drying without Digestion
    - 22% of today's biosolids production
    - High O&M cost associated with natural gas and electricity
    - Mechanically involved treatment process
    - Energy intensive
    - Explosion potential of dust
    - Higher potential for concentration of PFAS (if concentration is near standards)
    - 90% reduction of sludge volume




Top VIEW
?
6"
COPPER FOIL
2"


REEDSBURG