



City of Appleton

100 North Appleton Street
Appleton, WI 54911-4799
www.appleton.org

Meeting Agenda - Final Utilities Committee

Tuesday, August 24, 2021

5:00 PM

Council Chambers, 6th Floor

1. Call meeting to order

2. Roll call of membership

3. Approval of minutes from previous meeting

[21-1121](#) Approval of the July 27, 2021 Utilities Committee Meeting Minutes.

Attachments: [July 27, 2021 Utilities Committee Meeting Minutes.pdf](#)

4. **Public Hearings/Apearances**

5. **Action Items**

[21-1203](#) Award of 2021I Stormwater Consulting Services Contract for Apple Creek Road / Haymeadow Avenue Study and 30% Design with McMahon Associates in an amount not to exceed \$40,217.

Attachments: [2021I ACR Haymeadow Study Award memo 08-17-2021.pdf](#)

[21-1224](#) Award Beneficial Reuse Management (BRM) an extension for the 2022-2024 Biosolids Transportation, Application, and Incorporation Contract.

Attachments: [2022-2024City of Appleton Extension Proposal MemoF_BRM.pdf](#)

6. **Information Items**

[21-1045](#) Department of Utilities 2021 Mid-Year Performance Reviews

Attachments: [Utilities Mid Year Performance Indicators.pdf](#)

[21-1122](#) PFAS in the Environment - Biosolids Compost

[21-1204](#) 2021 APRD Summer Stormwater Camp Report

Attachments: [2021 Summer Camp Report.pdf](#)

[21-1215](#)

Monthly Reports for July 2021:
- Water Distribution and Meter Team Monthly Report

Attachments: [Water Main Breaks July .pdf](#)

7. Adjournment

Notice is hereby given that a quorum of the Common Council may be present during this meeting, although no Council action will be taken.

Reasonable Accommodations for Persons with Disabilities will be made upon Request and if Feasible.

For questions on the agenda, contact Chris Shaw at 920-832-5945 or Paula Vandehey at 920-832-6474.



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Meeting Minutes - Final Utilities Committee

Tuesday, July 27, 2021

5:00 PM

Council Chambers, 6th Floor

1. Call meeting to order

Chairperson Meltzer called the Utilities Committee meeting to order at 5:00 p.m.

2. Roll call of membership

Present: 3 - Meltzer, Smith and Doran

Excused: 2 - Martin and Thao

3. Approval of minutes from previous meeting

[21-1041](#)

Approval of the July 13, 2021 Utilities Committee Meeting Minutes.

Attachments: [July 13, 2021 Utilities Committee Meeting Minutes.pdf](#)

Doran moved, seconded by Meltzer, that the Minutes be approved. Roll Call. Motion carried by the following vote:

Aye: 3 - Meltzer, Smith and Doran

Excused: 2 - Martin and Thao

4. **Public Hearings/Appearances**

5. **Action Items**

[21-1042](#)

Amend 2021A Stormwater Management Plan Review contract with Brown and Caldwell by an increase of \$20,000 for a total contract amount not to exceed \$57,500.

Attachments: [2021A SWM Plan Review BC Amendment Memo Util Cmte.pdf](#)

Doran moved, seconded by Meltzer, that the Report Action Item be recommended for approval. Roll Call. Motion carried by the following vote:

Aye: 3 - Meltzer, Smith and Doran

Excused: 2 - Martin and Thao

[21-1043](#)

Amend 2021B Stormwater Management Plan Review contract with raSmith by an increase of \$20,000 for a total contract amount not to exceed \$57,500.

Attachments: [2021B SWM Plan Review raSmith Amendment Memo Util Cmte.pdf](#)

Doran moved, seconded by Meltzer, that the Report Action Item be recommended for approval. Roll Call. Motion carried by the following vote:

Aye: 3 - Meltzer, Smith and Doran

Excused: 2 - Martin and Thao

6. Information Items

[21-1044](#)

Monthly Reports for April, May, and June 2021:

- Wastewater Treatment Plant Synopsis and Receiving Station Revenue Report
- Water Treatment Facility Synopsis
- Water Distribution and Meter Team Monthly Report - June

Attachments: [Q2 Wastewater Treatment Plant Synopsis.pdf](#)

[Q2 Water Treatment Plant Synopsis.pdf](#)

[Water Main Breaks June 2021.pdf](#)

The reports were reviewed and discussed.

[21-1046](#)

Department of Public Works 2021 Mid-Year Performance Reviews

Attachments: [DPW Mid Year Performance Reviews.pdf](#)

The report was reviewed.

7. Adjournment

Doran moved, seconded by Meltzer, that the Utilities Committee meeting be adjourned at 5:05 p.m.. Roll Call. Motion carried by the following vote:

Aye: 3 - Meltzer, Smith and Doran

Excused: 2 - Martin and Thao

Department of Public Works – Engineering Division

MEMO

TO: Utilities Committee

FROM: Paula Vandehey, Director of Public Works
Pete Neuberger, Staff Engineer
Sue Olson, Staff Engineer

DATE: August 24, 2021

RE: Award of 2021I Stormwater Consulting Services Contract for Apple Creek Road/Haymeadow Avenue Study and 30% Design with McMahon Associates in an amount not to exceed \$40,217

The Department of Public Works is requesting approval of the 2021I Stormwater Consulting Services Contract for Apple Creek Road/Haymeadow Avenue Study and 30% Design with McMahon Associates in an amount not to exceed \$40,217. After this contract, \$273,025 will remain in the 2021 stormwater consulting services budget.

In recent years, the Department of Public Works has experienced significant interest among land owners and developers to develop land within north side City growth areas. The City of Appleton Department of Public Works (DPW) issued Request for Proposals to help prepare for anticipated development in a currently undeveloped City growth area east of STH 47 and south of CTH JJ. Within this area, the City plans to construct the following collector streets in approximately six years:

- Haymeadow Avenue from approximately 900 feet south of CTH JJ to 2,950 feet south of CTH JJ
- Apple Creek Road from STH 47 to approximately 2,500 feet east

DNR NR151, the City's stormwater management ordinance (Chapter 20 of Article VI, Municipal Code), and the Upper Fox/Wolf TMDL include standards for new transportation facilities development that these City projects will be required to follow.

Additionally, DPW anticipates that when the surrounding undeveloped area develops as one or more new residential subdivisions, the development(s) will be required to obtain a stormwater permit and meet the ordinance requirements for new development. The City of Appleton has a boundary agreement with the Town of Grand Chute that indicates areas east of STH 47, including this area, will be annexed to the City to receive sanitary sewer and water service at the time of development.

The contract scope for the selected consultant includes:

- Prepare an independent drainage study that details the stormwater conveyances and stormwater management practices necessary for the two planned roadways to meet applicable standards.
 - One alternative to provide stormwater pond(s) with no additional effort toward optimizing for treatment of runoff beyond the proposed roadways
 - A second alternative to provide stormwater pond(s) with reasonable effort toward optimizing for treatment of runoff beyond the proposed roadways, to include all or most of the developable land within project planning area.
- Prepare cost estimates for each alternative, including potential public/private cost sharing calculations.
- Conduct coordination meetings with City staff
- Prepare 30% preliminary engineering plans for stormwater conveyances and stormwater management practices, as well as roadway design profiles.

DPW solicited proposals from four qualified engineering firms and received proposals from three of them. Technical proposals were first rated on a 100-point scale on the following criteria: Similar Project Experience, Project Team, Project Understanding and Approach, and Schedule. Technical proposals were evaluated by a City review team consisting of Ross Buetow, City Engineer; Sue Olson, Staff Engineer; and Pete Neuberger, Staff Engineer. After technical proposal scoring, the team reviewed the compensation proposals. Below are the scoring results, from lowest cost per point to highest.

<u>Rank</u>	<u>Firm</u>	<u>Score</u>	<u>Price</u>	<u>Price per Point</u>
1.	McMahon	94.00	\$35,300	\$376
2.	raSmith	86.67	\$59,252	\$684
3.	Brown & Caldwell	92.67	\$77,385	\$835

McMahon's and Brown & Caldwell's technical proposals both ranked very high, but McMahon's overall score was significantly better than the others once price was factored in. McMahon's proposal indicated they had previously performed a study for the Town of Grand Chute downstream of the City's project planning area, and as part of that effort they had already completed existing conditions modeling that included the area in question.

2021I Contract
August 24, 2021
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After completing the scoring, DPW staff negotiated with McMahon an additional 40 work hours, with associated costs, to increase coordination meeting and alternative analysis hours, bringing the total recommended contract cost to \$40,217 (\$428 per point, in updated scoring terms).

Based on their strong, cost-effective proposal and the quality of work on other City projects, DPW staff recommend award of the Stormwater Consulting Services contract for Apple Creek Road/Haymeadow Avenue Study and 30% Design with McMahon Associates. If McMahon performs satisfactorily during this contract, DPW staff anticipate negotiating future single source contracts with McMahon for final engineering design work in 2023, subject to Committee and Council approval at the appropriate time.



"...meeting community needs...enhancing quality of life."

Department of Utilities
Wastewater Treatment Plant
2006 E Newberry Street
Appleton, WI 54915
920-832-5945 tel.
920-832-5949 fax

TO: Chairperson Vered Meltzer and Members of the Utilities Committee

CC: Utilities Director Chris Shaw

FROM: Environmental Programs Coordinator Brian Kreski

DATE: August 19, 2021

RE: **Award Beneficial Reuse Management (BRM) an Extension for the 2022-2024 Biosolids Transportation, Application, and Incorporation Contract**

BACKGROUND:

The Appleton Wastewater Treatment Plant (AWWTP) annually land applies approximately 23,000 wet tons of biosolids to agricultural fields as part of the Biosolids Management Program. The program is committed to effectively manage and utilize 100% of the biosolids produced through beneficial use alternatives such as agricultural land application and biosolids composting. Each year the AWWTP has contracted the transportation, land application, and incorporation of approximately 90% of the biosolids produced to permitted agricultural sites for land application as far away as 80 miles (one way).

In January 2016, the AWWTP concluded a request for quotation (RFQ) process for Biosolids Land Application Services. Those services involve the transportation, application, and incorporation of biosolids on permitted agricultural sites. In February 2016, that contract was awarded to Veolia Environmental Services covering the period from 2016 through 2020. Clean Harbors acquired Veolia Environmental Services in May of 2018 and resumed services under the existing contract with the AWWTP.

On October 8, 2019 a letter was submitted to the AWWTP by Clean Harbors indicating it would not proceed with work under the existing contract unless the AWWTP agreed to pay an additional surcharge of 20% to 24% based on the mileage range to permitted sites. A decision to proceed in a different direction was based on the unexpected request by Clean Harbors coupled with their inability to satisfy baseline contract conditions. Consequently, a formal RFQ process for services was immediately pursued with the support of Utilities Department Director, Deputy Director, Environmental Programs Coordinator, Deputy City Attorney, and the Enterprise Account Manager.

RFQ RESULTS (2019-2021):

The RFQ was sent to five firms that had the capacity and experience to satisfy the qualifications required by the AWWTP for these contracted services for a contract term from October 2019 through December 2019 along with two optional years in 2020 and 2021. Two of the five provided a formal response. Based on the results of that RFQ process, Beneficial Reuse Management (BRM) was awarded the 2019-2021 contract. It should be noted that the BRM contract over the life of the three-year term was

3% less than the 2019 Clean Harbors surcharge rates and approximately. Additionally, the BRM proposal is 12% less than the second firm that submitted a cost proposal as part of the RFQ process.

2022-2024 Contract Extension Rates

The BRM extension proposal is summarized in Table 1. The Transportation and application rates for 2022 remain unchanged from 2021 but do escalate in the subsequent years to accommodate increases in costs incurred by BRM for expenditures such as scaling, fuel, labor, and miscellaneous overhead. Even with those increase, BRMs rates remain competitive in comparison to the other quote received as part of the last RFQ process (i.e. BRM 2024 rate is 7% less than 2021 rate provided by the second firm).

Table 1:

BRM Contract Year:	2021	2022	2023	2024
Tranportation and Application:	\$ 407,855.71	\$ 407,855.71	\$ 413,476.91	\$ 421,746.45
% Increase:		0%	1%	2%
Total Cost with Negotiated Terms:	\$ 455,055.71	\$ 484,055.71	\$ 490,876.91	\$ 500,346.45
% Increase:		6%	1%	2%

It is noteworthy that BRM has provided efficient, reliable, and regulatory compliant services over the life of the existing contract. In doing so, BRM has helped avoid the need to employ more costly alternatives such as biosolids composting or landfilling.

RECOMMENDATION:

I am requesting that the 2022-2024 Biosolids Transportation and Application Services Contract be awarded to Beneficial Reuse Management based on the rates provided in the attached proposal extension.

If you have any questions or require additional information regarding this request or the AWWTP biosolids program please contact Brian Kreski at 920-832-5945.

**WASTEWATER
2021 BUDGET PERFORMANCE DATA**

Program / Criteria	Actual 2019	Actual 2020	Target 2021	2021		Projected 2021
				Mid Year	End of Year	
5411 Utility Administration						
Client Benefits / Impacts						
Safe Work Environment						
# of workers comp claims / year	1	1	0	0		0
# of first aid entries per year	15	14	0	0		0
Strategic Outcomes						
Effective Use of Budgeted Funds						
% of operational budget obligated	100%	8%	100%	45%		100%
Trained Staff						
% of staff adequately trained	98%	98%	100%	98%		100%
CMAR grade for staffing	A	A	A	A		A
CMAR grade for operations certificate	A	A	A	A		A
Work Process Outputs						
Government reports prepared						
# of reports filed						
Compliance Report (eCMAR)	1	1	1	1		1
Biosolids Annual Report	1	1	1	0		1
Pretreatment Report	2	2	2	0		2
Discharge Report (eDMR)	12	12	12	6		12

**WASTEWATER
2021 BUDGET PERFORMANCE DATA**

Program / Criteria	Actual 2019	Actual 2020	Target 2021	2021		Projected 2021
				Mid Year	End of Year	
5422 Utility Treatment						
Client Benefits / Impacts						
Environmental Safety						
# of DMR Permit exceedance violations	1	1	0	2		2
Essential Services Provided						
# of gallons of influent treated per year	5,103 MG	4,238 MG	4,750 MG	1,980 MG		4,000 MG
Environmental Safety						
# of industrial clients	8	8	8	8		8
# of clients in significant non-compliance	0	0	0	0		0
Increase Revenue Sources						
\$ received from other sources	\$3,482,983	\$2,147,510	\$1,575,000	\$1,071,724		\$2,000,000
# of tons of hauled waste received	429,710	220,137	200,000	93,858		180,000
Strategic Outcomes						
CMAR grades for treatment						
Effluent quality BOD	A	A	A	A		A
Effluent quality TSS	A	A	A	A		A
Effluent quality Ammonia	A	A	A	B		B
Effluent quality Phosphorus	A	A	A	A		A
Public Outreach Initiatives						
# of pollution minimization initiatives	4	4	4	2		4
Work Process Outputs						
Efficient Plant Operation						
Average # of days to close preventative work orders	75	113	60	212		100
Record Maintenance - DMR						
# DMR and QA/QC samples completed	9,500	10,124	9,500	4,006		8,250
Improvement Treatment Processes						
# process samples analyzed per yr	2,085	3,208	2,100	1,571		4,200
Maintain Industrial Pretreatment Compliance						
# of inspections	9	8	8	2		8
# of sampling events	18	16	16	8		16
# of billable samples for other City depts	275	340	300	120		340

**WASTEWATER
2021 BUDGET PERFORMANCE DATA**

Program / Criteria	Actual 2019	Actual 2020	Target 2021	2021		Projected 2021
				Mid Year	End of Year	
5423 Biosolids Management Program						
Client Benefits / Impacts						
Environmental Safety						
Biosolids Applications # of sites						
with Nitrogen loading exceedences	0	0	0	0		0
with Metal(s) loading exceedences	0	0	0	0		0
Strategic Outcomes						
Beneficial Re-use						
Wet tons applied	26,769	23,003	23,000	9,107		22,037
Wet tons landfilled	3	0	0	0		0
Wet tons composted	1,278	1,261	3,750	1,236		1,236
CMAR grades for treatment						
Biosolids quality and management	A	A	A	A		A
Work Process Outputs						
Biosolids Production and Storage						
Tons of biosolids produced	27,502	24,415	26,000	11,637		24,000
CMAR compliance						
# of site monitoring completed	48	36	40	20		50

**WASTEWATER
2021 BUDGET PERFORMANCE DATA**

Program / Criteria	Actual 2019	Actual 2020	Target 2021	2021		Projected 2021
				Mid Year	End of Year	
5425 Utility Lift Stations						
Client Benefits / Impacts						
Sewage Bypasses / Backups # per year attributed to lift stations	0	0	0	0		0
Strategic Outcomes						
Integrity of Lift Stations Maintained # of emergency calls required	27	8	10	4		8
Work Process Outputs						
Response to Work Orders # of preventative work orders	215	182	160	133		200
# of corrective work orders	28	30	50	13		40

Program / Criteria	Actual 2019	Actual 2020	Target 2021	2021		Projected 2021
				Mid Year	End of Year	
5432 Capital Improvements						
Client Benefits / Impacts						
Sewer Rate Changes % per year	0%	0%	17-25%	20%		20%
Strategic Outcomes						
Wastewater treatment standards CMAR Grade for ten categories	A	A	A	A		A
Overall CMAR GPA	4.0	4.0	4.0	3.86		3.86
Work Process Outputs						
Project Management % of projects completed at year-end	50%	25%	100%	0%		20%

**WATER
2021 BUDGET PERFORMANCE DATA**

Program / Criteria	Actual 2019	Actual 2020	Target 2021	2021		Projected 2021
				Mid Year	End of Year	
5321 Treatment Administration						
Client Benefits / Impacts						
Safe Work Environment						
# of workers comp claims / year	1	2	0	0		0
# of first aid entries per year	4	5	0	1		1
Strategic Outcomes						
Effective Use of Budgeted Funds						
% of Operational budget dollars obligated	88%	87%	100%	39%		100%
Trained Staff						
% of adequately trained staff	100%	100%	100%	100%		100%
Work Process Outputs						
Government Reports Prepared						
# of names of regular reports						
CCR Report	1	1	1	1		1
DNR Reports	12	12	12	6		12
SARA Report	2	2	2	2		2

Program / Criteria	Actual 2019	Actual 2020	Target 2021	2021		Projected 2021
				Mid Year	End of Year	
5323 Treatment Operations and Maintenance						
Client Benefits / Impacts						
Adequate Supply of Safe Drinking Water						
% of water sampling tests in compliance per year	100%	100%	100%	100%		100%
Adequate Water Pressure						
% of tests having adequate Pressure	100%	100%	100%	100%		100%
# of sprinkling bans	0	0	0	0		0
# of gallons pumped per year	3,200 MG	3,205 MG	3,200 MG	2,040 MG		3,500 MG
Work Process Outputs						
Efficient Plant Operation						
# of work days lost due to injuries	0	0	0	0		0
# of reservoirs maintaining pressure per year	6	6	6	6		6
Water Towers						
# inspected / painted per year	3 / 1	2 / 2	1 / 0	1 / 1		1 / 1

WATER
2021 BUDGET PERFORMANCE DATA

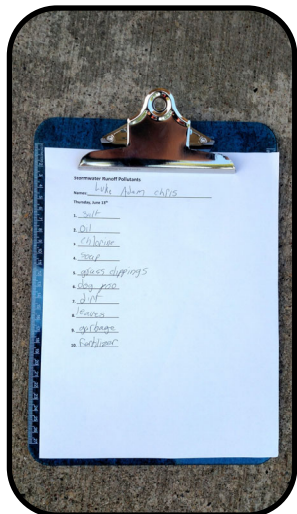
Program / Criteria	Actual 2019	Actual 2020	Target 2021	2021		Projected 2021
				Mid Year	End of Year	
5325 Treatment Capital Improvements						
Client Benefits / Impacts						
Water Rate Changes % per year	0%	0%	0%	0%		0%
Strategic Outcomes						
Tri-annual Sanitary Review						
# of corrective actions	0	0	0	0		0
# of recommended changes	0	0	0	0		0
Work Process Outputs						
Project Management						
% of projects completed at year-end	50%	0%	100%	0%		50%

2021 Appleton Summer Camp

A Renew Our Waters flyer was provided for campers at the end of each lesson.

Week 1: All About Stormwater

Fox-Wolf staff talked with summer campers about stormwater runoff. We used the wheel of pollution to talk about different pollutants that can run off the land and end up in our waterways. After that, the campers were separated into three groups and started off at one of our three stormwater stations. One station was led by Anna who demonstrated the Enviroscape model. Another station had the kids playing the stormwater plinko game, and the last station had the campers looking for 10 pollutants using the stormwater find-it jars. The kids all received a free pair of sunglasses from Fox-Wolf. **(30 campers reached)**



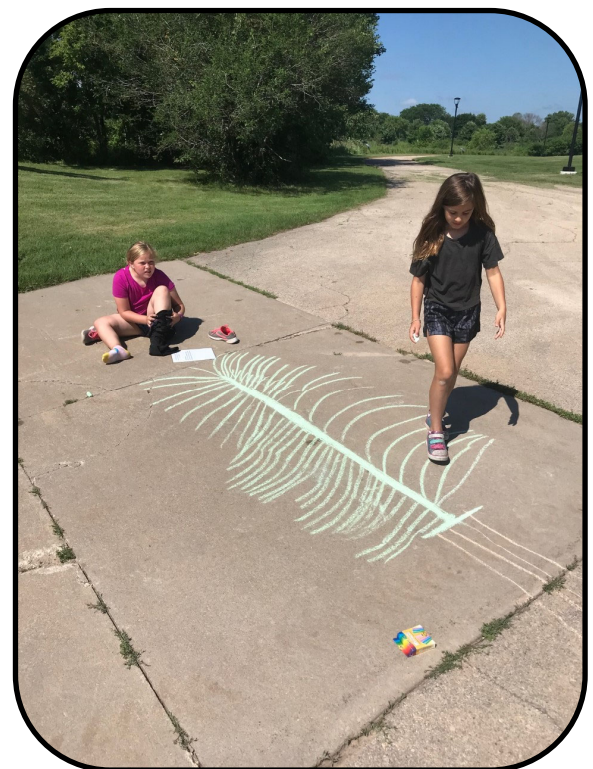
Week 2: Floodplains & Watersheds

This week, Fox-Wolf staff talked with summer campers about stormwater runoff again as most of the campers this week had not attended the previous week. We discussed stormwater runoff pollutants and the kids were able to come up with the 10 pollutants featured on the wheel of pollution, without the wheel present. We then discussed flooding and floodplains and the importance of picking up after your pets. After that, the campers were separated into three groups and started off at one of our three stations. One station had the campers picking up fake dog poop in the pet waste pickup relay race. Another station had the kids playing the storm pipe race game where campers raced through tunnels and grabbed a container. When the race was done, they opened the containers to read what was written on the paper inside. The papers either had rainwater or a pollutant written on the paper. The team with the least pollutants won. The last station was the Ward's floodplain model station. At this station, the kids learned how flooding impacts land downstream and how stormwater ponds and wetlands help to capture water and slow it down. **(21 campers reached)**



Week 4: Prairie Pastimes

Fox-Wolf talked about the importance of prairies in our watershed. We demonstrated the root lengths of various native plants, and the campers got a hands-on look at this when they were assigned a native plant that they had to draw with chalk, measuring out the average height of the plant and depth of its roots. The kids each had their photo taken in the park's prairie planting, the photos were printed, and the campers were able to decorate the frames. **(27 campers reached)**



Week 5: All About Algae

Using pictures, we talked with the campers about different types of algae including green algae, brown algae, diatoms, and blue-green algae. We also talked about plants that are often mistaken for algae, like duckweed and water ferns. We talked about the good and bad with algae—how algae produce approximately half of the oxygen on the planet, and also how blue-green algae produce toxins that can be a health concern. We discussed how human choices impact algal growth in our local lakes and rivers. Next, we used nets to pull algae from the fishing pond and determined that it was a type of filamentous green algae. Afterwards, the campers made green algae slime—and had a whole lot of fun doing it! (26 campers reached)



Week 6: Stream Health

Week 6 of APRD Summer Camp started out with a lesson about stream health and how we determine if streams are healthy based on the animals that live in them. Campers learned about biotic indices, which show the quality of an environment predicted by the types and abundances of organisms collected. They also learned about the types of pollution which negatively affect stream ecosystems and impact biotic measures. After talking about common types of stream bugs, the young scientists got to work on collecting their own samples! Carrying nets, buckets, and magnifying glasses, the campers entered the stream at Appleton Memorial Park to find out what bugs live there, and what those bugs could tell us about the quality of the water. The campers thought the coolest bug they found was a large dragonfly larva! After stream sampling, the campers cleaned up and played several rounds of stream bingo. **(29 campers reached)**



Citizen Monitoring

Biotic Index for Streams and Rivers

1 Circle the animals found in each category

GROUP 1: Sensitive to pollutants

Stonefly Larva, Water Snipe Fly Larva, Dabsonfly Larva, Alderfly Larva

GROUP 3: Semi-tolerant of pollutants

Blackfly Larva, Scud, Snails: Gilled or Orb, Non-red Midge Larva

GROUP 2: Semi-Sensitive to pollutants

Caddisfly Larva, Cranefly Larva, Riffle Beetle, Dragonfly Larva, Mayfly Larva, Damselfly Larva, Water Penny Larva

GROUP 4: Tolerant of pollutants

Bloodworm, Midge Larva (red), Pouch Snail (left-side opening), Aquatic sowbug, Leech, Worms: Tubifex, Threadworm or Roundworm

2 Tally animals circled in each category. Then multiply by number given.

Group 1: Sensitive	_____	X 1 =	_____
Group 2: Semi-sensitive	_____	X 3 =	_____
Group 3: Semi-tolerant	7	X 2 =	14
Group 4: Tolerant	28	X 1 =	28
Total	33	(E)	40 (F)

3 Divide (F) by (E): 40 ÷ 33

4 Index Score (F÷E) 1.21

5 How Healthy is the stream?

3.6 and up	Excellent
2.6-3.5	Good
2.1-2.5	Fair
1.0-2.0	POOR

Week 7: Litter Lesson

Campers learned about the harmful effects of litter pollution on aquatic environments, wildlife, and human health. They were shocked that more than half of the almost 22 million pounds of plastic litter that enters the Great Lakes each year ends up in Lake Michigan, which receives runoff from many regions including Wisconsin's Fox-Wolf river basin, where all of the campers live. After the lesson, campers split into 3 teams for a friendly competition to see which group could pick up the most litter by weight. The contest prizes were reusable products which replace single-use plastics. Each contestant received a cooler bag, water bottle, or 2 metal straws. Many campers said they were surprised by how fun it was to pick up litter and excitedly reported their most interesting finds. In total, about 12.5 pounds of litter were recovered! **(27 campers reached)**



Week 8: Invader Crusaders

For the final week of summer camp, we talked about what makes a plant or animal invasive and how invasive species can harm the environment. Campers learned about the ways aquatic invasive species (AIS) have gotten into Wisconsin's waters. John Moyles of J & R Aquatic Animal Rescue explained how he helps prevent the establishment of AIS by providing a rehoming service for pet fish, amphibians, and reptiles. When nonnative pets are released into the wild, they can become invasive. After discussing the importance of pet surrender, John introduced some native and nonnative animals that are under his care. The campers' favorite animal was the large bullfrog which could stretch to a length of 1 foot! The lesson ended with a touch tank that allowed campers to interact with minnows, crayfish, and leeches. **(27 campers reached)**



WATER MAIN BREAK/ JOINT LEAK REPORT - JULY 2021

YEARLY WATER MAIN BREAK COMPARISON

<u>JULY 20</u>	<u>JULY 21</u>	<u>YTD 20</u>	<u>YTD 21</u>
6	11	50	76

LOCATION	BREAK DATE	WORK ORDER	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	DOLLAR VALUE OF WATER REVENUE LOSS**
3008 E. Bona Ave.	7/7/2021	287981	DIP	8"	1978	5" Hole	8 Hours	1,812,069	\$11,017.38
NOTES: The break was called in. Duration is based on saturated soil, wash out, and extreme scouring of the main.									
Capitol Dr. & Durkee St.	7/11/2021	288087	DIP	12"	1978	4" Hole	8 Hours	1,159,724	\$7,051.12
NOTES: Break was found as water was bubbling out of the road. Duration is based on soil saturation and wash out.									
College Ave. & Kensington Dr.	7/12/2021	288088	DIP	12"	1977	6" Hole	4 Hours	1,487,575	\$9,044.46
NOTES: Break was called in as water was on the road. Duration is based on time of call and soil saturation.									
331 E. North St.	7/13/2021	288163	CIP	6"	1930's	5" Hole	4 Hours	847,518	\$5,152.91
NOTES: Break was found as water was bubbling out of the road. Duration is based on from the time of call until it was fixed.									
53 Solar Cir.	7/15/2021	288308	DIP	8"	1980	5" Hole	4 Hours	906,034	\$5,508.69
NOTES: Break was found as water was bubbling out of the road. Duration is based on from the time of call until it was fixed.									

**Water Loss is calculated at the residential rate of \$6.08 per 1000 gallons.

LOCATION	BREAK DATE	WORK ORDER	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	DOLLAR VALUE OF WATER REVENUE LOSS**
Northland Ave. & Ballard Rd.	7/15/2021	288903	DIP	12"	1976	4" Hole	4 Hours	673,305	\$4,093.69
NOTES: Break was found as water was on the road. Duration is based on time of call and the soil saturation.									
1607 S. Carver La.	7/19/2021 @ 9:30 AM	288404	CIP	6"	1952	1/2" Hole	49 Days	2,663,741	\$16,195.55
NOTES: Break was found as water was on the road. Duration is based on time of call and the soil saturation.									
1607 S. Carver La.	7/19/21 @ 2 PM	288404	CIP	6"	1952	3" Hole	2 Hours	163,086	\$991.56
NOTES: This break blew when the main was turned back on for the earlier break.									
S. Buchanan St.	7/22/2021	288575	CIP	12"	1961	3/4" Hole	22 Days	3,295,639	\$20,037.49
NOTES: Break was called in by a resident. Duration is based on the amount of water in trench/ soil saturation, and the deterioration of the old clamp.									
1907 E. Bradley La.	7/28/2021	288768	DIP	8"	1979	4" Hole	5 Hours	1,010,608	\$6,144.50
NOTES: Break was called in by a resident. Duration is based on the time of call, size of hole, and the saturated soil.									
1416 W. Marquette St.	7/29/2021	288831	CIP	8"	1962	4" Hole	5 Hours	434,897	\$2,644.17
NOTES: Break was found as water was bubbling out of road. Duration is bases on the soil saturation.									

In addition to the dollar value of water revenue lost, there is an average cost of \$9,000 to repair each water main break (including final restoration) and an average cost of \$630 to produce the lost water for each main break.

**Water Loss is calculated at the residential rate of \$6.08 per 1000 gallons.