City of Appleton

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

Meeting Agenda - Final-revised

Utilities Committee

Wednesday, September 4, 2019 | **6:15 PM** | **Council Chambers, 6th Floor**

This meeting was rescheduled from 8-27-19

1. Call meeting to order

2. Roll call of membership

3. Approval of minutes from previous meeting

19-1236 Approval of the July 30, 2019 Utilities Committee Meeting Minutes.

Attachments: July 30, 2019 Utilities Committee Meeting Minutes.pdf

4. Public Hearings/Appearances

5. Action Items

19-1237 Amend 2019H Wetlands Delineation Contract with NES by an amount not to exceed $16,650.

Attachments: 2019H Wetlands Delineation Amendment 2 Memo Util Cmte 08-20-2019 FINAL

19-1293 Award Phase 1 Optimized Corrosion Control Treatment Studies to Jacobs in the amount of $34,080 with an option to Award Phase 2 Engineering Services for $116,070 with a total not to exceed cost of $150,150.

Attachments: OCCT Project 08-28-19.pdf

6. Information Items

19-1238 2019 Appleton Water Resources Summer Camp

Attachments: 2019 Summer Camp Report.pdf

19-1239 Hinged manhole video at Glendale/Ulman intersection.

19-1240 Monthly Reports July 2019:
- Water Distribution and Meter Team Monthly Report

Attachments: Watermain Break Report- July 2019.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 30, 2019 | **5:00 PM** | **Council Chambers, 6th Floor**

Rescheduled from 7-23-19

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, Reed and Firkus

3. Approval of minutes from previous meeting

19-1090 Approval of the July 16, 2019 Utilities Committee Meeting Minutes.

Attachments: July 16, 2019 Utilities Committee Meeting Minutes

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

Aye: 3 - Meltzer, Reed and Firkus

4. Public Hearings/Appearances

5. Action Items

19-1091 Fourth Amendment to the 2018 Stormwater Management Plan Review contract with raSmith by an increase of $15,000 for a total contract amount not to exceed $132,500.

Attachments: 2018A SWM Plan Review Fourth Amendment Memo Util Cmte.pdf

Reed moved, seconded by Firkus, that the Minutes be recommended for approval. Roll Call. Motion carried by the following vote:

Aye: 3 - Meltzer, Reed and Firkus

19-1092 Approve clarification language to Sanitary Lateral Repair Policy.

Attachments: Proposed clarification to Sanitary Lateral Repair Policy.pdf

Reed moved, seconded by Firkus, that the Minutes be recommended for approval. Roll Call. Motion carried by the following vote:

Aye: 3 - Meltzer, Reed and Firkus

6. Information Items

19-1096 PFAS Monitoring Request for Municipal Wastewater Treatment Facilities with Industrial Pretreatment Programs or Users expected to be PFAS Sources.

Attachments: PFAS Monitoring Request.pdf

This item was discussed.

19-1093 Department of Utilities 2019 Mid-Year Performance Reviews

Attachments: Utilities 2019 Mid-Year Performance Reviews.pdf

The reports were reviewed.

19-1094 Department of Public Works 2019 Mid-Year Performance Reviews

Attachments: DPW 2019 Mid-Year Performance Reviews.pdf

The reports were reviewed.

19-1095 Monthly Reports for April, May, June 2019:
- Wastewater Treatment Plant Synopsis and Receiving Station Revenue Report
- Water Treatment Facility Synopsis
- Water Distribution and Meter Team Monthly Report - June

Attachments: 2019 Q2 AWWTP Synopsis and Receiving Station Revenue Report.pdf
2019 Q2 AWTF Synopsis.pdf
Watermain Break Report - June 2019.pdf

The reports were reviewed.

7. Adjournment

Reed moved, seconded by Firkus, that the Utilities Committee be adjourned at 5:17 p.m. Roll Call. Motion carried by the following vote:

Aye: 3 - Meltzer, Reed and Firkus

Department of Public Works – Engineering Division

MEMO

TO: Utilities Committee

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

DATE: August 20, 2019

RE: Amend 2019H Wetlands Delineation Contract with NES by an amount not to exceed $16,650.

The Department of Public Works requests approval to amend the 2019H Wetlands Delineation Contract with NES by an amount not to exceed $16,650. If the amendment is approved, the total contract amount will increase to $48,850.

The proposed amendment includes the following changes to the scope of work:

Apple Creek North of CTH JJ (DPW Stormwater)
Per United States Army Corps of Engineers (USACE) permit requirements, the City must submit a final wetland delineation at the end of the permitted wetland monitoring period. DPW has determined that the site is ready for final certification at this time. The proposed wetland delineation will allow DPW to submit its final certification to USACE.

Northside Park (Parks, Recreation and Facilities Management)
Parks, Recreation and Facilities Management has identified a possible location for a future north side park. It is important to identify and plan for a location as developments occur versus afterwards. To inform the planning effort, PRFM is interested in obtaining a wetland delineation for the location under consideration.

Plamann Park Utility Corridor (DPW Water and Sanitary)
DPW is working with Outagamie County to extend sanitary sewer and watermain through Plamann Park in 2021. Preparatory construction work by Outagamie County is planned for 2020. Wetlands are known to exist in the vicinity of the proposed utility corridor. To properly plan, design, and permit the City utilities, a wetland delineation is necessary.

French Road Urbanization Study (DPW Stormwater)
A wetland delineation for this area is included in the current contract. DPW and its stormwater consultant, raSmith, have determined a desktop wetlands review is sufficient at this time, as a wetland delineation performed in 2019 will have expired by the time DPW is ready to apply for permits, currently planned for 2025. The proposed amendment eliminates this area from the scope of work.

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

Department of Utilities
Water Treatment Facility
2281 Manitowoc Road
Menasha, WI
920-832-5945 tel.
920-832-5949 fax

TO: Chairperson Vered Meltzer and Members of the Utilities Committee

FROM: Chris Shaw, Utilities Director

DATE: August 28, 2019

RE: ***Award Phase 1 Optimized Corrosion Control Treatment Studies to Jacobs in the Amount of $34,080 with an option to Award Phase 2 Engineering Services for $116,070 with a total not to exceed cost of $150,150***

BACKGROUND:

Corrosion in a water distribution system can lead to shortened asset life of infrastructure components and reduced water quality to customers taps. Nationally and at the state level lead levels have become a concern amongst the public. This is a result of corrosion where water systems release lead which is above regulatory limits. Currently, the Appleton Water Treatment Facility meets all State and Federal requirements for lead. However, the Wisconsin Department of Natural Resources is recommending improvements to the City's Corrosion Control Plan. The purpose of this Corrosion Control Treatment project is to determine the best course of action that will enhance water quality (reduce any existing lead) while being fiscally responsible to the utility's rate payers.

This project has the potential for two phases. The first phase would consist of an analysis of the City's corrosion control program. An outcome would be the completion of a report to the regulator that describes any necessary improvements. This report may produce results that meet regulatory requirements of an improved corrosion control plan and therefore a second phase would not be required.

A second phase would consist of demonstrating a corrosion control plan through analyses using field piping, coupons, or the City's distribution system itself. This second phase may include responding to the regulator's requests, performing additional testing, etc.

SCOPE OF WORK:

Phase 1 work will develop a Corrosion Control Treatment (CCT) Plan. The objective will be to obtain a WDNR approved plan for optimized CCT studies to minimize lead and copper levels in the system. This CCT plan shall outline the steps to complete an optimized CCT program, including demonstrative CCT studies. Listed below are some of the highlights of Phase 1:

- Evaluate raw, entry point and distribution system water quality parameters and how the various parameters relate to corrosion control.
- Identify causes of elevated lead and copper in the system, based on pipe material information in the system provided by Appleton.
- Evaluate multiple corrosion control treatment methods, including phosphate addition, silicate addition and adjustment of pH, alkalinity, and hardness. Recommend methods to carry forward into demonstrative studies.
- Consider physical and chemical constraints of each treatment alternative and substantiate all decisions based on data and documentation.
- Revise the proposal based on comments from Appleton and WDNR and finalize the proposal.
- If the desktop analysis meets the regulatory requirements the engineer will submit the report and the justification as to why the report should suffice without demonstrative testing.

Phase II, if required by the WDNR will require the following:

- The engineer will prepare a proposal to DNR outlining the demonstrative CCT plan, including test alternatives, pipe material types, test apparatus, measurement parameters and implementation schedule.
- As stated in Phase 1, if the engineer determines that Appleton would meet Wisconsin Administrative Code requirements with the work completed in Phase 1 report the engineer would provide additional consulting services until WDNR accepted the Appleton OCCT proposal.
- Consultant shall design a demonstrative CCT test apparatus, including drawings, specifications and a list of equipment.
- If a pipe loop study is chosen, the consultant shall develop a pipe harvesting and handling plan to preserve pipe and scale integrity before placing into the test apparatus.
- Consultant shall start up and test the apparatus for proper operation.
- Consultant shall collect analytical results, record and analyze the data. The anticipated period of sample collection is 12 months.
- The consultant may recommend a sampling plan for profile sampling in selected homes to demonstrate the effectiveness of the current CCT and develop a baseline for any changes in CCT. Appleton will conduct the sampling and analysis of the profile sampling plan above.

- The consultant shall evaluate distribution system maintenance and flushing procedures and make recommendations for improvements that may help to reduce lead and copper levels and overall system cleanliness.
- The consultant shall prepare a report summarizing the demonstrative CCT work and recommendations.
- The report shall include recommended optimum chemical types, doses and design parameters for the chosen CCT method.
- The report shall include a cost estimate for engineering and construction to implement recommendations.
- The consultant shall revise the report based on comments from Appleton and DNR and finalize the report.

PROPOSAL RESULTS:

A request for proposal (RFP) was distributed to four engineering firms. Each firm had staff with previous engineering experience with water distribution system corrosion control. A preproposal meeting was held with only firm in attendance from Jacobs. Two of the firms, CDM Smith and Process Research Solutions opted not to provide a proposal. The following table identifies the invited engineering firms along with their proposal score and proposal pricing

Table 1: Engineering Firms and RFP Results

COMPANY	Proposal Score	Cost
Process Research Solutions	DNP	NA
Strand Associates	140	$19,320
Jacobs Engineering	221	$34,080
CDM Smith	DNP	NA

Notes: DNP – Did Not Propose, NA – Not Applicable

An evaluation team comprised of myself, the technical services manager, the water plant manager and the public works director completed their review and scoring of the submitted proposals. The evaluation team found that Jacobs had scored the highest and provided a proposal that best met the City's needs.

The evaluation team also reviewed if the additional costs for the Jacobs proposal brought added value. The team concluded that the Jacobs firm is experienced with multiple corrosion control projects including one at Waukesha and Oshkosh. Their proposal demonstrated a comprehensive approach that delivered specifically on Appleton's needs. The evaluation team concluded that the initial investment in the work identified has long term effects including chemical cost ramification for the next 20 years.

It is further recommended that Phase 2 engineering award be conditional on whether value exists and whether there is a need to progress into Phase 2. Phase 2 engineering services will include demonstrative testing in accordance with Appleton's Request for Proposal, dated July 30, 2019.

RECOMMENDATION:

Award Phase 1 Engineering Services Contract for the Optimized Corrosion Control Treatment to Jacobs in the Amount of $34,080 with an option to Award Phase 2 Engineering Services for $116,070 with a not to exceed cost of $150,150. If you have any questions regarding this project please contact Chris Shaw at ph: 920-997-4200.

2019 Appleton Summer Camp

A Renew Our Waters flyer was provided for all campers each week

Week 1: All About Stormwater

The campers learned about stormwater runoff through pictures, played the stormwater runoff plinko game, twice, and then worked in groups to find the ten pollutants hidden in the stormwater "Find it" jars. **(28 campers reached)**

Week 2: Our Floodplain

The campers learned about floodplains. We talked about permeable and impermeable surfaces, and how they impact water levels and pollution in our watershed. As groups, we utilized the flood-plain model to see how runoff compared between a parking lot, stormwater pond, and a wetland. Afterwards, the campers did a cleanup of the park's floodplain. **(26 campers reached)**

Week 3: Pick Up the Poop!

Campers reviewed what we talked about in week one of camp. We continued to talk about storm-water runoff, and we saw it in action using the Enviroscape model. We talked about the importance of picking up pet waste, and the impact of bacterial runoff in our waters. We then played several rounds of dog poop relay races. The kids had a lot of fun picking up the fake poop. Afterwards, the campers searched for hidden poops on the back of their "Good Dog, Good Owner" Renew Our Waters flyers.

(27 campers reached)

Week 4: Designing Rain Barrels

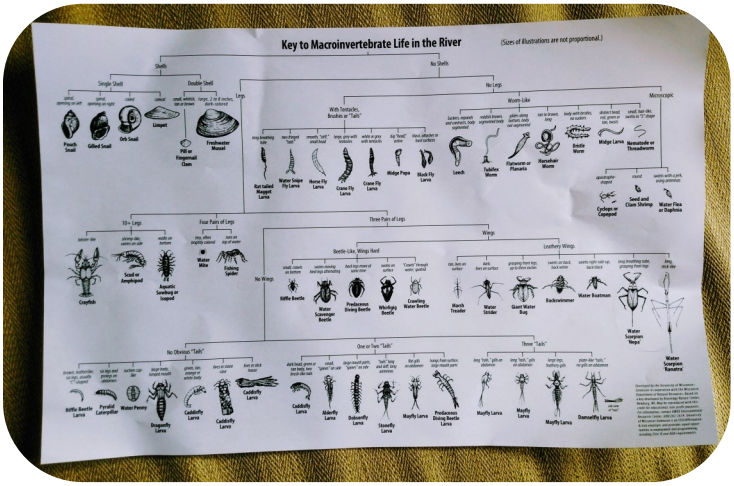
This week, we talked about rain barrels. We talked about how rain barrels are used and how that relates to our discussions about stormwater runoff. Afterwards, the campers were split into three groups that worked together to come up with creative designs for the rain barrels using colorful duct tape. The campers did a great job with this. We also made this activity a competition by posting the photos on our Facebook page, and asking visitors to vote for their favorite design. The team with the most votes received a prize the following week.

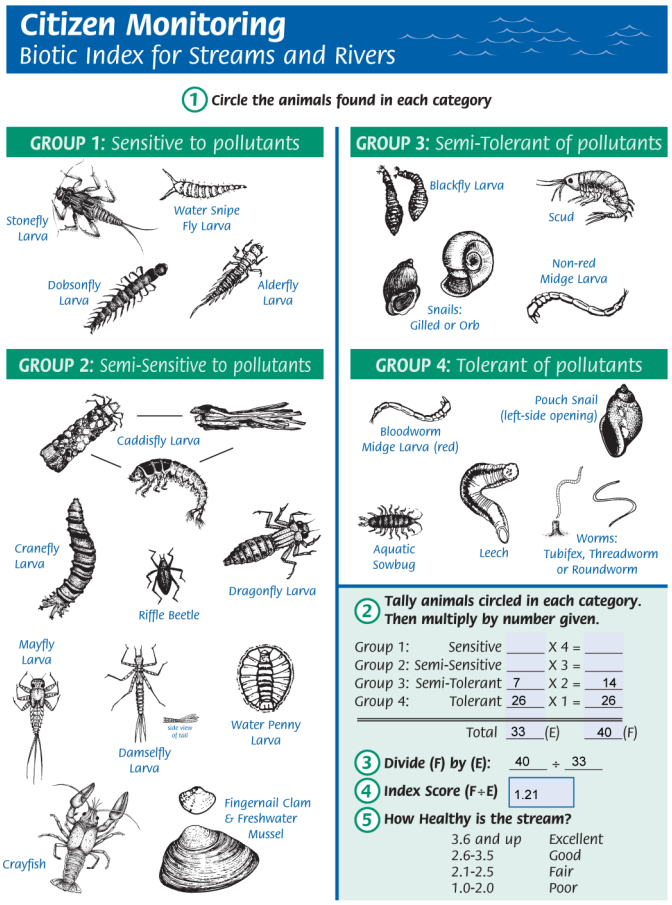
(24 campers reached)

Week 5: Sampling a Stream

This week we talked about stream health. We discussed the presence of macroinvertebrates in the water and how their tolerance to pollution varies among species. The kids were all provided with their own copy of the Key to Macroinvertebrate Life in the River (poster), and we discussed as a group how to use this taxonomic key. Afterwards, the students were asked to look for particular species including caddisfly larva, damselfly nymphs, dragonfly nymphs, and others included on the Citizen Monitoring form, were given nets and buckets, and headed down to the park's stream. They found many critters including slugs, leaches, and worms. Afterwards, the campers headed back to the shelter to play many rounds of stream bingo--with fun prizes of course! After calculating our score from the species we found, we determined that stream had "poor" conditions.

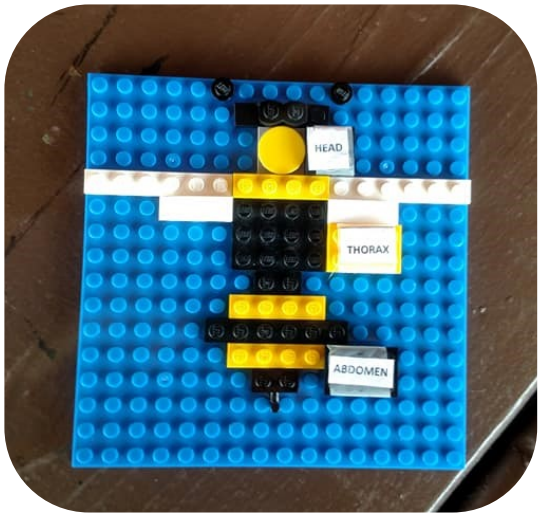
(28 campers reached)

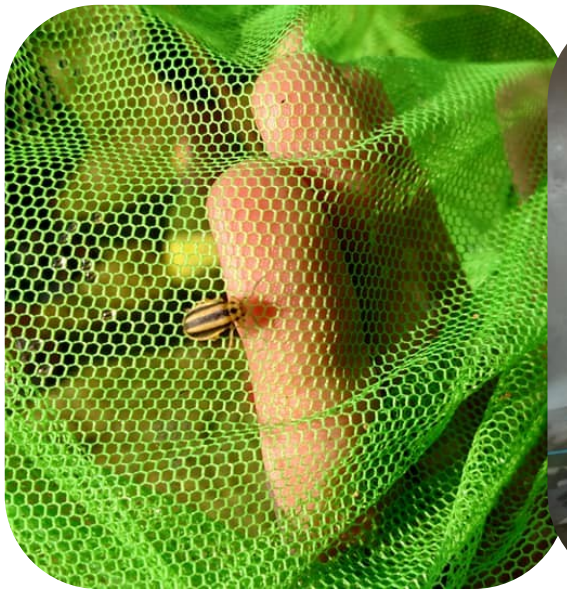




Week 6: Creepy Crawlers

The campers learned about the characteristics that define insects and separates them from other bugs like spiders, ticks, and worms. We gathered up our supplies and searched for insects in the park. We also talked about the different types of environments in the park, and what kinds of insects live in the different habitats. Afterwards, the kids worked in groups to build and label their Lego insects. **(24 campers reached)**

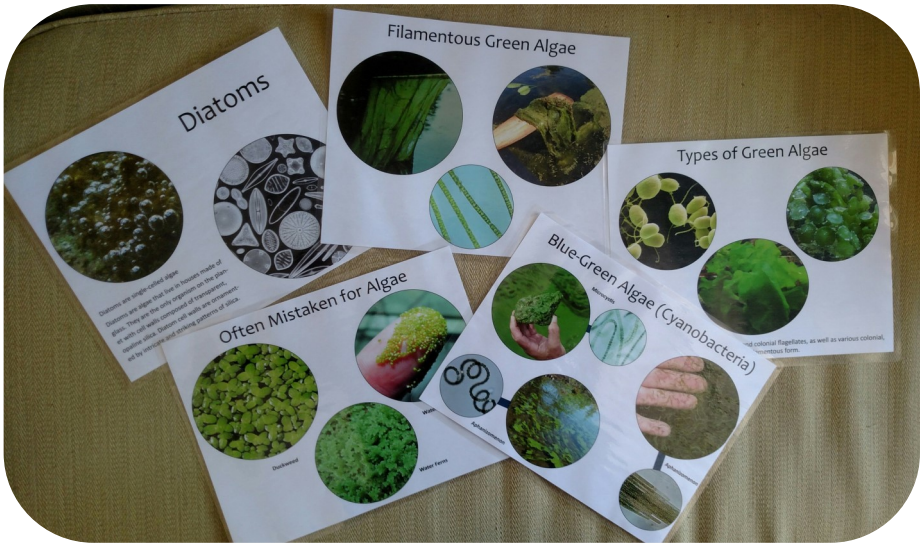




Week 7: All About Algae

We were excited to talk about this new topic this week. 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!

(28 campers reached)



Week 8: All About the Birds

For our final week at summer camp we talked about waterfowl. The campers learned interesting facts about waterfowl that are commonly found in this area. They learned about their diets, habitats, and some history related to conservation efforts for protecting waterfowl. The campers worked in groups to complete a waterfowl matching game that had the kids using field guides to find the correct answers for facts about diving ducks, dabbling ducks, and geese. Afterwards, we painted bird houses! We had a great summer working with these awesome kids!

(26 campers reached)

WATER MAIN BREAK/JOINT LEAK REPORT JULY 2019

YEARLY WATER MAIN BREAK COMPARISON

JULY 18	JULY 19	YTD 18	YTD 19
2	5	42	54

LOCATION	WORK ORDER	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	DOLLAR VALUE OF WATER REVENUE LOSS**
Hancock/ Durkee St	258108	CIP	8"	1912	0.0625" Crack	12 hours	159,000	$966.72
3129 N Lawe St	258142	CIP	8"	1967	6" Hole	4 hours	1,325,890	$8,061.41
2100 N Birchwood	258312	CIP	8"	1964	4" Hole	5 hours	822,009	$4,997.81
Fifth/ Locust St	258302	CIP	12"	1963	1/32x 16" Split	4800 hours	11,133,870	$67,693.93
807 W Commerical St	258761	PVC	8"	1998	4" Hole	3 hours	1,676,049	$10,190.38
								$0.00
								$0.00
								$0.00

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