



Carver County Water Management Organization

Citizen Advisory Committee

1. Approval of the August 25th, 2020 minutes and September 29th, 2020 agenda

2. Notes from the field

3. Business items

- a. Cost share program Dafni project
- b. Cost share program Environmental Center project
- c. Virtual tour part 2

4. Information items & project updates

- a. Budget update

5. Next meeting

October 27th, 2020

6. Adjournment

Sept. 29th, 2020

Carver County Government Center

600 East 4th St. Chaska
County Board Room

6:00 p.m. to 8:00 p.m.

Committee Mission

Work with CCWMO staff to proactively make recommendations to the County Board on matters relating to water management including;

- projects and project prioritization
- Funding and water levy
- Water Plan, Groundwater Plan & Solid Waste Plan
- Water quality and TMDL program and projects
- Education program and projects
- Feasibility studies

MEETING OF THE
CARVER COUNTY WATER MANAGEMENT ORGANIZATION ADVISORY COMMITTEE
MEETING MINUTES
Tuesday August 25th, 2020

COMMITTEE MEMBERS PRESENT

<i>Carroll Aasen</i>	<i>Citizen, East & West Chaska Creek</i>
<i>Jim Boettcher</i>	<i>Citizen representing Commissioner District 1</i>
<i>Stan Wendland</i>	<i>SWCD Board Representative</i>
<i>Mary Strother</i>	<i>Citizen, Bevens Creek</i>
<i>Doug Kammerer</i>	<i>Citizen, Crow River/Pioneer Creek</i>
<i>Eric Gentry</i>	<i>Citizen, Carver Creek</i>
<i>Thomas Welch</i>	<i>Citizen representing Commissioner District 2</i>
<i>Lori Cox</i>	<i>Citizen representing Commissioner District 5</i>
<i>Rob McKenna</i>	<i>Citizen representing Commissioner District 3</i>

COMMITTEE MEMBERS ABSENT

<i>Marcus Zbinden</i>	<i>SWCD Board Member Alternate</i>
<i>Mike Lynch</i>	<i>Citizen representing Commissioner District 4</i>

STAFF PRESENT

<i>Paul Moline</i>	<i>Carver County Planning & Water Mgmt.</i>
<i>Madeline Seveland</i>	<i>Carver County Planning & Water Mgmt.</i>
<i>Jess Norby</i>	<i>Carver County Planning & Water Mgmt.</i>
<i>Zoe Pettit</i>	<i>Carver County Planning & Water Mgmt.</i>
<i>Tim Sundby</i>	<i>Carver County Planning & Water Mgmt.</i>
<i>Andy Edgcumbe</i>	<i>Carver County Planning & Water Mgmt.</i>
<i>Mike Wanous</i>	<i>Carver County Soil & Water Conservation District</i>

Meeting Minutes

The meeting was called to order at 6:05 by Carroll Aasen.

1) Approval of agenda and minutes

Boettcher moved to approve the June 30th, 2020 meeting minutes. McKenna seconded. Motion passed unanimously. Cox move to approve the August 25th, 2020 meeting agenda. Gentry seconded. Motion passed unanimously.

2) Notes from the Field

Andy Edgcumbe presented on the freshwater mussel monitoring staff have begun. Freshwater mussels are one of the most endangered groups of animals in the world. In Minnesota, 28 of the 50 species found here are threatened or endangered. In the country, 213 out of 297 are threatened or endangered.

Mussels became endangered throughout history as they were harvested to make buttons, or by pearl hunters looking for pearls. Changes in water quality and habitat has also led to freshwater mussel decline. Higher volumes and faster flows in rivers can carry the mussels downstream to less favorable habitats. Invasive species like zebra mussels can smother them so they no longer can open their shells and can't breathe. Dams limit fish movement which in turn limits mussel movements and the close relationship mussel reproduction has with certain fish species.

Freshwater mussels are mollusks. They have two shells which surround a soft body. They are sedentary, and filter feeders, filtering for bacteria and algae.

Mussels depend on fish for reproduction. Edgcumbe reviewed multiple methods that freshwater mussels will use to have fish transport their larva through the water.

Freshwater mussels provide many ecosystem benefits to stream habitats. They can incorporate heavy metals into their shells. They serve as homes for macro-invertebrates, filter water, stabilize stream beds, and food for other wildlife.

Staff are conducting freshwater mussel surveys in CCWMO creeks. There have been no records of mussel surveys done in creeks within Carver County previously. Staff selected nine sites. The data will be used to assess populations, species and diversity. In the case of the site on the Crow River, staff will look at changes in mussel populations above and below the dam.

Edgcumbe reviewed the method for freshwater mussel monitoring and how to age them (rings on their shell). Once collected, identified and aged, staff return them to the creek and place them on their side so they can anchor into the sediment themselves.

Edgcumbe reviewed the survey results for this year.

- Bevens Creek, no live mussels, two empty shells found.
- Carver Creek, 74 live mussels, three different species.
- South Fork Crow, 9 live mussels, three different species, and an additional two species of shells.

In 2020, staff plan to conduct surveys on East Chaska Creek and West Chaska Creek, as well as other locations along Carver Creek, Bevens Creek, and the South Fork Crow River.

Cox inquired about the location of monitoring on Carver Creek. Edgcumbe said it was above and below Miller Lake and another site near Cologne.

Moline inquired if there had been any attempts in the state to repopulate mussels. Edgcumbe responded that yes, the Department of Natural Resources has a whole propagation lab where they have reintroduced mussels into the Mississippi River, and the new populations do seem to be successful.

Boettcher inquired about piles of shells he'd seen. Edgcumbe responded that muskrats feed on freshwater mussels and that was likely a pile from a muskrat feeding.

Strother inquired about Bevens Creek's lack of live mussels. Edgcumbe responded that staff still hadn't monitored the upper reaches of Bevens Creek and it was possible mussels might just not live in the section that was monitored. It is also possible that the sediment might not be as stable or the water quality not as good.

3) Business items

- **Stormwater reuse monitoring**

Tim Sundby and Jess Norby presented on the stormwater reuse monitoring program.

Background

- Stormwater reuse can be used to meet CCWMO's water rules for volume reduction.
- Stormwater reuse systems harvest rainwater captured on site for irrigation.
- Reuse systems partially treat stormwater by allowing it to filter through the soil.
- Stormwater reuse reduces the footprint of stormwater best management practices on site, reduces demands for potable water and saves money.

Permitting reuse systems

- CCWMO's process limits inputs for stormwater credits. Our permit process uses four factors compared to 33 factors in other sites. The four factors are storage, irrigation area, impervious surface, and irrigation rate.
- Credits relate to the volume of water that the system must use to meet the requirement.
- Required equipment for site operation: meters, floats and operation, and maintenance plans.
- Requested info from applicants: irrigation plan, landscape plan, operation plan, secondary source of water.

Sundby reviewed locations for stormwater reuse site in Waconia, including the regional stormwater reuse project, and in Chaska.

Cox inquired who would some of the best practitioners of stormwater reuse be. Sundby responded that the Cities of Chaska, Carver and Waconia have a lot of systems. Craig Eldred and the City of Waconia have been at the forefront of stormwater reuse for some time. They have presented at local and national conference.

Cox inquired about using soil type for credits. Sundby responded that applicants provide soil type information on their application so staff know whether it is a constrained site or not. Our rules do require 6" of topsoil so new sites should infiltrate water down into the soil, but we don't have enough information to vary irrigation rates based on soil type.

Sundby provided a recap of both 2019 and the reuse system monitoring data thus far in 2020.

- In 2019, there were 16 active sites, 5 proposed sites and 10 that are part of the Waconia regional stormwater reuse system.

- In 2020, there are 17 active sites, 4 proposed sites and 20 that are part of the Waconia regional stormwater reuse system.
- In 2020, so far, 21.4 million gallons have been used for reuse. In 2019, 22.4 million were used.
- In 2020, we've seen \$79,250 saved on water bills. In 2019, \$90,380 was saved.
- In 2020, so far 47.74 pounds of phosphorus and 12,354 pounds of sediment have been kept from lakes and rivers. In 2019, 43.64 pounds of phosphorus and 15,009 pounds of sediment were kept out of lakes and rivers.

Gentry inquired how the reuse program is promoted and if there are education programs to help expand the use of stormwater reuse. Sundby responded that outreach is done through communities. Additionally, staff have a technical advisory committee that can help promote the practice and staff have held two reuse roundtables in which cities, townships, developers and engineers come together to talk about stormwater reuse.

Jess Norby took over to present on the water rules update and how stormwater reuse fits in. As part of the water rules revision taking place this year, staff are proposing to change the stormwater treatment volume requirement. This will ultimately affect all BMPs, not just reuse sites. This change is happening in response to new requirements in the statewide MS4 permit. Our rules need to meet the minimum requirements of that permit. The change requires an increase in volume treatment and may result in more stormwater reuse projects.

Norby shared the stormwater reuse storymap that was created that explains what stormwater reuse is and how it benefits both surface and groundwater. With stormwater reuse gaining popularity, this map will help others learn more about the practice.

Wendland inquired what happens if goals are not met on a stormwater reuse system. Sundby responded that staff work closely with whomever is managing the site and are in constant communication to help troubleshoot. CCWMO holds security on these sites to make sure everything is up and running and meeting the permit. Moline added that if there was a reoccurring problem where the practice was not meeting goals, the site manager would have to find another way to meet treatment requirements.

- **Virtual tour**

Madeline Seveland and Zoe Pettit showcased two videos they completed to replace the in-person project and site tour that usually takes place in June each year. Videos are public and can be viewed at the links below.

- West Chaska Creek video <https://www.youtube.com/watch?v=eOIZKPYPsmQ>
- John wetland restoration video <https://www.youtube.com/watch?v=Nvllju2JtaU>

4) Information items and project updates

Moline provided an update on the budget and grant process. Staff had a budget hearing on August 11th and a work session with the County Board today. The 2021 budget has proposed a total increase of \$12,344. The total levy for 2021 would be at \$815,146 which is a zero tax impact on the average family household. The increase in levy dollars captures the growth in the County. The Board did not have any questions. If property taxes come in less than expected in October, there might be some changes.

Additionally, staff have been working with the state on the allocation of watershed grants. We are still in discussion with the South Fork Metro Groups (Carver and Hennepin County) and the Lower MN Group which includes our WMO and four other water management organizations. The next meeting is September 29th and we should know more.

Advisory committee members should plan for virtual meetings until the end of the year per direction from the county.

Seveland provided an update on the success of the story walk activity that has been in Fireman's Park through August. The activity will be loaned out to teachers this fall in hopes that it will provide a fun, active, and socially distance appropriate education activity that can fit into their curriculum or be used as enrichment.

Seveland added that the Metro Children's Water Festival which typically happens every September will be going virtual this year. More information is at www.metrocwf.org.

Meeting adjourned at 7:28 pm.



CCWMO Advisory Committee

September 29, 2020 Meeting

Business Item

Dafni Cost Share

Water Management Plan Related Goals

- Surface Water Quality. To preserve and improve the quality of surface water resources within the watershed.
- Surface Water Quantity. To manage the volume and flow of stormwater runoff to minimize the impacts of land use change on surface water and groundwater resources within the watershed.
- Awareness and Behavior. To provide those living, working, and recreating in the CCWMO with the knowledge, skills, and motivation needed to make positive behavior changes that protect surface water and groundwater resources.

Summary

Mrs. Dafni is proposing to establish a native prairie community in areas that are currently turf and regrade a pond to better facilitate a wetland ecosystem by adding more ponding and removing reed canary grass. This project will be a third of an acre in size. The total project cost is \$8,950 and they are requesting \$5,000 in a Cost Share Grant.

Discussion Points

- The attached application with plan sheets highlighting the changes
- Total project cost and request Cost Share Amount

Recommended WMOAC Committee Action

- Approve \$5,000 for the Dafni Cost Share Project.

Carver County Cost Share Application

Contact Information

Name <i>Caitlyn Dafni</i>		
Address <i>15750 Beverly Drive</i>		
City <i>Carver</i>	State <i>MN</i>	Zip Code <i>55315</i>
Project Location (If different than above) <i>-</i>		
Nearest Lake or Stream <i>Rapids Lake / Minnesota River</i>		
Home Phone <i>-</i>	Work or Cell Phone <i>507-227-5622</i>	
Email Address <i>Caitlynd22@gmail.com</i>	Other Contact Info <i>-</i>	

Project Information (use additional sheets as necessary)

Project Description	<p><i>Pond Restoration: Removal of Reed Canary Grass which has overtaken our previously established pond.</i></p> <p><i>Restore Native Plant Communities : Create biodiverse buffer that benefits wildlife</i></p>
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Water Quality Issues the Project will address

Re-establishment of pond + diverse plantings

Contributing Drainage Area	Maximum Size of Practice	Landuse in Drainage Area
Surrounding Fields	1/3 Acre	Wildlife/Unused

Cost-Share Request

Total Project Cost (Attach itemized list – required for cost share)	Cost Share Request (Max of 75%)
\$ 8,950-	\$ 5,000

Collaborators (List partners and contributing funds, if applicable)

Also applying for SWCD Pollinator Cost Share

I certify to the best of my knowledge that the information included in this application is true, complete, and accurate.

Signature	Date
	8/31/2020

Office Use Only:

Approval: _____ Date: _____

Dafni Wetland Project

Minnesota Native Landscapes, Otsego & Lonsdale:

Excavation, Grading, Stockpiling: \$5,700

Silt Fence around Stockpiles: \$1800

Tree Removal: \$3000

Seed Mixes + Straw Cover: \$2800

Ten 5 Gallon Native Shrubs: \$450

Minnesota Topsoil, Carver:

Excavation, Grading, Stockpiling: \$10,320

Tree Removal: \$1785

Lawns Are Us, Jordan:

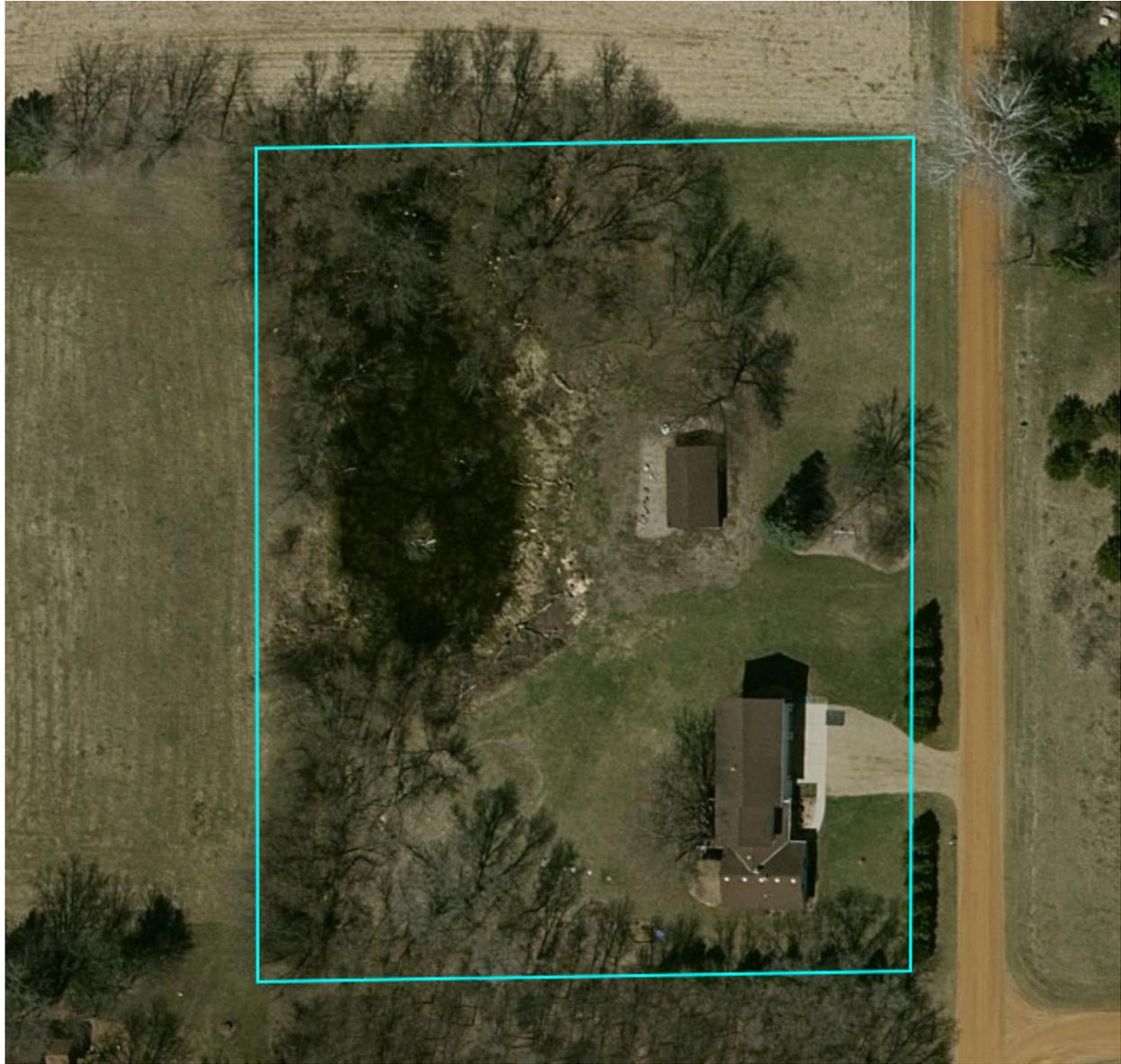
Excavation, Grading, Stockpiling: \$11,980

Tree Removal: \$1100

We are planning to work with Minnesota Native Landscapes for the entire project based on these quotes and their native restoration expertise. In order to keep this project in our budget, we are going to remove the box elder trees along the west edge of the pond ourselves. We will use logs on site to line the stockpiled material to avoid the silt fence cost. This would bring the total anticipated cost to \$8950.

An estimated 800 cubic yards of Reed Canary Grass from 1' to 1.5' depth will be excavated, then stockpiled upland to the east. Logs will be under and surrounding the stockpiles (hugelkultur bed). It will be topped with cardboard, compost, and cover crops/pollinator seed.

The wetland area will be excavated according to the Carver County recommendation, attached. The buffer will be seeded with MNL Sedge Meadow Mix, MNL Wet Prairie Mix, and MN Emergent Mix, and a straw mulch.









Potential Grading for
Wetland Restoration.





CCWMO Advisory Committee

September 29, 2020 Meeting

Business Item

Environmental Center Cost Share

Water Management Plan Related Goals

- Surface Water Quality. To preserve and improve the quality of surface water resources within the watershed.
- Surface Water Quantity. To manage the volume and flow of stormwater runoff to minimize the impacts of land use change on surface water and groundwater resources within the watershed.
- Awareness and Behavior. To provide those living, working, and recreating in the CCWMO with the knowledge, skills, and motivation needed to make positive behavior changes that protect surface water and groundwater resources.

Summary

The Environmental Services Staff is proposing to replace turfed areas with a native prairie and remove an area that is currently woodchips and shrubs to replace with a native prairie planting that can showcase various plants that would grow in a native prairie. The total cost of this project is \$10,000. They are requesting \$5,000 in Cost Share Funds.

Discussion Points

- The attached application with plan sheets highlighting the changes
- Total project cost and requested cost share amount

Recommended WMOAC Committee Action

- Approve \$5,000 for the Environmental Center cost share project.



APPLICATION FOR CARVER COUNTY COST SHARE

File Number (Office Use Only): _____

Instructions

1. Applicants are encouraged to contact Carver County Soil and Water Conservation District to discuss the potential project as the first step.
2. Complete and submit application. Electronic submittals preferred. See page 2 for information on how to submit applications.
3. Staff will contact the applicant to review the application, with the potential for a site visit. During the site visit, project location will be further evaluated to determine consistency with evaluation criteria.

PROJECT CONTACT

PROPERTY OWNER

Name: _____

Address: _____

City: _____ **State:** _____ **Zip Code:** _____

Phone: _____ **Email:** _____

PROJECT INFORMATION

Project Location:
(if different than above) _____

Nearest Lake or Stream: _____

Project Description:
(use additional sheets as necessary)

**Water Quality Issues
Addressed by the Project:**

Contributing Drainage Area: _____ **Maximum Size of Practice:** _____

Landuse in Drainage Area: _____

COST SHARE REQUEST

Total Project Cost:
(attach itemized list –
required for cost share approval) _____

Cost Share Request:
(cannot exceed 75% of Total
Project Cost) _____

Collaborators: _____

AUTHORIZATION & SIGNATURES

I certify, to the best of my knowledge, that the information included in this application is true, complete, and accurate.

**SIGNATURE OF PROPERTY
OWNER:** _____

DATE: _____

HOW TO SUBMIT

ELECTRONIC SUBMITTALS PREFERRED

Email completed applications and required submittals to:

Charlie Sawdey

E: csawdey@co.carver.mn.us

P: 952.361.1810

Paul Moline

E: pmoline@co.carver.mn.us

P: 952.361.1825

Submit hard copies to:

Carver County Planning and Water Management

600 E. 4th St.

Chaska, MN 55318

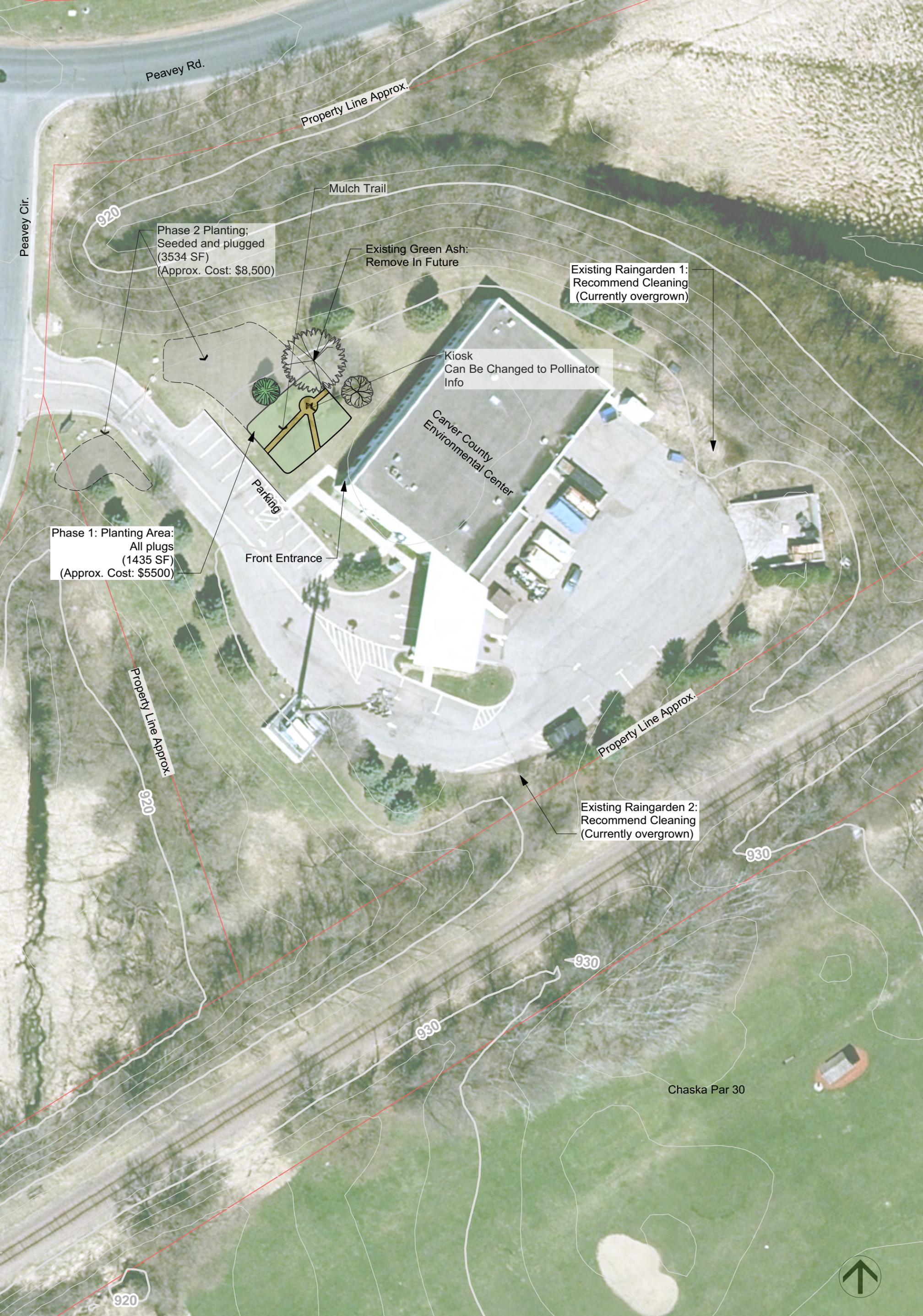
Fax (952) 361.1828

FOR OFFICE USE ONLY

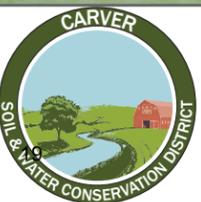
Approval: Yes

No

Date: _____



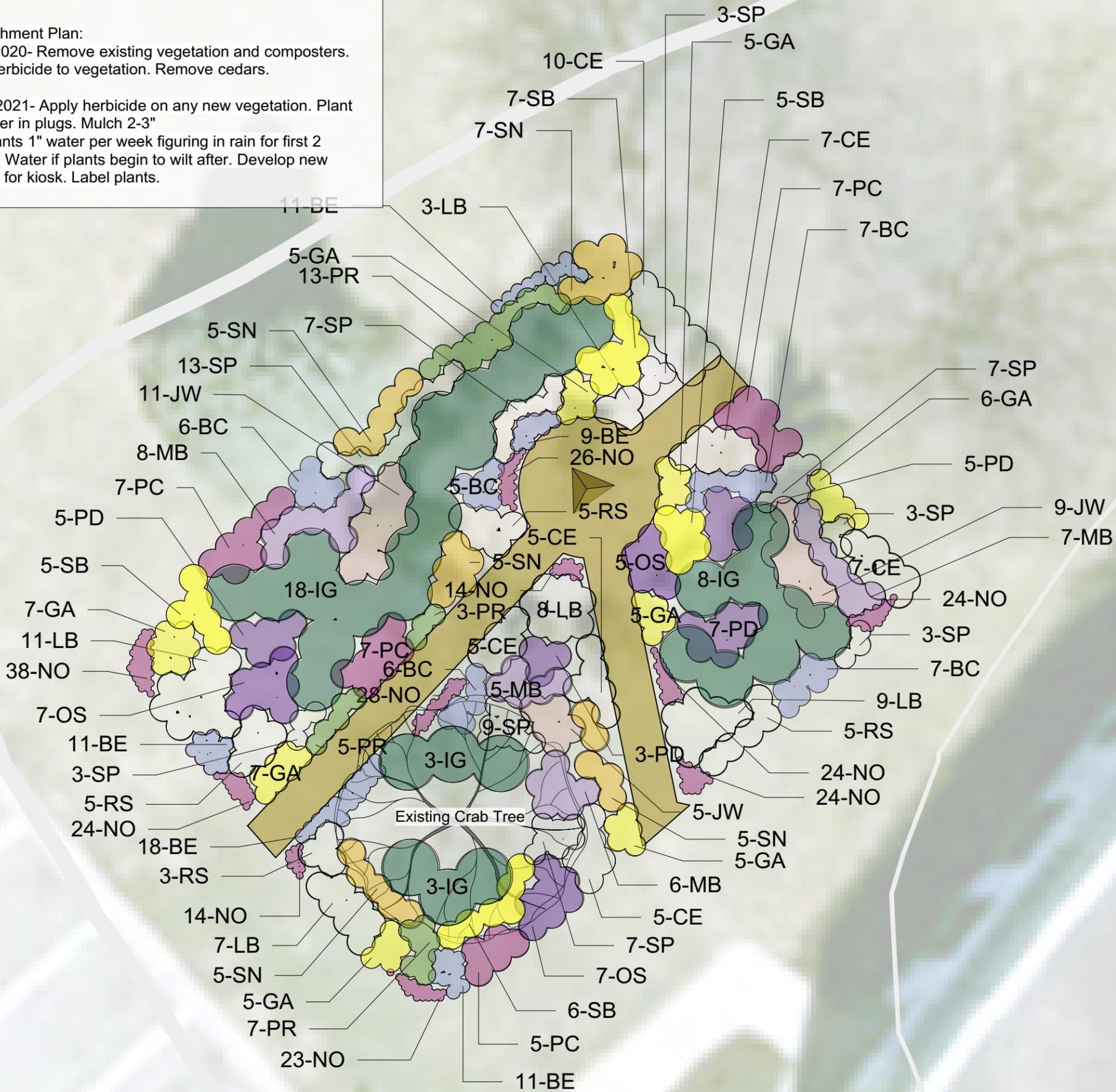
Carver County Environmental Center Pollinator Garden [Site Plan]



Notes: Proposed plan uses all plugs. This cuts down on maintenance considerably but increase initial cost. This is suggested as Phase 1 because it is a manageable size and can be accomplished without a professional company if desired. The area is perfect for converting into an educational garden. Recommend waiting till Spring 2021 to plant because of plant availability and plug survival. Plant species may change according to availability.

Establishment Plan:
 Fall of 2020- Remove existing vegetation and composters.
 Apply herbicide to vegetation. Remove cedars.

Spring 2021- Apply herbicide on any new vegetation. Plant and water in plugs.
 Mulch 2-3"
 Give plants 1" water per week figuring in rain for first 2 months. Water if plants begin to wilt after. Develop new signage for kiosk. Label plants.



Plant ID	Common Name	Latin name	Quantity
NO	Nodding Pink Onion	Allium cernuum	239
LB	Little Bluestem	Schizachyrium scoparium	38
GA	Golden Alexanders	Zizia aurea	45
PD	New England Aster	Aster novae-anilae	20
RS	Rattlesnake Master	Eryngium yuccifolium	18
PC	Purple Coneflower	Echinacea purpurea	26
OS	Ohio Spiderwort	Tradescantia ohiensis	19
CE	Canadian Anemone	Anemone canadensis	39
JW	Joe-Pye Weed	Eupatorium purpureum	25
IG	Indian Grass	Sorghastrum nutans	32
MB	Marsh Blazing Star	Liatris spicata	26
SB	Sweet Black-eyed Susan	Rudbeckia subtomentosa	23
BC	Blue Cardinal Flower	Lobelia siphilitica	31
SP	Smooth Penstemon	Penstemon digitalis	55
SN	Sneezeweed	Helenium autumnale	27
BE	Blue Eyed Grass	Sisyrinchium albidum	60
PR	Prairie Dropseed	Sporobolus heterolepis	28

Scale: 1/8"=1'



Carver County Environmental Center
 Pollinator Garden 2020
 [Planting Plan]





CCWMO Advisory Committee

Sept. 29th, 2020 Meeting

Business Item

Virtual tour, first two videos

Water Management Plan Related Goals

Goal 4 Awareness & Behavior.

To provide those living, working, and recreating in the CCWMO with the knowledge, skills, and motivation needed to make positive behavior changes that protect surface water and groundwater resources.

Summary

Each year, the Water Management Organization's Advisory Committee attends an annual tour. The purpose of the tour is to educate the committee about upcoming projects, completed projects and projects in progress. The tour also introduces committee members to different water management techniques, topics, issues, and current research.

Due to COVID19, staff have cancelled the in-person tour for June and have created a virtual tour of projects and topics instead.

During this meeting, committee members will view the last two videos created: Construction site erosion control and the Watertown wetland restoration.

Discussion Points

- none

Recommended WMOAC Committee Action

- No formal action required. Discussion only.



Carver County Water Management Organization Advisory Committee

Upcoming Meetings

Date	Meeting Type	Business Items
10/27/2020	Regular WebEx	- Rules update - BWSR grants - Chaska irrigation project summary
11/24/2020	Regular WebEx	- AIS 2021
12/29/2020	No meeting	

Other Events

Date	Program	Details
none		
