

**City of East Bethel
Park Commission Agenda**

7:00 pm

Date: November 12, 2014

Location: City Hall

Meeting Room: Council Chambers



Item

- | | | |
|---------|------|---|
| 7:00 PM | 1.0 | Call to Order |
| 7:01 PM | 2.0 | Adopt Agenda |
| 7:02 PM | 3.0 | Approve Minutes – August 13, 2014 |
| 7:05 PM | 4.0 | Parks Financial Information & Parks Capital Funds Summary |
| 7:10 PM | 5.0 | Theresa Martin – Baseball Field Request |
| 7:30 PM | 6.0 | Christine Dahlman - Insecticide Use and Pollinators |
| 7:50 PM | 7.0 | Cedar Creek Memorandum of Understanding |
| 8:10 PM | 8.0 | Anoka Conservation District Comp Plan 2015-2019 |
| 8:20 PM | 9.0 | Council Report and Other Business |
| 8:30 PM | 10.0 | Adjourn |

EAST BETHEL PARK COMMISSION MEETING

August 13, 2014

The East Bethel Parks Commission met on August 13, 2014 at 7:04 P.M at the East Bethel City Hall for their regular monthly meeting.

MEMBERS PRESENT: Bill Zimmermann Tim Hoffman Denise Lachinski Kenneth Langmade
Sue Jefferson Bonnie Harvey Stacy Voelker

MEMBERS EXCUSED:

ALSO PRESENT: Nate Ayshford, Public Works Director
Bob DeRoche, City Council

**Adopt
Agenda** **Langmade motioned to adopt the agenda. Lachinski seconded; all in favor, motion carries unanimously.**

**Approve –
June 11 2014** **Lachinski made a motion to approve the June 11, 2014 minutes as submitted with Zimmerman excused. Harvey seconded; all in favor, motion carries unanimously.**

**Parks
Financial
Information
& Parks
Capital** For the operations budget, the biggest thing there was a lot of vandalism at Whispering Oaks Park. They painted the equipment, the shed, the concrete, etc. The concrete needed to be repainted. They did paint garage doors in the neighborhood and a fence. Everything else is on track for the budget. Nothing has been used in the capitol budget.

**Funds
Summary** **Hoffman motioned to present the parks financial information and parks capital fund summary as presented. Zimmerman seconded; all in favor, motion carries unanimously.**

**Sandhill
Crane
Natural Area
Grant** The Anoka County Parks Department has finished the grant application for improvements to the Sandhill Crane Natural Area. The grant would cover the cost of natural area restoration and installation of recreational facilities including boardwalks, benches, and observation decks.

**Application
Update** The grant funds are provided by the Closed Landfill Natural Resources Damages Fund. The application is seeking \$1,060,000 which would completely fund the proposed improvements to the SCNA.

They are seeking comments from the stakeholders. They have attached the official resolution. Hoffman asked who will be responsible for maintenance. Ayshford said it will be both. They will take care of the trails and we will take care of the plowing the parking lot and garbage. The County handles maintenance of capital improvements. Hoffman said if they decide to make the trails natural surface, who would maintain them. DeRoche said they are planning on keeping them natural. Hoffman said the proposed City trail would be all us. Ayshford said that is Met Council's property. That is the one parking lot we would

take care of. That is a wood chipped trail. We would just jump off of that. That is labeled wrong, it is owned by Met Council. The City owns the area on the south east corner, right by the gun club. DeRoche said the maps on the website need to be updated. They show a City trail going through the gun club. They need to update trail maps.

Hoffman asked if we need to make a motion for approval. Ayshford said what they have recommended or make changes. Lachinski asked if they would be paved bike trails. Ayshford said they will be wood-chipped. The area is hunting. Hoffman asked if there would be an area for ATVs. Ayshford said no, not that kind of trail. Lachinski said we had talked about horses and snowmobiles. Ayshford said no horses and no motorized vehicles.

DeRoche showed Ayshford the area he was talking about on the website. Ayshford said they are proposed trails. At one time they had talked about making a connection there. A lot of these are just lines on the map. Jefferson said they are dotted lines, they were just proposed.

Hoffman motioned approval of the Sandhill Crane Natural Area Grant Application. Voelker seconded; all in favor, motion carries unanimously.

**Anoka
County
Regional
Trail Master
Plan
Amendment**

Anoka County is seeking comments on the proposal and a recommendation for submittal. The Anoka County Parks Department has finished the Draft Master Plan Amendment for the East Anoka County Regional Trail and is seeking comments and input from stakeholders. The amendment includes the addition of the East Anoka County Regional Trail which follows Lexington Ave to Viking Blvd in East Bethel and also crosses back into the city near Durant St and the Cedar Creek Ecosystem Science Reserve.

Once complete, the trail would provide a connection for East Bethel residents to the entire Anoka County trail system and the metro-wide trail system. Another added benefit of the proposed trail location is that it would help complete the trail loop around Fish Lake. Anoka County is seeking input and comments before the plan is finalized.

Ayshford said they are seeking input from us.

Langmade said the interesting thing is the trail we had planned up Bataan, would have fit in perfect with this. Ayshford said he had the same thought. You could have it anywhere. Hoffman said we wouldn't have to pay for the one going up Durant. This is a long time coming. Lachinski asked how long before they will come to our area. Ayshford said this is past where the Viking improvements took place. This is the first step. Once it is on there, then the funding can be provided from Met Council. Linwood has been pushing a lot. They have a good trail plan around Martin Lake.

Hoffman said it looks like it goes down to 221st. Lachinski said wasn't an overlay of 221st moved up. Ayshford said that doesn't include a trail. Harvey asked why it is crossing over Lexington. Ayshford said possibly due to less houses impacted. Langmade said it is interesting the growth projections. Ayshford said we hope they are correct. Harvey said she is really thrilled to be able to get to the Beach, to the park and go swimming and come back.

DeRoche asked where they came up with the 18,200. Ayshford said from Met Council. DeRoche said Met Council dropped it back down considerably. Ayshford said it from the

Met Council Thrive adopted May 2014. DeRoche said that would be something to bring up with Pat Bjorn. Ayshford said he hasn't seen that study. Lachinski said yes, to see where they come from.

Hoffman said it will fit in with our own trail program. This doesn't give us much in East Bethel, but it is more than what we have had on the County plans for years. DeRoche said aren't Anoka County Regional Trails meeting coming up. Ayshford said yes, the end of this month. They want the comments by the end of this week. There is a public open house on August 27th at Linwood City Hall from 4-6 p.m.

Zimmerman said they show the proposed trail on Viking. Why didn't they do it with the reconstruction? He apologized he was off a road. It wasn't Viking.

Harvey motioned to approve the Anoka County Regional Trail Master Plan Amendment. Zimmerman seconded; all in favor, motion carries unanimously.

**Council
Report &
Other
Reports**

CIPs are done for the next four years. The skateboard park over at the beach is really in bad shape. Harvey said a few kids sent a letter to the City. Ayshford doesn't remember it. The equipment was moved from Hidden Haven over to the Beach. Hoffman said he doesn't remember if there is skateboard park equipment for the Beach. Harrington said it is for Booster Park for 2015. Lachinski said because we only had \$50,000 to work with. We should push for more money for parks. DeRoche said things are loosening up. Hoffman said go up to Isanti and look at their skate park. Lachinski said their complex is very impressive. They also are going to have an indoor BMX park. Ayshford said do they have their wakeboard park. Hoffman said it is a very impressive park. If you just turn by the John Deer dealership it is right there. They have a skate park and soccer fields there. Ayshford said he would be curious to find out what their budget is. Hoffman said he bets it isn't \$50,000.

Booster Day did really well. We won't have a meeting until September. The weather was great. The dance attendance was down. Silent auction made quite a bit of money. Turtles were released. We had a three legged turtle. Everyone was really happy. Movie in the park, there was a mishap with the screen. We had to keep moving the screen. Lots of attendance. The food stuff with the seniors had a little mishap.

DeRoche said there were lots of comments about the parade. It is economic development. Langmade said the seniors were very impressed. The breakfast we had to add tables. They were all filled up, no place to sit. Same way at lunch time. He hasn't gotten the final results on the silent auction. He thinks it was about \$1,400. He hasn't heard what he craft or bake sale did. He even got a free breakfast out of it. One of the people who won on the auction, Langmade sold him the ticket, so he invited them to breakfast.

Lachinski said we got a lot of compliments about the parks. DeRoche said the public works employees work hard, they worked their butts off. Ayshford said a lot of compliments on the fireworks. Hoffman said the dance cleared out after the fireworks. He was there until 2. Lachinski said it still goes after it gets dark. Hoffman said about 2/3 of the crowd leave after the fireworks. Lachinski said the kids would have to leave at nine if it was a bar.

DeRoche said he thinks the City is doing well. We have the payments figured out through

2015. We are looking at refinancing a bond. It is challenge but it is fun. He hears a lot of good things about East Bethel. It is a little bit more professional. The communication with the state and county are really good and they are willing to work with us. He has been here for 30 years, and he is not going anywhere.

We had a meeting with the businesses on the east side and 10 seem interested out of 13. He is not willing to vote to force them to hook up and put them out of business. Osborne and Chies would like to develop areas. He has a problem spending money unless the City is going to get something out of it. You can't drive the businesses out because then the people will go. We have talked about doing the service road, but the sewer and water should be done at the same time. A lot of talking is being done behind the scenes. He gave Jack the numbers he had from all the promises. He thought no existing businesses would have to hook up until 2030.

Lachinski said will they fix the intersection by the theater. Ayshford said we are looking at different options. Harrington said weren't we looking at going 181st. DeRoche said we are trying to work with MnDOT to have an acceleration lane and it would take traffic load off of 187th. Lachinski said there are County Roads and State Roads. DeRoche said it would be \$1.5 to put in a light if we put in the traffic onto Jackson. If we dump out onto Jackson. It is hard to get off of Jackson onto Viking. There will have to have some sort of control. MnDOT basis their decisions on death. 221st was pretty hot at the last election. Hoffman said they county north and southbound separately.

Ayshford said we are looking at different ways to finance it. DeRoche said it has to do with Parks. Parks and trails suffered for a few years. We had this debt, how do we pay for it. We looked at what we had to have. It is starting to loosen up. Lachinski said you can see building and progress.

Lachinski asked when the fall town hall meeting is. DeRoche said there will be a couple meet the candidates. There are three running for Mayor and three running for Council. It will be an interesting fall.

Hoffman said he has been going to North Branch for their music in the parks. Lachinski said the City pays for it. Hoffman said the City doesn't pay, but the business does it. Ayshford said the City of Andover does it. Hoffman said in Booster East. Harrington said Anderson would be a good park. Lachinski said we would need an arts budget. Langmade said this has come up with the seniors. We are not getting new members because the City of Ham Lake pays for trips. Lachinski said we can look at the school district. Langmade said he got involved because Troy Ferguson asked him to. They meet about every month. We haven't had a meeting for a couple months. He thinks with fall there will be meetings. Lachinski said to let her know. She will go to the meeting with him. They must have some deal with the school district. Jefferson said we have the field trips, but the senior has to pay for them. Langmade said he use to set up trips when he was active in Spring Lake Park. Lachinski said how often the seniors meet in the Beach with your group. Langmade said we don't.

Adjourn

Harvey motioned to adjourn the August 13, 2014 meeting at 7:45 p.m. Lachinski seconded; all in favor, motion carries unanimously.

Respectfully submitted by:

Jill Anderson
Recording Secretary

City of East Bethel
Revenue / Expense Statement
Fiscal Year 2014
1/1/14 to 10/31/14

Account Description	Actual - 10/31/14	FY 2014 Budget	YTD as a % of Budget
Public Works - Park Maintenance			
E 101-43201-101 Full-Time Employees Regular	156,752.49	197,900.00	79%
E 101-43201-102 Full-Time Employees Overtime	2,365.79	1,000.00	237%
E 101-43201-103 Part-Time Employees	5,999.00	5,900.00	102%
E 101-43201-105 Employee On Call/Standby Pay	-	3,100.00	0%
E 101-43201-107 Commissions and Boards	-	1,700.00	0%
E 101-43201-122 PERA-Coordinated Plan	11,534.23	14,300.00	81%
E 101-43201-125 FICA/Medicare	15,540.17	19,700.00	79%
E 101-43201-126 Deferred Compensation	4,772.75	5,900.00	81%
E 101-43201-131 Cafeteria Contribution	36,707.64	44,000.00	83%
E 101-43201-151 Worker s Comp Insurance Prem	8,365.78	8,450.00	99%
E 101-43201-201 Office Supplies	-	100.00	0%
E 101-43201-211 Cleaning Supplies	365.06	500.00	73%
E 101-43201-212 Motor Fuels	16,110.54	16,000.00	101%
E 101-43201-213 Lubricants and Additives	88.26	500.00	18%
E 101-43201-214 Clothing & Personal Equipment	946.09	3,000.00	32%
E 101-43201-215 Shop Supplies	9.66	400.00	2%
E 101-43201-216 Chemicals and Chem Products	812.50	3,000.00	27%
E 101-43201-217 Safety Supplies	132.42	700.00	19%
E 101-43201-218 Welding Supplies	-	100.00	0%
E 101-43201-219 General Operating Supplies	1,591.61	2,200.00	72%
E 101-43201-221 Motor Vehicles Parts	2,822.24	2,100.00	134%
E 101-43201-222 Tires	282.66	1,000.00	28%
E 101-43201-223 Bldg/Facility Repair Supplies	1,901.61	2,500.00	76%
E 101-43201-225 Park/Landscaping Materials	2,084.73	7,000.00	30%
E 101-43201-226 Sign/Striping Repair Materials	-	1,500.00	0%
E 101-43201-229 Equipment Parts	1,622.12	2,000.00	81%
E 101-43201-231 Small Tools and Minor Equip	444.05	2,000.00	22%
E 101-43201-306 Personnel/Labor Relations	149.33	300.00	50%
E 101-43201-307 Professional Services Fees	465.00	600.00	78%
E 101-43201-321 Telephone	1,066.88	2,500.00	43%
E 101-43201-341 Personnel Advertising	108.00	200.00	54%
E 101-43201-342 Legal Notices	-	100.00	0%
E 101-43201-381 Electric Utilities	3,039.94	6,000.00	51%
E 101-43201-384 Sewer Utilities	-	300.00	0%
E 101-43201-385 Refuse Removal	76.59	1,200.00	6%
E 101-43201-387 Heating Fuels/Propane	180.32	250.00	72%
E 101-43201-401 Motor Vehicle Services (Lic d)	190.50	2,200.00	9%
E 101-43201-402 Repairs/Maint Machinery/Equip	-	3,000.00	0%
E 101-43201-403 Bldgs/Facilities Repair/Maint	575.00	3,000.00	19%
E 101-43201-405 Park & Landscape Services	-	2,200.00	0%
E 101-43201-415 Other Equipment Rentals	8,161.21	7,000.00	117%
E 101-43201-422 Auto/Misc Licensing Fees/Taxes	543.71	1,200.00	45%
E 101-43201-431 Equipment Replacement Chgs	16,700.00	16,700.00	100%
E 101-43201-434 Conferences/Meetings	345.00	400.00	86%
	302,852.88	393,700.00	77%

**PARK CAPITAL FUNDS SUMMARY
OCTOBER 2014**

PARK ACQUISITION AND DEVELOPMENT FUND			
Account #	Description	2014 YTD	Remaining Balance
REVENUES:			
R 404-34791	Park Dedication Fees	-	
R 404-36210	Interest Earnings	14.63	
Total Revenues		<u>14.63</u>	
EXPENSES:			
E 404-40400-201	Office Supplies	-	
E 404-40400-223	Bldg/Facility Repair Supplies	-	
E 404-40400-224	Street Maint Materials	-	
E 404-40400-225	Park/Landscaping Materials	-	
E 404-40400-302	Architect/Engineering Fees	-	
E 404-40400-303	Legal Fees	-	
E 404-40400-307	Professional Services Fees	-	
E 404-40400-322	Postage/Delivery	-	
E 404-40400-342	Legal Notices	-	
E 404-40400-351	Printing and Duplicating	-	
E 404-40400-403	Bldg/Facilities Repair/Maint	-	
E 404-40400-405	Park & Landscape Services	-	
E 404-40400-416	Machinery Rentals	-	
E 404-40400-422	Auto/Misc Licensing Fees/Taxes	-	
E 404-40400-530	Improvements Other Than Bldgs	-	
Total Expenses		<u>-</u>	
December 31, 2013 Balance		26,064.37	
Current Balance			26,079.00

PARK CAPITAL FUND			
REVENUES:			
R 407-36210	Interest Earning	39.94	
R 407-36240	Refunds & Reimbursements	-	
R 407-39201	Transfer from General Fund	50,000.00	
Total Revenues		<u>50,039.94</u>	
EXPENSES:			
E 407-40700-219	General Operating Supplies	-	
E 407-40700-223	Bldg/Facility Repair Supplies	-	
E 407-40700-225	Park/Landscaping Materials	-	
E 407-40700-226	Street & Lot Restriping	-	
E 407-40700-231	Small Tools and Minor Equip	-	
E 407-40700-302	Architect/Engineering Fees	-	
E 407-40700-303	Legal Fees	-	
E 407-40700-403	Bldgs/Facilities Repair/Maint	-	
E 407-40700-405	Park & Landscape Services	-	
E 407-40700-530	Improvements Other Than Bldgs	-	
E 407-40700-550	Motor Vehicles	-	
E 407-40700-935	Street Capital Transfers	-	
E 407-45202-225	Park/Landscaping CCNH	-	
E 407-45202-302	Architect/Engineering Fees	-	
E 407-45202-342	Legal Notices	-	
E 407-45202-409	Other Repair/Maintenance	-	
E 407-45202-520	Buildings and Structures	-	
Total Expenses		<u>-</u>	
December 31, 2013 Balance		36,929.30	
Current Balance			86,969.24

PARK TRAILS DEVELOPMENT FUND

REVENUES:

R 410-36210	Interest Earnings	80.84
R 410-34791	Park Dedication Fees	-
R 410-39201	Transfer from General Fund	-
Total Revenues		<u>80.84</u>

EXPENSES:

E 410-41000-224	Street Maint Materials	-
E 410-41000-225	Park/Landscaping Materials	-
E 410-41000-226	Sign/Striping Repair Materials	-
E 410-41000-231	Small Tools and Minor Equip	-
E 410-41000-302	Architect/Engineering Fees	-
E 410-41000-303	Legal Fees	-
E 410-41000-307	Professional Services Fees	-
E 410-41000-405	Park & Landscape Services	-
E 410-41000-415	Other Equipment Rentals	-
E 410-41000-510	Land	-
E 410-41000-530	Improvements Other Than Bldgs	-
E 410-45202-225	Park/Landscape	-
E 410-45202-302	Architect/Engineering Fees	-
Total Expenses		<u>-</u>

December 31, 2013 Balance 144,088.10

Current Balance

144,168.94



City of East Bethel Park Commission Agenda Information

Date:

November 12, 2014

Agenda Item Number:

Item 5.0

Agenda Item:

Theresa Martin- Baseball Field Request

Requested Action:

Discuss future plans for baseball fields within East Bethel

Background Information:

Theresa Martin has requested the Park Commission discuss options for athletic fields designated for baseball use. Possibilities include converting an existing softball field into a baseball field with a mound and possible grass infield and/or constructing a new baseball field in Booster West where the existing soccer fields are located.

Theresa Martin will be available at the meeting to provide comments and discuss possible options.

Attachments:

5.1) 2015-2019 Parks CIP

Fiscal Impact:

None at this time

Recommendation(s):

Park Commission Action

Motion by: _____

Second by: _____

Vote Yes: _____

Vote No: _____

No Action Required:_____

**Parks CIP
2015-2019
Funding Analysis**

PARK ACQUISITION AND DEVELOPMENT FUND	Beginning Balance	Sources (Revenues)	Uses (Project Costs)	Ending Balance
2015 Beginning Balance	\$26,028			\$26,028
Park Dedication Fees		\$0		\$26,028
Skate board equipment for Booster West Park			\$25,000	\$1,028
2015 Ending Balance				\$1,028
2016 Beginning Balance	\$1,028			\$1,028
Park Dedication Fees		\$50,000		\$51,028
Install fence baseball field Anderson Lake Park			\$12,000	\$39,028
Install fence baseball field Norseland Park			\$12,000	\$27,028
2016 Ending Balance				\$27,028
2017 Beginning Balance	\$27,028			\$27,028
Park Dedication Fees		\$75,000		\$102,028
Irrigation system at Whispering Aspen			\$25,000	\$77,028
Pavilion at Norseland Manor Park			\$40,000	\$37,028
Irrigation system at Norseland Park			\$35,000	\$2,028
2017 Ending Balance				\$2,028
2018 Beginning Balance	\$2,028			\$2,028
Park Dedication Fees		\$70,000		\$72,028
Pavilion at Eveleth Park			\$40,000	\$32,028
Cedar Creek Park Additions			\$30,000	\$2,028
2018 Ending Balance				\$2,028
2019 Beginning Balance	\$2,028			\$2,028
Park Dedication Fees		\$80,000		\$82,028
New Park Development			\$50,000	\$32,028
2019 Ending Balance				\$32,028
TOTAL PARK ACQUISITION AND DEVELOPMENT FUND SOURCES AND USES		\$195,000	\$219,000	
<p>Park Dedication Fees- Residential = up to 6 units/acre: 10% of land or cash equal to market value of land; 6 or more units/acre: 10% of land +1 % for each unit above 6 units/acre or cash equal to market value of land. Commercial = 5% of land or cash equal to market value of land</p>				

**Parks CIP
2015-2019
Funding Analysis**

PARK CAPITAL FUND	Beginning Balance	Sources (Revenues)	Uses (Project Costs)	Ending Balance
2015 Beginning Balance	\$86,934			\$86,938
Transfer From General Fund		\$50,000		\$136,938
Outdoor Ice Rink Repairs			\$35,000	\$101,938
Bonde Park Irrigation			\$65,000	\$36,938
2015 Ending Balance				\$11,938
2016 Beginning Balance	\$11,938			\$11,938
Transfer From General Fund		\$50,000		\$61,938
Playground Equipment- Rod and Norma Smith Park			\$45,000	\$16,938
2016 Ending Balance				\$16,938
2017 Beginning Balance	\$16,938			\$16,938
Transfer From General Fund		\$50,000		\$66,938
Baseball field @Booster West Park			\$50,000	\$16,938
2017 Ending Balance				\$16,938
2018 Beginning Balance	\$16,938			\$16,938
Transfer From General Fund		\$50,000		\$66,938
Playground Equipment Booster East			\$45,000	\$21,938
2018 Ending Balance				\$21,938
2019 Beginning Balance	\$21,938			\$21,938
Transfer From General Fund		\$50,000		\$71,938
Playground Equipment Anderson Lakes			\$45,000	\$26,938
2019 Ending Balance				\$26,938
TOTAL PARK CAPITAL FUND SOURCES AND USES		\$250,000	\$285,000	

**Parks CIP
2015-2019
Funding Analysis**

TRAILS CAPITAL FUND	Beginning Balance	Sources (Revenues)	Uses (Project Costs)	Ending Balance
2015 Beginning Balance	\$144,118			\$144,118
Transfer From General Fund		\$0		\$144,118
Trail Dedication fees		\$0		\$144,118
Trail Segment TBD			\$0	\$144,118
2015 Ending Balance				\$144,118
2016 Beginning Balance	\$144,118			\$144,118
Transfer From General Fund		\$0		\$144,118
Trail Dedication fees		\$0		\$144,118
Trail Segments TBD			\$0	\$144,118
2016 Ending Balance				\$144,118
2017 Beginning Balance	\$144,118			\$144,118
Transfer From General Fund		\$0		\$144,118
Trail Dedication fees		\$0		\$144,118
Trail Segments TBD			\$0	\$144,118
2017 Ending Balance				\$144,118
2018 Beginning Balance	\$144,118			\$144,118
Transfer From General Fund		\$0		\$144,118
Trail Dedication fees		\$0		\$144,118
Trail Segments TBD			\$0	\$144,118
2018 Ending Balance				\$144,118
2019 Beginning Balance	\$144,118			\$144,118
Transfer From General Fund		\$0		\$144,118
Trail Dedication fees		\$0		\$144,118
Trail Segments TBD			\$0	\$144,118
2019 Ending Balance				\$144,118
TOTAL TRAILS FUND SOURCES AND USES		\$0	\$0	



City of East Bethel Park Commission Agenda Information

Date:

November 12, 2014

Agenda Item Number:

Item 6.0

Agenda Item:

Christine Dahlman - Insecticide Use and Pollinators

Requested Action:

Discuss possibility of East Bethel seeking "Bee Friendly City" status

Background Information:

Christine Dahlman will be present to discuss the use of insecticides on public property and their effect on pollinators. She will also discuss what cities can do to become a "Bee Friendly City" by eliminating the use of certain insecticides and encouraging homeowners and property owners to follow the same example.

Attachments:

- 6.1) Letter to the Commission
- 6.2) Information on insecticides and pollinators
- 6.3) Sample municipal resolution

Fiscal Impact: None at this time

Recommendation(s):

Park Commission Action

Motion by: _____

Second by: _____

Vote Yes: _____

Vote No: _____

No Action Required: _____

Christine Dahlman
23019 Hwy 65 NE
East Bethel, MN 55005

Park and Recreation board members:

As a resident of East Bethel I found this summer that my garden did not fair very well. I had lots of flowers, very little produce and no bees. In the years past my gardens were humming with activity. But that was not the case this year.

We have all heard about the decline of the bees and pollinators, I did not pay too much attention until it effected me personally. I have since researched where did the bees go. Bee/pollinators are a important part of our food chain. There are over 1,000 plants that we either eat or get medicine from that require pollination.

I have spoken to the University Extension Bee Lab and Bee Squad. They were more than willing to support my efforts in helping East Bethel to become a "Bee Friendly City" Then a phone call came from the Director of the Bee Lab stating they would not be able to help, but that I was free to take any information from their website.

We have several green/organic growers in our city. I had the pleasure to speak with Sharon Anderson and she had offered to show me how to hand pollinate my garden. She had a bee keeper bring hives to her farm to ensure that her crops were pollinated.

The MN Dept of Agriculture has jumped in on the issue, In an article from the Star Tribune (10/29/14) they are considering a state wide ban on neonicotinoids.

The US fish and Wildlife has also banned the use of any neonicotinoid on any federally owned land. They have banned any Genetically Modified Organism (GMO) crops being planted on federally owned land. This eliminates the use of 2-4D and Roundup.

I understand currently East Bethel is not using neonicotinoid in our City. Being a Bee Friendly City is more then just the City not using neonicotinoid. It is being proactive to encourage residents to use less chemicals in their yards and to plant bee/pollinator friendly plants. The City should be leading the way by having some areas of the City left in a natural state with no chemicals and limited mowing.

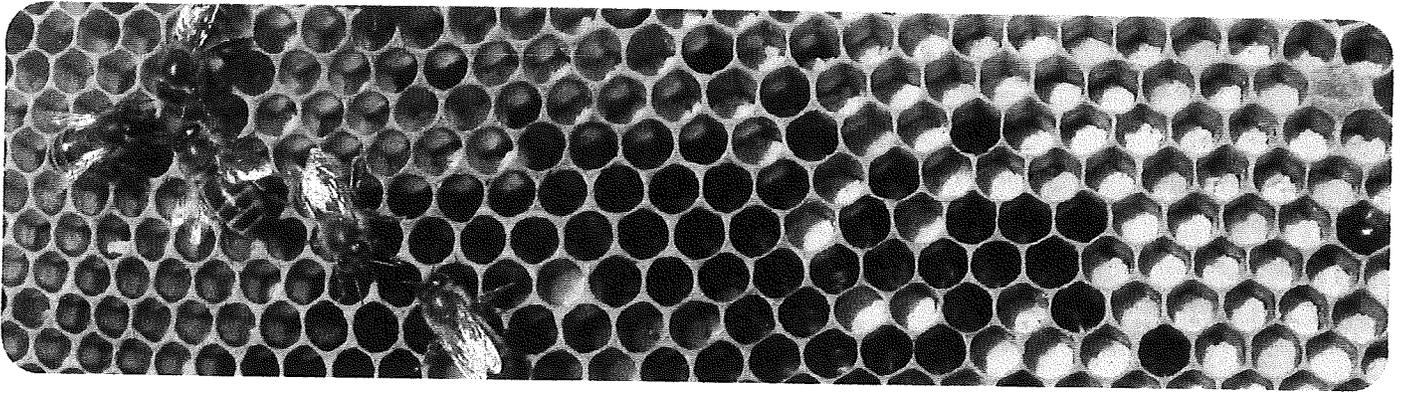
I do not want to see East Bethel end up like the Chinese and have to pay people to hand pollinate because we did not take the decline of the bee population serious.

East Bethel City Council has been saying they need more positive publicity and this would help. Shorewood, MN made the national news for their efforts. This news was also all over social media from Pesticide Awareness of North America, to every environmental group out there. It would be sure to give the City positive exposure.

I have enclosed some information that you will find helpful.
I look forward to meeting with the Board.

Sincerely,

Christine Dahlman
763-434-4148 (if you have any questions)



The Role of Pesticides in Bee Decline

Pollinator decline has accelerated rapidly in the last decade, with many populations at critically low levels. Scientists are increasingly linking these and other signs of biodiversity collapse with low-level exposure to pesticide 'cocktails' in the environment — especially to a relatively new class of systemic insecticides called neonicotinoids.

Introduction

Honey bee populations have steadily declined in the U.S. since 1947 at a gradual rate averaging 1% per year. Steeper declines have been recorded since 1987, but since the emergence of “Colony Collapse Disorder” in 2006 commercial beekeepers have reported extraordinary losses averaging 29 to 36% per year. Such losses are unprecedented, more than double what is considered normal.

Most scientists agree that there is no single cause of CCD. Rather, recent population declines are likely caused by a combination of factors acting in concert to weaken bee colonies to the point of collapse; and emerging science points specifically to impaired immunity. Lead suspects in this causal complex include: nutritional stress, pathogens (including parasites) and pesticides.

Key suspect: Neonicotinoids

Neonicotinoid pesticides (or neonics) were implicated early on by beekeepers in France and then the U.S. as their bee populations began rapidly declining. Commercial beekeepers report especially heavy losses after having pollinated or allowed their bees near crops treated with neonics.

Neonics are the fastest growing class of insecticides in the history of synthetic pesticides and are “blockbuster” products for makers Bayer and Syngenta, in part because these chemicals are used in 77% (as of 2005) of the emerging, highly profitable seed treatment sector. Although used in a variety of settings, neonics are most notably used on nearly all of the 92+ million acres of corn planted in the U.S. Corn does not depend on bees for pollination, but bees do rely on corn’s abundant, neonic-laced pollen as a pervasive nutrition source.

Neonicotinoid pesticides

Neonicotinoids (neonics) are the most widely used class of insecticides. Introduced in the early 1990s in response to widespread pest resistance and public health concerns arising from older pesticides, they have come into focus as problematic largely because of their harmful effects on bees.

Neonics are typically applied as systemics, used as seed coatings or soil drenches and taken up through the plant’s vascular system. They are then transmitted to all parts of the plant, including pollen and nectar.

Neonics are very persistent, accumulating over time in the environment. Most neonics are acutely toxic to bees, but single, high-dose (i.e. acute) exposures are likely less common than chronic, sub-lethal exposure levels faced by bees over time as they forage in the field.

Researchers have found a range of sub-lethal effects caused by neonics: altered foraging and feeding behavior, impaired orientation and social communication, undermined immunity and delayed larval development.

TABLE 1

Economic value of pollination to U.S. agriculture

CROP	CROP VALUE	POLLINATION DEPENDENCY	HONEY BEE POLLINATION VALUE
Almonds	\$2.84 billion	100%	\$2.84 billion
Apples	\$2.2 billion	90%	\$1.98 billion
Oranges	\$1.93 billion	30%	\$522 million
Cherries (sweet)	\$721 million	80%	\$584 million
Blueberries	\$593 million	90%	\$534 million

Source: Calderone NW (2012) Insect Pollinated Crops, Insect Pollinators and US Agriculture: Trend Analysis of Aggregate Data for the Period 1992–2009. PLoS ONE 7(5): e37235.

What's at stake?

According to a recent U.N. report, of the 100 crops that provide 90% of the world's food, over 70 are pollinated by bees. Wild pollinators like bats, butterflies and bumble bees are also facing catastrophic declines. Managed honey bees, however, remain the most economically important pollinator, contributing over \$19 billion annually to the U.S. economy.

Rapid declines in pollinator populations put additional stress on an already-unstable food supply by depressing yields and agricultural efficiency. While pollination biologists do not foresee imminent food system collapse without honey bees, we do know that agriculture quickly becomes unrecognizable.

Bees are responsible for one in every three bites of food: from almonds to berries and the alfalfa that feeds dairy cows, our diets and agricultural economy hinge in largely invisible ways on a healthy bee population. For example, the cost of almond pollination has nearly tripled since colonies began collapsing in 2004, costing that industry over \$83 million per year.

In addition to their agricultural value as pollinators, honey bees are a keystone, indicator species. Their decline points to (and will likely accelerate) broader environmental degradation. Pollinator population declines are thus a disproportionately important piece of the current collapse in biodiversity.

However, bees' critical role as pollinators means that attending to their health and intervening on their behalf presents a unique opportunity for bolstering the health and resilience of our environment and agricultural economy alike.

WHAT BEEKEEPERS ARE SAYING

U.S. commercial beekeepers report that their industry is on the verge of collapse.

"Bee-toxic pesticides in dozens of widely used products, on top of many other stresses our industry faces, are killing our bees and threatening our livelihoods."

—Steve Ellis, MN & CA beekeeper

"Another winter of 'more studies are needed' so Bayer can keep their blockbuster products on the market, and EPA can avoid a difficult decision, is unacceptable."

—David Hackenberg, PA beekeeper



The Science

What we know

The causes behind recent bee declines are not a “mystery.” After having tried and failed to link CCD with a particular parasite, virus, fungus or other pathogen, scientists now largely concur that CCD is caused by a combination of increased overall pathogen loads, poor nutrition and pesticide exposure. Recent debates have hinged on which of these three co-factors is driving losses most directly.

In the last few years neonicotinoid pesticides—both alone and in combination with other pesticides—have emerged the leading suspects both because of their direct toxicity to bees and because of their indirect and cascading effects. For example, individual bees can be acutely poisoned while flying through pesticide-contaminated planter dust in a recently planted corn field; or chronically poisoned at sub-lethal levels by eating and drinking contaminated pollen, nectar and/or water over time. (Neonics are water soluble and persist for months in the environment). Bees are then more likely to get sick, less able to forage effectively, and so on. Colonies experience these poisonings at the population level as a hive’s highly interdependent generational cycles, immune system functions and social communication abilities are disrupted.

Recent science

A review of recent research on the effects of neonics’ environmental impact reveals that 94% (31/34) of methodologically sound, published studies since 2009 found that these pesticides were even more toxic than had been previously known. (The majority of these studies concerned bees as environmental indicators.)

Since 2010 three separate studies have found a synergistic effect between neonics and the common gut pathogen, *Nosema*. One found increased susceptibility to infection in bees exposed to imidacloprid as larva at levels so low as to be “undetectable” in adults (Pettis, 2012).

In early 2012 three more strong studies were released linking neonics to declining bee populations. One of these established contaminated corn planter dust as a significant exposure route

(Krupke, 2012), finding 10x levels of clothianidin as were found in the industry-sponsored study on the basis of which clothianidin was originally approved for use in corn and canola in the U.S.

Industry bias

Industry-sponsored studies have been proven to be systematically biased. Such studies nevertheless provide much of the basis for regulatory decisionmaking in the U.S. One consequence of this arrangement is that products such as neonics are rushed to market and remain there without rigorous toxicity tests having been conducted.

At present, there are no valid field studies establishing the safety of nitroguanidine neonics for bees. To the contrary, the weight of evidence from independent, peer-reviewed studies clearly indicates that this relatively new, long-lasting and widely used class of pesticides is a key driver behind recent bee declines.

As is the case with most environmental diseases, the likelihood that a definitive study will determine singular causality is very low. We must instead rely upon the weight of the evidence established by unbiased science. Especially in field-relevant studies where the effects of low-level, combined pesticide exposures are tracked over time periods exceeding the common 24-48 hr window, science shows that the nitroguanidine neonics—both alone and in combination with other pesticides—are poisoning bees and beehives in a number of different ways that lead to colony collapse.

Neonic Impacts on honey bees

- Compromised immune response > increased pathogen load
- Shortened adult life-cycles > disruption of brood cycle
- Impaired memory & learning
- Reduced social communication > reduced foraging efficacy
- Disorientation > reduced foraging efficacy
- Delayed larval development > longer *Varroa* mite reproduction cycles & a disruption of brood cycle
- “Gut” microbe disruption > malnutrition
- Acute poisonings in the field

Sources: See page four for a list of resources cited directly. See *Bees & Pesticides: State of the Science*, for a full list of relevant studies.

Steps taken in other countries to protect honey bees from pesticides

European governments are heeding the science and taking action to protect bees from harmful pesticides.

Based on bee-monitoring studies, neonicotinoid seed treatments were banned in Italy in 2008.

In Germany, corn seeds treated with clothianidin, thiamethoxam and imidacloprid were pulled from

market in 2008. Sunflower and corn seeds treated with imidacloprid were suspended in France in 1999. After restrictions were imposed on neonic-treated seeds, European beekeepers report improved hive health.

In 2013, the European Food Safety Authority released a report concluding that neonics pose an "unacceptable risk" to bees. This report prompted a two year ban of neonics in the European Union, which was implemented in December 2013.

Policy options

- 1) Conduct evaluations of neonicotinoids in a timely manner, using independent and field-relevant data.** EPA's current review of neonics already on the market is due to complete in 2018, with an action plan developed at that point.
- 2) Restrict the use of neonicotinoids as a seed treatment on bee forage and pollinator-dependent crops (e.g. corn, almonds, sunflowers).** The prophylactic use of insecticidal seed treatments is unnecessary with basic Integrated Pest Management practices such as multi-year crop rotations. Up until the mid-1990s U.S. corn farmers used insecticides on just 30-35% of corn acreage. In 2012, 94% of the 92 million acres of corn seed planted in the U.S. were treated with neonicotinoids (primarily clothianidin or thiamethoxam).
- 3) Close the conditional registration loophole.** Conditional registration (CR) allows a new active ingredient to enter the market for an unspecified period of time while the registrant gathers safety data requested by EPA. Despite Congressional intention that it only be used in rare instances, CR is a regularly abused loophole; registrants rarely complete required studies on time and EPA fails to track. Roughly 65% of the 16,000 currently registered pesticide products – including clothianidin and other neonics – have been rushed to market before basic toxicity testing through conditional registration.
EPA's own analysis of the program between 2004–2010 confirms that this process has been misused in 98% of cases. As such, EPA should: Cancel registration for all products with overdue or non-compliant studies, ensure transparency by documenting CR actions and allowing for public participation and oversight of this process.
- 4) Support the "Save America's Pollinators Act."** Introduced by Representatives Conyers (D-MI) and Blumenauer (D-OR), H.R. 2692 would ensure neonics are taken off the market until EPA concludes its review.

Resources cited

- Calderone, NW (2012) "Insect Pollinated Crops, Insect Pollinators and US Agriculture: Trend Analysis of Aggregate Data for the Period 1992–2009." *PLoS ONE* 7(5): e37235.
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- Krupke, C et al. (2012) "Multiple routes of pesticide exposure for honey bees living near agricultural fields." *PLoS ONE* 7(1).
- McGarity and Wagner (2008) "Bending Science: How Special Interests Corrupt Public Health Research 24." Harvard U. Press.
- Pilatic, H (2012) "Pesticides and Honey Bees: State of the Science." Pesticide Action Network North America.
- Sass, J and M. Wu (2013) "Superficial Safeguards." National Resources Defense Council.
- Shardlow, M (2012). "A review of recent research relating to the impact of neonicotinoids on the environment." *Buglife*.
- Steinzor, R and W. Radin (2012) "Cozying Up: How the Manufacturers of Toxic Chemicals Seek to Co-opt Their Regulators." Center for Progressive Reform.
- USDA National Agricultural Statistics Service (www.nass.usda.gov)
- vanEngelsdorp, D et al. (2010) "Weighing risk factors associated with bee colony collapse disorder by classification and regression tree analysis." *J Econ Entomol* 103(5): 1517-1523.

Pesticide Action Network North America works to replace the use of hazardous pesticides with ecologically sound and socially just alternatives. To learn more about the impact of pesticides on bees, visit www.panna.org/bees.

CITY OF SHOREWOOD

RESOLUTION NO. 14-_____

A RESOLUTION ENDORSING "BEE-SAFE" POLICIES AND PROCEDURES

WHEREAS, the Shorewood City Council and Park Commission have undertaken several work sessions dedicated to the study and understanding of promoting a healthy natural environment through the reduction and elimination of harmful pesticides; and

WHEREAS, bees and other pollinators are integral to a wide diversity of essential foods including fruit, nuts, and vegetables; and

WHEREAS, native bees and honey bees are threatened due to habitat loss, pesticide use, pathogens and parasites; and

WHEREAS, recent research suggests that there is a link between pesticides that contain neonicotinoids and the die-off of plant pollinators, including honey bees, native bees, butterflies, moths, and other insects; and

WHEREAS, neonicotinoids are synthetic chemical insecticides that are similar in structure and action to nicotine, a naturally occurring plant compound; and

WHEREAS, the City Council finds it is in the public interest and consistent with adopted City policy for the City to demonstrate its commitment to a safe and healthy community environment through the implementation of pest management practices in the maintenance of the city parks, open spaces and city property.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Shorewood:

1. The City shall undertake its best efforts to become a Bee-Safe City by undertaking best management practices in the use of plantings and pesticides in all public places within the City.
2. The City shall refrain from the use of systemic pesticides on Shorewood City property including pesticides from the neonicotinoid family.
3. The City shall undertake its best efforts to plant flowers favorable to bees and other pollinators in the City's public spaces.
4. The City shall designate Bee-Safe areas in which future City plantings are free from systemic pesticides including neonicotinoids.
5. The City shall undertake best efforts to communicate to Shorewood residents the importance of creating and maintaining a pollinator-friendly habitat.

6. The City shall publish a Bee-Safe City Progress Report on an annual basis.

ADOPTED BY THE CITY COUNCIL OF THE CITY OF SHOREWOOD this 28th day of July, 2014.

Scott Zerby, Mayor

ATTEST:

Jean Panchyshyn, City Clerk



City of East Bethel Park Commission Agenda Information

Date:

November 12, 2014

Agenda Item Number:

Item 7.0

Agenda Item:

Cedar Creek Memorandum of Understanding

Requested Action:

Review and update Memorandum of Understanding between East Bethel and Cedar Creek Ecosystem and Scientific Reserve (CCESR)

Background Information:

In March of 2004, the City of East Bethel and CCESR entered into a memorandum of understanding (MOU) that established the Cedar Creek Park, use of the trail system around Fish Lake, and the vacation of the East Bethel Blvd easement within the CCESR. Portions of the MOU are set to expire in 2014 and staff from the U of MN and the City of East Bethel have begun discussions on the need to update the document. Both parties would like input from the East Bethel Parks Commission on any changes that may be necessary so that an amended document can be drafted for approval by the East Bethel City Council and University of MN.

Attachments:

7.1) 2004 MOU

Fiscal Impact: None at this time

Recommendation(s):

Park Commission Action

Motion by: _____

Second by: _____

Vote Yes: _____

Vote No: _____

No Action Required:_____

MEMORANDUM OF UNDERSTANDING

RECREATIONAL TRAILS

This Memorandum of Understanding (hereinafter, "MOU") is made and entered into this 17th day of March, 2004, by and between the Regents of the University of Minnesota ("University"), through its Cedar Creek Natural History Area ("CCNHA"), and the City of East Bethel (hereinafter, "City").

WHEREAS, University owns a significant tract of land lying in the City known as the Cedar Creek Natural History Area ("Natural History Area") which operates under the management of CCNHA; and

WHEREAS, the mission of CCNHA includes not only scientific ecological research and habitat conservation, but also public education on the results of environmental science; and

WHEREAS, CCNHA desires to promote this mission of public education in part through a series of trails and interpretive displays within and around its natural areas, while simultaneously maintaining the ecological integrity of its habitats, protecting all existing and future research projects, and maximizing the long-term viability of CCNHA as a site for ecological and environmental research; and

WHEREAS, the City desires to provide present and future generations of its citizens with wildland experiences that can be combined with ecological learning; and

WHEREAS, the City has experience maintaining and patrolling parks and trails and enforcing regulations and laws.

NOW THEREFORE, the parties agree as follows:

1. Term. The term of this MOU shall commence on the date that the transactions contemplated in a separate agreement between the parties entitled "Memorandum of Understanding (ROADS and PARK)" related to the relocation of a road and creation of a park are consummated. In the event that Memorandum of Understanding is terminated as provided in paragraph 13 thereof, then this agreement shall be null and void. Otherwise, the term of this agreement shall be effective on the date the transactions contemplated by the "Memorandum of Understanding (ROADS and PARK)" are closed and shall thereafter continue for a term of ninety-nine (99) years. This MOU may be terminated by either party, with or without cause, by sending notice to the other party at least thirty (30) days but not more than one (1) year before the twenty-fifth, fiftieth or seventy-fifth anniversary of the effective date of this MOU, in which case the MOU and the parties' respective rights and obligations hereunder shall terminate as of the relevant anniversary date. In the event this MOU is terminated pursuant to the terms of this paragraph or paragraph 17 of this MOU, the City shall remove all of its personal property and equipment and, unless the University agrees otherwise in writing, demolish any improvements,

structures and/or buildings constructed or erected pursuant this MOU, and return the University's land to the condition which existed at commencement of this MOU. The termination of this MOU shall not, however, affect the Park Area, as defined below, or the improvements thereon.

2. Trail and Lake Access Designation. CCNHA will open for public access in the Natural History Area between 4.5 and nine miles of summer walking trails between April 1 and Oct. 15 and 12 or more miles of winter trails for cross-country skiing between Oct. 15 and April 1. CCNHA will also identify land near the "Park Area" (which is an area of approximately 1.25 acres in size in the southeast corner of the Natural History Area near 235th Lane which the University intends to make available to the City for use as a public park under the provisions of a separate MOU between the City and University) as a point of public access to the Lake between April 15 and October 15 for canoeing, kayaking, and use by other non-motorized vessels consistent with the natural character of Fish Lake. Recommendations as to the location of the trails and lake access will be prepared by the joint advisory committee created pursuant to paragraph 13, below, and submitted to CCNHA for final approval. CCNHA shall not unreasonably withhold or delay approval; provided, however, that nothing herein shall require CCNHA to approve any recommendation that in its professional judgment would negatively impact CCNHA's ability to perform its scientific ecological research and habitat conservation mission. During the term of this MOU, CCNHA may change the locations of trails from time to time to suit changing needs or to address problems that arise, so long as such changes do not significantly reduce the length below 4.5 miles in the summer and 12 miles in the winter or alter the variety of trails open to the public. CCNHA may temporarily restrict access to all or part of the Lake, the lake access and the trail system at ecologically sensitive times, such as during active spring nesting periods of waterbirds, when prescribed burning plans are in effect, when CCNHA activities might pose risks to the public or when the presence of the public would be detrimental to the efficient performance of CCNHA activities. CCNHA shall also have the right to designate from time to time certain areas as unsuitable for trails because of their proximity to ecological research sites or ecologically sensitive or valuable sites, provided that (a) such designations will not apply to any sites on the eastern side of Fish Lake (specifically, east of the imaginary line that extends due North from the center of Durant Street), and (b) will not reduce the commitment of CCNHA to provide between 4.5 and nine miles of summer walking trails and 12 or more miles of winter cross country skiing trails. It is the intention of the parties that an average of 6.5 miles of summer trails will be maintained.

3. Horseback Riding Trails. For a period of ten (10) years from the effective date of this MOU, and thereafter with the consent of CCNHA, horseback riding by persons holding permits issued by the City will be permitted on trails in the Natural History Area designated for that purpose by CCNHA. CCNHA will make these trails available on a guided basis only at least once a month from April thru October. By separate agreement, CCNHA and City have agreed that horseback riding on a non-guided basis will also be permitted within the eighty (80) foot right-of-way along part of the easterly boundary of the Natural History Area. CCNHA shall have the right to set reasonable limits as to the number of riders on trails at any one time. The City agrees that no parking facilities will be constructed that will facilitate the trailering of horses to the Natural History Area.

4. Public Tours. CCNHA will conduct public tours at least monthly from May through

October of various areas of the Natural History Area not otherwise open to the public under this MOU. Such tours will be designed to increase the public's awareness of the diversity of the natural environment present in the community. CCNHA and the City agree to jointly promote such events. CCNHA further agrees to make staff available on a limited basis to provide educational opportunities to local organizations, such as scout troops and conservation clubs, to broaden appreciation of the natural environment.

5. City's Trail and Park Area Maintenance Responsibilities. The City will at its expense:

(a) construct, install, maintain, operate, repair and replace, as appropriate, the signage described in more detail hereafter, trails, trailheads, and any restrooms and other improvements and structures installed or constructed by City that serve the Park Area and trail system;

(b) be responsible for weekly garbage removal, weekly removal of any horse droppings, and other routine maintenance of the trail system and Park Area;

(c) groom and maintain the trails to ensure safe and passable use by hikers and skiers;

(d) inspect trails for hazards at reasonable intervals, but not less than once every seven (7) days or within four (4) days after a major storm that might be expected to knock down trees occurs;

(e) maintain and repair damage to improvements placed by City along the trails; and to the extent physically possible, repair damage to lands abutting trails resulting from use of the trails or from the failure of users of the trail to stay within the trail boundaries;

(f) install signage approved by the CCNHA that clearly designates trail areas and discourages users from wandering off trails;

(g) post explanatory signage emphasizing the scientific research done at CCNHA and the potential impact of any interference with that research as well as the cooperative nature of this MOU. CCNHA shall provide the City with the design and text for explanatory signage that the City will at its expense prepare, erect at locations approved by CCNHA, and maintain along trails and in the Park Area to enhance the public's understanding and appreciation of the Natural History Area. The City shall have the right to approve the design of explanatory signage for which it bears the costs, which approval shall not be unreasonably withheld or delayed.

All signage contemplated by this MOU must be fastened to posts or poles, but not living trees.

6. Fencing; Boundary Signs. Within three years the City will install fencing of a design acceptable to CCNHA demarcating the boundary between the Park Area and the remainder of the Natural History Area. The fencing will allow for appropriate access to those portions of the

trail system and the lake access designated under paragraphs 2 and 3, above, which are located on Natural History Area land outside of the Park Area. The City shall at its expense post with appropriate signage all borders between the parts of the Natural History Area that have not been opened to the public under the terms of this MOU and the trails, lake access and Park Area that are open to the public.

7. Enforcement of Rules. The joint advisory committee shall develop rules applicable to public use of the trail system, lake access and Park Area and submit its recommendation to CCNHA for final approval. CCNHA shall not unreasonably withhold or delay approval; provided, however, that nothing herein shall require CCNHA to approve any recommendation that in its professional judgment would negatively impact CCNHA's ability to perform its scientific ecological research and habitat conservation mission. The City shall monitor the trails at reasonable intervals and take such other steps consistent with good public trail management practices in the State of Minnesota as are reasonable to encourage public visitors to stay on the marked trails, and to prevent damage or vandalism to CCNHA lands, habitats, and property at the Natural History Center. The City shall encourage City staff, agents, and contractors to actively promote the observance of trail rules. The City shall also enforce rules in the Park Area.

8. Motorized Uses Prohibited. The City will perpetually support and actively enforce CCNHA's prohibition of public motorized traffic on trails in the Natural History Area, in the Park Area, along the horseback riding trails created on the right-of-way as described in paragraph 3, on Fish Lake, and on the portion of East Bethel Boulevard transferred from the City to CCNHA. Motorized vehicles that are banned include, but are not limited to, motorcycles, motorbikes, dirt bikes, four wheelers, three wheelers, cars, trucks, snowmobiles, boats, and any other motorized means of travel except those motorized vehicles whose primary purpose is the transport of those persons who have physical limitations, (motorized wheel chairs). All motorized travel is prohibited except travel by CCNHA, by law enforcement, fire, maintenance, and emergency personnel of the City, its agents and contractors or any other law enforcement, emergency, or fire service agency and by those others designated by CCNHA.

9. Designation of Fish Lake as a Wildlife Lake. The City will continue to actively support the University's request for designation of Fish Lake as a wildlife lake with the DNR.

10. Construction, Maintenance of Fire Well. CCNHA will construct a fire well in a feasible, mutually agreeable location within three years. Access to such fire well shall be available to both parties for prescribed burnings or in the event of an emergency. The City will actively support any and all efforts of CCNHA to acquire funding for the construction of such well. The City shall maintain the fire well and each party shall bear one-half of the maintenance costs.

11. Provision of Additional Parking for Cedar Creek Access. CCNHA will work with Isanti County and Athens Township to provide an area to be designated as parking for the purpose of providing access to canoeing and kayaking down Cedar Creek. City and Athens Township have agreed to fund the construction of the parking area, and City understands that Athens Township will pay one-half of the costs. The land shall, regardless of such use, at all times be property of the University and a part of the Natural History Area.

12. Trail Improvements. The design and location of any trail improvements installed by the City are subject to approval by the University. All improvements on the trails shall be designed with a natural appearance to minimize their visual impact on the natural setting and shall be limited to unobtrusive items such as trash receptacles, picnic tables and benches. For any approved improvements, or other activity by the City pursuant to this MOU (e.g., grading), as appropriate, the City shall submit an application to the University Building Code Division for building or other necessary permit/s, and shall complete the work in accordance with the University's construction standards.
13. Joint Advisory Committee. CCNHA and the City will form a joint advisory committee to oversee the orderly implementation of this MOU, provide advice regarding planning issues related to trail designation, trail improvements, and Park Area improvements, develop rules for trail and Park Area use, and provide advice regarding the resolution of problems that may arise in implementing this MOU, it being the intention of the parties to arrive at mutually satisfactory solutions to problems and to encourage support within the University and City for the project. The committee will consist of three members designated by CCNHA and three members designated by the City. Unless otherwise agreed, each party shall appoint its members for three year terms, but in order to assure continuity the first three members appointed by each party shall have of one-year, two-years and three-years, respectively. The University and the City each reserves the right to reappoint or terminate the appointments of those committee members it appoints. The committee shall select its own chair, adopt rules of order and establish a meeting schedule.
14. Consultation Regarding Other Areas. CCNHA agrees to assist the City in evaluating natural areas within the City and outside the boundaries of the Natural History Area that may be deserving of protection or important to the well-being of rare species.
15. Indemnification. To the extent permitted by law, City agrees to defend with counsel reasonably acceptable to University, indemnify, and hold harmless University from and against all claims, actions, damages, judgments, fines, liabilities, and expenses (including attorney's and other professional fees) that may be imposed upon or incurred or paid by or asserted against University by reason of or in connection with any loss of life, personal injury, or loss or damage to property and resulting from City's use of the Natural History Area, the negligent or wrongful acts of City's employees, agents, contractors, permitted users, or invitees, or City's failure to perform or comply with any of the covenants, agreements, terms, provisions, conditions, or limitations contained in this MOU. To the extent permitted by law, University agrees to defend, indemnify, and hold harmless City from and against all claims, actions, damages, judgments, fines, liabilities, and expenses (including attorneys' and other professional fees) that may be imposed upon or incurred or paid by or asserted against City by reason of or in connection with any loss of life, personal injury, or loss or damage to property at the Natural History Area to the extent caused by any negligent act or omission of University, its agents, contractors, or employees.
16. Insurance. At all times during the term of this MOU, City shall obtain and keep in force

comprehensive general liability insurance, including coverage for bodily and personal injury, and property damage with limits of not less than \$1,000,000 each claim and \$3,000,000 each occurrence. In addition, City shall obtain and keep in force motor vehicle liability insurance in an amount not less than \$1,000,000 combined single limit. Each policy shall be issued by companies reasonably acceptable to University, naming the Regents of the University of Minnesota as an additional insured, and such insurance companies shall endeavor to notify University in writing at least thirty (30) days before canceling any such policy. City shall provide certificates evidencing that it has obtained the coverage required above to the University prior to commencement of this MOU. City shall also provide certificates each time it renews a policy and upon request from University. City shall also obtain and keep in force workers' compensation insurance to the extent required by law and furnish proof of such insurance upon request.

17. Default. In addition to its other legal and equitable remedies, University may terminate this MOU upon default of the City in the performance of its obligations if such defaults are not cured within sixty (60) days of written notice from University to City. If any default cannot be cured within sixty (60) days, City shall have such longer period as may be reasonably required so long as City promptly commences and diligently pursues to completion the curing of the default. Before University terminates this MOU, or either party commences an action against the other with respect to this MOU, the parties shall first attempt to mediate the dispute. Initially, the Director of CCNHA and the City Administrator/Manager of East Bethel will meet to discuss and attempt to resolve the matter. If they cannot resolve the matter, either party may submit the matter for non-binding mediation. The mediator will be selected by mutual agreement of the parties and the costs will be equally divided between them. If the parties cannot agree on a mediator, the Chief Judge of Minnesota District Court, Tenth Judicial District shall be asked to designate the mediator. Neither party shall be permitted to commence any form of litigation seeking to enforce the terms of this MOU unless and until the mediator has certified that the parties, after the mediation of the dispute, have been unable to resolve the dispute or the other party has refused or failed, for a period of at least thirty (30) days after the other party gave notice that it desires to submit a matter to mediation, to participate in the naming of a mediator or to participate in the mediation.

18. Notices. All notices, requests, and other communications that a party is required or elects to deliver shall be in writing and shall be delivered personally, or by facsimile or electronic mail (provided such delivery is confirmed), or by a recognized overnight courier service or by United States mail, first class, certified or registered, postage prepaid, return receipt requested, to the other party at its address set forth below or to such other address as such party may designate by notice given pursuant to this section:

If to University:

Cedar Creek Natural History Area
Attention: Director
2660 Fawn Lake Drive N.E.
Bethel, Minnesota 55005
Facsimile No. (763) 434-7361

And

Real Estate Office
424 Donhowe Building
319-15th Avenue SE
Minneapolis, MN 55455
Facsimile No.: (612) 624-6345
Email Address: reo@umn.edu

With a copy of any
notices of default to:

University of Minnesota
Office of the General Counsel
Attn: Transactional Law Services
360 McNamara Alumni Center
200 Oak Street SE
Minneapolis, MN 55455-2006
Facsimile No.: (612) 626-9624

If to the City:

City of East Bethel
Attention: City Administrator
2241 221st Avenue N.E.
East Bethel, Minnesota 55011
Facsimile No.: (763) 434-9578

19. Amendments. This MOU shall be amended only in a writing duly executed by all the parties to this MOU. Where this MOU allocates a right or responsibility to "University" or to "CCNHA" University shall have the right without amending this MOU and without consent from City to reallocate such right or responsibility as it sees fit and the City acknowledges that this is an internal University matter.

20. Relationship of the Parties. It is not the intent of this MOU to create the relationship of partners, joint ventures or an association among any of the parties, and neither party is authorized to act as the agent of the other.

21. Use of Name or Word Marks. Neither party shall use the name, trademark, trade name or other designation of the other party in any advertising, publicity or other promotional activity without the prior express written permission of that party.

22. Governing Law. The laws of the state of Minnesota shall govern the validity, construction, and enforceability of this MOU, without giving effect to its conflict of laws principles.

IN WITNESS WHEREOF, University and City have executed this MOU on the day and year first above written.

Regents of the University of Minnesota

City of East Bethel

By: 

Name: Susan Carlson Weinberg

Title: Director, Real Estate Office

By: 

Name: Douglas Sell

Title: City Administrator



City of East Bethel Park Commission Agenda Information

Date:

November 12, 2014

Agenda Item Number:

Item 8.0

Agenda Item:

Anoka Conservation District Comp Plan 2015-2019

Requested Action:

Review Comp Plan and provide comments to City Council

Background Information:

The City of East Bethel has been asked to review and provide comments on the Anoka Conservation District's Comprehensive Plan for 2015-2019.

Dear ACD Stakeholders,

In preparation for development of our 2015-2019 Comprehensive Plan, ACD prepared an online survey and invited 549 stakeholders to participate. Members of the general public, ACD volunteers/cooperators, environmental consultants, agency staff, elected officials, and appointed officials took the time to complete the survey, 144 responses in total. Survey results were presented to the ACD Board of Supervisors and considered throughout the planning process.

Through a series of working sessions, the ACD Board of Supervisors, with staff assistance, developed the [draft plan](#) (linked). With a planned final approval in December of this year, we would greatly appreciate your review and comments within the next thirty days. All comments received will be shared with the Board for their consideration as we finalize the plan.

Please keep in mind as you read through this plan that it is structured differently than a typical governmental planning document, which routinely include prescriptive budgets and timelines. This is because SWCDs lack taxing authority and are unable to dictate the scope and/or timing of project and program implementation. Alternatively, we work with many project partners to coordinate efforts between and among jurisdictions, taking advantage of common interests and efficiencies of scale. For the most part, the programs and priorities pursued are selected by the governing bodies of our conservation partners.

Comments may be mailed to the address below or emailed to me at Chris.Lord@AnokaSWCD.org

Thank you for thoughtful comments and support for ACD's programs and services.

Chris Lord
District Manager
Anoka Conservation District

Attachments:

8.1) draft 2015-2019 ACD Comp Plan

Fiscal Impact: None at this time

Recommendation(s):

Park Commission Action

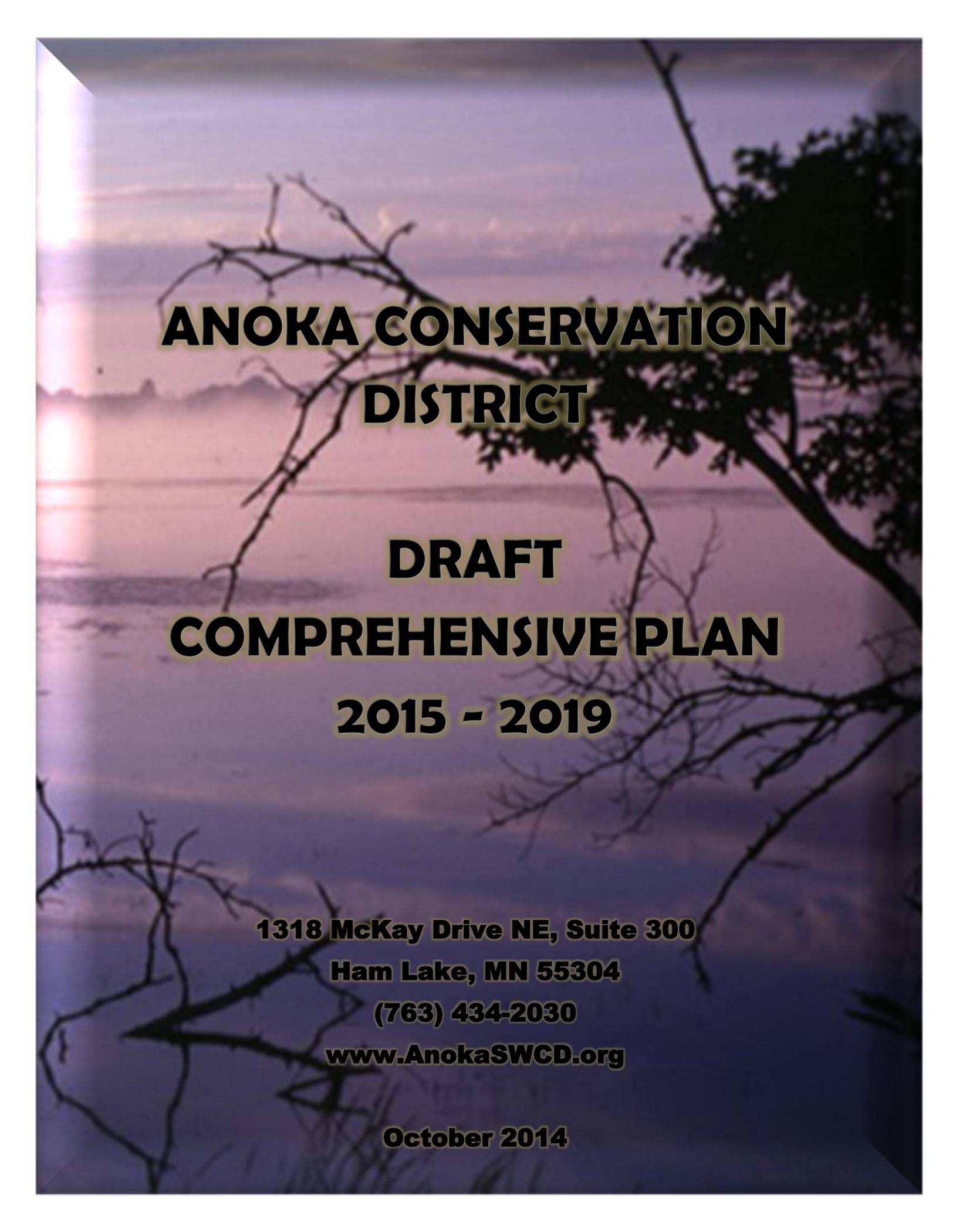
Motion by: _____

Second by: _____

Vote Yes: _____

Vote No: _____

No Action Required: _____



**ANOKA CONSERVATION
DISTRICT**

**DRAFT
COMPREHENSIVE PLAN
2015 - 2019**

**1318 McKay Drive NE, Suite 300
Ham Lake, MN 55304
(763) 434-2030
www.AnokaSWCD.org**

October 2014

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DRAFT

Introduction

About this Plan

The Anoka Soil and Water Conservation District (Anoka Conservation District) has prepared this comprehensive plan in accordance with requirements of the Minnesota Board of Water and Soil Resources. The plan must be filed with the U.S. Department of Agriculture for the district to receive assistance from the Natural Resources Conservation Service. The plan provides a framework for overall natural resource management priorities in Anoka County. Future annual work plans will be developed with specific tasks to address the priorities and goals within this Comprehensive Plan. The Anoka Conservation District Comprehensive Plan promotes inter-agency cooperation and coordination for the preservation and conservation of the natural resource base in Anoka County. The planning process was initiated with an online survey of stakeholders including local, state and federal agency staff and officials, the general public, conservation cooperators, and other natural resource professionals. 144 responses were received and their input was considered throughout the planning process.

Anoka Conservation District

Since its formation in 1946 by petition of Anoka County residents, Anoka Conservation District (ACD) has worked with public and private landowners to address natural resource management challenges. The focus has changed over the years from agricultural related problems to issues related primarily to urban development. Grassed waterways and shelterbelts have given way to greenway corridors, streambank stabilization and rain gardens.

Mission

The mission of the Anoka Conservation District is to conserve and enhance the natural resources of Anoka County.

We do this by:

- conducting monitoring and analysis,
- informing landowners and local government in natural resource management, and
- leveraging technical and financial resources to promote natural resource stewardship practices.

Guiding Principles

- Focus on long-term resource sustainability.
- Make informed and ethical decisions.
- Promote cost-effective and efficient resource management.
- Partner with both public and private sectors.
- Retain highly qualified, knowledgeable staff.
- Utilize technology to achieve efficiency.
- Keep natural resources issues visible in Anoka County.
- Respond to opportunities and changing needs.
- Develop diverse programs, partners and funding sources.

- Utilize education and outreach in addition to technical and financial assistance to encourage natural resource stewardship.

Authorization and Jurisdiction of Conservation Districts

Soil and Water Conservation Policy

Soil and Water Conservation Districts are authorized under Minnesota Statutes Chapter 103C known as the Soil and Water Conservation District Law. Soil and water conservation policy reads as follows (103C.005)

Maintaining and enhancing the quality of soil and water for the environmental and economic benefits they produce, preventing degradation, and restoring degraded soil and water resources of this state contribute greatly to the health, safety, economic well-being, and general welfare of this state and its citizens. Land occupiers have the responsibility to implement practices that conserve the soil and water resources of the state. Soil and water conservation measures implemented on private lands in this state provide benefits to the general public by reducing erosion, sedimentation, siltation, water pollution, and damages caused by floods. The soil and water conservation policy of the state is to encourage land occupiers to conserve soil, water, and the natural resources they support through the implementation of practices that:

- (1) control or prevent erosion, sedimentation, siltation, and related pollution in order to preserve natural resources;*
- (2) ensure continued soil productivity;*
- (3) protect water quality;*
- (4) prevent impairment of dams and reservoirs;*
- (5) reduce damages caused by floods;*
- (6) preserve wildlife;*
- (7) protect the tax base; and*
- (8) protect public lands and waters.*

Soil and Water Conservation District Authority

In order to carry out its mission, ACD has several powers granted in law. The following paraphrases those authorities.

SWCDs may;

- Conduct resource surveys and demonstration projects,
- Carry out soil and water conservation measures on any lands in the district with the consent of the landowner,
- Cooperate or enter into agreements with any governmental agency or individual landowner for the purpose of carrying on a program of erosion prevention and control,
- Purchase or accept property and income and provide equipment and supplies that will help to bring about conservation practices,
- Construct, install, improve, maintain, and operate such structures and works as may be necessary for proper performance of the district,

- Develop a comprehensive and annual plan for the conservation of soil and water resources. These plans are required for the district to receive state grant funds,
- Assume land by purchase, lease or otherwise to improve, maintain, operate, and administer any soil and water conservation project undertaken by federal or state government,
- Sue or be sued,
- Require compensation or contributions for goods and services provided,
- Make application or enter into an agreement with any designated authority for federal assistance,
- Perform any other acts necessary to secure and use federal aid,
- Acquire land, easements, or rights-of-way needed in connection with works of improvement installed with federal assistance,
- Use necessary funds to provide membership in state and national associations that pertain to district operations, and is authorized to participate and appropriate necessary funds to defray expenses of district representatives for meetings of such groups,
- Procure necessary insurance,
- Publish any information related to the activities of the district,
- Provide advice to or consult with county or municipal representatives, and
- Present an annual budget to the board of county commissioners.

Organizational Structure

Staff

Staff attend to the daily activities designed to achieve the goals set by the Board of Supervisors.

Table 1: Staff Positions

Position	Duties
District Manager	Personnel management. Financial tracking and reporting. Secure funds and partnerships. Manage grants and projects. Develop programs and services to achieve Board objectives.
Office Administrator	Office administration. Grant administration. Website management. Financial tracking.
Water Resource Specialist	Watershed planning and project management
Conservation Specialist	Assist landowners with Best Management Practice (BMP) design, funding and installation. Conduct subwatershed level analysis to identify and rank BMP opportunities.
Wetland Specialist	Assist project applicants with WCA compliance. Wetland management consultation.
Water Resource Technician	Water quality and quantity monitoring and analysis on lakes, rivers, wetlands, and groundwater.
Seasonal Technician	Assist with all district activities as needed.

Supervisors

The Anoka Conservation District has a board of supervisors with a variety of expertise elected to four year terms. The Board of Supervisors determines the priorities and goals for the districts and charges the staff with developing the programs and services necessary to address those priorities. Legislation passed during the 2014 session will result in supervisors being elected according to population-based districts beginning with the 2016 election. Historically supervisors were elected at-large, with each supervisor representing a specific geographic area in which they must reside.

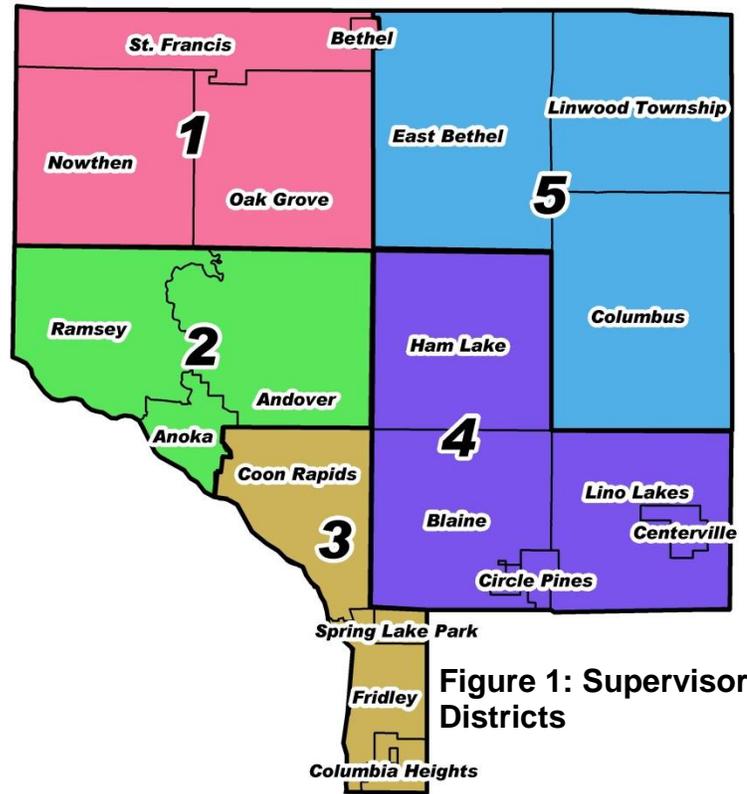


Figure 1: Supervisor Districts

Table 2: Supervisors Currently Serving

District	Supervisor	Term	Office	Contact
1	Karla Komec	12/31/16	Member	19521 Cleary Road NW Nowthen, MN 55303 763/688-3955
2	Jim Lindahl	12/31/16	Vice Chair	17275 Tulip St. NW Andover, MN 55304 763/753-3449
3	Karl Tingelstad	12/31/14	Member	12895 Kerry St NW Coon Rapids, MN 55448 763/439-5213
4	Mary Jo Truchon	12/31/14	Chair	12917 Buchanan St NE Blaine, MN 55434 763/757-3084
5	Vici Nass	12/31/16	Treasurer	23340 Isetta St NE East Bethel, MN 55005 651/462-3923

Meetings and Committees

Regular board meetings of the ACD are generally held on the third Monday of each month. A yearly meeting schedule is posted on ACD’s official website, www.AnokaSWCD.org and in the office of the ACD. Regular board meetings and committee meetings are held at the District office in Ham Lake unless otherwise noted.

ACD supervisors also serve on committees to analyze detailed information on issues requiring intensive review prior to full board action. Some committees are internal and others function on a metro or statewide level. Supervisors choose to participate in

committee meetings to offer personal expertise in the area of discussion or to gain more knowledge of the subject matter. Committees provide recommendations to the full board of supervisors.

Internal Committees

Internal committees are comprised of three supervisors but are not authorized to take action on behalf of the full board. Their function is to consider complex topics in greater detail and provide a recommendation for action to the full board. The ACD has three internal committees.

Finance Committee

The finance committee reviews the District's finances and prepares annual budgets. The finance committee ensures that the District operates within its financial means and reviews all equipment purchases and personnel changes to ensure that they fall within the District approved budget.

Operations Committee

The operations committee reviews issues related to the programs and services of the District and provides additional guidance to staff on projects and procedures. The operations committee is also responsible to review and formulate policy recommendations.

Personnel Committee

The personnel committee is responsible to review and make recommendations to the full board on all personnel management issues of the District including but not limited to employee recruitment, compensation, benefits, evaluations, discipline and dismissal.

External Committees

There are also several external committees that supervisors take part in. Supervisors that take part in external committees are expected to represent the interests of the District during the meetings and events and report back to the District on the activities of the organization. During the preparation of this comprehensive plan, District Supervisors were involved in the following groups:

- Metro Conservation Districts
- Metropolitan Association of Conservation Districts
- Rice Creek Watershed District Citizens Advisory Committee
- Coon Creek Watershed District Citizens Advisory Committee
- MASWCD Committees
- Anoka County Water Resources Management Taskforce

Policies

ACD policies are reviewed and approved annually and are incorporated into the ACD Handbook, which covers personnel, supervisor, and operational topics. Natural resource policies are included at the end of this plan.

Resource Conservation

Natural resource management occurs in a very dynamic setting. Land use, regulatory standards and agencies, financial and technical capacities of local, state and federal resource managers, personnel, priorities and goals are in a constant state of change. Additionally, the resources themselves change in terms of their quality, quantity and distribution. Emerging issues promise to further complicate the natural resource management setting. ACD is committed to remaining proactive rather than reactive by considering emerging issues throughout the natural resource management process.

Emerging Issues

Climate change is speculative and does not benefit from consensus. What is known is that the composition of the gases in the atmosphere are changing and it seems to coincide with the industrial revolution and the reliance on fossil fuel burning to supply the world's energy needs. How this change in composition will ultimately influence weather patterns, ocean currents, precipitation regimes and vegetation is uncertain, but it warrants mention and consideration during planning efforts. Changing precipitation patterns have already resulted in updates to the precipitation frequency tables by the National Oceanic and Atmospheric Administration (Atlas 14), which indicate that normal and extreme precipitation amounts have increased, leaving previously installed stormwater infrastructure undersized. Agencies must be prepared to adapt to changes that do occur and make appropriate adjustments to programs to reduce or alleviate the resulting problems.

Groundwater supplies in Minnesota have not been an issue of concern in past planning efforts. Recent projections indicate that areas of Anoka County may experience drinking water shortages in the next twenty years. As surficial groundwater is depleted, we can anticipate shallow domestic wells drying up, wetlands being converted to non-wetland, stream base flows being compromised, shallow lakes becoming wetlands, recreational lakes becoming smaller, shallower and experiencing water quality problems, and vegetation transitioning to more drought tolerant species. Anoka County is the recharge area for many of the deeper aquifers relied upon by the Twin Cities and surrounding suburbs to the south for commercial and domestic water supplies. Overuse in those communities will result in lower water tables in Anoka County. Efforts to conserve water by optimizing turf and crop irrigation techniques and reducing the footprint of highly manicured lawn can put a dent in the issue. Increasing rain water infiltration should be considered during planning efforts and project design. This can be challenging because large flat sandy uplands are optimal groundwater recharge areas and they also have the highest pressure to be developed to residential and commercial uses. When this happens, much needed rain water infiltration tends to be dramatically reduced.

Infiltration and groundwater quality protection can be in conflict with each other. Under the direction of the MN Pollution Control Agency, many municipalities continue to have source water protection strategies that prohibit the infiltration of stormwater in effort to protect shallow groundwater from contamination. Several stormwater constituents such as nitrates, chlorides, pathogens, and heavy metals are not adequately filtered by the sandy soils of the Anoka Sand Plain. Ultimately, policy

makers have to choose between having ground water supplies that are adequate but require treatment before consumption, or inadequate water supplies that do not need to be treated; historic strategies err in favor of the latter.

Invasive species threaten native ecosystems and the services they provide in all Minnesota biomes, which has broad implications for natural resource managers. Invasive species can compromise fisheries and aquatic recreation, diminish forest products, and denude habitat for wild game. The only viable long-term strategy is to slow the spread and reduce the damage until biological controls can be developed to keep invasive species populations in check. Purple Loosestrife is a good example of an invasive species brought under control with the introduction of biological competitors. Well-established invaders such as Eurasian Water Milfoil, Reed Canary Grass, Curly Leaf Pondweed, Gypsy Moths, Spiny Water Fleas, Common Buckthorn, Leafy Spurge, Common Carp, Zebra Mussels, Garlic Mustard, and Spotted Knapweed continue to consume a lot of technical and financial resources to curtail. Emerging threats include:

- Wild Parsnip; a roadside weed that causes severe blistering rashes upon contact.
- Asian silver carp; known for jumping at the sound of boat engines.
- Emerald Ash Borer; threatens to completely decimate Minnesota's extensive populations of ash trees.

Declining pollinator populations in Minnesota and nationwide threaten to undermine food production and native ecosystem functions. In 1991 a new type of insecticide was developed that works in very low concentrations and functions as a systemic pesticide, being taken up by plants and migrating throughout every part of the plant. From roots and stems to leaves and pollen, neonicotinoid based insecticides provide full plant protection and one treatment can last for many months or even years. This combination of persistence and systemic function make all plant components poisonous to insects for as long as the plant lives. Even the pollen becomes poisonous to bees, moths and butterflies that consume and transport it. These chemicals are known to disorient honeybees, native bees and butterflies and make them less resistant to disease, and may be a significant contributor to honeybee hive collapse.

Soil health is being compromised by excessive cultivation, removal of topsoil, application of pesticides (fungicides, insecticides and herbicides), lack of vegetative cover, and compaction. Healthy soil provides a stable matrix that resists erosion, infiltrates water, cycles nutrients, adsorbs pollutants, provides drought tolerance, drives plant productivity, and sustains a complex food web. Healthy soils support a diverse ecosystem of bacteria, fungi, invertebrates (worms and arthropods) and other microscopic organisms in a matrix of mineral and organic matter that provides structural stability. All soil ecosystem elements are interdependent and comprise a living system that needs to be nourished with water, organic matter, nutrients, warmth and atmospheric gases. Maintaining healthy soils is critical to maintaining healthy terrestrial and aquatic ecosystems and is the foundation of a robust food web.

Best Management Practice inspection and maintenance is a long-term cost that many agencies are not equipped to address in terms of staffing or finances. As BMPs installed two decades ago reach the end of their design life, it is critical to maintain them

in order to continue to reap the benefits they were installed to achieve. Unfortunately, grant funding sources are not designed to help defray this cost and few government entities have incorporated active maintenance programs into their budgets. This challenge can be seen with stormwater quality treatment ponds installed in the early 1990s that now require expensive dredging and sediment disposal to maintain intended functionality. At a smaller scale, agency staff are dealing with the inspection and maintenance of potentially dozens of practices installed in cooperation with landowners such as riverbank and lakeshore stabilization, ecosystem restorations, and rain gardens. The staff time and expertise required to conduct routine inspection and provide maintenance guidance is daunting for local government entities.

Nitrogen pollution in surface water, most prevalently in the form of nitrate, has emerged in recent years as a priority concern statewide due to a number of studies showing the toxic effects of nitrate on aquatic life, nitrogen's role in the dead zone in the Gulf of Mexico, and the potential to contaminate drinking water beyond the 10mg/L consumption threshold. An extensive Minnesota Pollution Control Agency report completed in June 2013 indicates that the bulk of the problem in Minnesota is found in the drain tiled agricultural areas of the southern third of the state. Nitrate discharge concentrations in watersheds in Anoka County are all well below the 10 mg/L threshold.

Habitat loss and fragmentation due to development, disturbance, and invasive species encroachment has the potential to push many indigenous species out of the county. When the housing market crashed and development came to a screeching halt in the late 2000s, this issue took a back seat to more pressing economic challenges. With the recovery of the housing sector, we are once again seeing many of our remaining natural areas forever lost to development. This occurs not only due to mass grading and the installation of roads, utilities, dwellings and structures, but also due to large acreage mowing, which essentially converts complex ecosystems into biological voids, supporting little more than a suite of a few invertebrates adapted to turf grass.

Resource Priorities and Goals

The Anoka Conservation District Board of Supervisors identified the following five priority resource areas (in bold) with corresponding goals (bulleted) during the comprehensive planning process with consideration of input from the public and agency staff and officials. ACD realizes that it is not practical to address all issues of degraded natural resource quantity and quality within the five year scope of this plan. As part of the comprehensive planning process, however, we did consider the breadth of natural resource challenges and opportunities and developed strategies designed to achieve the greatest overall benefit.

Water Quality

- Maintain high quality surface waters
- Improve impaired surface waters
- Protect drinking water

Water Quantity

- Halt long-term aquifer depletion and where possible replenish aquifer levels
- Reduce stormwater runoff and the corresponding erosion

- Reduce localized flooding and related damage

Natural Habitats

- Preserve and enhance ecological diversity in Anoka County
- Maintain ecological corridors and systems to support indigenous wildlife

Wetlands

- Achieve no net loss, and, where possible, improve the quality and quantity of wetlands

Soils

- Maintain and enhance soil health

Resource Management Collaboration

Anoka County natural resources are managed by several entities with varying jurisdictions. It is important that ACD remains continually engaged with each entity to

- avoid duplication of efforts,
- maximize efficiencies,
- capitalize on common interests between and among entities,
- direct limited financial and staff resources toward the most cost-effective approaches, and
- apply management strategies at a scale most appropriate to meet identified goals and objectives (e.g. lakesheds vs. regional aquifer recharge areas vs. multi-county wildlife corridors or invasive species management).

The following tables identify scale, partnering entities, and priorities for ACD’s natural resource management collaborations.

Table 3: Multi-County/Regional Collaboration

Priority	Jurisdiction	Partners
Ecological restoration of oak savanna and other declining habitats	Anoka Sand Plain	Anoka Sand Plain Partnership, MN DNR, Anoka County Parks
Groundwater recharge	Recharge areas for each of the major metro aquifers.	Land use authorities within as-yet-to-be-identified groundwater management areas
Aquatic and terrestrial invasive species management (e.g. silver carp, zebra mussels, Eurasian milfoil, wild parsnip, buckthorn, leafy spurge, purple loosestrife, gypsy moth, and emerald ash borer)	Varying scales as appropriate for the species of concern	MN DNR, municipal weed inspectors, USDA NRCS, Anoka County Parks

Table 4: County-Wide Collaboration

Priority	Jurisdiction	Partners
Coordinate a comprehensive	Anoka County	Watershed Districts, Water

monitoring program for surface and ground water quality and quantity.		Management Organizations, MN DNR, Metropolitan Council
Coordination and implementation of the Wetland Conservation Act	Anoka County	Wetland Conservation Act LGUs, BWSR, MN DNR
Update wildlife corridor plan and work with land use authorities for integration into planning efforts	Anoka County	Land use authorities throughout Anoka County

Table 5: Major Watershed Level Collaboration

Priority	Jurisdiction	Partners
Provide leadership and expertise to implementation strategies that result from the completion of Watershed Restoration and Protection reports, Total Maximum Daily Load reports and Stormwater Retrofit Analyses in collaboration with partners throughout the major watersheds.	Rum River	Lower Rum River WMO, Upper Rum River WMO, County water planners and SWCDs from Mille Lacs Lake to the Mississippi River, Municipalities throughout the watershed
	St. Croix	Sunrise River WMO, County water planners and SWCDs from Chisago and Washington Counties
	Mississippi Metro	Rice Creek Watershed District, Coon Creek Watershed District, Mississippi WMO, Hennepin Co. Env. Services, Ramsey SWCD

Table 6: Minor Watershed Level Collaboration

Priority	Jurisdiction	Partners
Coordinate water resource monitoring, catchment level water quality modeling and BMP opportunity identification, and implementation of BMPs in accordance with approved water plans	Upper Rum River	Upper Rum River WMO, Lake George Improvement District, Cities (St. Francis, Nowthen, Oak Grove, East Bethel, Bethel)
	Lower Rum River	Lower Rum River WMO, Cities (Ramsey, Anoka, Andover)
	Sunrise River	Sunrise River WMO, Lake Associations (Martin Lake, Linwood Lake, Coon Lake), Cities (East Bethel, Linwood, Columbus)
	Coon Creek	Coon Creek Watershed District, Lake Associations (Ham Lake, Crooked Lake), Cities (Ham Lake, Columbus, Andover, Blaine, Coon Rapids, Fridley, Spring Lake Park)
	Rice Creek	Rice Creek Watershed District, Lake Associations (Golden Lake), Cities (Columbus, Blaine, Fridley, Lino Lakes, Circle Pines, Lexington, Centerville)
	Mississippi	Mississippi WMO, Cities (Fridley, Columbia Heights, Hilltop)

Resource Condition

This plan does not include a comprehensive inventory of the natural resources of the county. Natural resources quality and distribution are continually changing. It is only through a continual monitoring and inventory program that we are able to maintain an up-to-date understanding of natural resources. As an alternative to providing a written inventory, the ACD Board of Supervisor provides updated information on natural resources through our website, www.AnokaSWCD.org through a combination of videos, brochures, reports such as the annual Anoka Water Almanac, and stormwater retrofit analyses. Additionally, mapping data are available through the MN DNR Data Deli and the Anoka County GIS website, and water quality data may be accessed through MPCA's online EQUIS database. Additional hydrologic data collected by ACD are available through ACD's data access tool on our website. Current inventory and resource monitoring data are also available to public by contacting staff. The purpose of the following summary is to provide context to the planning structure outlined in this document.

Anoka County Natural Resource Setting

Anoka County's natural resource base supports a rapidly growing population of over 330,000 people (2010 U.S. Census Bureau) in an area of 273,450 acres. Approximately 50% of the county is densely or moderately urbanized with homes and places to work. The remaining portion of the county supports scattered agriculture and open space, including extensive county and city park systems and vast areas of state wildlife management areas.

Table 7: Anoka County Landuse

Landuse	Acreage	Percent
Agriculture	68435	25.0
Residential	122386	44.8
Commercial	7515	2.7
Industrial	6250	2.2
Water	8,870	3.2
Other	59994	21.9
Total	273,450	100.0

Anoka County GIS, December 2009

Land Cover - MLCCS

Urban with Vegetative Cover
Urban with Little Vegetative Cover
Planted or Cultivated Vegetation
Upland Forest
Wetland Forest
Woodland
Upland Shrubland
Wetland Shrubland
Dry Grassland
Wetland Prairie
Rock Outcrop
Water

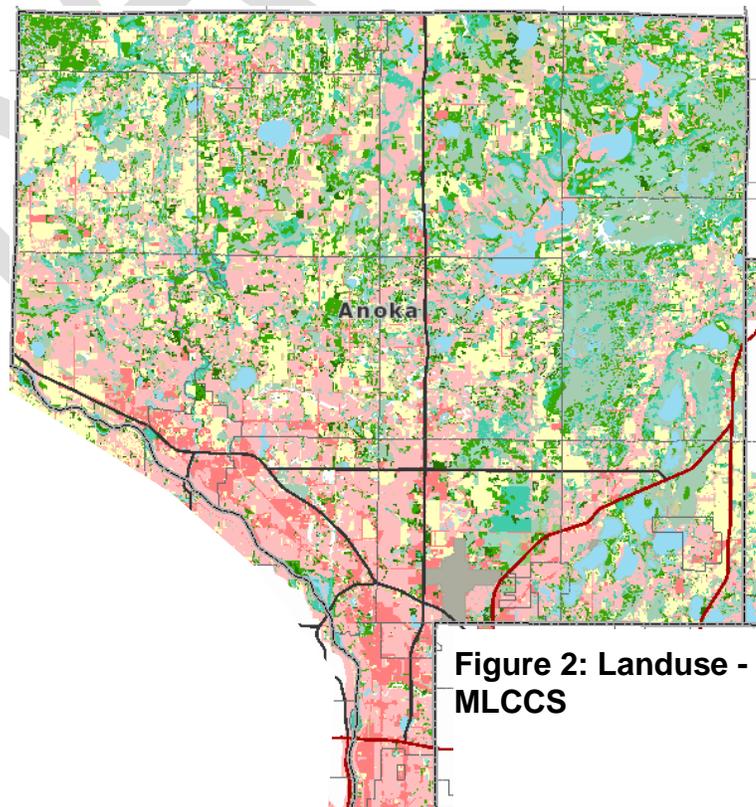


Figure 2: Landuse - MLCCS

Anoka County is largely within the Anoka Sand Plain, a large expanse of permeable sandy soils interspersed with large wetland complexes. Many of the wetlands have been converted to sod and vegetable farms with the addition of extensive ditch systems. In the last twenty years, drained peatlands have given way to residential development. The dry sandy soils have low fertility and little water holding capacity and so are only suitable for a few crops. They are ideal for development however, requiring very little investment to be made suitable for roads and structures. As a result, the sandy uplands have been under heavy development pressure.

The Anoka Sand Plain is also characterized by a high groundwater table, typically within three to eight feet of the surface. This high water table is due to a combination of shallow topography and highly permeable sandy soils. Wetlands form where groundwater levels are near or just above the surface. Areas where exposed groundwater is many feet deep result in a landscape dotted with shallow lakes. Many of the lakes are connected to each other with streams, creating chains of lakes. As shallow groundwater levels fluctuate so do the water levels in the lakes, streams and wetlands that dominate the landscape.

The Anoka Sand Plain takes on regional importance when considering that it is widely considered to be the recharge area for many of the deeper aquifers that supply drinking water to communities throughout the Twin Cities Metro Area. Mismanagement of Anoka County's water resources will not only diminish the quality of life of every Anoka County resident, but also compromise the availability of abundant clean drinking water for the entire metropolitan area.

Water Quality

Water quality is among the most important resource concerns. Both surface water and groundwater quality are resource management priorities for ACD. Anoka County listed impaired waters are shown Figure 3. Waters may be listed as impaired for a number of reasons including nutrients, sediment, pathogens, biota, turbidity and heavy metals. Impairments in Anoka County span all of these categories.

Streams/Rivers

In Anoka County there are several streams and rivers that flow to the Mississippi River and one that flows to the St. Croix River. Rice Creek, Coon Creek, and the Rum River are the major water courses in Anoka County that flow to the Mississippi River, which

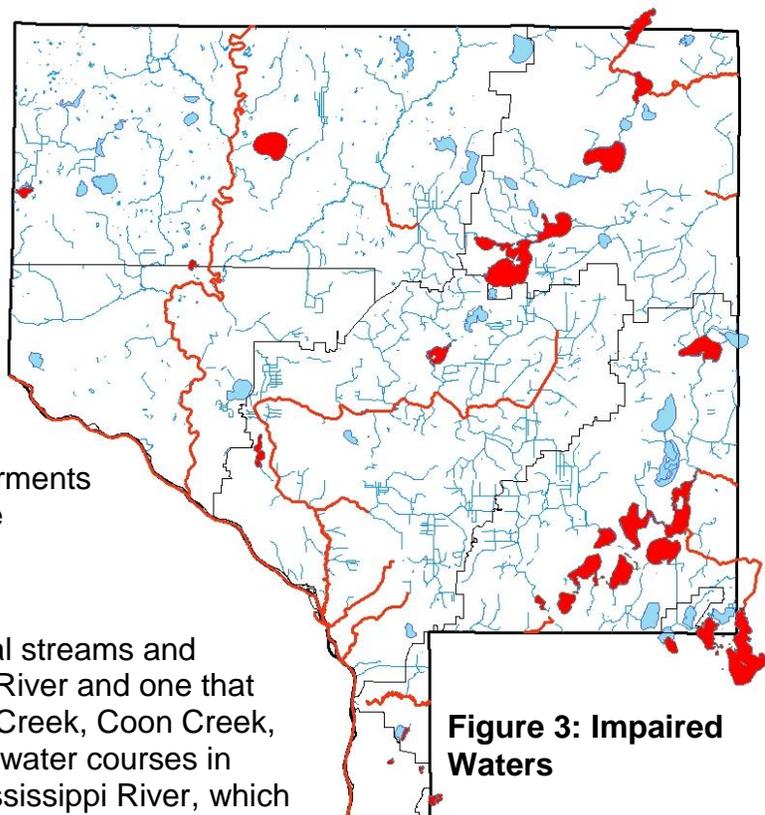


Figure 3: Impaired Waters

forms the southwestern boundary of Anoka County. Springbrook, Stonybrook and Oak Glen Creek are all small tributaries in heavily developed watersheds that flow directly into the Mississippi River. Coon Creek and Rice Creek are larger watersheds and both have well-staffed watershed districts that act as the primary water resource management entity. The Sunrise River flows through Carlos Avery WMA and several lakes in northeastern Anoka County to the St. Croix River. The watershed for Sunrise River is comprised largely of public land and is sparsely populated. Efforts to improve the Sunrise River are limited to projects that work to improve the lakes through which it flows. The Rum River begins at Lake Mille Lacs and has a watershed of over one million acres. Its confluence with the Mississippi River is in the City of Anoka.

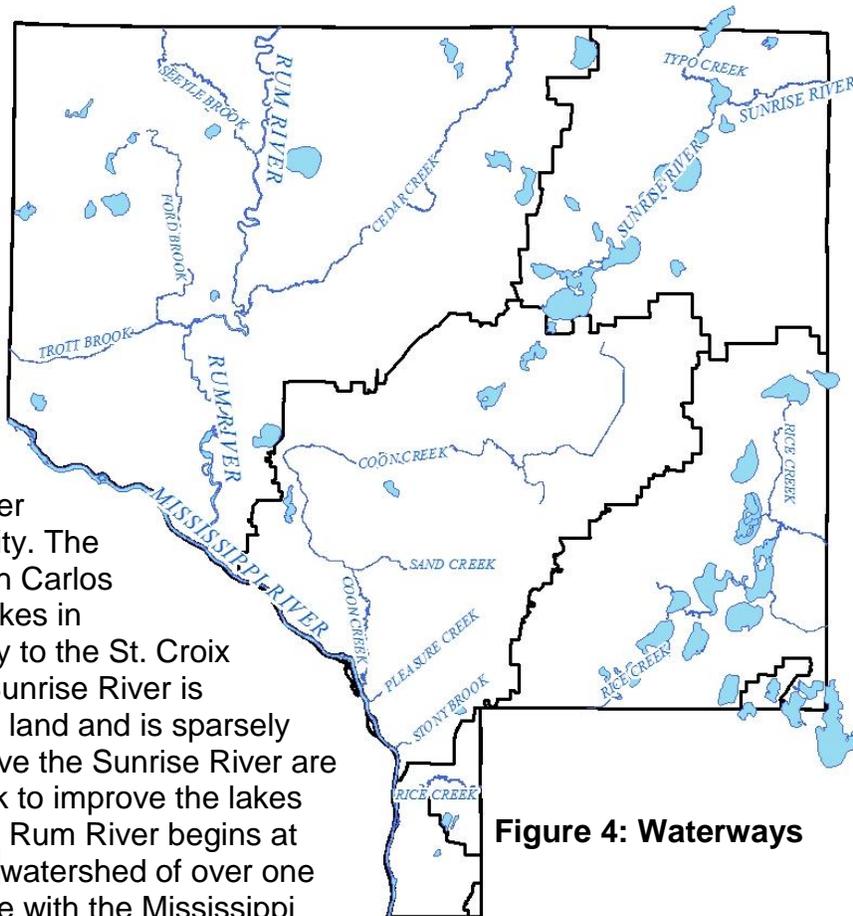


Figure 4: Waterways

The Rum River and its tributaries (Cedar Creek, Trott Brook, Ford Brook, and Seelye Brook) have been identified as ACD's highest priority watershed for several reasons:

- 1) it currently has good water quality,
- 2) it provides recreational benefits including fishing, swimming, and canoeing,
- 3) its watershed comprises over one third of Anoka County,
- 4) it does not have a watershed district, and
- 5) its watershed includes areas of dense development, redevelopment and sparse development so there are many opportunities to make positive impacts in the watershed.

ACD staff also work in partnership with other governmental units in the county to manage other river and stream resources.

Lakes

Lake water quality is typically measured using three parameters; secchi disk depth, Total Phosphorus, and Chlorophyll-a. An index of these parameters allows us to grade the quality of our lakes, as shown in the table below.

Year→	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
Cenaiko																	B	A	A	A	B	A	A	A	A	A	A	B	B	B	B	B		
Centerville	C	C						D												C	C		C	C	A									
Coon				C					C					C			C	B	A	B	C	B		C	C	C	C							
Coon (E. Bay)				C					C	C	C		C	C	C		B	B	A	B	C	B		C	C	C	B	A	B	B	B	B	B	
Coon (W. Bay)																														A		A		
Crooked			C	C					C					B	C	B	B	B		B	B	B	B	B	B	B	B	B	B	B	B	B	A	
East Twin	B	C							B							B	A	B	A	A	A	A		A		A		A	A	A	A	A	A	
Fawn								B									A	B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
George	A	A	A						A					B			A	B	A	A	A	A		A		B		B			B	B	B	
George Watch	F	D	D		D		D	D	F	D	F						F	D	F	D	D	F	D	D	F	D	F	F	D	D	D	D	D	F
Golden					D	C	D	F	F	F	F		D			C	D	C	C	C	D	D	D	D	C	C	C	C	C	C	C	C	C	
Ham				C									A	B		A	A	B		C	C	B		B	B	B	A	B	B	B	B	A		
Highland																				D	C	D	F	F	F	F	F	F						
Howard									F	F	F						F	D	D															
Island			C																					B	B	C	C	B	B	C	C	C	C	
Itasca																		A	B	B														
Laddie													B	B	B			C	B	B	B	B	B	B	B	B		B			B		B	
Linwood	C	C							C					C			C	C	C	C	C		C	C	C	C	C	C					C	
Lochness																											A	B		B	C	C		
Martin			D														D	D	C	D	D		D	D		D	D	D	D	D	D	D	D	
Minard																																		A
East Moore	C	C	C	C	B	C	C							C			C	B	B	C	C	C		C										
West Moore	C	F	C	B	C	F	C													B	B	C	C	C	C									
Mud													B							B	C													
Netta																		B	C	A		B		A	A		B	B		B	A		A	A
Peltier			D										D	F	D	D	D	D	D	D	D	F	F	D	D	D	F	D						
Pickrel																	B	A	A	B	C										A	C		B
Reshanau																											D	D	D	D	D	D	D	D
Rogers																			C	C				B		D		B	B					
Round																			B	A	B			A	B		C		C	C			A	
Sandy													D	D	D		D	D	D	D	D	D	F	D	D	D								D
Typo													F	F	F		F	F	F	F	F	F		F	F		F	F		F				F

Groundwater

In Anoka County, most residents, agriculture, and businesses rely on groundwater from either municipal or private wells for drinking water, irrigation and other uses. Groundwater supplies in Anoka County are particularly vulnerable to contamination due to the permeable sandy soils. Figure 6 prepared by the MN Geologic Survey (MGS) shows in red those areas of Anoka County that are highly susceptible to contamination. In some municipalities, wells have already become contaminated and may no longer be used for drinking water without expensive treatment. Municipalities can help protect drinking water by using landuse controls.

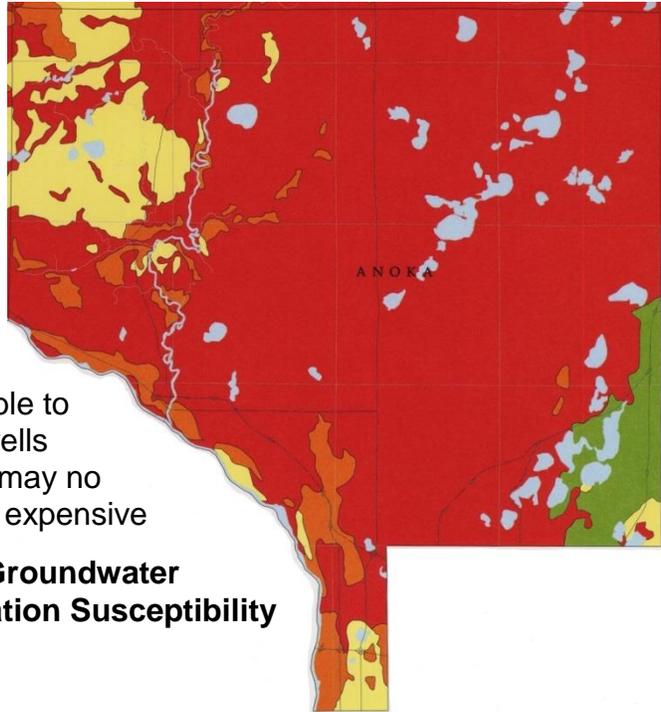


Figure 6: Groundwater Contamination Susceptibility

Protection of municipal drinking water supplies through landuse controls is enhanced by the identification and management of drinking water supply management areas (DWSMA) in two ways. First, identification of DWSMAs can enable resource managers to more quickly narrow in on a pollution source when contamination occurs. Second, DWSMA identification can enhance planning and zoning efforts to minimize the likelihood of contamination by prohibiting high risk activities in sensitive areas. Several municipalities are working together under the umbrella of the County Groundwater Protection Assessment to manage DWSMAs.

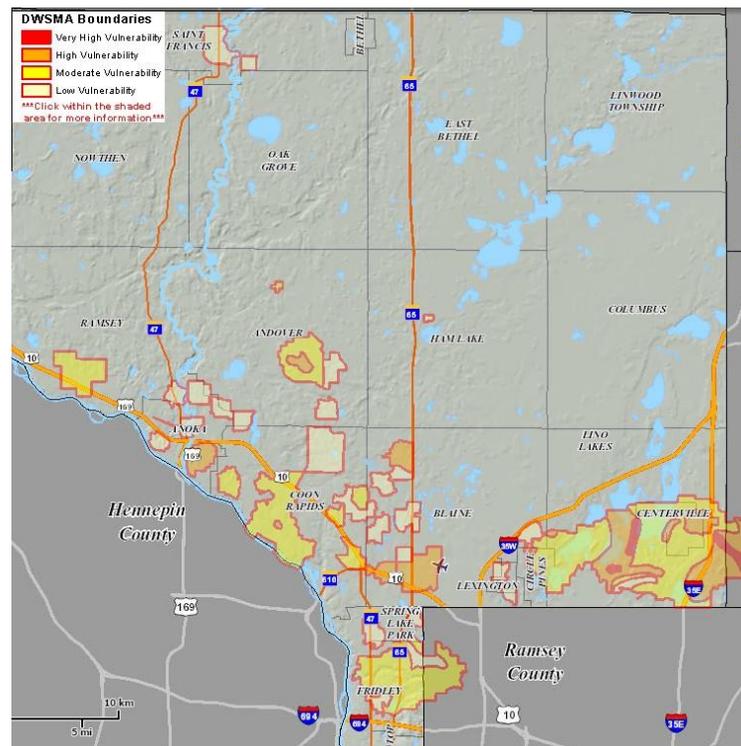


Figure 7: Drinking Water Supply Management Areas

Water Quantity

Water quantity is a concern for three reasons;

- flooding can cause damage to structures and septic systems and can cause erosion,
- depleted surficial aquifers lower water tables resulting in the drainage of wetlands, reduced lake water levels, reduced stream base-flow, and stress on plant life adapted to historic water levels, and
- shortages in drinking water supplies.

The Metropolitan Council completed a study that concluded that several metropolitan communities would experience drinking water shortages between now and 2030. Figure 8 shows anticipated drawdown where groundwater and surface water is closely connected. This drawdown will dramatically impact surface water elevations.

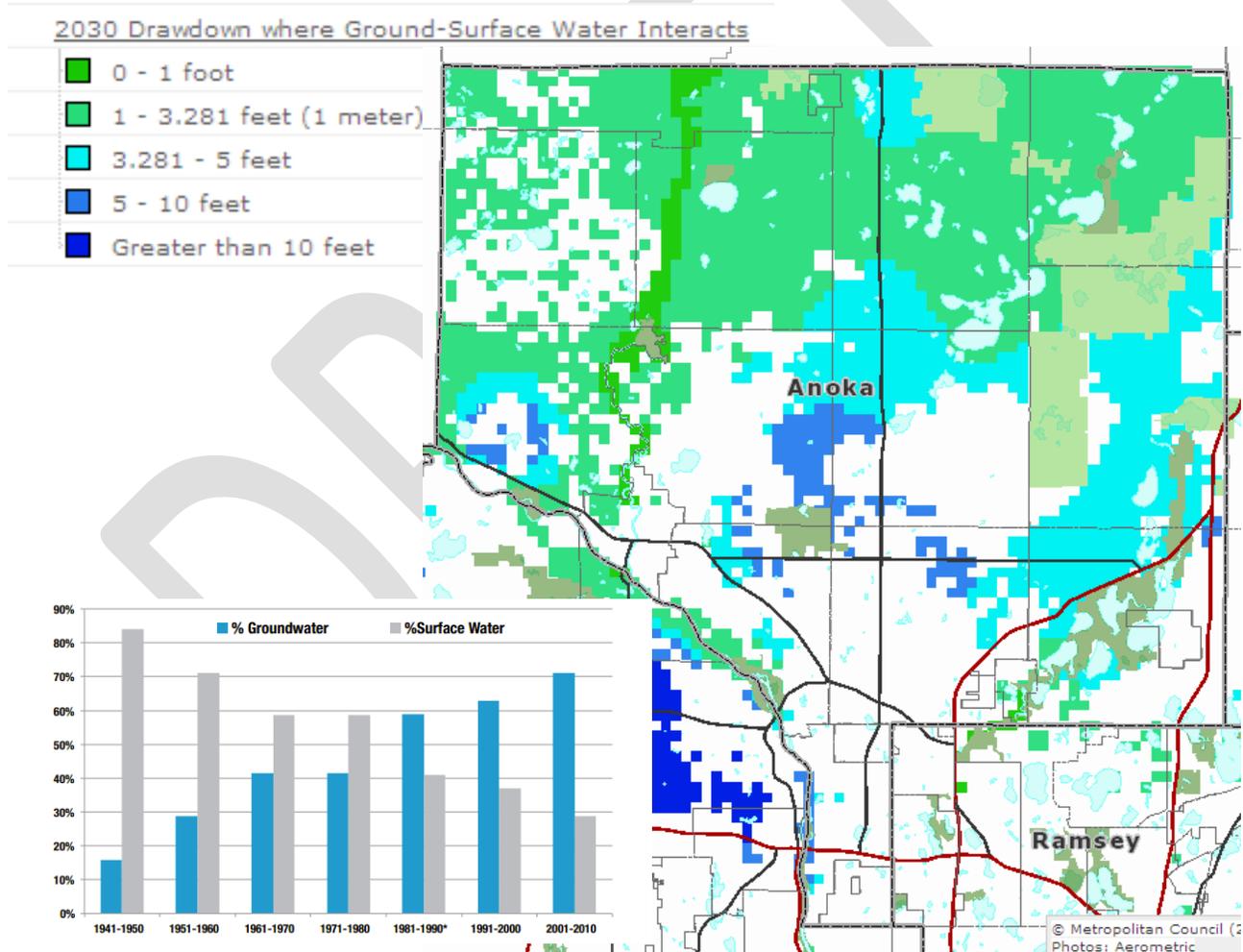


Figure 8: Surficial Groundwater Drawdown

Natural Habitats

Protection and enhancement of natural habitats ranks high with Anoka Conservation District not only because having abundant wildlife improves the quality of life in Anoka County, but because it is one of the least regulated resource concerns. The lack of regulation is resulting in rapid losses of habitat and the wild flora and fauna it supports. More programs are needed to address these losses.

Natural Communities

Anoka County has the highest concentration of MN County Biological Survey mapped natural communities in the metro area. These areas are recognized as pristine ecological systems, existing today in much the same condition as they did prior to European settlement of the area. Preservation of the few remaining natural communities is a high priority for ACD. Preservation of these areas will be pursued and encouraged at the local and state levels.

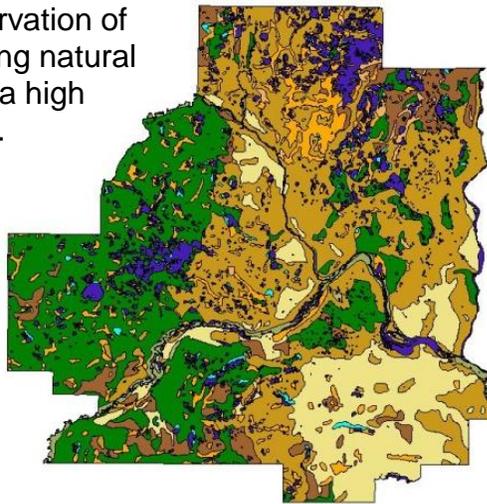


Figure 9: Presettlement Vegetation

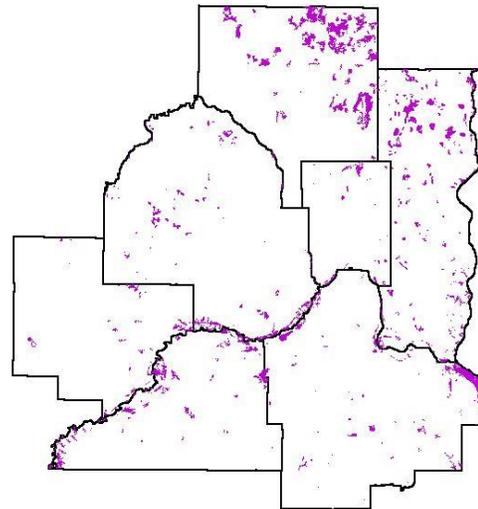


Figure 10: Remaining Natural Communities

Wildlife Connectivity

ACD developed a wildlife corridor plan as part of the land cover inventory and greenway planning efforts completed in 2005. The corridor plan should be updated to identify parcels protected during the last decade. ACD will continue to work with private landowners and local, county, state and federal government programs to help manage lands in a way that allows open space to serve as effective wildlife habitat and travel corridors.

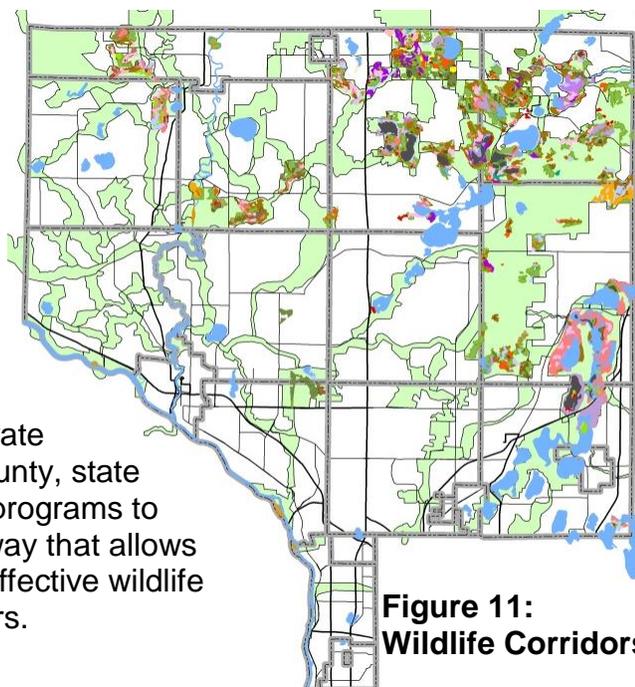


Figure 11: Wildlife Corridors



Wetlands

Anoka County is rich in wetland resources with nearly 30% of our land area covered in wetland. Anoka County is also unique in the seven county metro area as the only county with more than 50% of its original wetland acreage intact. Figure 12 is the National Wetland Inventory and shows wetlands that fall under MN Department of Natural Resources (DNR) jurisdiction in dark blue and those that fall under the jurisdiction of the Wetland Conservation Act in lighter blue. Lakes are included under DNR jurisdiction.

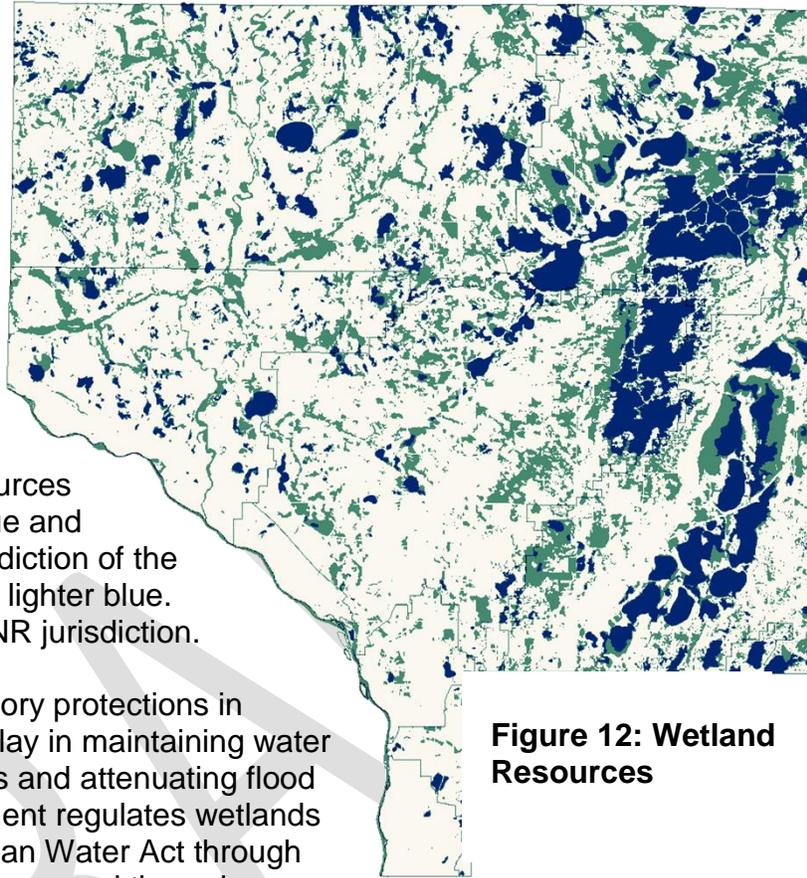


Figure 12: Wetland Resources

Wetlands have many regulatory protections in recognition of the role they play in maintaining water quality in our lakes and rivers and attenuating flood waters. The federal government regulates wetlands under Section 404 of the Clean Water Act through the US Army Corps of Engineers and through Swampbuster on agricultural lands. The state regulates larger, permanently ponded wetlands through the DNR and the remaining wetlands through local government units under the Wetland Conservation Act of 1991.

Wetlands provide many functions and values to Anoka County residents including water quality, flood control, wildlife habitat and open space. Utilizing wetland characteristics to assimilate nutrients, trap sediment, and attenuate flood waters can result in degradation to the wetland's ecology. It is important to balance the quality of the wetland against the benefits it can provide under active use. Wetland quality and position in the landscape are routinely considered by ACD staff when making management recommendations.

To preserve and enhance wetland functions and values in the county, the ACD supports activities which avoid direct and indirect impacts, restore wetlands for flood control and water quality treatment, provide buffer strips around wetlands basins, replace losses in the same watershed or where most needed, avoid natural community wetlands, and restore wetland plant communities for habitat.

Soils

A clear understanding of soil resources is the basis of sound natural resource management. Soil characteristics influence water flow and water chemistry, determine the composition and abundance of plants that can be grown in an area, and impact the type of structures that can be built and selection of the most suitable building materials. Although Anoka County is located within the Anoka Sand Plain, which is characterized by flat topography, high water tables, sandy upland soils and expansive peatland in the low lying areas, the soils are surprisingly complex. Not only are there areas in Anoka County of glacial till but there are also large areas of alluvial soils, laid down by river systems. Figure 13 is provided to illustrate this complexity, showing the number of soil associations and is purposely not labeled. Looking at the geomorphologic types provides a simpler picture of the different types of

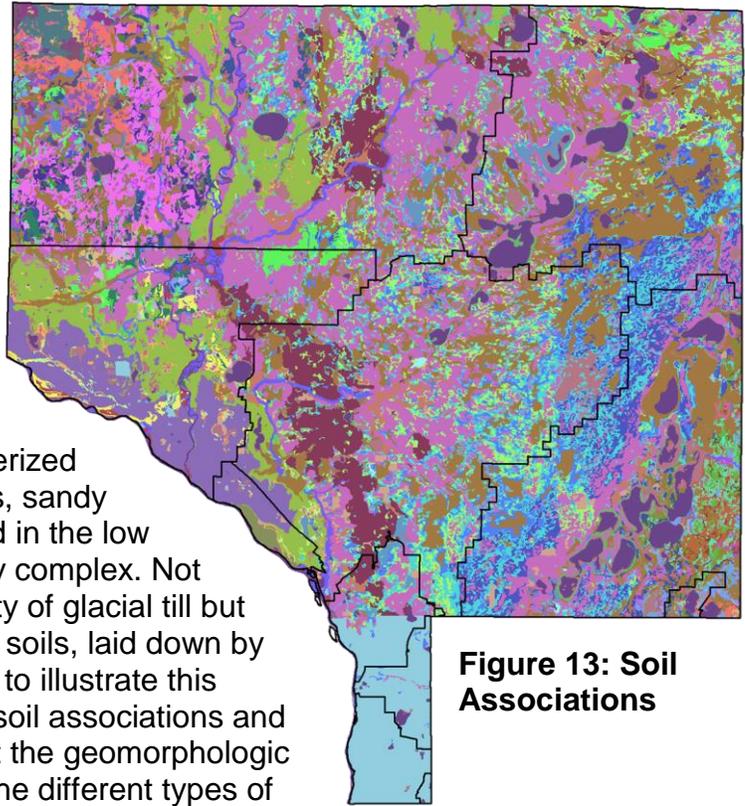


Figure 13: Soil Associations

soils in Anoka County. Resource planning and management techniques and strategies vary within these areas.

ACD helps landowners to manage soils to reduce erosion for water quality improvement and to establish and maintain desirable vegetation. While we promote sound agricultural conservation practices and soil health, we rely on the Natural Resources Conservation Service to be the primary point of contact for our agricultural producers.

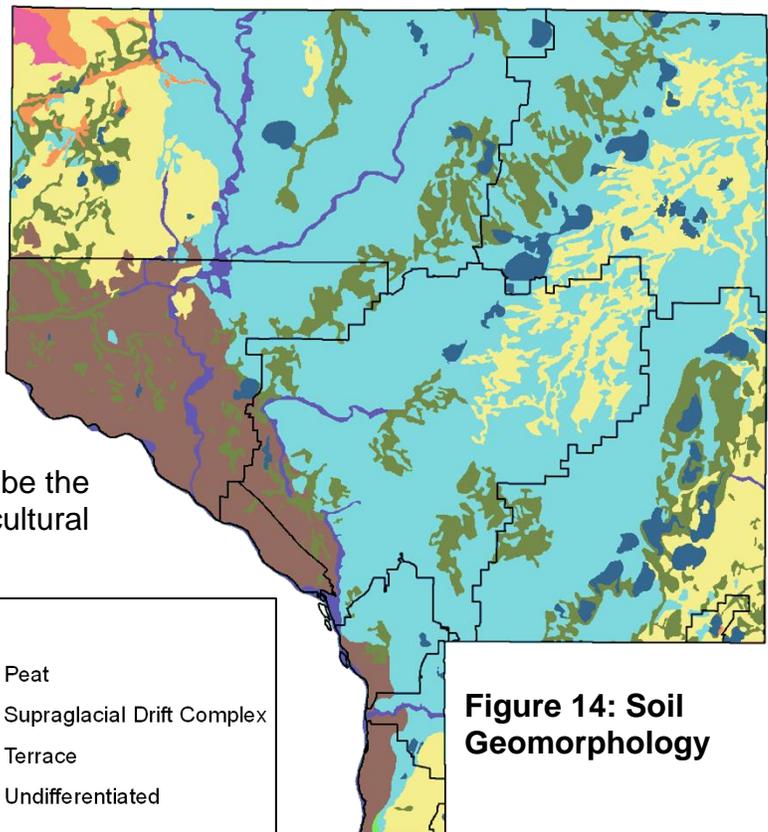


Figure 14: Soil Geomorphology

Geomorphology Type	
	Alluvium
	Bedrock dominated
	Ice Contact
	Lacustrine
	Outwash
	Peat
	Supraglacial Drift Complex
	Terrace
	Undifferentiated

Existing Resource Management Efforts

Managing Anoka County's water, soil, plant and animal resources to ensure long-term sustainability requires an array of programs and services. The following summarizes the efforts of ACD over the last decade. Many of these programs are routine and will be continued while other programs come and go with the changing needs and opportunities in the county. Generally, ACD programs fall into the following categories; monitoring, inventory, analysis, planning, land protection, technical assistance, financial assistance, administrative assistance, product sales and equipment rental, education, and general ACD operations.

Monitoring

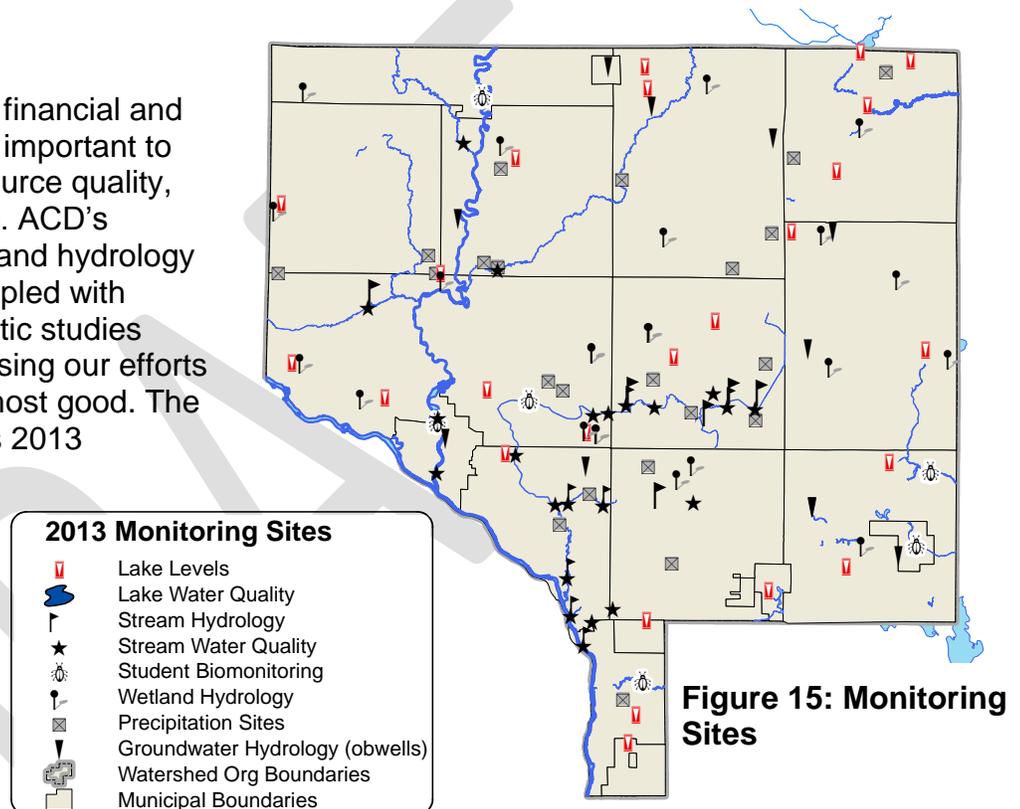
In order to focus limited financial and technical resources it is important to continually monitor resource quality, quantity and distribution. ACD's extensive water quality and hydrology monitoring program coupled with inventories and diagnostic studies ensure that we are focusing our efforts where they will do the most good. The figure to the right shows 2013 monitoring sites.

ACD conducts routine biological monitoring and chemical monitoring in select areas throughout the watersheds in the county and does special diagnostic studies under

contract with water management entities. We have conducted Total Maximum Daily Load (TMDL) studies for two lakes and anticipate working with MPCA to complete more. As of 2014 we were actively engaged in work on three Watershed Restoration and Protection Strategies (WRAPS): Rum River, Coon Creek and Sunrise River.

Lake Water Quality – ACD monitors water quality of most recreational lakes in the county. Initially we monitored all lakes frequently. Now that a baseline of data exists, monitoring is most frequent (every 1-3 yrs) on those lakes with suspected problems, new stresses, or ongoing management. Other lakes are monitored less frequently (every 3-4 yrs).

Stream Quality – A variable number of streams are monitored each year, typically 5-10 sites. Monitoring is done for problem detection and diagnosis of known problems, including TMDL studies. In recent years, stream water quality monitoring has tripled (22



sites in 2013) to accommodate the diagnostic needs of the Rum River and Coon Creek WRAPS reports.

Biomonitoring of Streams – The stream biological monitoring program is both an educational program and a stream health assessment tool. The biomonitoring program relies upon students, with guidance from their teachers, to conduct the sampling and rudimentary sample sorting as part of their high school ecology curriculum. The program uses benthic (bottom dwelling) macroinvertebrates to determine stream health. Because of their extended exposure to stream conditions and sensitivity to habitat and water quality, benthic macroinvertebrates can serve as good indicators of stream health. Each year there are approximately 500 students from six high schools who monitor six sites under ACD supervision.

Rum River Watershed Outlet Monitoring Program – ACD operates the Metropolitan Council's water quality and quantity monitoring station in the City of Anoka on the Rum River.

Lake Level – Volunteers monitor water levels in 22 lakes. ACD coordinates this effort by installing and surveying lake gauges, providing datasheets, quality checking data, and submitting data to the DNR for their website.

Stream Hydrology/Discharge – A variable number of streams each year have continuous water level monitoring devices. Formerly we monitored 8-12 sites but have reduced that to 6 sites due to a lack of funds. This monitoring is often paired with water quality studies so pollutant loading calculations and modeling can be done.

Reference Wetland – Wetland regulations often focus on determining whether an area is or isn't a wetland. This is difficult at times because most wetlands are not continually wet. In order to facilitate fair, accurate wetland determinations the ACD monitors 18 wetlands throughout the county that serve as a reference of conditions. Electronic monitoring wells are used to measure subsurface water levels at the wetland edge every four hours up to a depth of 40 inches. This hydrologic information, along with examination of the vegetation and soils, aids in accurate wetland determinations and delineations. These reference wetlands represent several wetland types. Some have been monitored for 15+ years.

Observation Well - The DNR and ACD are interested in understanding Minnesota's groundwater quantity and flow. The DNR maintains a network of groundwater observation wells across the state. ACD is contracted to take monthly water level readings at 15 wells in Anoka County from March through December. The DNR incorporates these data into a statewide database that aids in groundwater trend mapping.

Rain Gauge Network – Precipitation can be quite variable across the county. In order to obtain accurate data to pair with other hydrological monitoring programs ACD manages a network of 6 datalogging rain gauges and 15 manual gauges operated by volunteers.

Inventory

Resource inventories are just as important as monitoring. Inventories provide resource information essential to the development of successful conservation projects. ACD is

equipped to complete a variety of inventory projects, having many years of aerial photos, GPS equipment, GIS software and the expertise to use them. We engage in some routine inventories and updates while also tackling periodic 'once in a career' efforts like the geologic atlas.

Geologic Atlas – ACD staff facilitated the collection of sufficient local matching funds from each of the water management organizations and watershed districts in the county to partner with the MN Geologic Survey to have a geologic atlas completed for Anoka County. ACD hired and oversaw seasonal staff who identified the location of 10,000 wells in the county. These data were provided to the MN Geologic Survey. The geologic element was completed and made available in 2013. The hydrogeologic component is underway and is anticipated in 2015 or 2016. Upon completion, ACD will actively train local resource management partners on its features and how to use it for decision making.

Shoreline – ACD conducts shoreline inventories on priority water bodies in partnership with water management organizations, watershed districts and lake associations. During the inventory process the condition of the shoreline is documented to identify erosion and adjacent land management practices. In recent years we have added an erosion estimation element to facilitate project identification and ranking for promotion efforts. Sites with the greatest estimated erosion are prioritized for outreach and funding. Figure 16 is of Lake George. Similar inventories have been completed for the majority of recreational lakes in the county.

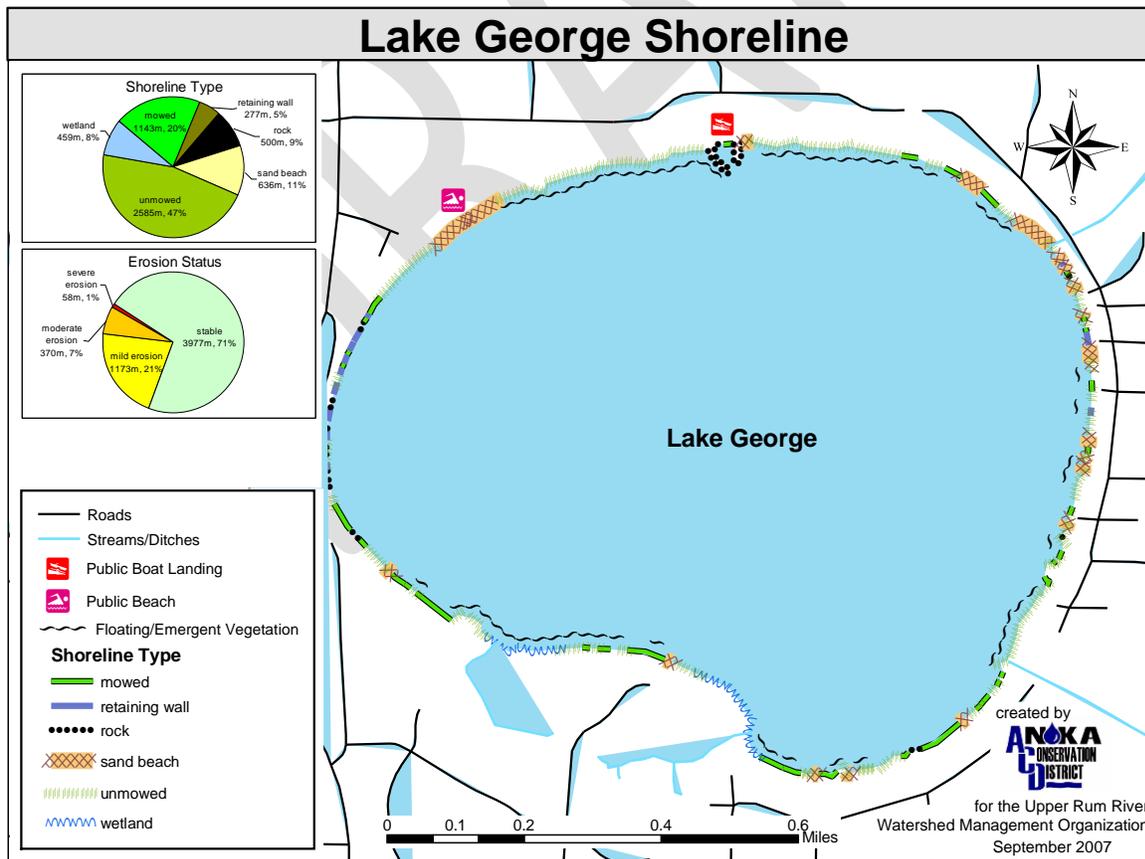


Figure 16: Lakeshore Erosion Inventory Example

Riverbank – ACD conducts riverbank condition inventories under contract with local and state partners. Inventories combine erosion length, bank height, and estimates of lateral recession rates to calculate annual soil loss. These data are used to seek funding and rank projects for technical and financial assistance. In 2012 ACD staff completed an inventory of riverbank condition on an eight mile stretch of the Mississippi River upstream of the Coon Rapids Dam. The inventory identified 8 sites totaling 3600 linear feet that were categorized as severely to very severely eroding. Figure 17 shows a site profile that was completed as part of the Mississippi River inventory.

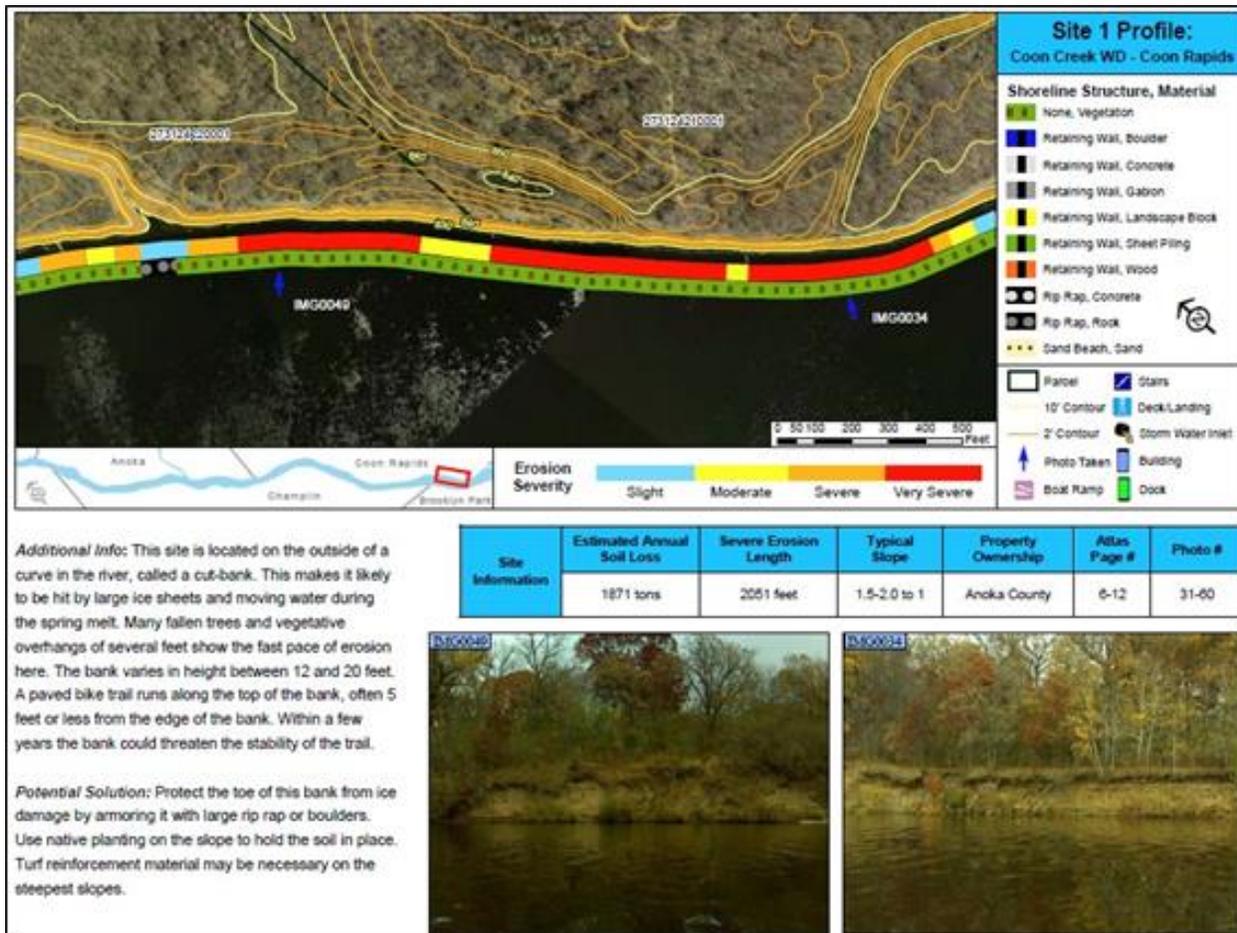


Figure 17: Riverbank Inventory Example

Analysis

Water Resource Diagnostics/ TMDLs/ WRAPS – ACD staff work with other state and local agencies to investigate water resources problems such as water quality impairments and hydrological problems. Over the years we have completed diagnostic studies on several tributaries to the Rum River as well as Sand Creek and Pleasure Creek. We completed a TMDL for Typo and Martin Lakes and are currently the lead agency working on the Rum River Watershed Restoration and Protection Strategy (WRAPS), which covers the entire Rum River watershed from Mille Lacs lake to the confluence with the Mississippi River in the City of Anoka. We are also assisting with WRAPS in the Sunrise River and Coon Creek watersheds.

Stormwater Retrofit Analysis (SRA) – Building from recently completed Non-Degradation Reports, Stormwater Pollution Prevention Plans and TMDLs, ACD partners with local funding sources to complete subwatershed analyses for priority water bodies. These analyses involve constructing a water quality model of a

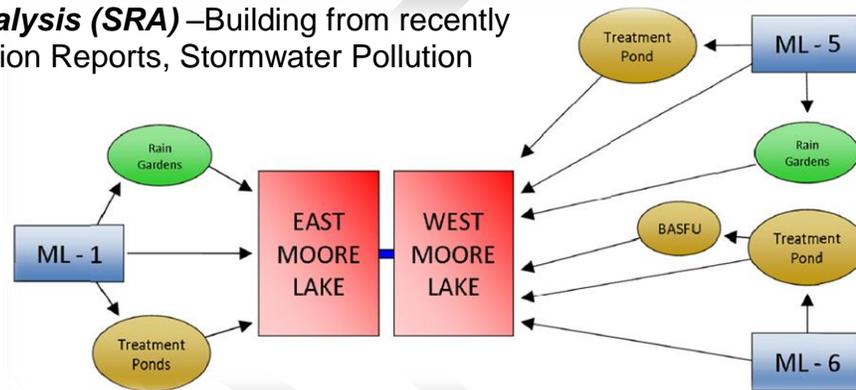


Figure 18: Watershed Model Flowpath Example

watershed and then adding water quality improvement BMPs to the model to determine their efficacy at improving water quality in the target water body. Specific practices with pollutant load reduction estimates and installation, operation and maintenance cost estimates are provided, enabling partners to select and budget for the installation of the most cost-effective practices. This approach was initiated through the Landscape Restoration Program developed by ACD and has since been implemented throughout the Twin Cities Metro Area and beyond. SRA identified projects have attracted millions in grant funding. ACD is committed to refining the SRA process and staff have become experts in the use of WINSLAMM and SWAT modeling applications used for urban and rural SRAs respectively.

Since 2009 ACD staff have completed



Figure 19: BMP Opportunities Map Example

14 analyses with several more in progress. Funding from the Clean Water Fund through the Metro Conservation Districts (MCD) was used to fund all or part of several of the analyses.

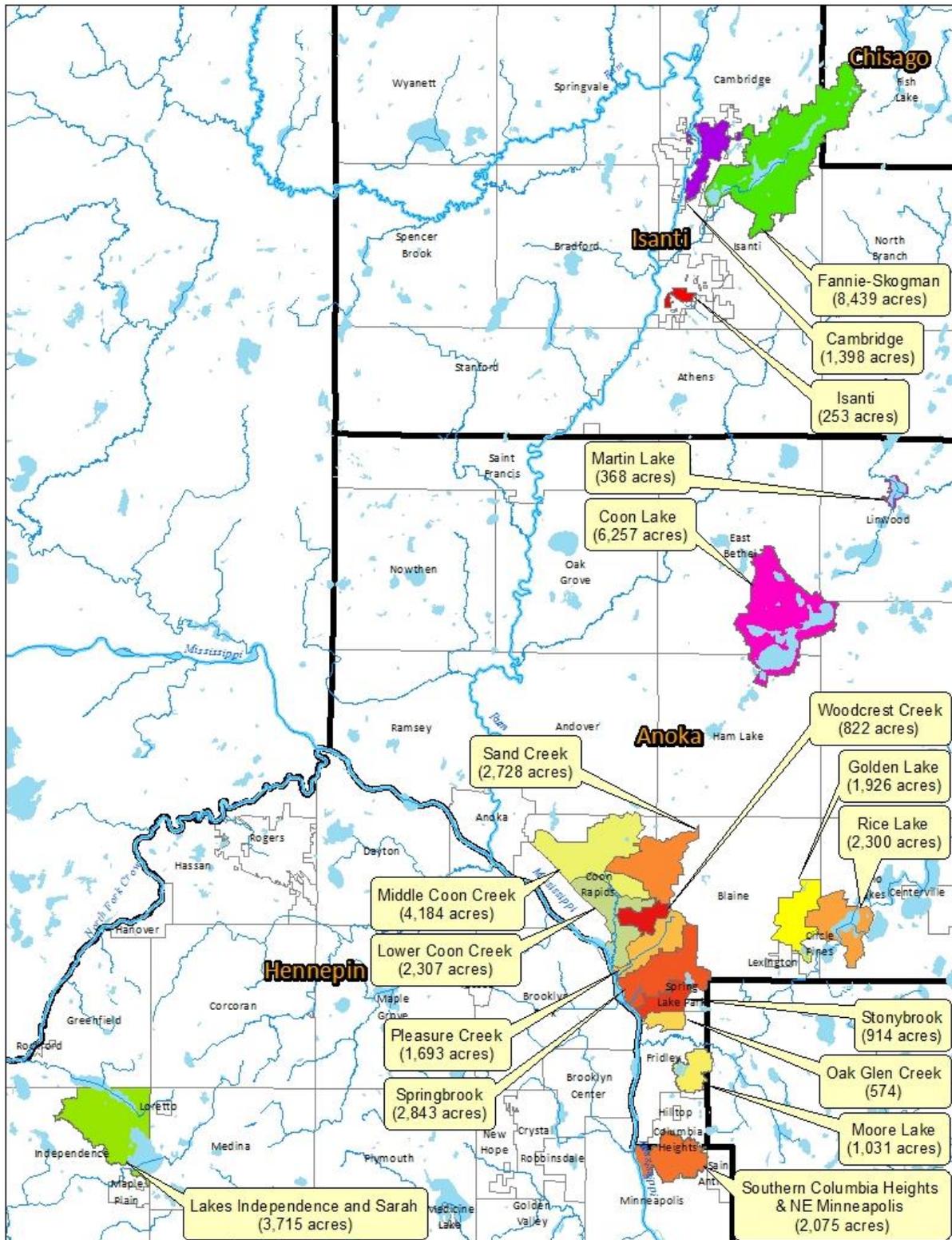


Figure 20: Stormwater Retrofit Analyses

Table 8: Stormwater Retrofit Analyses

Analysis	County	Complete (yr)	Partner
Sand Creek	Anoka	2009	Coon Creek Watershed District / MCD
Rice Lake	Anoka	2009	Rice Creek Watershed District / MCD
City of Cambridge	Isanti	2010	City of Cambridge / MCD
Woodcrest Creek	Anoka	2010	Coon Creek Watershed District / MCD
City of Isanti	Isanti	2011	City of Isanti /MCD
Golden Lake	Anoka	2011	Rice Creek Watershed District / MCD
Martin Lake	Anoka	2011	Sunrise River WMO / MCD
Oak Glen Creek	Anoka	2012	City of Fridley
Lower Coon Creek	Anoka	2012	Coon Creek Watershed District
Moore Lake	Anoka	2013	Rice Creek Watershed District / MCD
Lake Sarah & Independence	Hennepin	2014	Hennepin SWCD/ City of Independence / MCD
Coon Lake	Anoka	2014	Sunrise River WMO
Fannie Skogman Lakes	Isanti	2014	Isanti SWCD / MCD
South Columbia Heights/ North Minneapolis	Anoka/ Hennepin	2014	Mississippi River WMO / MCD
Pleasure Creek	Anoka	In progress	Coon Creek Watershed District / MCD
Stonybrook	Anoka	In progress	Coon Creek Watershed District
Springbrook	Anoka	In progress	Coon Creek Watershed District
Middle Coon Creek	Anoka	In progress	Coon Creek Watershed District

Table 9: Plat Reviews

Plat Reviews – ACD staff review development proposals in several municipalities and provide comments from a natural resource perspective. In reviewing the development proposal, we provide an assessment of how the development can have the least impact on natural resources while still meeting the community’s growth needs and the developer’s financial needs. We approach it with the attitude that development is not bad, but it can be done poorly. Municipalities incorporate ACD’s comments at their discretion.

Being involved in the development review process enables ACD staff to make progress on several high priority resource problem areas. This process would be significantly enhanced if ACD were to become involved at the sketch plan phase and if more cities utilized the service. We

Year	Plats Reviewed	Total Lots	Total Acres
1992	15	222	736
1993	29	542	1694
1994	24	397	1163
1995	34	645	2203
1996	15	216	1006
1997	17	184	626
1998	8	75	362
1999	9	116	496
2000	15	208	858
2001	12	92	489
2002	17	562	1171
2003	18	186	865
2004	23	483	1866
2005	15	157	859
2006	12	90	659
2007	3	39	216
2008	1	7	25
2009-12	0	0	0
2013	3	46	53

also intend to add water quality modeling as an element of the review process. Additionally, planning and zoning commission members should receive copies of ACD's comments directly and ACD staff should offer to attend P&Z meetings for higher priority development proposals.

Planning

Water Management – ACD staff assist water management organizations with updates or supplements to their water management plans. We also help develop annual plans of work to ensure progress is made toward the goals outlined in their water management plans. ACD completed updates to the Sunrise River Watershed Management Organization's plan and facilitated a technical advisory committee for the Upper Rum River Watershed Management Organization that developed wetland and stormwater management standards, amended them to the WMO Plan and incorporated them into member city ordinances and control measures.

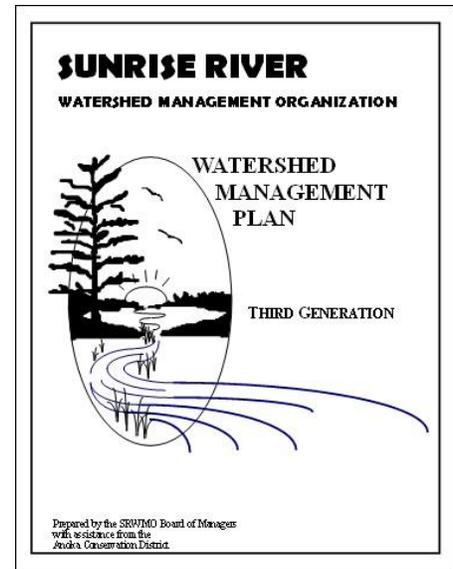
ACD is actively engaged with partners to implement a wide range of elements of three Watershed Restoration and Protection Strategy reports (WRAPS) in the Sunrise River, Rum River, and Coon Creek watersheds. WRAPS reports are comprehensive watershed analyses that are being used instead of water body specific TMDLs.

Groundwater Sustainability – The supply of sustainable drinking water in the Twin Cities Metro Area has emerged as a pressing concern. Model studies by Met Council predict shortages in some communities by 2030. The Governor appointed ACD's Water Resource Specialist to serve on the Metropolitan Water Supply Advisory Committee to help develop strategies to address this. The 2012 drought punctuated the concern about diminishing groundwater as lake levels in the Metro area dramatically dropped and the connection between surface waters and groundwater was implicated. Ultimately it will be important to implement changes on the ground to promote conservation and recharge. ACD is committed to being an active part of the solution.

Open Space – ACD has provided several municipalities with planning assistance to encourage the protection of open space during the development process. Nowthen, Andover, East Bethel, Ham Lake and Linwood all benefited from this effort. This was made possible with funding from the Legislative Citizens Commissions on Minnesota Resources. Staffing to continue this service is no longer available. ACD will continue to encourage open space protection as part of the development review process.

Land Protection

Preservation of parcels that are of particular importance for wildlife habitat is a high priority. Efforts to preserve land should be limited to parcels that fall within the identified wildlife corridor network, notwithstanding modifications to the corridor plan. With passage of the Clean Water, Land, and Legacy constitutional amendment, substantially



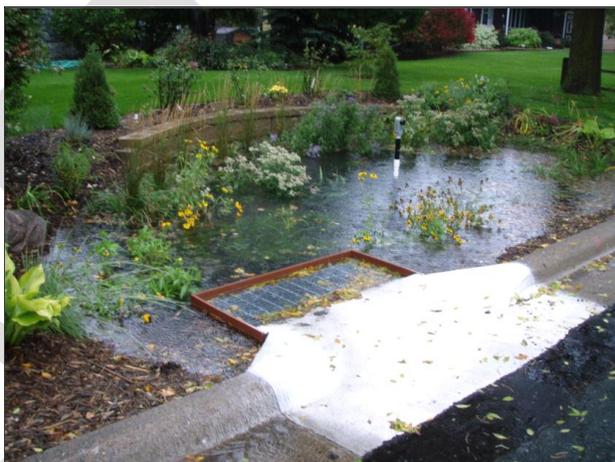
limit the amount of speculative technical assistance that does not result in a conservation projects.

Installation oversight is crucial, and a service the ACD highly recommends. This includes a preconstruction meeting with the contractor, landowner and permitting authorities along with periodic inspections of the work progress and a final inspection upon completion of the project to ensure proper installation.

Post construction inspections ensure the project is functioning as intended and properly maintained. The number of inspections varies greatly depending on the nature of the project and environmental conditions that could influence its success such as drought or flooding.

Project types most often considered include:

Curb cut rain gardens are used in residential and commercial neighborhoods with storm sewer curb and gutter, and are designed to intercept and infiltrate rain water from roadways. Rain Guardian™ pretreatment chambers designed and patented by ACD make maintenance much easier and improve rain garden function.



Rain leader disconnect rain gardens are used on residential and commercial lots with storm sewer curb and gutter, and are designed to intercept and infiltrate rain water from roof tops, driveways, sidewalks and other impervious surfaces. These can be useful in circumstances where curb cut rain gardens are not practical due to sidewalks, trees and utilities.

Lakeshore and riparian plantings involve the establishment of deep rooted native perennial grasses, sedges, wildflowers and/or trees and shrubs above the normal water level with little or no grading.



Lakeshore restoration involves the establishment of deep rooted native perennial grasses, sedges, wildflowers and/or trees and shrubs including the shallow aquatic zone, transitional zone and upland with little or no grading.

Lakeshore and streambank stabilization includes the treatment of active erosion utilizing bioengineering and/or hard armoring often in combination with a shoreline restoration or buffer planting and typically involves some grading.

Treatment pond modification may also be recommended. ACD will typically call upon the expertise of a consulting engineer if this practice is being considered.

Iron enhanced sand filters may also be recommended to capture dissolved phosphorus discharging for new or existing stormwater treatment ponds. ACD will typically call upon the expertise of a consulting engineer if this practice is being considered.

Campus retrofits are larger scale projects such as school grounds, churches, municipal building and business complexes that may include several different practices noted above.

Habitat Improvement – Just as many water quality improvement practices are a benefit to wildlife, many habitat improvement practices also improve water quality, water conservation, flood control and other resource concerns. Including the following services under habitat improvement does not imply that is the only benefit.

Ecosystem restoration varies in scale and type, from 2 acres to 200 acres or more and can involve the restoration of a single ecosystem such as a prairie, savanna, woodland or wetland, or a complex of interconnected ecosystems. Larger scale projects are typical of publicly held lands. Most projects on private property are less than 20 acres in size. Working with landowners to enhance the wildlife value of their property will continue to be a service of the ACD. Ecosystem restoration and enhancement will be done by providing both technical and financial assistance utilizing funding sources such as Wildlife Habitat Improvement Program, Environmental Quality Incentives Program, Conservation Partners Grants, Lessard-Sams Outdoor Heritage Council, and Legislative Citizens Commission on Minnesota Resources.

Backyard habitat refers to projects less than an acre in size. Backyard habitat enhancement projects focus on attracting wildlife by providing food, water, and shelter but not in a way that could be considered an ecological restoration. Plans vary based upon the wildlife the landowner wishes to attract but can include butterfly gardens, bird houses and feeders, plantings of both native and non-native species (although native species are encouraged) to provide food and shelter, rock and brush piles, and water features.

Invasive species control is often a first step toward ecosystem restoration. The control of invasive species such as Common and Glossy Buckthorn, Tartarian Honeysuckle, Garlic Mustard, Purple Loosestrife, Reed Canary Grass, Spotted Knapweed and several thistle species must be achieved in order to begin the process of reintroducing desirable native species. In some cases it is the only activity needed to preserve an otherwise high quality ecosystem. ACD has undertaken a “buckthorn clean sweep” project, where sparse buckthorn infestations in our highest quality natural areas are being eradicated. Past efforts treated over 1,000 acres in this way and a project to complete an additional 450 acres is planned for 2014-2016. ACD will pursue funding to continue this effort and dedicate some staff and financial resources in October and November of each year regardless of outside funding to ensure continuity in this program.



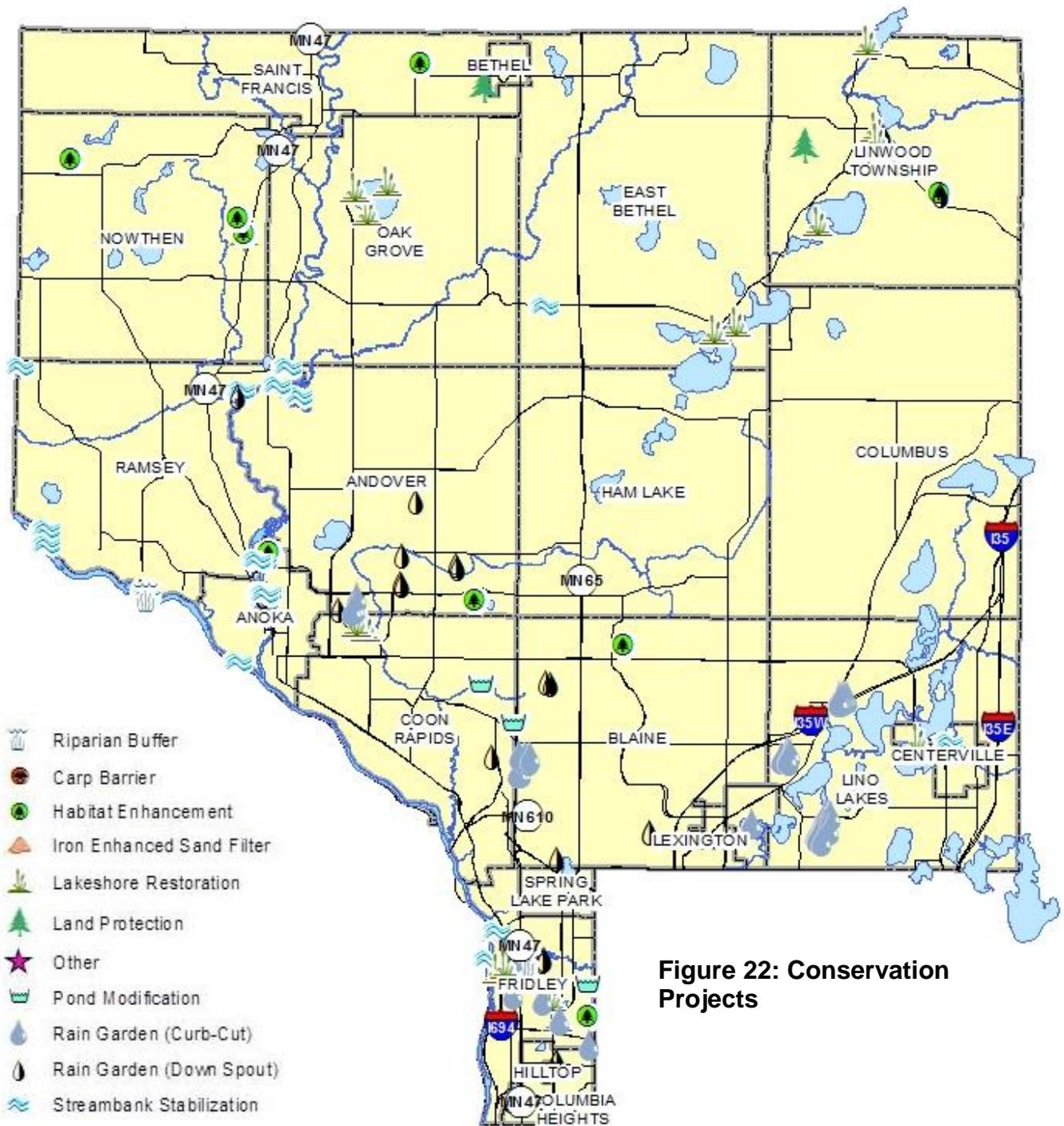


Figure 22: Conservation Projects

Wetlands – Most of the work done by ACD related to wetlands is due to the Wetland Conservation Act of 1991 (WCA). Some activities are mandated while others are offered to help landowners cope with the complexity of wetland regulation. A full time Wetland Specialist is employed to meet the workload demands of this area.

Since the inception of the WCA, wetland losses have decreased dramatically. ACD staff has helped to better educate Local Government Unit (LGU) employees, officials,

and residents on the value of wetlands and how to determine if an area is a wetland. ACD is the clearinghouse for information and answers to most WCA related questions.

Funding for staff to assist with the WCA is challenging as state funds must be matched dollar for dollar and conservation districts do not have the means to garner those funds.

WCA compliance can be challenging to those residents undertaking projects who have never dealt with the WCA in the past. ACD helps residents understand how the WCA impacts their project and provides them with the resources necessary to develop a compliant project proposal. ACD also serves as a quality control mechanism to ensure LGUs are fulfilling their obligations under the law. ACD encourages LGUs to utilize escrows and deed restrictions to achieve compliance.

WCA enforcement is one area with the WCA that conservation districts are exclusively mandated to handle. Cases can become extremely prolonged when landowners refuse to voluntarily comply with restoration or replacement orders. While the expense can be charged back to the violator, collecting on those invoices is unlikely. For a few years, a BWSR grant program enabled ACD to enhance efforts to enforce the WCA by directing more staff time toward the resolution of violations.

Delineation of wetlands according to the 1987 US Army Corps of Engineers Manual for Identifying and Delineating Wetlands is an essential skill in enforcing the WCA. ACD periodically provides wetland delineation services for small projects. This helps to maintain the delineation skills of staff, which is critical for the effective implementation of quality control measures for WCA compliance. It also provides residents with a reasonably priced service for very small sites.

Monitoring of replacement wetlands and tracking of replacement wetland monitoring requirements for LGUs are two tasks completed by the ACD Wetland Specialist.

Conservation Plans – Property level conservation plans are important components of many programs. ACD develops conservation plans at many scales with variable natural resource focus areas.

Water appropriations conservation plans are required for most Minnesota Department of Natural Resources water appropriations permits. They are to be developed with, and approved by, the soil and water conservation district. Most often, these plans are similar to water conservation plans already developed for other projects. However, some customizing is always necessary.

Conservation easement management plans are required whenever public funds are expended to secure a conservation easement. ACD prepares plans that outline how the property's soil, water and biota will be managed to maintain and improve the ecological functions of the property.

Groundwater use audits are a concept similar to home energy audits but are aimed at looking for ways to reduce consumption of groundwater as well as increasing infiltration. ACD will seek funds to develop and implement groundwater use audits.

Financial Assistance

Project Cost Share – Financial assistance in the form of project cost share grants is sometimes available along with our technical services to encourage projects on private

lands that will have public benefits of water quality or wildlife habitat. There are several potential sources of funding and ACD works with landowners to help coordinate the application process. Grants, funded mostly by partner agencies but administered by ACD, typically provide 50-75% cost share on materials. Increased funding commitments from WMOs will be sought to increase conservation practice installations.

Watershed Districts and WMOs have cost share funding available for water quality improvement and demonstration projects. ACD partners with Rice Creek Watershed District to administer RCWD's cost share program. Through this partnership, ACD meets with landowners to discuss potential resource management strategies, assists with the development of practice designs and cost estimates, coordinates cost share requests with funding sources, and oversees project installation. RCWD provides the bulk of the cost share funds and ACD and RCWD work together to promote and prioritize project activities. ACD administers small project cost share grants for the Sunrise River, Upper Rum River and Lower Rum River WMOs. Coon Creek Watershed District directly engages in project installation and contracts with ACD to promote projects with landowners and attend to all of the necessary administrative details up to the construction process. CCWD pays for all of the construction costs and currently does not have a cost share program for non-target projects.

ACD Conservation funding is currently not at the programmatic level but as funds from the nation-wide sale of ACD's Rain Guardian increase, we will be able to direct a portion of the county allotment to project installation cost share in partnership with landowners.

Ag. Preserves Program funds have historically been secured through a competitive grant process at the county level and made available to landowners to help defray the cost of water quality and habitat improvement projects.

State Cost Share Program funds are available for approved practices provided they are designed by someone with technical approval authority for the particular practice. Many approved practices require design by a licensed engineer. In recent years, ACD has used state cost share funds to provide staff for technical assistance.

Clean Water Fund project cost share is available through the allocation to the Metropolitan Landscape Restoration Program made to the Anoka Conservation District. Use of the funds is limited to projects that were identified as the result of a subwatershed level stormwater retrofit assessment. ACD will administer these cost share funds throughout the eleven county metro area.

Engineering Assistance – Funding is available through the Metro Conservation Districts Non-Point Engineering Assistance Program (NPEAP) to contract with consulting engineers for the design of conservation practices, typically to be installed with cost share funds. Applications must be made through ACD for projects in Anoka County.

Local Water Planning – ACD applies for and manages local water planning funds through BWSR's Natural Resources Block Grant. These funds are used to offset the cost of assisting WMOs with the implementation of their water plans. Anoka County receives approximately \$11,000 to be shared among the water management entities.

WCA Administration – ACD applies for and distributes funds through BWSR’s Natural Resources Block grant to reimburse LGUs a portion of the cost of implementing the WCA. Approximately \$63,000 is available for Anoka County LGUs which amounts to approximately 25% of reported expenses by LGUs in Anoka County.

Administrative Assistance

WMO Reporting – Water management entities are required to submit annual reports of activities and finances to the Board of Water and Soil Resources. ACD prepares annual reports on behalf of three of the four WMOs for a fee.

Management – Through a cooperative agreement with Isanti SWCD, ACD’s Water Resource Specialist serves as the Isanti SWCD Manager. This agreement allows ACD staff to broaden their professional experience while giving Isanti SWCD access to ACD’s breadth of expertise to develop programs and services that Isanti SWCD hasn’t historically offered.

Website hosting – The ACD has designed and manages websites for the Upper Rum, Lower Rum, and Sunrise River WMOs. We also created the Metro Conservation Districts website and recently set up the website for Isanti SWCD.

Products & Equipment

Tree Sales – ACD hosts an annual tree and shrub seedling sale. We typically sell 15,000+ seedlings to 250+ landowners. We sell seedlings in bundles of 10 and 25, as our focus is habitat improvement, not individual landscaping trees. The tree sale is an opportunity to provide one-on-one consultations with landowners about habitat improvement. We also provide some native grass and wildflower seed. The addition of online credit card order processing has streamlined the ordering process and reduced administrative overhead.

Equipment Rental – ACD has invested in several pieces of equipment that help landowners implement conservation practices. The equipment is available for rent and is used to install ACD coordinated conservation practices. Available equipment includes;

- Truax 3’ Native Seed Drop Seeder
- 25 Gallon Herbicide Tank and Boom Sprayer
- 52” Pull Behind Brush Mower
- 14” Chain Saw

Safety equipment and training is included with the rental.

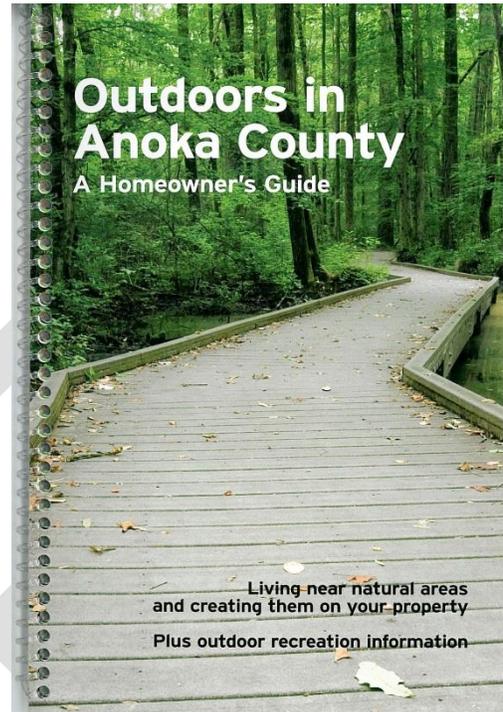
Rain Garden Pretreatment Chamber – ACD staff designed and patented the Rain Guardian™ pretreatment chamber for rain gardens to greatly reduce the time and effort needed for maintenance. We are in the process of expanding sales with distributorships nationwide.

Miscellaneous Conservation Materials – Many materials needed for conservation projects are not readily available, or are only available in bulk quantities. This can discourage landowners from moving forward with a project. To facilitate project installation ACD has several items on hand and provides them at cost including herbicide, geotextile fabric, biodegradable stakes, duckbill anchors, galvanized steel cable, and horseshoe clips.

Education

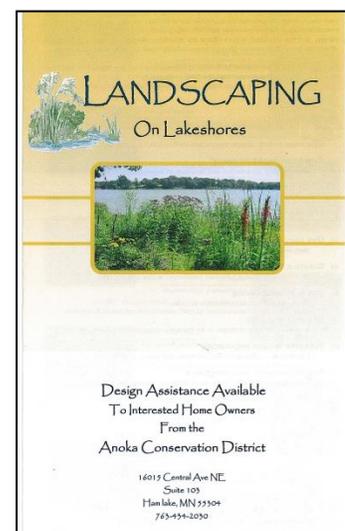
Website – ACD manages several websites including one about the ACD (www.AnokaSWCD.org), one that serves as an informational and marketing tool for the ACD patented Rain Guardian pretreatment chamber (www.RainGuardian.biz), one for the Lower Rum River WMO (www.LRRWMO.org), one for the Upper Rum River WMO (www.URRWMO.org), and one for the Sunrise River WMO (www.SRWMO.org).

Homeowner's Guide – One of our largest efforts was the booklet “Outdoors in Anoka County: a Homeowners Guide.” The guide was developed specifically for landowners living adjacent to high quality natural areas but contains information on topics relevant to every Anoka County resident. The guide includes insights into our high quality natural areas and suggested ‘must see’ public open spaces. It has tips on landscaping for wildlife, water quality, energy conservation, water conservation, and healthy lawns. It includes information on invasive species and plant diseases common to our area as well as some discussion about wetlands management and regulation. It touches on septic system care, household and yard waste management, and well water concerns. Lastly, it includes a map of Anoka County’s park system in hopes of getting people outside, connected and appreciative of the natural resources we share. 4,000 of these booklets are being distributed to homes adjacent to important natural areas.



Brochures – ACD staff develops brochures as a workload management tool. When requests for the same type of information become sufficiently frequent, it pays to invest staff time in the development of a brochure to more effectively convey the information. ACD staff developed a series of brochures to empower landowners to implement conservation on their properties including;

- Lakeshore Restoration: Enhancing water quality and habitat on your shore,
- Riverbank Stabilization: Understanding water flow and managing erosion,
- Habitat: Attracting wildlife to your property,
- Water-Smart: Conserving water at home,
- Rain Gardens: Treating runoff at the source, and
- Invasive Species Management: Restoring ecosystem health.



We also developed a series of eight brochures on various topics related to wetlands and the Wetland Conservation Act of 1991 that are in the process of being updated including;

- Purchasing and Developing Land,
- What's Regulated and Who Regulates,
- Exemptions,
- Wetland Impact Avoidance & Minimization,
- Wetland Replacement and Appeals,
- Wetland Banking,
- Ditch Maintenance, Pond Excavation & Mining, and
- Violations and Enforcement.

Display/Events – ACD has developed displays for many topics including, but not limited to, watersmart, rain gardens, backyard wildlife, lakeshore restoration, streambank stabilization, oak wilt, tree and shrubs sales, native plants, prairies restoration, ground water, and wetlands. The displays are used throughout the year at many events and are often staffed by one of ACD's resource specialists.

Workshops and Presentations – ACD periodically partners with cities and watershed districts to provide information on rain garden design and installation, watersmart practices, landscaping for wildlife, and lakeshore and streambank restoration. Presentations are tailored to the audience and range from 'how-to' workshops for landowners to implement projects at home, to highly technical presentations to other professionals in the natural resources management field.

Videos – In 2011, ACD worked with Anoka County Public Relations staff to develop videos to highlight the accomplishments of the Metro Conservation Districts Landscape Restoration Program. We have since produced several videos in-house on a variety of topics including: Lakeshore Restoration, Lower Rum River WMO, Cedar Tree Revetments, the Rain Guardian, Typo and Martin Lake Carp Barriers, ACD Annual Report, Mississippi Riverbank Inventory, Stormwater Infrastructure Inspection Services, Rain Garden Installation, and Scenic River Rule affecting the Rum River. All ACD developed videos can be seen at the AnokaSWCD YouTube page.

News Articles – ACD frequently submits articles to the local newspapers to promote programs and services and to educate the public on topics related the natural resources stewardship.

Tours – In 2014 ACD participated in the BWSR Board conservation tour by preparing handouts and presenting information on several of the tour stops throughout the county. ACD intends to utilize tours more frequently in the future to promote conservation concepts to select audiences.

Project Profiles – For each project installation that ACD is an active partner in, we prepare a project profile. Project profiles include images of the project site before and after, benefits received, expenses incurred, and partners with corresponding cash and in-kind contributions to the project. All project profiles are available online. Eventually, we plan to have them linked to a mapping tool that shows the locations of each project.

Public Officials Outreach – In 2012 we implemented an outreach campaign to keep public officials in Anoka County better informed of ACD’s activities. Now, as projects are being developed and installed/implemented, ACD staff will provide email updates with brief descriptions, photos and links to important information to county commissioners, state legislators, city officials and ACD supervisors.

General ACD Operations

General/ Admin/ Vacation/ Holiday – This category accounts for that portion of each employee’s time that is consumed with general district business along with vacation and holiday time. Administrative tasks performed by the District Manager and Administrative Assistant are also included in this category, composing the bulk of the hours.

General Planning – Effective natural resource management requires both cooperative planning with other agencies, as well as in-house prioritization. These efforts involve ACD staff, supervisors, other elected officials, and other agencies. Comprehensive planning is completed every five years with annual plans completed each year.

Program Promotion – As ACD staff pursue new partnerships and funding sources to develop programs and services that address the objectives identified by the Board of Supervisors, their time is recorded as promotion. Promotional activities include speaking at public events, workshops, and other efforts that increase program visibility. Promotion of district programs and services is also achieved through partnerships and outreach to other agencies and entities that share the same jurisdiction or purpose such as municipal environmental and parks commissions. Applying for new grants to fund programs is a major component of program promotion.

Day at the Capitol – In most years, ACD supervisors and staff spend time visiting with legislators regarding natural resource issues in Anoka County. During the legislative session in particular, ACD will often organize a Day at the Capitol whereby we meet with as many of our elected representatives as possible to promote the highest priority issues for the board.

Staff Training – In order to provide high quality service, the Board of Supervisors is committed to retaining highly skilled staff. ACD offers staff continuing education opportunities through professional workshops, conferences, and purchase of software, books and other materials.

Stable Funding – ACD receives approximately one third of its operating budget from the county, one sixth from the state and one half from grants and fees for service. The instability and origin of funding places District programs and priorities at the mercy of external forces, which does not lend itself to addressing the most pressing resource needs of the county. A stable funding source is needed in order for the ACD to have the flexibility and capacity to meet the needs of the public without having to compromise the resource by following limited grant opportunities.

Outreach to Local Government Units – LGU officials and staff routinely make important decisions about land use and land management that can have lasting effects on natural resource quality, quantity and distribution. It is in the mutual interest of ACD and LGUs to implement approaches that accommodate growth, minimize capital investments, and efficiently deliver public services, while maintaining the quality and

quantity of water and other natural resources. Natural resources play a critical role in the areas of recreation, flood control, water treatment and conveyance, energy, ecology, food production, commercial and industrial processes, consumption, and aesthetics. ACD is uniquely qualified to assist LGUs to consider natural resources during the decision making process by providing updated monitoring and inventory data, and by addressing inquiries about the often complex physical, chemical and biological natural resource interactions that may influence LGU decisions.

Effectiveness of Past Efforts

During the planning process ACD staff and supervisors identified the policies, practices, programs, and services that were the most successful and the least successful. As we plan for the future we need to emulate our most successful efforts and modify those that fell short to maximize our positive impact on Anoka County's natural resources.

Successes

- Focus on customer service.
- Model water quality and hydrologic impacts of projects.
- Conduct analyses of subwatersheds to identify BMP opportunities.
- Actively promote conservation projects in optimum locations.
- Design off-line water quality improvement practices in-house.
- Consider cost-benefit for all projects.
- Focus on project installation and serving as a project manager.
- Serve as writer, coordinator, manager for multi-partner grants.
- Coordinating large scale projects and partners (Geologic Atlas, Carp Barriers, Oak Glen Creek Stabilization, Rum River WRAPS)
- Work across county boundaries to assist neighboring jurisdictions with conservation efforts.
- Creating high quality work products (Water Almanacs, SRAs, erosion inventories, project profiles, websites, videos, displays, brochures, comprehensive and annual plans, handbooks)
- Creating a highly productive work atmosphere of mutual respect and dedication to conservation vision.
- Advance the practice of conservation efforts through innovation.
- Commitment to long-term project success and follow-up.
- Adapt to changing needs and opportunities.
- Maintain highly trained staff.
- Maintain updated computer software and hardware.
- Contract out IT services.
- Develop and patent the Rain Guardian pretreatment chamber.
- Promote Rain Guardian sales nationally through distributorships.
- Purchase office headquarters and assume role as landlord.
- Affect state policy and procedures through advocacy directly, through the MASWCD, and by participating in regional commissions and taskforces.
- Program and project promotion through direct communication with elected officials, frequent newspaper articles, and current websites.

Improvements Needed

- Open space planning is a priority to ensure the preservation of our ecological heritage in a sustainable network of wildlife hubs and corridors. To succeed long-term, with turnover on city councils and planning and zoning commissions, assistance to LGUs needs to be supported with long-term stable funding so it can be institutionalized.

- ACD staff must work to standardize WCA administration by LGUs to ensure continuity throughout the county. This may require supporting changes to who serves as the WCA LGU for some areas as well instituting a fee structure that provides adequate funding for services provided.
- Support actions by BWSR to compel effective water resource management in the Upper Rum River WMO.
- Research making individual sewage treatment system (ISTS) and well sealing funding opportunities available to Anoka County residents.
- Research funding opportunities to offer assistance with oak wilt control to landowners.
- Work through the Metro Conservation Districts to capitalize on mutually beneficial cross-county collaboration and training to share expertise among conservation districts.
- Actively engage in the discussion regarding ground water protection vs. infiltration; quality vs. quantity.
- Enhance development plat review process by adding water quality modeling and being involved in the sketch planning phase and promote the service to northern tier communities.
- Develop redundancy in staff expertise through cross-training to ensure program continuity during staff turnover.
- Develop and maintain a project inventory to track project effectiveness and maintenance needs over time.

Adjustments in Authorities

Resolutions to initiate the programs and services described in this plan will be prepared as appropriate. ACD's statutorily derived authorities are sufficient to implement this plan. With a stable funding source, this plan could be enhanced with a timeline for implementation.

ACD will support funding options, legislation and local ordinances that achieve the following:

- Provide SWCDs with operational and programmatic levy authority.
- Conserve groundwater through mechanisms such as mandated rain/soil moisture sensors on irrigation systems, private well regulation, limits on manicured lawn size, plumbing code updates to allow gray water segregation, reuse and/or infiltration.
- Allow reimbursement of full fee schedule rates from state grants for soil and water conservation districts.
- Provide funding for the long-term inspection and maintenance of BMPs.
- Support development of a technical approval authority training and certification program by BWSR that doesn't rely on NRCS provided training and oversight. An online module based system would be ideal to accommodate training needs arising from staff turn-over and workload variability over time and would follow employees as they move between jobs.

Natural Resource Policies

Deviation from Natural Resource Policy or Rule

Deviation from the strict adherence to policy or rule is encouraged when doing so would clearly result in a better outcome in terms of natural resources protection and management. State and local rule, policy and ordinances designed to protect natural resources are not always written to address all cases and may inadvertently lead to natural resource degradation when strictly enforced (e.g. filling a wetland in order to achieve wetland setback and buffer requirements).

Wetland Resources

Perform and/or Review Wetland Delineations

The Anoka Conservation District will not perform wetland delineations when frozen soils or snow cover make adequate analysis impossible in the professional opinion of the Anoka Conservation District technical staff.

Wetland Fill to Create Buildable Lots

Wetlands should not be filled in order to enlarge the buildable area to create buildable lots. Where impacts to highly degraded wetlands can be offset by permanent protection of high quality upland habitats, flexibility may be warranted.

Issuing Extensions for Compliance with Restoration Orders

Extensions for compliance with wetland Restoration Orders may only be recommended when the landowner has made a good faith effort to comply but was unable due to mitigating circumstances. The landowner must provide correspondence summarizing the reason for not complying and a date by which they will comply.

Holistic Natural Resource Management

All natural resource functions and values should be weighed when making management decisions to strive for the best overall outcome for soil, water, wildlife, recreation, and aesthetics. When reviewing applications and plans that may adversely affect natural resources, the Anoka Conservation District will recommend actions that will result in the least environmentally damaging practicable alternative. The following principles should be applied.

- Preserve natural resources that are rare in occurrence or of exceptional quality.
- Avoid degradation that is difficult or impractical to fully remediate.
- Consider all ecosystems; terrestrial, aquatic and transitional.
- Preservation of an in-tact native ecosystem is preferable to restoration of a degraded ecosystem.
- Minimize long-term impacts from short-term activities (e.g. dewatering, minor grading or soil storage that allows for the establishment of invasive species).
- Identify, and strive to minimize and remediate for long-term impacts (e.g. reduced infiltration that lowers the surficial water table and subsequently shrinks wetlands).
- Balance short-term and long-term impacts and benefits.

The following are examples of the application of these principles.

- Discourage excavation in wetlands that are dominated by native, non-invasive plant species.
- Maintain the hydrologic regime of habitats that support native, non-invasive plant communities.
- Limit the placement of mitigation wetlands to highly degraded terrestrial habitats or highly degraded wetland areas.
- Discourage removal of native, non-invasive vegetation.
- Request an on-site biological survey and report the proposed taking or degradation of native plant communities;
 - within areas mapped as moderate, high, or outstanding DNR biodiversity significance;
 - that have a conservation status ranking of S1, S2, S3, or S4;
 - that involve the taking of state (endangered, threatened, special concern) or federally-listed (endangered, threatened, candidate) species;
 - that are likely to support state or federally-listed species.
- Discourage pruning of, or damage to, oak trees April – July.
- Abandon private and public lateral drainage ditches during development to restore wetland hydrology provided adequate stormwater conveyance capacity can be maintained.
- Encourage discharge of dewatering water to areas where storage and infiltration is most likely to occur.

Criteria for Wildlife Habitat Exemptions

ACD will use the following criteria for certification of MN Statute Chapter 8420 Wildlife Habitat Exemptions

In Chapter 8420 Minnesota Wetland Conservation Act there is an exemption for excavation and deposition of spoil in a jurisdictional wetland for the purpose of improving wildlife habitat. The purpose of this guidance document is to provide sound rationale for applicants to perform wetland excavation and spoil deposition to improve wildlife habitat.

The 1995 Amendments to the Wetland Conservation Act of 1991 states “a replacement plan for wetlands is not required for excavation or associated deposition of spoil within a wetland for a wildlife habitat improvement project, if:” the project maintains all of the following regulations:

1. The area of deposition, within the wetland, does not exceed five percent of the wetland area or one-half acre, whichever is less.
2. Spoil is stabilized to prevent erosion, and permanent native, non-invasive vegetation is established, via plantings or seeding.
3. The project does not have an adverse impact on any species designated as endangered or threatened under state or federal law.
4. The project will provide wildlife habitat improvement as certified by the Soil and Water Conservation District using “Wildlife Habitat Improvements in Wetlands” guidance, or similar criteria used by the SWCD board.

Excavation and deposition of spoil of a wetland may be certified by the Soil and Water Conservation District for wildlife habitat exemption improvement provided the following conditions are met:

1. Excavation and deposition in a wetland is beneficial to wildlife. i.e. when done in a low quality wetlands, such as one dominated by invasive species.
2. Deposition in a wetland is beneficial and creates diversity of wetland community complimenting the existing ecosystem.
3. The spoil will form an island isolated from upland to prevent intrusion by people.
4. Excavations should have undulating bottoms and sinuous shorelines.
5. Depths shall be no greater than 6.5 feet from the original soil surface.
6. Side slopes should be no steeper than 5:1, but 10:1 or greater is recommended
7. Spoil placement not permitted in exemption, shall not be placed within any other wetland.
8. Excavations for wildlife habitat improvement will be discouraged, or denied when the wetland is already considered high quality, or the following conditions exist:
 - Excavation in sedge meadow wetlands.
 - Excavation in forested wetlands.
 - Excavation in bogs.
 - Excavations in wetlands identified as Natural Heritage Communities by the Minnesota County Biological Survey.
 - Excavations in wetlands deemed natural community, supporting ecologically sensitive flora and fauna, based on field visit by the Soil and Water Conservation District.
 - The excavation will not provide diversity to the wetland basin or complex. (e.g. excavation in the fringe of a type 3, 4 5 wetland with standing open water throughout much of the growing season).
 - Wetlands which support a wide variety of plant species (i.e. approximately 50% of the area supports species which individually comprise <5% of the wetland).
 - Wetlands that score high on the MNRAM vegetative diversity criteria.
 - Excavations for the purpose of creating aesthetic reflecting pools.

The execution of the Wildlife Habitat Exemption is subject to approval by the ACD Board.

Conservation Project Installation

ACD's program to assist with the cost of installing conservation practices to achieve the goals of the district consists of several funding sources, each with their own set of requirements. These funding sources change from year to year and so detailed procedures and policies are not included in this document. There are, however, some general policies that ACD has adopted to facilitate program administration and improve program outcomes.

- The ACD board may act to obligate funds toward a project without fully encumbering those funds within a contract. This serves to reserve funds for projects while other elements of project planning, design and coordination can be finalized.
- On a case by case basis, landowners/project sponsors/applicants may be required to provide an escrow in the amount of anticipated design and engineering costs. If the project construction bids come in within 10% of the engineer's estimate and the applicant does not move forward with project installation, the escrow may be used to reimburse ACD for the cost of the

design. If the applicant moves forward with construction, these funds shall be applied toward construction costs.

- 100% of project costs may be paid for with public funds provided the project cooperator is not substantially at fault for creation of the problem. Curb cut rain gardens that treat water from much of the neighborhood but very little of the cooperator's property is an example.
- Investment of public funds into a project will be considered in terms of the benefits received by the public. ACD will consider all public funds going toward a project when determining if the project is worthwhile on a cost-benefit basis, not just those funds invested by or through ACD.
- Cost-benefit analysis will be conducted with consideration of all benefits and costs over the life the project.
- Public benefits for projects will be measured in terms of the actual benefits to the target receiving water body, not the capacity of a practice to treat water.
- Cost share rate maximums will be the same as those prescribed by the funding source.
- The value of in-kind services/equipment/materials provided by landowners/project sponsors will be based on State approved prevailing wage guidance for services, documented market rates for rental equipment, or documented actual cost/value for materials.
- Specialist level staff shall oversee project installation and maintenance. Specialist level staff have not less than a four year degree and three years' experience in natural resource management or related field along with substantial on-the-job training and professional development training.
- The NRCS Field Office Technical Guide or other standard generally accepted by the engineering profession will be used for project design, construction, operations and maintenance.
- Cost share payments are not to exceed the cost of installation.
- Performance based cost share approaches are encouraged.
- Cost share contract non-compliance will be reviewed by the operations committee with a recommendation to the full board. The committee shall seek input from staff from the agencies that provided funding. The primary goal will be to maintain/restore the project benefits. Failing that, a pro-rata refund of cost share funds will be sought based on the benefits received compared to the anticipated benefits over the planned life of the project.

Performance Based Cost Share

Performance based cost share is an approach by which public investment into projects is measured by the amount of benefit that results from the project. Funds received by a landowner/project sponsor/applicant are independent of the installation cost of the project but rather are based solely on how much benefit is received. Predetermined rates are developed for benefits over a specific time period. The rates may vary by geographic area, target water body or target benefit. Payments to landowners/project sponsors/applicants are not to exceed the cost of installation however.

Nature and Extent of High Priority Problems

Conservation project installation assistance programs are divided into two general categories: agricultural and urban.

Agricultural Problems

High priority erosion problems are defined as: "Erosion from wind and/or water occurring on Class I-IV soil in excess of 2T tons/acre/year of any soil within 300 feet of a stream or 1,000 feet of a water basin designated as a protected water or wetland by the DNR." Areas meeting this description are all located in the northwest part of Anoka County. Wind erosion is also a problem that is accounted for in this analysis.

High priority sedimentation problems are defined as: "All areas within 300 feet of a stream or 1,000 feet of a lake where the erosion rate exceeds 3T tons/acre/year and where the Conservation District can show that sedimentation delivery for a watershed out-letting to these waters exceeds 2T tons/acre/year. The lake or stream must be classified by the DNR as a Protected Water."

High priority feedlots are defined as: "Those feedlots where the pollution rating (from the Ag. Waste Model) is greater than or equal to one and is discharging pollutants to DNR designated protected waters or wetlands; to shallow soils overlying fractured bedrock; or within 150 feet of a water well." Feedlots, when improperly located with respect to water resources, and improperly managed to prevent runoff from entering a lake or a stream, can downgrade water quality. There is very little available information on Anoka County feedlots and the information that is available is outdated and no longer reliable.

Agricultural Conservation Measures Needed

Maintaining and improving soil health in agricultural areas is a focus of the Natural Resources Conservation Service. The basic approach is to maintain vegetative cover all of the time, keep living plants on the landscape for as long as possible, allow a diversity of vegetation to grow, increase organic matter, and minimize soil disturbance. Management efforts that achieve these tenets will result in healthy, more productive soils that are less prone to soil loss through wind and water erosion.

Practices being used to control water erosion are: cover crops, conservation tillage, grassed waterways, contour farming, strip-cropping, diversions, terraces, water and sediment control basins, and critical area plantings.

Practices used to control wind erosion are: conservation tillage, field windbreaks, wind strip-cropping, and permanent vegetative cover.

Practices used to control feedlot pollution are: waste management systems, waste storage ponds, waste storage structures, waste utilization plans and diversions.

Urban Problems

With a limited agricultural constituency, ACD has noted significant erosion problems associated with urban and urbanizing land uses. Streambank erosion has been accelerated by more dramatic bounces in stream elevations that last for a longer duration. Lakeshore erosion has been accelerated due to the practice of maintaining a

manicured lawn to the water's edge and wave action from recreational water uses. Wind and water erosion have become a greater concern due to mass grading on construction sites.

Ultimately, these all have the potential to degrade surface water quality. Sedimentation is the largest contributor to water quality degradation. Storm sewers are conduits for organic matter, fertilizers, pesticides, chemicals, solvents, road salt, and other contaminants to open water resources. Any structural, grading or vegetative practice that has the potential to improve and protect water quality, recharge groundwater, or reduce flooding in high priority areas is a potential candidate for cost share.

Urban Conservation Measures Needed

The following conservation practices may be necessary to address high priority erosion, sedimentation, and water quality problems in Anoka County. Innovative methods are encouraged.

1. Temporary construction site erosion and sediment control practices (mulching, silt fences, etc)
2. Grade stabilization structures (check dams, diversion)
3. Streambank and lakeshore protection (rock rip rap, bioengineering)
4. Critical area/slope stabilization (fiber blanket, revegetation)
5. Stormwater conveyance system management (ditch maintenance, pond outlet modifications, and pond maintenance)
6. Model ordinances addressing erosion control, stormwater management, wetland management, groundwater protection, soil health, and protecting our ecological heritage.
7. Reduction of sediment/chemical application to lawns and streets
8. Water conservation measures and stormwater infiltration to recharge groundwater
9. Curb cut rain gardens and other stormwater treatment retrofit practices
10. Inspection and enforcement of existing requirements

Project Priorities

ACD and its partners are continuously working to identify the most cost effective opportunities to improve water quality, reduce discharge to the stormwater conveyance system, recharge groundwater, and improve habitat. Methods used each year to identify worthwhile projects include, but not limited to, lake shore and riverbank inventories, subwatershed stormwater retrofit assessments, site consultations and designs, TMDL implementation planning, water resource investigations, and open space planning.

The following is a list of work products that are completed, underway or planned wherein multiple projects have been identified. All of these work products are for resources of high priority and as such, all projects identified therein are considered high priorities for installation. The most cost-effective projects should be pursued first however.

Lakeshore and Riverbank Inventories

- Lake George
- Martin Lake
- Crooked Lake
- Ham Lake
- Coon Lake
- Linwood Lake
- Fawn Lake
- Typo Lake
- East Twin Lake
- Rum River
- Mississippi River (Coon Rapids Dam Pool)

Subwatershed Stormwater Retrofit Assessments

- Rice Lake
- Sand Creek
- Woodcrest Creek
- Lower Coon Creek
- Martin Lake
- Golden Lake
- Oak Glen Creek
- Coon Lake
- Moore Lake
- Middle Coon Creek
- Springbrook
- Stonybrook
- Pleasure Creek

Site Consultations and Designs

- Oak Glen Creek stabilization project

TMDL/WRAPS Reports and Implementation Plans

- Golden Lake TMDL
- Martin and Typo Lakes TMDL
- Peltier and Centerville Lakes TMDL
- Lake Pepin TMDL
- Hardwood Creek TMDL
- South Metro Mississippi River TMDL
- Sunrise River WRAPS
- Rum River WRAPS
- Coon Creek WRAPS

Water Resource Investigations

- Crooked Lake Management Plan
- Northeast Metro Groundwater Management Strategy

Open Space Planning

- Anoka Nature Preserve Management Plan
- Melanie Kern Easement Management Plan
- Herb Beach Easement Management Plan

Future Strategies and Programs

The ACD reserves the right to identify programs to pursue during the annual planning process. The Comprehensive Plan outlines resource priorities and programs without commitment to specific years. Because ACD's budget is subject to the control of outside agencies, it is not possible to predetermine a specific time line for tasks. To accommodate grant application requirements, ACD has added a project priorities list to the cost share program requirements sections that will be updated as needed.

The ACD Board of Supervisors has identified five major issues to address in Anoka County in the coming years: water quality, water quantity, natural habitats, wetlands, and soils. There are several means of addressing a given issue. ACD has selected the following general mechanisms: monitor, inventory, analyze, plan, protect, assist, fund, administer, sell/rent, and educate.

Mechanism	Water Quality	Water Quantity	Natural Habitats	Wetlands	Soils
<p><u>Monitor</u> lakes, rivers, groundwater and precipitation utilizing staff and a volunteer network to:</p> <ul style="list-style-type: none"> maintain baseline data, establish trends and identify and diagnose the nature of problems in water quality, water quantity, and biota in high priority water resources. 	✓ ✓ ✓	✓ ✓ ✓			
<p><u>Inventory</u> natural resources to ensure staff have updated information necessary to make sound resource management decisions to improve water quality, reduce flooding, preserve soil health, and enhance wildlife habitat. Routine inventory work is needed on:</p> <ul style="list-style-type: none"> the condition of riparian properties on priority lakes and rivers, aquatic and terrestrial invasive species wetland restoration opportunities, and wetland replacement sites under the WCA. 	✓	✓	✓ ✓ ✓ ✓	✓ ✓ ✓	✓
<p><u>Analyze</u> properties to identify management approaches to optimize natural resource quality, quantity and distribution. Analyses vary in scale and scope and include:</p> <ul style="list-style-type: none"> water resource diagnostic studies and TMDLs/WRAPS typically on a watershed basis to determine the cause of water impairment on high priority water bodies, 	✓	✓			

Mechanism	Water Quality	Water Quantity	Natural Habitats	Wetlands	Soils
<ul style="list-style-type: none"> stormwater retrofit analyses typically in urbanized settings at the subwatershed or catchment scale that contribute untreated water to high priority water bodies, the purpose of which is to identify the most cost-effective practices to improve water quality and reduce flooding, and development plat reviews to provide comments on all aspects of natural resource management including forestry, soil health, water quality management, erosion and sediment control, invasive species, wildlife habitat, groundwater conservation, and energy conservation; including the expansion of this service to municipalities not currently participating. 	✓	✓			
<p><u>Plan</u> for the effective utilization of limited staff and financial resources of the district through the development of:</p> <ul style="list-style-type: none"> comprehensive plans every five years, annual plans each year, and mutually beneficial partnerships with other government entities and non-profit organizations. 	✓	✓	✓	✓	✓
<p><u>Plan</u> for the long-term viability of the natural resource base of Anoka County by:</p> <ul style="list-style-type: none"> identifying and prioritizing natural resource issues and trends in ACD's comprehensive and annual planning processes, reviewing and commenting on city and water management comprehensive plans, providing leadership to establish and implement a greenway network plan that focuses on the protection of remaining natural communities and interconnecting expansive habitat areas, updating the wildlife corridors plan with input from stakeholders, participating in aquatic invasive species management in partnership with the MN DNR and Anoka County Parks Department, encouraging conservation design development where feasible to establish and maintain the greenway network and to protect high quality ecosystems, positioning ACD to be a capable and prepared partner to assist with the implementation of the northeast metro groundwater management strategy, developing and implementing a groundwater use audit program, and 	✓	✓	✓	✓	✓

Mechanism	Water Quality	Water Quantity	Natural Habitats	Wetlands	Soils
<ul style="list-style-type: none"> encouraging infiltration of stormwater to maintain and restore surficial groundwater aquifer levels. 	✓	✓			
<p><u>Protect</u> high priorities parcels that contain rare and declining habitats, natural communities identified by the MN County Biological Survey, and/or are located in identified greenway networks by:</p> <ul style="list-style-type: none"> identifying opportunities for conservation development, connecting landowners with funding sources with targeted mailings and promotional efforts, acquisition of fee title and conservation easements, and ensuring there are local entities capable of accepting and managing fee titles and conservation easements. 	✓		✓	✓	
<p><u>Protect</u> water quality in high priority water bodies by prioritizing monitoring, analysis and technical and financial resources in a manner that achieves the most good for the most people on the highest priority resources.</p>	✓	✓			
<p><u>Assist</u> landowners and public entities to manage and enhance high priority natural resources by:</p> <ul style="list-style-type: none"> designing and coordinating installation of conservation practices and ecosystem restorations, preparing conservation plans for agricultural operations in cooperation with USDA NRCS, serving on TEPs, technical and citizens advisory committees, enforcing the Wetland Conservation Act of 1991, developing model ordinances for open space protection and groundwater conservation, refining the development review process utilizing minimal impact development design standards, water quality modeling, and sketch plan phase involvement, facilitating the treatment of invasive species, and working with partners throughout the Rum River watershed to promote implementation of the WRAPS by increasing its visibility with decision makers and funding partners 	✓	✓	✓	✓	✓
<p><u>Fund</u> conservation practices installation and design engineering to address high priority problems in partnership with landowners and public entities by actively pursuing grant funds and developing local funding sources through product sales and establishment of soil and water conservation utility fees.</p>	✓	✓	✓	✓	✓

Mechanism	Water Quality	Water Quantity	Natural Habitats	Wetlands	Soils
<u>Fund</u> water management activities and WCA administration through administration of the Natural Resources Block Grant.	✓	✓		✓	
<u>Administer</u> programs and grants in partnership with public entities to achieve efficiencies and leverage limited funding by: <ul style="list-style-type: none"> • preparing annual reports on behalf of water management organizations, • hosting websites for several water management organizations, • applying for grants in partnership with other local governments, and • develop and continually update a county wide hydrology and water quality model when technological advancements make doing to feasible. 	✓	✓	✓	✓	✓
<u>Sell</u> tree and shrub seedlings and native grass and forb seed at an annual sale for the purpose of habitat creation and restoration.	✓		✓	✓	✓
<u>Rent</u> equipment useful for the implementation of conservation practices.	✓		✓	✓	✓
<u>Sell</u> supplies at cost that are useful for the implementation of conservation practices.	✓		✓	✓	✓
<u>Sell</u> Rain Guardian pretreatment chambers to enhance the function of curb cut rain gardens and simplify long term maintenance for cooperators.	✓	✓			
<u>Educate</u> the public about natural resource topics dealing with priority issues through varied media types such as: <ul style="list-style-type: none"> • presentations and workshops, • brochures, • project profiles, • newspaper articles, • guidebooks, • displays, • videos, • websites, and • events. 	✓	✓	✓	✓	✓
<u>Educate</u> local councils and commissions about storm water management, erosion control, soil health, groundwater management, water quality, and water quantity as it pertains to recommendations supplied as part of the plat review process.	✓	✓	✓		
<u>Educate</u> lake associations on lake management issues by undertaking cooperative programs to benefits lakes.	✓		✓		

Mechanism	Water Quality	Water Quantity	Natural Habitats	Wetlands	Soils
<u>Educate</u> public officials on high priority resource topics through appropriate venues (Day at Capitol, project profiles, meeting attendance, Anoka County Public Officials meeting participation, etc.).	✓	✓	✓	✓	✓
<u>Educate</u> landowners with heritage communities about land stewardship and the value of their resource by providing selected properties with a Homeowners Guide and promoting funding option available for permanent protection of their resources.			✓	✓	
<u>Educate</u> policy makers on the importance of infiltration practices to avoid the long-term depletion of surficial aquifers and how to utilize the Anoka County Geologic Atlas.	✓	✓	✓	✓	

Programs and Workload

The District offers a number of programs related to our mission. We continually evaluate new programs and services to achieve our mission, pursuing those most beneficial given staff and funding limitations. The workload for each of the District's programs varies from year to year as does the funding available to implement them.

Each year the District projects staffing needs during the annual planning process. Below is the staffing projection from the 2014 annual plan.

Program	2014 FTEs	Objective Addressed
Monitor Lake & Stream Water Quality	.450	WQI
Monitor Stream Biology	.135	WQI, NH
Monitor Lake, Stream, Wetland and Groundwater Levels	.300	WQn
Monitor Precipitation	.016	WQI, WQn
Assess Subwatershed for Retrofits	.620	WQI, WQn, NH,
Planning Assistance for WMOs	.162	WQI, WQn, W
Protect Lands with Easements	.020	WQI, NH, W
Protect Lands with Ownership – Beach	.064	WQI, NH, W, S
Assist with Water Quality BMPs	.420	WQI, WQn, S
Assist with Habitat Improvement	.064	WQI, NH, W, S
Assist with Wetland Conservation Act	.600	WQI, WQn, NH, W
Assist with Conservation Easement Plans	.040	WQI, NH, W, S
Administer Project Cost Share (State CS, Clean Water Fund, WDs, WMOs)	.520	WQI, WQn, NH, W, S
Managerial Support (Isanti SWCD)	.500	WQI, WQn
Promote and Oversee BMP Installation (RCWD, CWF, SCS)	.720	WQI, WQn, NH, W, S
WCA Enforcement	.240	NH, W
Administer WMO Reporting & Websites	.048	WQI, WQn, W
Sale of Products (seedlings, pretreatment chambers, conservation supplies)	.400	WQI, WQn, NH, W, S
Rental of Conservation Equipment	.032	WQI, WQn, NH, W, S
Education – ACD Websites	.220	WQI, WQn, NH, W, S
Education – Brochures/Displays/Events	.048	WQI, WQn, NH, W, S
Education – Workshop/Presentation/Tour	.036	WQI, WQn, NH, W, S
General Admin/Vacation/Holiday	1.420	WQI, WQn, NH, W, S
General Planning	.165	WQI, WQn, NH, W, S
Program Promotion	.250	WQI, WQn, NH, W, S
Staff Training	.100	WQI, WQn, NH, W, S
Total Full Time Equivalents	7.590	

Objective Addressed: Water Quality (WQI), Water Quantity (WQn), Natural Habitats (NH), Wetlands (W), and Soils (S)

Staffing Requirements

The District employs eight to nine people with 7.25 full time equivalents (FTEs). Conservation Corps MN/Iowa has provided a seasonal apprentice who provides 450 hours per summer. Between ACD and CCMI staff, we have 1941 workdays in

administrative and technical support to contribute to District goals and objectives. District objectives typically require 2000+ workdays to complete. This is more than current and proposed staff can provide. Workload management requires that programs and services be prioritized, often favoring those that are self-funded.

ACD	Position
Chris Lord	District Manager (1 FTE)
Kathy Berkness	Office Administrator (1 FTE)
Jamie Schurbon	Water Resource Specialist (1 FTE)
Joan Spence	Wetland Specialist (1 FTE)
Mitch Haustein	Conservation Specialist (1 FTE)
Kris Guentzel	Water Resource Technician (1 FTE)
Andrew Dotseth	Water Resource Technician (1 FTE)
Kris Larson	Assistant Water Resource Technician (.25)

CCMI	Position
Seasonal	Asst. Conservation Technician (.2 FTE)
Seasonal	Asst. Conservation Technician (.2 FTE)

NRCS	Position	(office in Elk River)
Mary Monte	District Conservationist	
Miranda Wagner	Soil Conservation Technician	

Partners

There are many entities that invest time and effort to manage natural resources in Anoka County. Effective resource management can only be achieved when these entities work together to share information and coordinate activities. ACD supervisors and staff are committed to interagency cooperation to enhance resource management outcomes. Following are some of our partners.

USDA Nat. Res. Conservation Serv.	Anoka County	Chambers of Commerce
US Army Corps of Engineers	Finances and Central Services	Municipalities
US Geologic Survey	Geographic Information Syst.	Non-Profit Groups
MN Dept. of Natural Resources	Risk Management	League of Women Voters
MN Geologic Survey	Surveyors	Coon Lake Improvement Dist.
MN Pollution Control Agency	Attorney's Office	Coon Lake Improvement Assoc.
MN Board of Water and Soil Resources	Parks and Recreation	Martin Lake Assoc.
MN Assoc. of SWCDs	Rice Creek Watershed District	Linwood Lake Assoc.
Metropolitan Council	Coon Creek Watershed District	Crooked Lake Assoc.
University of MN Extension	Sunrise River Water Mgmt Org.	Fawn Lake Assoc.
Schools	Mississippi River Water Mgmt Org	Lake George Improvement Assoc.
	Lower Rum River Water Mgmt Org.	
	Upper Rum River Water Mgmt Org	

Budget Needs and Projections

Expenses are reported according to program, whereas revenues are reported according to funding source. This approach is used in the day-to-day management of district finances as well. In order to calculate the full cost of programs including personnel and district operations, we maintain a program register that apportions all labor and overhead costs to programs based upon detailed hours logs and financial statements. Annual financial reports are posted to www.AnokaSWCD.org. Over the coming five years, continued success garnering Clean Water Fund grants is anticipated as well as increasing sales of Rain Guardian pretreatment chambers. Other general allocations, fees for service and related expenses are held relatively constant.

Expenses

Year	District Operations	Personnel	Capital	Property Management	Easements	Information & Education	Inventory & Analysis	Land & Water Treatment	Monitoring	Product Sales	Technical Assistance	Total
2000	47,601	221,887	6,163	-	-	12,529	9,968	42,966	18,782	18,345	27,981	406,222
2001	53,487	255,404	6,451	-	-	3,745	19,505	100,830	20,050	17,241	26,162	502,875
2002	59,127	315,714	34,757	-	-	2,758	5,928	50,247	4,849	17,630	21,834	512,844
2003	45,080	336,691	10,661	-	-	7,893	2,753	155,156	10,494	16,240	2,111	587,078
2004	46,753	398,512	2,235	-	-	14,038	30,132	91,095	9,787	21,191	78,389	692,132
2005	52,805	405,620	3,191	-	14,267	2,763	8	31,361	9,396	16,643	44,987	581,040
2006	50,569	420,445	10,832	-	-	3,885	172	14,759	6,540	17,654	48,464	573,321
2007	63,261	467,429	15,368	-	-	17,334	11	28,136	7,649	17,986	(7,455)	609,719
2008	76,001	456,290	4,822	-	-	4,546	-	5,867	8,386	19,918	25,243	601,073
2009	55,454	466,494	1,499	-	-	3,999	36	28,305	7,610	15,829	79,782	659,007
2010	64,703	518,354	45,341	27,548	3,748	3,925	859	74,150	6,768	18,549	154,128	918,074
2011	61,502	567,131	1,134	36,096	9,010	3,454	-	72,067	11,362	34,332	662,947	1,459,035
2012	45,592	389,191	5,043	38,925	53	3,128	-	65,764	13,022	69,558	77,755	708,032
2013	56,310	469,248	7,415	43,465	99	4,435	-	90,649	35,008	91,246	23,960	821,834
2014	57,718	492,711	11,065	43,500	150	6,317	4,955	85,000	22,000	111,600	50,000	885,015
2015	59,160	517,346	11,415	44,000	150	5,873	4,597	100,000	24,200	137,640	52,500	956,882
2016	60,639	543,214	11,770	45,000	150	6,025	3,532	115,000	26,620	163,680	55,125	1,030,755
2017	62,155	570,374	10,128	46,000	150	6,258	3,361	130,000	29,282	189,720	57,881	1,105,310
2018	63,709	598,893	10,090	47,000	150	6,141	3,404	135,000	32,210	215,760	60,775	1,173,133
2019	65,302	628,838	10,651	48,000	150	5,577	1,495	140,000	35,431	241,800	63,814	1,241,058



Revenues

Year	Product Sales	Interest	Local Projects	Charges for Services	Property Mgmt	Co. Ag. Preserves	Co. Service Allocation	Regional Grants	Federal	State Service Grants	State Projects	Total	Net Revenue
2000	31,490	14,296	-	38,946	-	17,680	114,640	49,310	51,832	48,057	69,778	421,731	15,509
2001	29,177	7,931	-	46,109	-	19,360	126,000	55,530	79,159	44,064	102,520	501,920	(955)
2002	25,644	1,889	-	66,504	-	25,621	137,500	106,966	25,258	51,421	78,907	517,821	4,976
2003	25,232	1,471	13,337	52,553	-	24,574	143,233	93,692	75,639	31,319	119,587	579,166	(7,912)
2004	30,518	435	4,000	83,490	-	56,415	125,000	125,020	78,111	60,533	151,842	714,930	22,798
2005	23,277	620	1,000	57,523	-	39,975	138,750	85,633	67,240	28,359	147,571	589,327	8,287
2006	26,351	843	571	42,857	-	34,842	144,000	76,358	74,115	25,000	156,090	580,183	6,862
2007	29,259	209	-	88,654	-	68,758	140,000	81,107	93,231	55,304	50,610	606,923	(2,795)
2008	30,581	2,680	1,091	95,522	-	42,026	145,600	102,456	42,648	93,032	23,267	576,222	(24,851)
2009	23,949	118	-	143,153	-	34,312	150,987	133,969	-	82,910	81,278	650,558	(8,449)
2010	31,203	571	-	140,311	20,696	20,185	153,600	195,370	-	124,212	172,201	857,778	(60,296)
2011	66,620	403	4,609	161,857	53,320	25,964	153,600	163,410	-	310,643	533,112	1,473,135	14,100
2012	133,855	417	13,511	140,868	60,012	15,504	148,992	34,929	-	132,291	115,091	795,052	87,020
2013	137,348	1,177	138	273,421	67,095	15,255	148,992	1,440	-	58,380	212,577	914,647	92,813
2014	180,000	1,200	2,000	243,000	70,000	16,086	148,992	1,440	-	60,000	250,000	971,518	86,503
2015	222,000	1,200	5,000	243,000	71,000	16,500	148,992	1,500	-	62,000	250,000	1,019,992	63,110
2016	264,000	1,200	7,000	229,000	72,000	17,000	150,000	1,500	-	64,000	260,000	1,064,500	33,745
2017	306,000	1,200	12,000	232,000	73,000	17,500	150,000	1,500	-	66,000	270,000	1,128,000	22,690
2018	348,000	1,200	20,000	232,000	74,000	18,000	150,000	1,500	-	68,000	280,000	1,191,500	18,367
2019	390,000	1,200	25,000	235,000	75,000	18,500	150,000	1,500	-	70,000	290,000	1,255,000	13,942



Appendix

Soil Survey of Anoka County, Mn USDA Sept. 1977

Soils of Anoka County

Alluvial Land	Growton Fine Sandy Loam	Meehan Sand
Anoka Loamy Fine Sand Series	Hayden Fine Sandy Loam Series	Millerville Mucky Peat
Becker Very Fine Sandy Loam	Heyder Fine Sandy Loam Series	Mora Fine Sandy Loam
Blomford Loamy Fine Sand	Hubbard Coarse Sand Series	Nessel fine Sandy Loam
Graham Loamy Fine Sand Series	Isan Sandy Loam	Nowen Sandy Loam
Brickton Silt Loam	Isanti Fine Sandy Loam	Nymore Loamy Sand Series
Cathro Muck	Kingsley Fine Sandy Loam Series	Rifle Series
Chetek Sandy Loam Series	Kratka Loamy Fine Sand	Rondeau Muck
Cut and Fill Land	Lake Beaches	Ronneby fine Sandy Loam
Dalbo Silt Loam	Langola Loamy Sand	Sartell Fine Sand Series
Dickman Sandy Loam Series	Lino Loamy Fine Sand	Seelyeville Muck
Duelm Loamy Coarse Sand	Loamy Wetland	Soderville Fine Sand
Dundas Loam	Lupton Muck	Webster Loam
Emmert Series	Markey Muck	Zimmerman Fine Sand Series
Glencoe Loam	Marsh	

Hydric Soils of Anoka County

Alluvial Land	Kratka Loamy fine Sand	Nowen Sandy Loam
Blomford Loamy Fine Sand	Lake Beaches	Rifle Mucky Peat
Brickton Silt Loam	Loamy Wet Land	Rifle Muck, Woody
Cathro Muck	Lupton Muck	Rifle Soils, Poned
Dundas Loam	Markey Muck	Rondeau Muck
Glencoe Loam	Marsh	Seelyeville Muck
Isan Sandy Loam	Millerville Mucky Peat	Webster Loam
Isanti Fine Sandy Loam		

Highly Erodible Soils of Anoka County

Chetek Sandy Loam, 6-12% Slope	Heyder Fine Sandy Loam, 18-30% slope
Emmert Gravely Coarse Sandy Loam, 6-12% slope	Heyder Complex, 12-25% slope
Emmert Gravely Coarse Sandy Loam, 12-25% slope	Kingsley Fine Sandy Loam, 12-18% slope
Emmert Complex, 4-12% Slope	Kingsley Fine Sandy Loam, 18-25% slope
Emmert Complex, 12-25% Slope	Nymore Loamy Coarse Sand, 12-25% slope
Hayden Fine Sandy Loam, 6-12% slope	Sartell Fine Sand, 12-24% slope
Hayden Fine Sandy Loam, 12-25% slope	Zimmerman Fine Sand, 12-24% slope
Heyder Fine Sandy Loam, 12-18% slope	

Questionable Highly Erodible Soils

Braham Loamy Fine Sand, 6-18% slope	Kingsley Fine Sandy Loam, 6-12% slope
Heyder Fine Sandy Loam, 6-12% slope	

Zimmerman-Isanti-Lino Association

This soil association is mainly a broad undulating sand plain. The naturally occurring high water table is at or near the surface in most depressed areas. Steeper slopes occur next to drainage ways and large depressions. This association makes up about 50% of the county. It is about 45% Zimmerman, 15% Isanti, 10% Lino and 30% soils of minor extent. Much of this association is well suited to urban development. In some areas, however, a high water table severely limits many uses. The association is moderately well suited to farming and provides sites for recreational facilities. Fertility and available water capacity are low. Main concerns of management are controlling soils blowing, improving fertility, and controlling the level of the water table in low lying areas. Much of this association is used for urban development, with additional areas being urbanized every year. Small acreages are used as rural residences or are farmed. Corn, soybeans, and alfalfa are the crops commonly grown. Many former farm fields are planted to coniferous trees which are harvested as Christmas trees. Truck crops and cultural sod are grown on drained organic soils. Additional acres provide wildlife habitat and sites for recreational facilities.

Rifle-Isanti Association

This soil association is a series of large level bogs and wetlands dominated by organic soils and small sandy island-like features that rise several feet above the level of the surrounding bogs. The water table is high. This association makes up about 17% of the county. It is about 60% Rifle, 20% Isanti, and 20% soils of minor extent. Most of this association is poorly suited to urban, farm and recreational uses. Natural fertility is moderate to low. Available water capacity is low to very high. The chief management need is controlling the level of the water table. Drained organics are largely planted with sod and vegetables but have more recently been converted to uses such as golf courses.

Hubbard-Nymore Association

This soil association is mainly a nearly level to gently sloping outwash plain that is dissected by drainage-ways and pitted by large depressions. Steeper slopes occur next to these large depressions and drainage-ways. This association makes up about 15% of the county. It is about 40% Hubbard, 35% Nymore and 25% soils of minor extent. It is well suited to most urban uses and is moderately well suited to farming and recreation. Fertility and available water capacity are low. The chief management needs are controlling soil blowing, improving fertility, and controlling the level of the water table in low-lying areas. Much of this association is under urban development. Small areas are cultivated. At a few locations, potatoes are grown under irrigation. Poorly drained areas are used for permanent pasture, recreation and wildlife.

Heyder-Kingsley-Hayden Association

This soil association is a gently undulating to steep morainic landscape of short irregular slopes, scattered small lakes, and scattered depression of organic soils. This association makes up 10% of the county. It is about 40% Heyder, 20% Kingsley, 10% Hayden and 30% soils of minor extent. Much of this association is well suited to urban development. In some areas, however, poor drainage severely limits many uses. The association is well suited to farming and provides recreational facilities. Fertility and

available water capacity are medium to high. Main concerns of management are controlling water erosion and the level of the water table in low-lying areas. Much of this association is farmed. A few steep areas and undrained wetland areas are used for recreation and wildlife. Crops commonly grown are corn, soybeans, and alfalfa. Small acreages are used as rural residences. The urban trend is increasing.

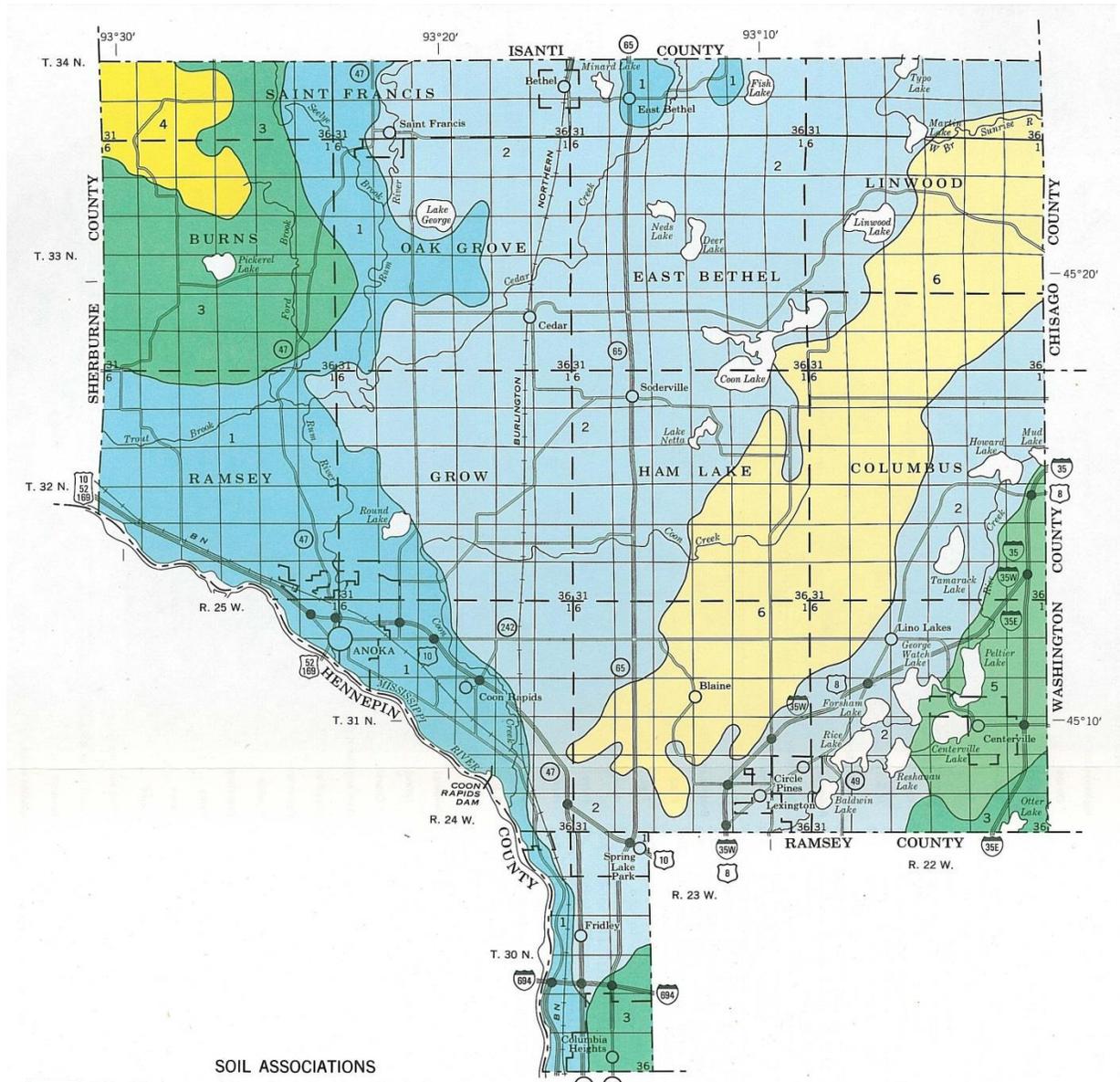
Nessel-Dundas-Webster Association

This nearly level to gently sloping soil association is a series of undulating ground moraines. Steeper slopes are adjacent to large bogs and drainage-ways. All slopes are short. The soil association makes up about 5% of the county. It is about 35% Nessel, 15% Dundas, 15% Webster and 35% soils of minor extent. Much of this association is moderately to poorly suited to most urban uses. It is well suited to farming and provides sites for recreational facilities. Fertility is high, and the available water capacity is very high. The chief management needs are controlling the level of the water table in low lying areas, controlling erosion in the more sloping areas, and maintaining fertility. About half of the association is farmed. Commonly grown crops are corn, soybeans, and alfalfa. Some undrained wet areas are used for recreation and wildlife. The increasing urban trend is expected to continue.

Emmert-Kingsley Association

This soil association is a gently undulating to steep morainic landscapes of short irregular slopes and scattered small marshes and depressions of organic soils. This association makes up 3% of the county. It is about 45% Emmert, 30% Kingsley and 25% soils of minor extent. Much of this association is moderately well suited to urban uses and is moderately well-poorly suited to farming and recreational uses. The small areas that are poorly drained are severely limited. Fertility and available water capacity range from very low to high. The chief management needs are controlling water erosion and controlling the level of the water table in low lying areas. A large part of this association is an ordnance de-arming ground. Only a small part is farmed because the soils are steep and droughty. Commonly grown crops are alfalfa, corn silage, and oats. Few areas are used for recreation and wildlife. Small acreages are rural residences. The urban trend continues to increase.

General Soils Association Map



SOIL ASSOCIATIONS

- 1 Hubbard-Nymore association: Nearly level to gently sloping, excessively drained soils that are sandy throughout
- 2 Zimmerman-Isanti-Lino association: Nearly level to undulating, excessively drained, somewhat poorly drained, and very poorly drained soils that are dominated by fine sands throughout
- 3 Hayder-Kingsley-Hayden association: Gently undulating to steep, well-drained soils formed in loamy glacial till
- 4 Emmert-Kingsley association: Gently undulating to steep, excessively drained and well drained soils formed in loamy and sandy glacial drift
- 5 Nessel-Dundas-Webster association: Nearly level to gently sloping, moderately well drained and poorly drained soils formed in loamy glacial till
- 6 Rifle-Isanti association: Nearly level, very poorly drained soils formed in organic material and fine sand

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
UNIVERSITY OF MINNESOTA AGRICULTURAL EXPERIMENT STATION

GENERAL SOIL MAP ANOKA COUNTY, MINNESOTA

Scale 1:190,080
1 0 1 2 3 4 Miles

Compiled 1974



City of East Bethel Park Commission Agenda Information

Date:

November 12, 2014

Agenda Item Number:

Item 9.0

Agenda Item:

Council Report and Other Business

Requested Action: Informational

Background Information:

Staff and the Parks Commission will continue discussions on the future direction of the City's Parks and projects with the City Council liaison Tim Harrington. The purpose of this discussion will be to formulate goals and objectives for the park development program and to update the commission on issues currently before the City Council.

Attachments:

Fiscal Impact:

Recommendation(s):

Park Commission Action

Motion by: _____

Second by: _____

Vote Yes: _____

Vote No: _____

No Action Required: _____