

Agenda

Vermillion River Watershed Joint Powers Board Meeting June 23, 2022, 1 p.m., in-person and teleconference via Zoom

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- 2. Roll Call
- 3. Audience Comments on Items Not on the Agenda (please limit audience comments to five minutes)

	(please limit audience comments to five minutes)								
4.	Consent Agenda	Action							
	a. Approval of Agenda		Page 1						
	b. Approval of Minutes from the April 28, 2022, Meeting		Page 3						
	c. Acceptance of Treasurer's Report		Page 9						
5.	Approval of Expenses	Action	Page 10						
6.	Business Items								
	 a. Report on Measurable Outcomes as Identified in the 2016- 2025 Vermillion River Watershed Management Plan 	Information	Page 12						
	b. Approval to Award Contract to Minnesota Dirt Works for Almquist Sediment Basin Restoration Project	Action	Page 33						
	c. Strategic Planning for 2022	Workshop	Page 36						
6.	Staff Reports								
7.	Adjourn Action								

Please note, the June 23, 2022 Vermillion River Watershed Joint Powers Board meeting will take place **in-person** in Conference Room A at the Extension and Conservation Center, 4100 220th Street West, Farmington Minnesota **and via teleconference** on the web-based application, Zoom.



Please click the link below to join the webinar:

https://dakotacountymn.zoom.us/j/92960373051?pwd=eGI2aFISMU1JZ0ZIOTNYbEJiQmwxUT09

Passcode: 160705 Or One tap mobile :

US: +16513728299,,92960373051#,,,,*160705#

Or Telephone:

Dial(for higher quality, dial a number based on your current location):

US: +1 651 372 8299 Webinar ID: 929 6037 3051

Passcode: 160705

International numbers available: https://dakotacountymn.zoom.us/u/adEMI9NeXN

Other Information

Next Meeting Date: **July 28, 2022,** at 1 p.m. You will be notified if the meeting is cancelled due to an anticipated lack of quorum.



Meeting Minutes

Vermillion River Watershed Joint Powers Board Meeting

April 28, 2022, 1 p.m., In-person and Teleconference using Zoom

Board Members in Attendance

Dakota County Commissioner Mike Slavik, Chair Scott County Commissioner Tom Wolf, Vice Chair Dakota County Commissioner Mary Liz Holberg, Secretary/ Treasurer

Others in Attendance

Larry Ring, Vermillion Township Board of Supervisors, Chair
Bruce Johnson, Dakota County Soil and Water Conservation District, Supervisor
Mary Hamann-Roland, Dakota County Commissioner, VRWJPB Alternate via teleconference
Brian Watson, Dakota County Soil and Water Conservation District, Manager
Mark Zabel, Dakota County, VRWJPO Administrator
Melissa Bokman-Ermer, Scott County, Watershed Co-administrator via teleconference
Travis Thiel, Dakota County, VRWJPO Senior Watershed Specialist
Mark Ryan, Dakota County, VRWJPO Watershed Engineer
Brita Moore-Kutz, Dakota County, VRWJPO Communications and Outreach Specialist
Paula Liepold, Dakota County, Water Resources Education Specialist via teleconference
Paul Beaumaster, Dakota County, Assistant County Attorney via teleconference

1. Call to Order

Meeting was called to order at 1:02 p.m.

2. Roll Call

Commissioners Slavik, Holberg, and Wolf were in attendance.

3. Audience Comments on Items Not on the Agenda

There were no comments from the audience.

4. Approval of Consent Agenda

- a. Approval of Agenda
- b. Approval of Minutes from the February 24, 2022, meeting
- c. Acceptance of Treasurer's Report
- d. Approval of Vermillion River Watershed Joint Powers Organization (VRWJPO) Consultant List for 2022-2023

<u>Res. No. VRW 22-05:</u> Motion by Commissioner Wolf, Second by Commissioner Holberg and passed on a 3-0 vote to approve the consent agenda.

5. Approval of Expenses

Mark Zabel presented the current expenses for approval as shown on item 5.

<u>Res. No. VRW 22-06:</u> Motion by Commissioner Wolf, Second by Commissioner Holberg and passed on a 3-0 vote to approve the expenses totaling \$86.137.79 incurred between February 16, 2022 and April 16, 2022.

Business Items

6a. Approval of proposed amendments to the Vermillion River Watershed Joint Powers Organization (VRWJPO) 2022 Budget

Mark Zabel presented proposed changes to the VRWJPO 2022 Budget which reflects new information based on the end of year financial reporting of revenues, expenses, and fund balance for 2021; new grant awards and commitments, and, expected needs for programs and projects. Mark described all changed line items as highlighted in Attachment A: Draft Revised VRWJPO 2022 Budget. Commissioner Slavik commented that the budget reflects a positive emphasis in getting projects planned and implemented.

<u>Res. No. VRW 22-07:</u> Motion by Commissioner Holberg, Second by Commissioner Wolf and passed on a 3-0 vote to approve the amendments to the Vermillion River Watershed Joint Powers Organization 2022 Budget.

6b. Authorization to submit 2021 Vermillion River Watershed Joint Powers Organization (VRWJPO) Annual Activity Report and Financial Statement to the Minnesota Board of Water and Soil Resources (BWSR)

Brita Moore-Kutz presented the report and commented that some programs and activities were impacted due to the COVID-19 pandemic health and safety restrictions. The report provides a summary of programs and completed projects , and financial information for 2021. The format of the report was changed from previous reports to bring it in line with accessibility requirements following Dakota County digital accessibility formatting protocols.

<u>Res. No. VRW 22-08:</u> Motion by Commissioner Wolf, Second by Commissioner Holberg and passed on a 3-0 vote to approve authorization to submit the 2021 Vermillion River Watershed Joint Powers Organization Annual Activity Report and Financial Statement to the Minnesota Board of Water and Soil Resources.

6c. Delegation of a Limited Authority for Contracts and Purchase Agreements to the Vermillion River Watershed Joint Powers Organization Administrator and Co-administrator

Mark Zabel reviewed the policy regarding the delegation of a limited authority for contracts. That policy provides that when there is a change in membership to the Joint Powers Board the delegation of authority be reauthorized. Mark also noted that there was a need to correct an omission in the previous authorization as it did not include authorization to the Co-administrator for projects occurring in the Scott County portion of the watershed. A new provision is included in the proposed version to authorize signing purchase agreements. This provision is included to address the need to process purchase agreements for the sale of wetland credits from the newly completed wetland bank (Wetland Bank #1740). This provides that the Administrator is authorized to sign such purchase agreements for sale of

credits from wetland banks in the Dakota County portion of the watershed and the Co-administrator would have similar authority within the Scott County portion.

Mark Zabel presented information about the current inquiries regarding the wetland bank and their status. It was also noted that more credits will be released for sale sometime in 2023 after certification by State and Federal authorities.

<u>Res. No. VRW 22-08:</u> Motion by Commissioner Holberg, Second by Commissioner Wolf and passed on a 3-0 vote to approve delegation of a limited authority for contracts and purchase agreements to the Vermillion River Watershed Joint Powers Organization Administrator and Co-administrator.

Staff Reports

Travis Thiel

Travis reported he was recently certified as a drone pilot and member of the Dakota County Drone Team. The team flew drones at the Middle Creek and Highview project and at the Foxborough Park Basin project hoping to be able to use the level of detail in the photos to do as-built level surveys.

Regarding water conservation, Apple Valley is rolling out a "Water Smart Program." Cities implementing this program allow citizens to use this portal to monitor their use real time with the possibility of finding unusual use and a potential leak. This would also detect unusual use in irrigation systems indicating possible leaks or breaks. Commissioner Wolf commented that he has a real time water meter on his home and has found it very useful for detecting leaks in his system.

Travis plans to attend the Alimagnet Lake Association meeting on May 5. to inform association members about a potential alum treatment project by the VRWJPO and cities Burnsville and Apple Valley. The alum treatment will trap phosphorus into the bottom sediment of the Lake.

There have been reports of beaver activity on trout stream sections of the river which have been referred to DNR and their contracted trapper.

Brita Moore-Kutz

Brita and Travis led students from the School of Environmental Studies supporting their Earth Day service learning program to do live staking on North Creek on a reach just north of 190th Street in Farmington. Live staking was done with local Red Osier Dogwood that was cut from live shrubs nearby and inserted into the bank and near bank area of the creek.

Brita was at Rambling River Park on Saturday, April 23, for Vermillion River Day with students from Farmington.

Brita will staff a table at the Lakeville Earth Day Celebration and Watershed Clean-up Day Saturday, April 30. An Adopt-A-Drain exhibit will also be at the event.

We are still looking for three new members for the Vermillion River Watershed Planning Commission, two from Dakota County and one from Scott County. We had an expression of interest, unfortunately that person did not reside within the watershed.

Brita is actively participating with other Dakota County staff in development of the "We Are Water" exhibit and events.

The VRWJPO Spring Newsletter was sent earlier this month.

Mark Ryan

Mark Ryan reported on a meeting held recently with a group of landowners concerned about drainage issues around an area west of the City of Vermillion. Commissioner Slavik, Mark Ryan, Brian Watson of the Dakota SWCD and Todd Howard, Dakota County Transportation Department met at a wetland complex on County Road 62 west of the City of Vermillion to talk about high water issues experienced over the past several years. One of the follow up issues involved looking into any wells associated with the Dakota County Agriculture Chemical Reduction Effort (ACRE) program that might be located close enough to assist with monitoring groundwater levels in the area of these landowners' concern. Consideration had been made about placement of a new monitoring well in the area, however site conditions for a well would not allow effective placement. Commissioner Slavik complimented staff on engaging landowners to address concerns. Mark indicated that staff may follow up on wetland and river water levels this summer to gather more information.

Mark reported that Dakota County released a request for proposals (RFP) for the final design work on the Ravenna Ravines Stabilization/ Ravenna Trail Project so that could go forward in design in 2022 and implementation in 2023.

Mark mentioned a possible collaboration project with the City of Lakeville in renovating ponds that are part of the City stormwater management system and the Crystal Lake Golf Course. The City will look at possibly incorporating more of these ponds into the Golf Course irrigation system or expanding an existing pond for increased water reuse.

Commissioner Slavik asked if there was an update regarding working with Townships on ordinance development and adoption. Mark mentioned that he had met with the Ravenna Township Board where he provided some additional documentation that they had requested. Mark mentioned that he would be meeting with Larry Ring of Vermillion Township after the VRWJPB meeting to discuss these issues for Vermillion Township. Commissioner Slavik mentioned a fact sheet Mark had developed. Mark mentioned that, in conversation with Larry Ring, he is considering some changes to the two page fact sheet addressing some questions we anticipate Township Board members would have.

Mark Zabel

Mark Zabel reported that now that we have returned to open water season with recent ice out on lakes and ponds we have received reports of fish kills at several locations, most notably on East Lake in the City of Lakeville. Winter "freeze out" on shallow lakes and ponds is a naturally occurring phenomenon in our region. Generally, it is more prominent in years when there is a heavy snow cover on the ice for an extended period over the winter. Under these conditions water below the ice in shallow lakes and ponds is depleted of oxygen to levels where fish cannot survive. In the case of East Lake, reports of large numbers of Carp and Goldfish are dead along the shore. This diminishes the numbers of these invasive species, however, it also eliminates the predator fish that would eat the carp and goldfish eggs and young. As a result, any surviving Carp or Goldfish (which are more tolerant of low levels of dissolved oxygen) will be able to repopulate the Lake without competition.

Mark mentioned that the Board, and Commissioner Slavik particularly, mentioned a desire to do a strategic planning session soon. Mark commented that it may be prudent to do that before the next budget development cycle. Mark mentioned that May usually has a lighter agenda and thus would be a good time for a strategic planning session; without a strategic planning session, however, we might

cancel the May meeting as we are not expecting critical items for Board consideration in May. The other option would be to try to have a session associated with the June regular meeting. June is also the time we begin budget planning for the next year. Commissioner Slavik commented that he felt there was some transformational change that occurred after the last time the VRWJPB had done strategic planning resulting in a greater focus on project development and implementation. Commissioner Slavik asked for input and discussion from other members. Commissioner Wolf commented that he was open for June. Commissioner Holberg commented that the May meeting could be cancelled especially as it occurs leading into the Memorial Day weekend. Mark requested Board members provide him with any topics for discussion or any areas of focus for the strategic planning session. Commissioner Slavik mentioned looking at our communication and outreach efforts and where we want to go on a long term basis with those efforts. Commissioner Holberg mentioned wanting to consider what we might need to do looking at a constrained budget model as it appears we are entering an economic downturn. Mark requested Board members contact him if they had further input on topics for the strategic planning session.

Adjourn

Motion by Commissioner Wolf, Second by Commissioner Holberg and passed on a 3-0 vote to adjourn the meeting at 1:57 p.m.

Next Meeting Date: Thursday, May 26, 2022, at 1 p.m. in Conference Room A at the Dakota County Extension and Conservation Center, 4100 220th Street West, Farmington, MN.

Respectfully submitted by		
Mark Zabel Administrator for the Vermillior	n River Watershed Joint Powers Organiz	ation
Attest		
Commissioner	Secretary/ Treasurer	 Date



2022 Vermillion River Watershed Joint Powers Organization Treasurer's Report

May 2022 - Vermillion River Watershed Joint Powers Board Meeting

]	Budget Amounts	Ехр	enses to Date	Expenses Pending		Account Balance	
A.	Administration & Operations (217002-0000)	\$	240,500.00	\$	56,737.56	\$	13,373.93	\$	170,388.51
В.	Research & Planning (217002-0130)	\$	18,600.00	\$	10,215.35	\$	2,479.67	\$	5,904.98
C.	Monitoring & Assessment (217002-0230)	\$	157,400.00	\$	7,630.61	\$	2,583.68	\$	147,185.71
D.	Public Communications & Outreach (217002-0330)	\$	166,150.00	\$	44,021.63	\$	17,003.48	\$	105,124.89
E.	Irrigation and Audit (217002-0431)	\$	20,000.00	\$	30,450.00	\$	-	\$	(10,450.00)
F.	Regulation (217002-0530)	\$	55,900.00	\$	13,304.86	\$	2,816.10	\$	39,779.04
G.	Coordination & Collaboration (217002-0531)	\$	42,600.00	\$	8,638.75	\$	1,004.62	\$	32,956.63
Н.	Feasibilty/Preliminary Studies (217002-0631)	\$	220,000.00	\$	33,785.74	\$	7,452.31	\$	178,761.95
I.	Capital Improvement Projects (217092-0130)	\$	491,850.00	\$	10,974.32	\$	11,254.94	\$	469,620.74
J.	FY2019 - Watershed Funding Grant (217002-0848)	\$	17,700.00	\$	2,864.69	\$	987.52	\$	13,847.79
K.	CWF Grant - Middle Creak Restoration (217002-0852)	\$	-	\$	81.06	\$	-	\$	(81.06)
L.	WBIF Grant (BWSR) 2020-2023 North Creek Stabilization (217002-0853)	\$	387,500.00	\$	-	\$	-	\$	387,500.00
M.	WBIF Grant 2020-2023 Farmington Direct Drainage (217002-0854)	\$	30,030.00	\$	-	\$	-	\$	30,030.00
N.	WBIF Grant (BWSR) 2020-2023 Hastings Direct Drainage (217002-0855)	\$	30,030.00	\$	-	\$	-	\$	30,030.00
Ο.	WBIF Grant (BWSR) 2020-2023 Ravenna Basins Restoration (217002-0856)	\$	85,000.00	\$	-	\$	-	\$	85,000.00
P.	WBIF Grant (BWSR) 2020-2023 Rosemount Anti-Icing (217002-0857)	\$	-	\$	-	\$	-	\$	-
Q.	CWF Grant - (BWSR) Foxborough TSS (217002-0859)	\$	203,250.00	\$	-	\$	-	\$	203,250.00
R.	CWF Grant - (BWSR) Ravenna Trail (217002-0860)	\$	297,500.00	\$	-	\$	-	\$	297,500.00
S.	Wetland Bank (217002-0930)	\$	117,216.00	\$		\$	500.00	\$	116,716.00
	VRW JPO Revised Budget Expense TOTAL	\$	2,581,226.00	\$	218,704.57	\$	59,456.25	\$	2,303,065.18
	Budget Funding Sources Scott County Levy Dakota County Levy Expected 2019 Carryover (Fund Balance) Special Use Permit CWF Grant (BWSR) 2019-2021 CWF Grant 1W1P (BWSR) 2020-2023 CWF Grant WBIF (BWSR) Met Council Grant CIP Reserve CIP Reserve Grant Match Investment Earnings	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	32,500.00 967,500.00 686,000.00 1,000.00 420,750.00 - 243,600.00 84,000.00 12,000.00 2,693,350.00						



Vermillion River Watershed Joint Powers Organization

4100 220th St. W., Suite 103, Farmington, MN 55024

Date: June 23, 2022 Agenda Item 5
To: Vermillion River Watershed Joint Powers Board April 2022

From: Staff

Subject: Joint Powers Organization Expenses

Expenses from the invoices submitted between March 16, 2022 and April 12, 2022 totalled \$52,957.17

The invoices submitted between April 13, 2022 and May 19, 2022 are listed below:

<u>Invoice</u>	<u>Vendor</u>		<u>Amount</u>
Apr-22	Dakota County Staff Time	\$	42,032.32
IN28262	Scott County	\$	1,581.30
0287636	Bolton and Menk	\$	600.00
PCard - M Zabel	Construction Site: PCard	\$	120.00
22-169008	144Design	\$	95.00
3192	Dakota County Soil & Water Conservation District	\$	12,175.00
PCard - M Zabel	Website Domain	\$	19.99
34327	Menards AV	\$	65.94
1903658	Stantec	\$	3,661.00
1914414	Stantec	\$	229.50
Total expense as	60,580.05		

Action Requested: Approve all above expenses as presented on June 23, 2022



Vermillion River Watershed Joint Powers Organization

4100 220th St. W., Suite 103, Farmington, MN 55024

Date: June 23, 2022 Agenda Item 5
To: Vermillion River Watershed Joint Powers Board May 2022

From: Staff

Subject: Joint Powers Organization Expenses

Expenses from the invoices submitted between April 13, 2022 and May 19, 2022 totalled \$60,580.05 The invoices submitted between May 20, 2022 and June 12, 2022 total:

Invoice	Vendor	<u>Amount</u>
May 2022	Dakota County Staff Time	\$ 41,082.42
April 2022	Dakota County Legal	\$ 789.20
2022-121	Scott County Soil and Water Conservation District	\$ 9,201.25
2022	Metro Childrens Water Festival	\$ 600.00
2022 Membership	Metro Watershed Partners (Hamline)	\$ 5,000.00
1185	Freshwater Society	\$ 1,500.00
35558	Menards	\$ 575.91
00000703991	MN Board of Water and Soil Resources BWSR	\$ 500.00
PCard Zabel	Facebook Boost WPC	\$ 10.00
PCard Zabel	Watershed Ed Game	\$ 187.47
PCard Zabel	Facebook Boost WPC	\$ 10.00
Total expense as	\$ 59,456.25	

Action Requested: Approve all above expenses as presented on June 23, 2022

6a. Report on Measurable Outcomes as Identified in the 2016-2025 Vermillion River Watershed Management Plan

Meeting Date: 6/23/2022

Item Type:Regular-InformationContact:Brita Moore-KutzTelephone:952-891-7967Prepared by:Brita Moore-Kutz



PURPOSE/ACTION REQUESTED

• Report on Measurable Outcomes as identified in the 2016-2025 Vermillion River Watershed Management Plan.

SUMMARY

The 2016-2025 Vermillion River Watershed Management Plan includes a list of measurable outcomes in Section 8: Outcome Measures by Sub-goal that are used to measure progress against the Plan Goals over the term of the Plan. The measures can be grouped into two types: activity measures that quantify specific types and efforts made by the VRWJPO and its partners to improve water resources; and resource measures that will be used to regularly assess the condition and trends related to water quality and quantity.

VRWJPO staff have collected relevant data and information to develop a report (Attachment A) on the Outcome Measures identified in the Plan. This report is compiled from data collected since the adoption of the Plan. VRWJPO provides periodic updates on outcome measures through the life of the Plan.

EXPLANATION OF FISCAL/FTE IMPACT

No fiscal impact.

Supporting Documents: Attachment A: Measurable Outcomes Executive Sum	mary	Previous Board Action(s):
RESOLUTION		
6a. Report on Measurable Outcomes as Identified i	in the 2016-2025 Vermillion Plan	River Watershed Management
Information only.		

Executive Summary: 2016-2025 Vermillion River Watershed Management Plan Measurable Outcome Progress Update

As the Vermillion River Watershed Plan is implemented, a series of outcome measurements will be used to track progress against the Plan goals. These measures will be tracked and reported to the Vermillion River Watershed Joint Powers Board (VRWJPB) and the public. This is a fluid document, current as of June 16, 2022, and some numbers are not yet available.

Goal A: Protect or restore water quality in lakes, streams, and wetlands

1. Restore impaired waters and protect those currently not impaired

OUTCOME MEASURE: Water quality monitoring demonstrates a trend toward meeting water quality standards

The VRWJPO began a biomonitoring program in 2009 which samples the presence and abundance of species of fish annually. The results of this sampling provide a measure of the biological health of the stream system as indicated through an index of biological integrity (IBI)*. Since 2016, site visits for fish population trend monitoring alternates every two or three years between sites.

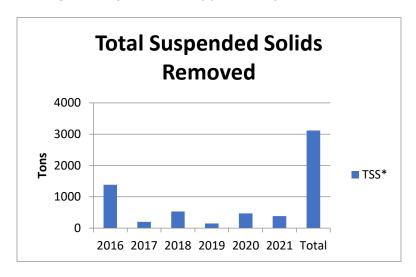
In 2020, we sampled 10 sites in the **Southern Coldwater Reach**. Four of them were impaired according to the IBI threshold. In 2021, we sampled five sites in this reach. Four of them were impaired, three of which overlapped from 2020's impairments. In two of the sites monitored in both years that turned out to be impaired, the IBI score decreased and remains below the impaired threshold. Since 2016, 13 sites have been monitored on a rotating basis. Over the long term, it appears that seven sites are showing a positive trend in IBI scores and three sites are showing a negative trend in IBI scores. There are three sites showing a mostly flat trend in IBI scores.

In 2020, we sampled no sites in the **Southern Headwaters Reach**, and we sampled two sites there in 2021. Both were impaired according to the IBI threshold. Three sites have been sampled on a rotating basis since 2016. Over time, two sites show a negative trend and one shows a mostly flat trend in IBI scores.

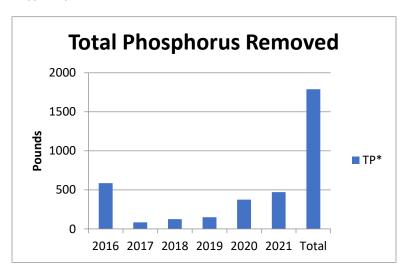
In 2020, we sampled two sites in the **Southern Stream Reach**, and none in 2021. The 2020 samples showed one site as impaired and one not impaired. Since 2016, one site has trended negatively and one positively in IBI scores.

2. Reduce non-point source pollution, erosion, and sediment

OUTCOME MEASURE: Document sediment and phosphorus reductions associated with best management practices supported by the VRWJPO



^{*}Typical practices result in cumulative TSS removal



^{*}Typical practices result in cumulative TP removal

3. Protect and improve the River corridor

OUTCOME MEASURE: Work with Dakota and Scott counties to annually document the DNR-protected waterways that have perennial vegetated buffers

Dakota County: 236 parcels protected by buffers as of September 1, 2020, 6 parcels non-compliant with buffers as of May 18, 2022 (based on County ordinance not State Buffer law)

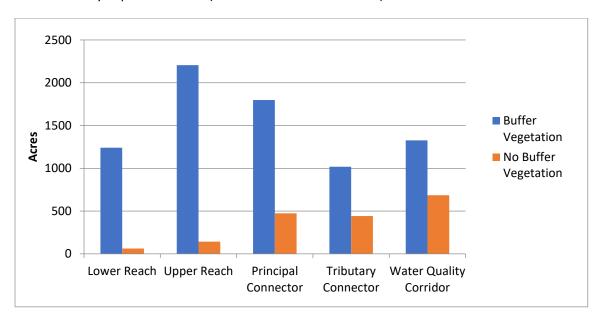
Scott County: 100% compliant with State Buffer Law as of June 2022

OUTCOME MEASURE: Document areas that meet the VRWJPO buffer standard (both those that are triggered by the buffer standard and those that are not)

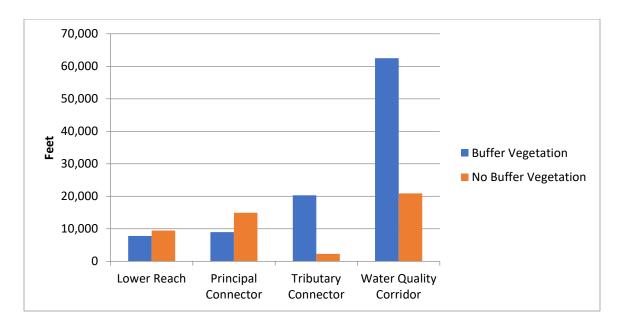
Dakota County May 2022 (after MN State Buffer Law):

Reach	Buffer Area (acres)	No Buffer Vegetation (acres)	% Buffer Vegetation
Lower	1,240.4	61.3	95
Upper	997.9	164.7	83.5
Principle	1797.4	521.4	70.9
Tributary	1,018.7	449	55.9
Water Quality Corridor	1,326.9	729.9	45

Dakota County September 2017 (before MN State Buffer Law):



Scott County February 2019:

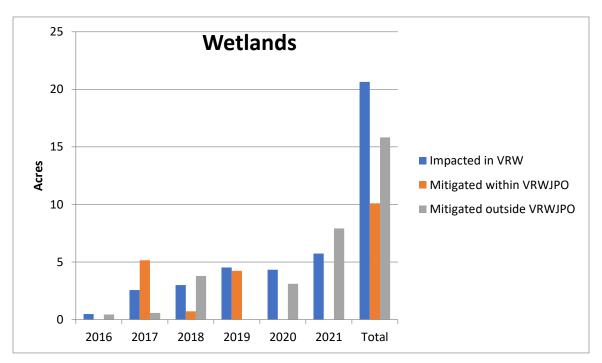


4. Protect, enhance, and restore wetlands

OUTCOME MEASURE: Document number and acres of wetlands restored

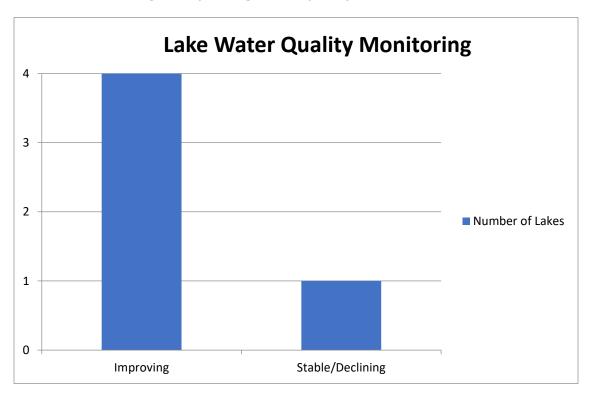
120 acres of wetlands restored in 2021

OUTCOME MEASURE: Document number and acres of known wetlands lost, altered, or impacted



5. Protect and enhance recreational lakes

OUTCOME MEASURE: Water quality monitoring of recreational lakes demonstrates a trend toward maintaining or improving water quality



^{*}Water quality monitoring within the watershed couples phosphorus levels and transparency to provide a beneficial water quality indicator.

Goal B: Protect and restore groundwater quality

1. Track trends in groundwater quality

OUTCOME MEASURE: Compile existing information, assess its adequacy, and propose strategic improvements that will provide a comprehensive view of groundwater quality in the watershed in 2017 and 2022

Ambient Groundwater Study 2019 (dakota.mn.us) (AGQS)

Ambient Groundwater Study Appendices.pdf (dakota.mn.us)

Dakota County 2020-2030 Groundwater Plan Adopted

Chloride in private wells by municipality, 2016-2021

Chloride results (Outside faucet) – Three VRWJPO municipalities, Burnsville, Douglas Township, and Hampton Township, have had samples with the maximum chloride level (mg/L) exceed SMCL.

Dakota County Total Cyanazine Detections by Municipality and Year through 2020

Results are for the entire city or township, not just the portion in the Vermillion River Watershed. Per this study, 12 municipalities had some amount of samples that exceeded the guideline amount for total cyanazine.

The Minnesota Department of Agriculture (MDA) will be conducting widespread sampling of private drinking water wells in Dakota County for cyanazine and cyanazine breakdown products in the summer of 2022, which will significantly deepen the understanding of the extent and concentrations of cyanazine contamination the county.

In 2019, the MDA sampled 91 private drinking water wells in Scott County for cyanazine and cyanazine breakdown products. None of the wells sampled were within the Vermillion River Watershed. 17 of the 91 wells sampled (19%) exceeded the drinking water guideline for total cyanazine.

2. Protect groundwater quality from contamination

OUTCOME MEASURE: Annual expenditure and cost sharing for groundwater quality protection best management practices

Year	Project Name	Community	Subwatershed	Project Category	Project Cost	VRWJPO Funding	Grant Funds	Project Partners
2016	Avonlea Wetland and Stream Restoration	Lakeville	Middle Creek	Stream Restoration	\$331,392	\$207,924	\$0	Lakeville, Mattamy Homes
2018	South Branch Nitrate Treatment	Castle Rock Township	South Branch	Agricultural BMP	\$188,432	in-kind	\$412,000	Dakota County, BWSR
2020	South Branch Denitrifying Woodchip Bioreactor	Castle Rock Township	South Branch	Agricultural BMP	\$34,012	\$2,029	\$31,983	Dakota County, BWSR
2021	Webster Wetland Restoration	Elko New Market	Upper Mainstem	Other	\$71,762	\$0	\$64,586	Elko New Market, BWSR

OUTCOME MEASURE: Awareness about urban and rural land-use impacts on nitrate contamination in groundwater are increased, as measured through Dakota County resident survey every 2-3 years

2019 Residential Survey

Highlights, p. 3:

- Residents voiced widespread support for using County funds to keep cities' drinking water sources free of contaminants.
- Dakota County is working on a long-range Groundwater Plan that could include various programs or regulations to protect and improve groundwater resources (the source of drinking water in Dakota County).
- Survey respondents were asked which potential programs or regulations they would support. Only 6% of
 respondents answered that they would not support any of them. The most popular option was using
 County funds to keep drinking water sources free of contaminants 8 in 10 respondents supported this
 option.
- Just over half of respondents indicated they would support using County funds to protect land to limit contamination of groundwater supplies.

The 2022 survey results were presented to the Dakota County Board on June 21, 2022.

Groundwater Plan Stakeholder Engagement Findings and Direction, Appendix B of Groundwater Plan, p. 169

Agricultural Chemical Reduction Effort (ACRE) Plan Public Engagement Reports, 2021-2022: <u>Agricultural Chemical Reduction Effort | Dakota County</u>

3. Reduce existing levels of groundwater contamination

OUTCOME MEASURE: Measure number and amount of cost share for alternative practices and cropping systems to reduce input levels

Year	Acres	Contract Duration	Payment*
2018	80	One Year	\$2,000
2018	100	Three Years	\$10,500
2018	65	Three Years	\$6,825
2018	24	Three Years	\$2,520
2019	69.4	One Year	\$1,735

Year	Acres	Contract Duration	Payment*
2019	100	One Year	\$2,500
2020	68	One Year	\$1,700
2020	61	One Year	\$1,525
2020	60	One Year	\$1,500
2020	100	One Year	\$2,500
2020	58	One Year	\$1,450
2020	50	One Year	\$2,450
2020	52	One Year	\$1,300
2020	43	One Year	\$1,075
2020	88	One Year	\$2,200
2021	85	One Year	\$2,125
2021	120	One Year	\$3,500
2021	106	One Year	\$2,500
2021	30	One Year	\$750

^{*}Payout timing can vary. Assuming all acres are planted per contract the payments are listed above. Payments are \$25 per acre for a one-year contract and \$35 per acre for a three-year contract.

Goal C: Maintain a sustainable water supply

1. Promote conservation of groundwater

OUTCOME MEASURE: Track trends of overall water use per capita for municipal consumers, per acre usage for agriculture consumers, and number of gallons per day for industrial consumers

Per person municipal 2016 = 94.6 gallons per day

2017 = 98.7 gallons per day 2018 = 92.4 gallons per day

2019 = 83.8 gallons per day

Per acre agriculture* 2016 = 138,059 gallons per acre

2017 = 157,927 gallons per acre 2018 = 173,238 gallons per acre 2019 = 130,219 gallons per acre

*Dakota County only

Per million gallon well installations**: 2016 = 11,008 per year / 30.2 million gallons per day

2017 = 12,044 per year / 33 million gallons per day 2018 = 12,256 per year / 33.6 million gallons per day 2019 = 10,794 per year / 29.5 million gallons per day

(From MPARS Public Water Supply, for Dakota County):

677.2 million gallons per year industry

3,760.1 million gallons per year agriculture

6,181.7 million gallons per year water supplier services

Note: The DNR web page where these numbers are kept hasn't been updated since 2019. VRWJPO attempted to contact DNR staff for this information and is waiting for a response.

OUTCOME MEASURE: Document number of implemented projects targeted at the highest overall water users that promote or provide for groundwater conservation

Irrigation Efficiency Projects

2. Protect high-capacity groundwater recharge areas and promote infiltration, where appropriate

OUTCOME MEASURE: Track the number of acres of critical recharge areas protected via partnerships or directly by the VRWJPO

No partnered or sponsored protection projects occurred in critical recharge areas.

^{**}includes: agriculture, livestock, commercial/industrial, non-crop irrigation, power generation, etc.

3. Promote re-use of stormwater and treated wastewater, where appropriate

OUTCOME MEASURE: Document the number of implemented cost share projects that re-use stormwater or treated wastewater

Year	Project Name	Community	Subwatershed	Project Type	Project Cost	VRWJPO Funding	Grant Funds	Project Partners	Reuse Vol. (MGY)
2016	King Park Reuse System Phase 2	Lakeville	North Creek	Stormwater Reuse System	\$157,280	\$39,390	\$75,000	Lakeville, BWSR	3.1
2021	Aronson Park Reuse System	Lakeville	South Creek	Stormwater Reuse System	\$369,769	\$29,450	\$70,550	Lakeville, Dakota County, BWSR	3,812,462

Goal D: Address more intense fluctuations (up and down) in river flow rate and volume

1. Regulate intercommunity flows

(No outcome measure determined)

2. Address sources of increased flows

OUTCOME MEASURE: Measure number of voluntarily implemented practices that address increased flows

Year	Projects	Acre-feet Reduction
2016	3	35.94
2017	0	0
2018	0	0

2019	1	?
2020	0	0
2021	2	175.8

OUTCOME MEASURE: Measure the number of stormwater retrofits in urban areas developed prior to 2006

Year	Projects
2016	3
2017	1
2018	1
2019	3
2020	2
2021	2

3. Protect floodplains and maintain the river floodway

OUTCOME MEASURE: Verify and document that all permitted activities intersecting with identified floodplains have no impacts

Zero activities permitted within VRWJPO floodplains. No impacts.

OUTCOME MEASURE: Complete research, analysis, and recommendations on water quality and quantity impacts of aggregate mining.

The impact of aggregate mining in the Vermillion River Watershed, Minnesota

4. Address erosion problem areas

OUTCOME MEASURE: Track the number of stabilization projects addressing erosion

OUTCOME MEASURE: Quantify the sediment reduction for all stabilization projects addressing erosion

Year	# of Projects	Estimated sediment reduction (tons/yr)
2016	8	1,384
2017	5	200
2018	5	558
2019	3	100*
2020	10	361
2021	6	236.14

^{*}one project not calculated

Goal E: Improve public awareness and stewardship of water resources

1. Increase awareness of the Vermillion River, tributaries, and other waters within the watershed as unique resources

OUTCOME MEASURE: Measure people's awareness of the river, tributaries, and other waters on a regularly scheduled basis by conducting a follow-up survey to "Perspectives on Minnesota Water Resources: A Survey of Sand Creek and Vermillion River Watershed Landowners" that was completed in 2012 by the University of Minnesota

Follow-up survey was completed in fall 2021 and funded by VRWJPO. A highlight of the results was that more than 60% of respondents said that they trusted watershed management organizations like ours to help them make decisions about conservation practices on their land. Respondents largely felt a sense of individual obligation to do what they can to protect water, but were less likely to say they'd be willing to engage with other people about it.

2. Increase awareness of the VRWJPO and its services

OUTCOME MEASURE: Annually track the public's use of the website

Year	Average Session Duration (minutes)*	Pages / Session**	Annual Users***	New Users
2016 (May-Dec)	3.46	2.86	2,565	2,325
2017	2.28	2.91	5,132	4,611
2018	1.67	3.78	7,594	7,012
2019	1.28	3.59	9,892	7,683
2020	1.5	3.67	10,437	10,331
2021	0.92	3.06	15,814	15,804

^{*}avg session duration = average length of time spent on site

3. Maintain a clear watershed identity through consistency and quality in external communications

OUTCOME MEASURE: Complete an annual update to the communications plan

Update completed Fall 2021

OUTCOME MEASURE: Report communications plan outcomes on an annual basis

Measures in development

^{**}pages/session = average number of pages viewed while on site

^{***}users = initiated at least one session

4. Ensure that watershed messages are available through multiple channels and media

OUTCOME MEASURE: Track the number of different types of outlets used to convey messages

Press Releases/Articles	# per year
2016	40
2017	36
2018	31
2019	34
2020	7
2021	23
Platform	Audience (as of June 2022)
Newsletter	1,073 subscribers
Facebook	334 followers
Twitter	237 followers
Instagram	372 followers

5. Plan and host events, such as programs, training, and outreach activities, to motivate stakeholders to make choices that will improve water resources

OUTCOME MEASURE: Annually track the number and type of events and the number of participants at each event

Year	Events	Participants*
2016	57	1,670
2017	61	2,065

Year	Events	Participants*
2018	49	2,263
2019	36	2,350
2020**	6	1,068
2021**	9	1,249

^{*}It is difficult to quantify all participants at events like the Dakota County Fair and are not included in participant totals. In each year, we reached more people than is listed. The numbers indicate how many were tracked.

6. Promote civic engagement and citizen-based action on water and natural resource issues

OUTCOME MEASURE: Annually track the number of events, groups, and participants engaged in VRWJPO supported activities

Wetland Health Evaluation Program in the Vermillion River Watershed

Year	# of Volunteers	Volunteer Hours	# of Wetlands Monitored
2016	76	1,996	17
2017	83	2,171	16
2018	61	1,135	22
2019	70	1,280	14
2020	94	737	14
2021	81	1,248.75	17

Vermillion Stewards*

Year	Events	Volunteers	Hours
2016	10	245	286.5
2017	9	177	337.5

^{**}Many events we typically attend were canceled due to COVID-19 or weather.

Year	Events	Volunteers	Hours
2018	7	195	162
2019	7	115	134
2020	5	89	158

^{*}VRWJPO ended contract with Friends of the Mississippi River for Vermillion Stewards in 2021.

Minnesota Water Stewards Participants from Vermillion River Watershed

Year	Participants*	Hours
2016-17	3	0 (volunteer hours not required in first year)
2017-18	6	0 (reported)
2018-19	8	68
2019-20	11	196
2020-21	11 (2 new registered, but both dropped out)	N/A
2022	12	1 currently going through curriculum

*cumulative

Stewardship Grants

Year	Grants
2016	1
2017	0
2018	1
2019	0*

^{*}no program budget from 2019-present

VRWJPO Attendees at Public Meetings/Events

2016: Public Hearing for Draft 2016-2025 Vermillion River Watershed Management Plan - 35 estimated attendees

Public Hearing on the Draft VRWJPO 2017 Budget - 0 attendees

2017: Public Hearing on the Proposed Amendments to the VRWJPO Rules - 0 attendees Public Hearing on the Draft VRWJPO 2018 Budget - 0 attendees

2018: Public Hearing on the Proposed Amendments to the VRWJPO Permit Program Fee and Security Schedule - 0 attendees

Public Hearing on the Draft VRWJPO 2019 Budget - 0 attendees

2019: Public Hearing on the Proposed Amendments to the VRWJPO Standards - 4 attendees Public Hearing on the Draft VRWJPO 2020 Budget - 0 attendees

2020: Public Hearing on Proposed Amendments to VRWJPO Rules – 0 attendees Public Hearing on the Draft VRWJPO 2021 Budget – 0 attendees

2021: Public Hearing on Proposed Modifications to the VRWJPO Permit Fee and Security Schedule – 0 attendees Public Hearing on Proposed Amendment for Bemis Wetland – 0 attendees Public Hearing on the Draft VRWJPO 2022 Budget – 0 attendees

Goal F: Improve watershed resilience to changing precipitation and temperature patterns

1. Seek to maintain pre-development hydrology

OUTCOME MEASURE: Annually track cost-shared best management practices that increase storage or infiltration capacity

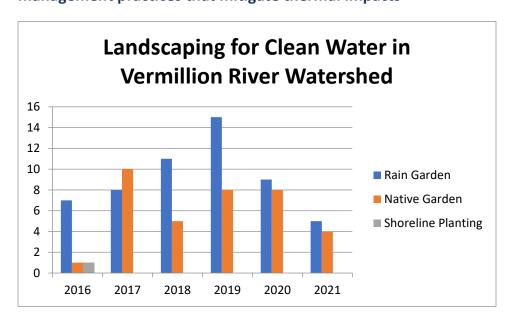
Year	Projects	Acre-feet Reduction
2016	3	35.94
2017	0	0
2018	0	0
2019	1	*
2020	0	0
2021	2	175.8

^{*}Not yet calculated

OUTCOME MEASURE: Report outcome of evaluation of standards compliance*

Year	Community Compliance Checks
2016	16
2017	17
2018	2
2019	Data still coming in

OUTCOME MEASURE: Annually track implementation of voluntary or innovative best management practices that mitigate thermal impacts



Vermillion Corridor Acquisitions/Restorations

No partnered or sponsored protection acquisitions and/or restorations occurred in the Vermillion corridor.

Goal G: Protect or restore sensitive biological resources, such as plants, fish, insects, and wildlife

1. Monitor fish and macroinvertebrate populations in the river and tributaries

OUTCOME MEASURE: Annually report Index of Biotic Integrity (IBI) data and track trends of fish and macroinvertebrate populations

Since 2016, site visits for macroinvertebrate population trend monitoring alternates every two or three years between the 18 sites. Five sites have shown positive trends in macroinvertebrate IBI scores over this period.

OUTCOME MEASURE: Assess brown trout to determine population changes and annually report data

Not Completed

2. Use current research, long-range trend data, policies, and partnerships to protect habitat for native and sensitive aquatic species

OUTCOME MEASURE: Annually track riparian or instream habitat improvement projects supported by the VRWJPO

Year	Number of Projects
2016	2
2017	2
2018	2
2019	1
2020	0
2021	2

^{*}See Goal A Sub-Goal 1 for IBI and fish population trends.

6b. Authorization to Execute Contract with Minnesota Dirt Works, Inc. for Construction of the Almquist Sediment Basins Restoration Project

Meeting Date: 6/23/2022
Item Type: Regular-Action
Contact: Mark Ryan
Telephone: 952-891-7596
Prepared by: Mark Ryan



PURPOSE/ACTION REQUESTED

 Authorization to Execute Contract with Minnesota Dirt Works, Inc. for Construction of the Almquist Sediment Basins Restoration Project

SUMMARY

In 2020, Vermillion River Watershed Joint Powers Organization (VRWJPO) staff and other watershed stakeholders selected a list of projects to be completed with Watershed Based Implementation Funding (WBIF) from the Minnesota Board of Water and Soil Resources (BWSR). One of the projects for which funding was allocated was the restoration of two large water and sediment control practices located on the Almquist family land in Ravenna Township and originally constructed approximately fifty (50) years ago. Over time, the basins filled up with sediment from upstream drainage areas and therefore provided little water quality or flow rate reduction benefit. VRWJPO staff worked with the Dakota County SWCD to develop a restoration plan to restore some of the originally capacity of these basins without the costs of complete material export or reconstruction.

Initial estimates for the project included a cost of \$65,000 to achieve estimated pollutant reductions of 5.5 tons per year of total suspended solids (TSS), 4.1 pounds per year of total phosphorus, and 6.2 acre-feet of volume reduction, as well as reductions in frequency of overtopping the emergency spillway to help protect downstream watercourses. In developing final design, the project team requested an additional \$20,000 in VRWJPO funding to go to the project based on further development of construction estimates to bring the total available budget to \$85,000.

In May 2022, VRWJPO staff solicited quotes from multiple contractors who have worked in grading and water quality projects with the VRWJPO and our partners. Four quotations were received from contractors, and the quotations are summarized in Attachment A. The lowest quote received was \$67,391.00 from Minnesota Dirt Works, Inc. for construction of the project. VRWJPO staff have met with the landowner representatives and are finalizing the landowner agreement(s) for construction access and maintenance.

RECOMMENDATION

Staff recommends the VRWJPB authorize the VRWJPO administrator to execute a contract with Minnesota Dirt Works, Inc. for construction of the Almquist Sediment Basins Restoration project in an amount not to exceed \$67,391.00.

EXPLANATION OF FISCAL/FTE IMPACT

The project costs are within the amount allocated in the Revised 2022 VRWJPO that includes a VRWJPO contribution as well as funding allocated through the FY2020-21 Watershed Based Implementation Funding Grant Agreement and work plan (\$85,000 total project dollars).

Attachment A - Project Solicitation Summary

RESOLUTION

6b. Authorization to Execute Contract with Minnesota Dirt Works, Inc. for Construction of the Almquist Sediment Basins Restoration Project

WHEREAS, the Almquist Sediment Basins Restoration project was selected as a project to be completed with Watershed Based Implementation Funding (WBIF) program dollars allocated to the Vermillion River Watershed; and

WHEREAS, the VRWJPO and Dakota Soil and Water Conservation District identified the project after the basins filled up with sediment over time and no longer provided any water quality or rate control benefits; and

WHEREAS, the VRWJPO has budgeted a total of \$85,000 between WBIF dollars and VRWJPO local match to complete the project; and

WHEREAS, the project is anticipated to provide estimated pollutant reductions of 5.5 tons per year of total suspended solids (TSS), 4.1 pounds per year of total phosphorus, and 6.2 acre-feet of volume reduction, as well as reductions in frequency of overtopping the emergency spillway to help protect downstream watercourses; and

WHEREAS, VRWJPO staff solicited quotes from contractors in May 2022 to complete the Almquist Sediment Basin Restoration project, and the lowest quote received was \$67,391.00 from Minnesota Dirt Works.

NOW, THEREFORE, BE IT RESOLVED, that the Vermillion River Watershed Joint Powers Board authorizes its chair to execute a contract with Minnesota Dirt Works, Inc. in an amount not to exceed \$67,391.00 for construction of the Almquist Sediment Basins Restoration project; subject to approval as to form by the Dakota County Attorney's Office.



DATE: June 15, 2022

TO: Vermillion River Watershed Joint Powers Board (VRWJPB)

FROM: Mark Ryan, Vermillion River Watershed Joint Powers Organization (VRWJPO)

RE: Summary of Solicitation for Almquist Sediment Basins Restoration Project

This memorandum serves as a summary of the solicitation efforts for the Almquist Sediment Basins Restoration Project, for which a Request for Board Action (RBA) is being made at the June 23, 2022 VRWJPB meeting to authorize execution of a contract for construction.

Solicitation Summary

VRWJPO staff sent a request for quotation (RFQ) to five contractor representatives who had worked with VRWJPO and project partners on water quality projects and maintenance projects on May 24, 2022. Contractors were provided an opportunity to ask questions and were required to make a site visit to the project's eastern basin due to site and access conditions, and quotations were due back on June 14, 2022.

Four quotations were received back from contractors with the contacts for the fifth contractor not responsive to email communications. The quotations received, and the engineer's estimate were as follows:

Engineer's Estimate	<u>Total Price (Both Basins)</u> \$85,878.00
Minnesota Dirt Works, Inc.	\$67,391.00
Sunram Construction, Inc.	\$89,955.00
Bituminous Roadways, Inc.	\$106,441.00
Blackstone Contractors, LLC	\$112,220.00

Based on a preliminary review of the quotes provided, the RBA for project construction is written to contract with Minnesota Dirt Works, Inc.

6c. Vermillion River Watershed Joint Powers Organization (VRWJPO) Strategic Planning for 2022

Meeting Date: 6/23/2022
Item Type: Regular-Action
Contact: Mark Zabel
Telephone: 952-891-7011
Prepared by: Mark Zabel



PURPOSE/ACTION REQUESTED

VRWJPO Strategic Planning for 2022

SUMMARY

From time to time the Vermillion River Watershed Joint Powers Board and staff find it prudent to review strategic direction of the Vermillion River Watershed Joint Powers Organization in meeting its statutory requirements as well as its efficacy in meeting its mission; planned goals, objectives, and actions; and locally identified needs.

EXPLANATION OF FISCAL/FTE IMPACT

None

Vermillion River Watershed Joint Powers Board 2022 Strategic Planning

June 23, 2022



Watershed Plan

VRWJPO Mission Statement:

"Collaboratively providing education, science, and support to restore and protect the Vermillion River Watershed's natural resources for all who live, work, and play within its boundaries."



Watershed Plan

Seven essential functions and services organize the watershed plan, the annual budget, and the annual work plan:

- 1. Administration and Operations
- 2. Research and Planning
- 3. Monitoring and Assessment
- 4. Communication and Outreach
- 5. Regulation
- 6. Coordination and Collaboration
- 7. Land and Water Treatment



Watershed Plan

Project and program implementation is driven by priorities identified in the Watershed Plan (e.g., subwatershed prioritization):

Subwatershed	Priority Factor
Upper Main Stem	25
South Creek	20
North Creek	15
South Branch	15
Middle Creek	10
Middle Main Stem	7
Lower Main Stem	5
Mississippi River Direct	3



High Level Evaluation of the Organization

(across all functions and service areas)

1. What are the Board's priorities?



High Level Evaluation of the Organization

(across all functions and service areas)

- 1. What are the Board's priorities?
- 2. What areas need more or less focus?



High Level Evaluation of the Organization

(across all functions and service areas)

- 1. What are the Board's priorities?
- 2. What areas need more or less focus?
- 3. How do staff best communicate with you as Board Members or as the Board?



What are our (VRWJPO) Strengths?

- What do we do well? Which skills or practices are particularly strong?
- What JPO work/projects do you consider successful and why?



What are our (VRWJPO) Weaknesses?

- What do we not do very well? Which skills or practices need strengthening?
- What JPO work/projects do you consider unsuccessful and why?



What are our (VRWJPO) Opportunities?

- What does/should success look like for the JPO?
- Which potential efforts are more likely to succeed?



What are our (VRWJPO) Threats?

- What are problems that are likely to occur in the watershed over the next five years?
- What can/should the JPO and its partners do to mitigate them, if anything?



Vision for Communications

What are the goals of VRWJPO Communications & Outreach?

What are we doing to reach these goals?

How can we best reach people in the watershed?

What needs attention from staff?



Vision for Communications

Landowner survey from 2021 provides perspective on what people think about the watershed generally

Respondents overwhelmingly said they value safe, clean drinking water, the health of future generations, making clean water equitably accessible, keeping recreational beaches and lakes safe, habitat for native fish and wildlife, and access to public waters for all Minnesotans. They also mostly agreed that water resources in Minnesota need more protection and that both individuals and local governments bear responsibility for protecting water quality. They feel a personal obligation to "do whatever [they] can to prevent water pollution," but not as much to engage with others about it.

At the heart of the Communications & Outreach role is a need to build public knowledge, trust, and engagement that spurs action to protect water.



Vision for Communications

Communications & Outreach tools we have:

- Social media
- Website
- E-newsletter (required by state statute)
- Community engagement at local events
- Volunteerism
- Networking with others, i.e. Watershed Partners
- Interpretive signs
- School collaboration
- Partnerships with local organizations
- Workshops & trainings

What other opportunities should we consider?



Capital Improvement

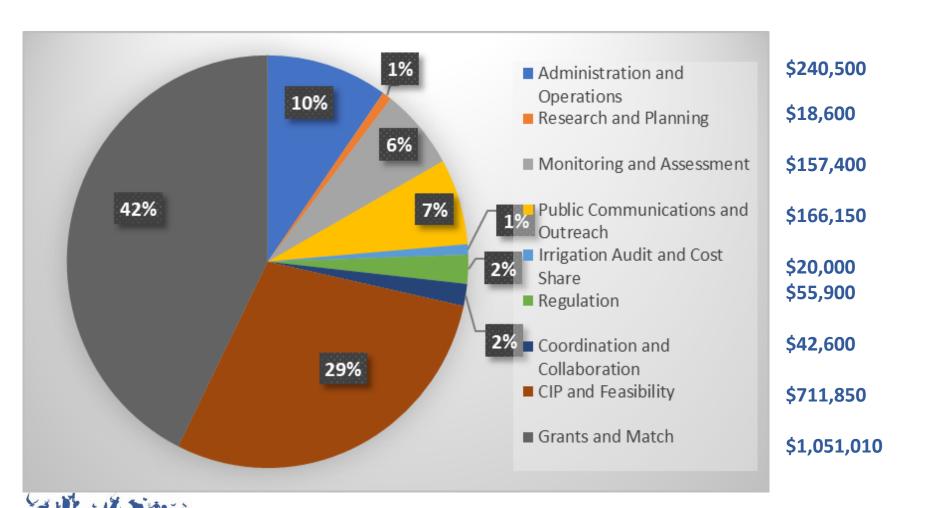
5-year CIP Planning

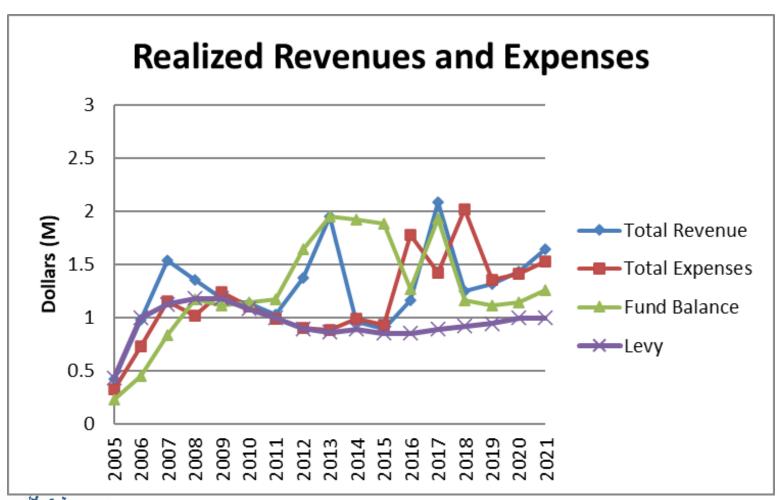
Assessment, Feasibility Studies, and Project Design

Grant Funding

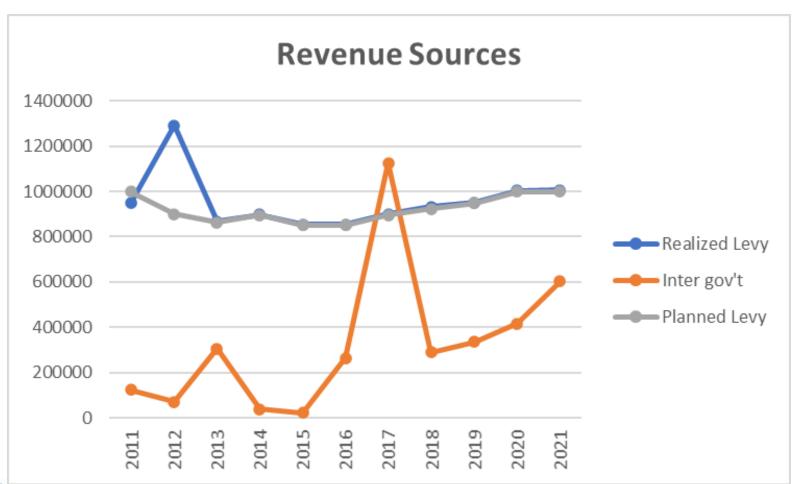
- Watershed Based Implementation Funds (BWSR)
- Clean Water Fund Competitive (BWSR)
- Conservation Partnership Legacy (DNR)
- Other (ENRTF, Federal, Private Foundations, etc.)



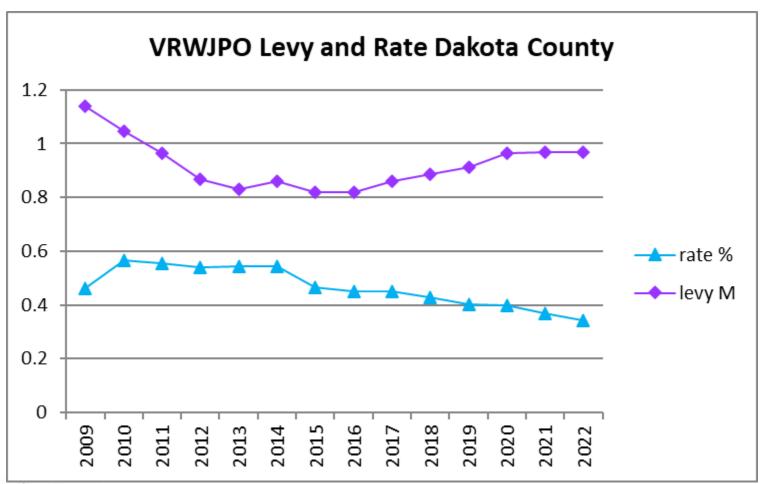




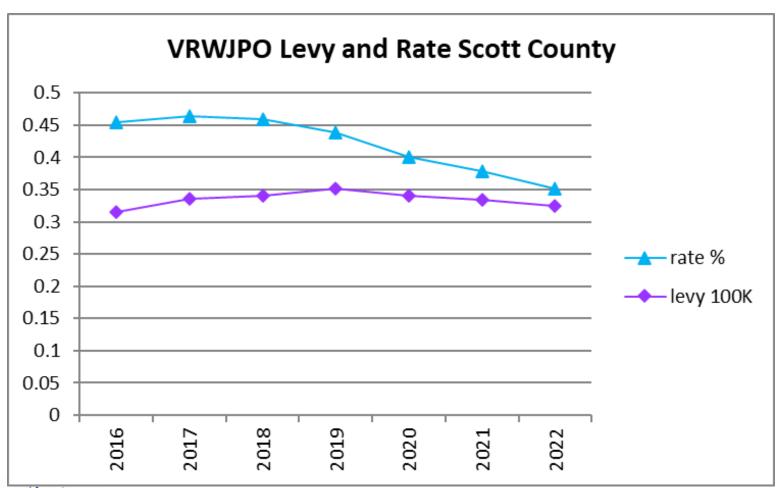














Watershed District & WMO Rates

Watershed	2021 Rates	2021 Totals
CCWMO	0.88	\$ 821,828
RPBCWD	2.04	\$ 852,251*
MCWD	1.44	\$ 440,964*
BCWD	1.51	\$ 2,546*
LMNWD	0.51	\$ 42,871*
Scott Co WMO	1.14	\$1,290,914

