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MEMO

To: SRWMO Board

From: Aaron Diehl and Jamie Schurbon, Anoka Conservation District

Date: June 29, 2018

Subject: **Watershed Plan Update – Review of Existing Plans and Rules**

Background

As part of update of the SRWMO Watershed Management Plan, the WMO is required to review existing local water plans and ordinances. This is an opportunity to identify gaps, commonalities, and problems which you may wish to address through the remainder of your planning. ACD has compiled this information for you within this memo and an associated spreadsheet. We'll discuss it together at your upcoming planning meeting.

Summary of Everything Reviewed

The Anoka Conservation District reviewed more than 4,000 pages of documents. Spreadsheets accompanying this memo detail the findings. The table and discussion below provides a very coarse overview. All of this information should be reviewed now, at the initiation of planning, and then drawn upon again later as SRWMO priorities are determined.

Document Type Reviewed	Commonalities	Gaps or Problems
Local water plans for SRWMO member communities	• All communities have one, except Linwood adopts the SRWMO plan by reference. • Similar issues discussed in each, especially water quality. • Include policies and discuss types of rules.	• Inconsistent formatting makes comparisons amongst plans difficult. • Actions and links to ordinances are often unclear.
Neighboring watershed plans, and the SRWMO Plan	• Nearly all address lakes, streams wetlands, groundwater, aquatic invasive species and public outreach. • Most address flooding. • Few address upland management.	• SRWMO plan is one of the few plans that doesn't address flooding and floodplains, but all SRWMO communities have an ordinance regarding this topic.

Document Type Reviewed	Commonalities	Gaps or Problems

Community ordinances	• Most have ordinances on the major water topics including:
	  • Floodplain (all)
	  • Shoreland (all)
	  • Septic systems (all, no SRWMO standards)
	  • Stormwater (3/4)
	  • Wetlands (3/4)
	  • Significant natural areas (2/4)
		• Complexity and lack of organization make it difficult to navigate ordinances.
		• Some seem incomplete, such as having rules but unclear areas of applications, or clear areas of application but unclear rules.
		• SRWMO has large and notable upland natural communities, but how development may affect these is lightly controlled in some communities.

Total Maximum Daily Water studies TMDLs (aka impaired waters studies)	• TMDLs are done for Linwood, Martin and Typo Lakes. • Pollutant reductions needed are 21% (Linwood Lake), 41% (Martin Lake) and 81% (Typo Lake). • WRAPS is done for the whole watershed. Management recommended includes lake internal loading, buffers, land protection, AIS management, wetland restoration, etc.	
Sunrise River Watershed Restoration and Protection Strategies (WRAPs)		
Lower St. Croix One Watershed One Plan	• Under development. Incorporate into SRWMO planning as it's developed.	

Summary: Local Water Plans for SRWMO Member Communities

All communities within the SRWMO have developed or adopted local surface management plans. Table 1 (see separate Excel file) summarizes the key topics—addressing both water quality and quantity—that are covered in each of these plans. While all these plans seem fairly comprehensive at face value, the local surface management plans of each city are difficult to directly compare due to the lack of standardization in plan format. It will be important for the SRWMO Plan to clearly set expectations for local communities and their plans and ordinances.

Summary: Neighboring Watershed Plans

Table 2 is a comparison of key issues addressed in watershed plans for areas within and adjacent to the SRWMO. In general, these plans are comprehensive, but lack standardization in plan format for easy comparison. Of greatest applicability to the SRWMO are plans of your upstream and downstream neighbors, Isanti County and the Comfort Lake Forest Lake Watershed District.

Summary: Community Ordinances

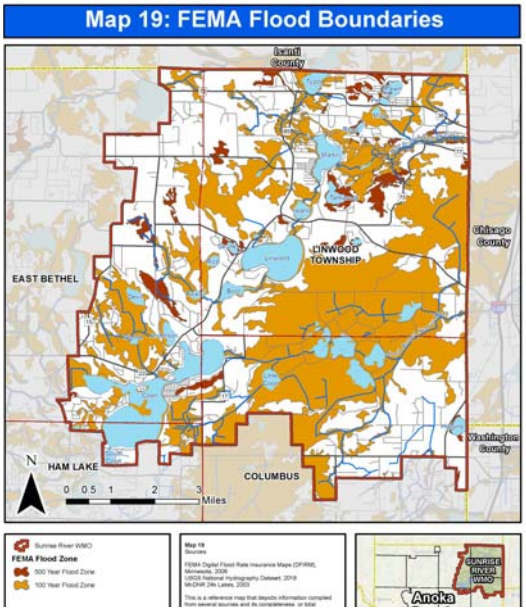
Table 3 summarizes the water-related ordinances addressed by communities within the SRWMO. Columbus and East Bethel appear to have the most detailed water-related ordinances compared to Ham Lake and Linwood Township. There are a number of ordinances which are unclear or difficult to navigate. For example, an ordinance with no applicable area or a regulated area with no corresponding ordinance. Many ordinances seem difficult to find or navigate. It's unclear how consistently any of these ordinances are actually implemented.

Summary: TMDL and WRAPS

Water Quality

Phosphorus is the primary nutrient contributing to the designation of impaired waters within the Sunrise River Watershed Management Organization. According to the MPCA, high phosphorus loads have contributed to Aquatic Recreation Impairments in Martin, Typo, and Linwood Lakes, and Aquatic life impairments in the West Branch of the Sunrise River. Phosphorus impairments of upstream waterbodies are directly contributing to the impairments of downstream waterbodies. Additionally, of non-impaired waterbodies, Coon Lake has been identified by the MnDNR having the "highest" sensitivity to additional phosphorus inputs.

The three TMDLS and one WRAPS contain a number of water management strategies for the SRWMO to consider. For example, according to the Martin/Typo Lake TMDL plan, the phosphorus impairments in the SRWMO watershed are coming from multiple sources, including: residential and agricultural watershed runoff; internal sources (rough fish, sediments, wind mixing); septic systems; ditched wetlands; and stormwater runoff. Generally throughout the SRWMO, there is no single management solution to reduce phosphorus inputs to waterbodies and streams.



Water Quantity

While none of the documented reviewed mentioned any significant flooding issues, the SRWMO is fairly flat, and more than half of the area is within the FEMA 100-year floodplain. Generally, these floodplains are associated with the approximately 10 miles of river and 60 miles of ditches that convey water through the SRWMO. Additionally, groundwater levels in the SRWMO tend to be high, which contribute to

buildability limitations throughout the SRWMO (basements, septics, etc.)

Major, unexpected flooding does not appear to be a significant issue within the SRWMO. However, recently updated precipitation frequency estimates (NOAA Atlas 14), indicate that the current SRWMO precipitation rates are higher, on average, than records from the late-1900s. This suggests that stormwater quantity management will become an increasingly important issue within the SRWMO.

restorations; Martin Lake stormwater retrofits; stormwater and erosion control permits and regulations; agricultural best management practices; education; and, effectiveness monitoring.

Summary: Watershed Restoration and Protection Strategies Report (WRAPS)

A WRAPS is complete for the Sunrise River watershed across several counties. It recommends management strategies for the SRWMO to consider.

Considerations for the New SRWMO Plan

Things to consider regardless of SRWMO priority issues:

- Clearer local water plan and WMO plan linkage – In the new SRWMO plan, include a clear list of actions, ordinances or management that is expected of the communities. Require local water plans to include a correspondingly clear list of how they are addressing SRWMO items.
- Adoption by reference – Continue allowing the communities to adopt the SRMWO plan by reference rather than writing their own (Linwood does this)?

Things to consider, if appropriate, based on SRWMO priorities that are to be determined:

- Rules/ordinances
    - Should the WMO require minimum ordinance standards for the following?
        - Floodplain (all already have this ordinance, currently no SRWMO standards)
        - Shoreland (all, no SRWMO standards)
        - Septic systems (all, no SRWMO standards)
        - Stormwater (3/4, SRWMO standards in place)
            - Manage for infiltration of the first __ inches of rain?
            - Manage impervious surface ratios on properties?
        - Wetlands (3/4, SRWMO standards in place)
        - Significant natural areas (2/4, no SRWMO standards)
        - Encourage low impact development? East Bethel was a Minimum Impact Development Standards (MIDS) test community.
    - Meet with cities to review SRWMO minimum ordinance standards?
    - Require use of new Atlas 14 precipitation data be applied to stormwater ordinances?
    - How can the SRWMO know if its minimum standards are being implemented in community ordinances?
- Management strategies in the TMDLs and WRAPS should be considered for inclusion in the SRWMO plan.