

Minnehaha Creek Watershed District

REQUEST FOR BOARD ACTION

MEETING DATE: May 10, 2018

TITLE: Authorization of the District Administrator to Provide Comments on the 2018 Draft Construction Stormwater Permit

RESOLUTION NUMBER: 18-047

PREPARED BY: Elizabeth Showalter

E-MAIL: eshowalter@minnehahacreek.org

TELEPHONE: 952-641-4518

REVIEWED BY: Administrator Counsel Program Mgr. (Name):__Katherine Sylvia____
 Board Committee Engineer Other

WORKSHOP ACTION:

<input type="checkbox"/> Advance to Board mtg. Consent Agenda.	<input type="checkbox"/> Advance to Board meeting for discussion prior to action.
<input type="checkbox"/> Refer to a future workshop (date):_____	<input type="checkbox"/> Refer to taskforce or committee (date):_____
<input type="checkbox"/> Return to staff for additional work.	<input type="checkbox"/> No further action requested.
<input checked="" type="checkbox"/> Other (specify): Approval at May 10, 2018 Board Meeting	

PURPOSE or ACTION REQUESTED:

Authorization to provide comments to the Minnesota Pollution Control Agency regarding the 2018 draft Construction Stormwater Permit during the public comment period regarding limits on infiltration and the use of regional stormwater systems.

PROJECT/PROGRAM LOCATION:

Districtwide

PROJECT TIMELINE:

Comment period expires on May 23, 2018.
Existing Construction Stormwater Permit expires on August 1, 2018.

PROJECT/PROGRAM COST:

No cost.

PAST BOARD ACTION:

No previous board action.

SUMMARY:

The National Pollutant Discharge Elimination System (NPDES) is a federal program regulating stormwater discharges. The State of Minnesota has three stormwater permit programs that regulate stormwater discharges which implement the NPDES standards: Construction Stormwater (CSW), Municipal Stormwater (MS4), and Industrial Stormwater. The State issues general permits under these programs that outline the standards for compliance. The CSW Permit expires every five years and must be updated to conform to

**DRAFT for discussion purposes only and subject to Board approval and the availability of funds.
Resolutions are not final until approved by the Board and signed by the Board Secretary.**

NPDES standards. The current permit expires on August 1, 2018 and is currently being updated. MPCA released a draft of the CSW Permit for public review on April 9, 2018 with a public comment period expiring on May 23, 2018. MS4 Permit holders are required to enforce the CSW standards through ordinance, code, or rules. Through the regulatory program, the District implements the CSW standards on behalf of several cities who do not have erosion control and stormwater management regulations. As an MS4, the District is also obligated to enforce CSW standards within its MS4 boundary (i.e. areas draining directly to county/judicial ditches).

To develop comments, staff and the District Engineer reviewed the draft permit and consulted with municipal partners to assess the areas of concern in the draft permit. The two areas of concern relate to permanent stormwater management. The CSW permit requires permanent stormwater management for development that creates one acre or more of new impervious area.

The first area of concern is the prohibition of infiltration within areas that are within an Emergency Response Area (ERA) or are deemed to have high or very high drinking water vulnerability within a municipal wellhead protection plan. Wellhead protection plans establish Wellhead Protection Areas (WHPAs) which are based on a distance from a public drinking water well. Within the WHPA, ERAs are established as an inner wellhead area. The diameter of the WHPAs and ERAs is determined by the known characteristics of the bedrock. Wellhead protection plans also include an assessment of aquifer vulnerability which classifies areas as very low, low, moderate, high, or very high vulnerability. The vulnerabilities are based on a high level assessment of the bedrock and aquifers. In consultation with the District Engineer, staff determined that the prohibition of infiltration is unnecessarily cautious. Current guidance from the Minnesota Department of Health (MDH) considers infiltration in areas within ERAs and also have high or very high vulnerability inappropriate. The draft comments prepared by staff request that the infiltration prohibition be limited to areas that are within the ERA and in an area with high or very high drinking water vulnerability. It further requests that, if the prohibition remains as written in the permit, government agencies other than MS4s be able to apply for the ability to permit infiltration in these areas, so that the District can request permission for its entire geography.

The existing permit and the draft permit include a hierarchy of treatment options for permanent stormwater treatment. First, applicants must design the site to infiltrate one inch off the entire site's impervious surface. If infeasible, applicants then must filter an inch off of the site's impervious area. If that is infeasible, applicants then must provide a water quality pond on site with enough storage for one inch of runoff from the site's impervious surface. If all onsite treatment options are not feasible, applicants may then use regional treatment to meet the CSW requirements. The District sees value in the use of regional systems, since they provide better water quality results and are typically better maintained than privately held stormwater facilities. Under the hierarchy provided in the permit, the District could not allow regional treatment in lieu of onsite treatment for projects that create an acre or more of new impervious area unless it is infeasible to treat on site. Staff are recommending that the CSW permit allow the use of regional treatment that treats at least one inch of impervious off of the site's impervious area and provides phosphorus removal equivalent to the infiltration of one inch off of the site's impervious area to meet the permanent stormwater requirements of the CSW permit without demonstration that onsite treatment is infeasible.

The attached letter provides technical justification for the comments.

RESOLUTION

RESOLUTION NUMBER: 18-047

TITLE: Authorization of the District Administrator to Provide Comments on the 2018 Draft Construction Stormwater Permit

WHEREAS, the Minnesota Pollution Control Agency has released a draft of the 2018 Construction Stormwater Permit for public comment; and

WHEREAS, as a regulated MS4, the District’s regulatory program is responsible for implementing the Construction Stormwater Permit requirements through the Erosion Control and Stormwater Management Rules; and

WHEREAS, elements of the draft Construction Stormwater Permit limit the District’s ability to promote infiltration and regional stormwater treatment.

NOW, THEREFORE, BE IT RESOLVED that the Minnehaha Creek Watershed District Board of Managers authorize the District Administrator to provide comments on the 2018 Draft Construction Stormwater Permit to the Minnesota Pollution Control Agency.

Resolution Number 18-047 was moved by Manager _____, seconded by Manager _____.
Motion to adopt the resolution ___ ayes, ___ nays, ___ abstentions. Date: _____.

Secretary Date: _____

**DRAFT for discussion purposes only and subject to Board approval and the availability of funds.
Resolutions are not final until approved by the Board and signed by the Board Secretary.**



Todd Smith
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155

Re: 2018 Draft Construction Stormwater Permit-Public Comment

Dear Mr. Smith,

Minnehaha Creek Watershed District (District) is a local unit of government responsible for managing and protecting the water resources in one of the largest and most heavily-used urban watersheds in Minnesota. The District aims to manage our natural resources within a broader ecological context, with recognition of the interrelated nature of natural and built environments. In pursuit of a balanced urban ecology, the District is partnership focused and has developed our comments in conjunction with several of the cities within our District.

The District’s regulatory program regulates construction stormwater through the Erosion Control Rule, covering erosion and sediment control, for 25 municipalities and regulates permanent stormwater management through the Stormwater Management Rule for 26 municipalities. Our regulations provide greater protection than the National Pollutant Discharge Elimination System (NPDES) requirements through requirements for permanent stormwater treatment on sites without an increase in impervious surface of an acre or more.

The District is the ditch authority for eight county and judicial ditches within the District. The ditches include three major streams and several storm sewers. As the ditch authority, the District is a regulated MS4 for the areas draining directly to the ditches. The District’s MS4 boundary is therefore smaller than the District’s legal boundary.

As a regulated MS4 and a natural resource protection agency, the District is providing comments on the 2018 Draft Construction Stormwater Permit. Our comments relate to two elements of the permanent stormwater management requirements.

Regional Stormwater Management

The District has shown that regional stormwater management provides applicants and municipalities greater flexibility during redevelopment while also providing treatment beyond the minimum requirements. As parts of the District are high-density urban areas, meeting the District’s rules for redevelopment through onsite treatment can be infeasible for some applicants. Through private and public partnerships, the District has been very successful in recent years achieving greater stormwater treatment and ecological benefit through regional stormwater practices. Regional treatment has recently been incorporated into three projects along Minnehaha Creek’s most degraded section as part of a greater plan to create a riparian greenway that complements the built environment.

We collaborate with public and private partners to protect and improve land and water for current and future generations.



The recent projects include partnerships with the Cities of St. Louis Park and Hopkins and the Japs-Olson Company, and in each case, the regional stormwater plan provided treatment beyond the redeveloped parcel. For example, the 325 Blake Road Redevelopment project (Hopkins) provides treatment for the 17-acre site while also capturing and treating runoff for over 260 acres of stormwater being redirected from three different municipalities. The regional stormwater practice is planned to capture approximately 181 lbs of phosphorus per year while the 17-acre site has a yearly phosphorus load of about 19 pounds. In addition to the increased stormwater treatment, the project also restores nearly 1,200 feet of the Minnehaha Creek riparian zone and provides public access to green space. The Cottageville Park project (Hopkins) is another example where a regional stormwater system provided treatment for 22 acres and 400 feet of Minnehaha Creek was restored, while creating nearly 5 acres of parkland in a highly developed area. The Cottageville Park regional treatment system also provided flexibility for local/adjacent redevelopers with the ability to purchase stormwater credits from the system. By allowing private developers to purchase credits from the regional treatment systems, we are able to leverage more funds for the construction of regional systems and associated ecological improvements.

In a rural environment, regional treatment can also provide greater water quality treatment than would be achieved through filtration of runoff or through the use of a water quality pond on the site. In the western portion of the District, soils are rarely suitable for infiltration. Developers can provide onsite filtration, but it was found that typical filtration practices alone cannot achieve the same water quality benefits of infiltration. Regional treatment systems are often more suited to providing a treatment train approach and allow for more creative Best Management Practices, such as iron enhanced sand filters, which may be less feasible on an individual site. The District has partnered with the City of Victoria on the East Auburn Stormwater Ponds project to improve existing stormwater ponds through the installation of iron enhanced filtration benches. Iron enhanced practices are often avoided by developers due to the maintenance costs associated with replacing the iron, but municipalities and regional government agencies are more able to incorporate those ongoing costs into their Capital Improvement Plan. The City's contributions to the project are funded in part through the sale of credits to developers.

The District would like to continue to be able to build partnerships and provide greater water quality, water quantity, and ecological benefits through regional stormwater management and permitting. We request that the CSW permit allow for regional treatment without the sequencing process for regional treatment systems approved by an MS4. Approval of permits through this mechanism will continue to be contingent upon the regional stormwater plan providing equivalent or greater benefit than strict, onsite treatment.

In addition to greater stormwater and ecological benefit, the District believes that regional stormwater facilities have a higher probability of being properly maintained and operated. The District requires maintenance declarations for all stormwater facilities but have found many instances where small site-

We collaborate with public and private partners to protect and improve land and water for current and future generations.



specific stormwater facilities have been poorly maintained, reducing their effectiveness. Additionally, reducing the overall number of stormwater ponds or BMPs will reduce the cost of maintenance as having fewer BMPs reduces the number of overall inspections and maintenance schedules.

Drinking Water Supply Management Areas (DWSMA)

The District values the protection of groundwater and drinking water and employs a thorough review process to ensure permanent stormwater facilities are designed in accordance with generally accepted design practices and guidance contained in the MPCA's *Minnesota Stormwater Manual*. All permits proposing infiltration in a DWSMA area are reviewed by a District Engineer to make sure that the infiltration BMP:

- Has adequate separation (> 3 feet) from seasonally high groundwater and mottled soils through the review of soil borings,
- Is not within 6 feet of bedrock,
- Would not result in adverse surface hydrologic impacts,
- Is not located in a potential stormwater hot spots (as defined in the MN Stormwater Manual) or areas where there is a cognizable threat to mobilize contaminants in the soil.
- Is not located on sites with identified histories of contamination.

If there is any cognizable threat to mobilize contaminants or if the site has a history of contamination, the District requires Phase I and/or Phase II Site Assessments, along with soil and groundwater samples analyzed for diesel range organics (DRO), volatile organic compounds (VOCs), the eight RCRA metals, and polynuclear aromatic hydrocarbons (PAHs). If the applicant forgoes testing in the areas, the District prohibits infiltration and requires applicants to utilize filtration practices with an impermeable liner.

Additionally, the District prohibits infiltration in areas of high or very high vulnerability that are also within an Emergency Response Area (ERA). We believe that our rigorous review process provides sufficient protection for drinking water to allow infiltration in ERAs that are outside of a high or very high DWSMA vulnerability. By allowing infiltration in ERAs outside of high or very high vulnerability areas, 11.1 additional square miles, amounting to 6.6 % of the District may be eligible for infiltration.

Infiltration provides a water quality and quantity benefit that is difficult to achieve through other practices. Infiltration provides true volume control and groundwater recharge. The District was formed to address flooding on Minnehaha Creek and invests significant resources in reducing impacts from stormsewer outfalls in the Creek that experience high rates and volumes of discharge. While filtration and stormwater ponds can reduce runoff rates, they cannot reduce total runoff volumes. Increases in runoff volumes can significantly change the ecological landscape by increasing the bounce and inundation of downstream waterbodies. Increases in the bounce and inundation of wetlands can contribute to habitat destruction or changes to vegetation community types. With significant rain event becoming more common in recent years, reducing downstream impacts is increasingly important.

We collaborate with public and private partners to protect and improve land and water for current and future generations.



Filtration practices remove approximately 55% of phosphorus and have very limited ability to remove dissolved phosphorus. An analysis of the effectiveness of District Rules found that the Forest Lake subwatershed experienced an approximately 6 pounds per year increase in phosphorus loading due to two subdivisions. Those subdivisions met the District rules through filtration, rather than infiltration, which receives a 50% volume credit under the District Rules. By unnecessarily prohibiting infiltration with ERAs, our ability to reduce phosphorus loading, or even prevent increases in phosphorus loading would be severely limited in many areas of the District.

Due to the substantial benefits achieved by infiltration, and the limited risk associated with infiltration in ERAs with moderate or low vulnerability, we request the CSW permit only prohibit infiltration in areas that are both in an ERA and have high or very high vulnerability. Since our MS4 does not encompass our entire jurisdiction, we are not able to receive permission from the MPCA to permit infiltration in ERAs or high vulnerability DWSMAs in areas outside of our MS4. Therefore we request that, if the prohibition on infiltration in ERAs or high vulnerability DWSMAs remains in the permit, local government units other than MS4s may apply for the ability to permit infiltration in those areas.

We appreciate the opportunity to provide comments on the draft Construction Stormwater Permit. If you have any questions regarding our comments, please contact Elizabeth Showalter at 952-641-4518 or eshowalter@minnehahacreek.org.

Sincerely,

James Wisker
District Administrator

We collaborate with public and private partners to protect and improve land and water for current and future generations.