



# Capitol Region Watershed District

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## **PERMIT GUIDANCE AND INFORMATION HANDBOOK**

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The information in this handbook should be used in conjunction with the Watershed District Rules and not used as a stand-alone item. This handbook will be periodically updated.

# Rule B: Permit Process Guidance

## **When is a permit required?**

A permit is required from the Capitol Region Watershed District (District) when one or more of the following conditions are met. Potential applicants are encouraged to call District staff to verify permit requirements or with any questions:

### **Rule C – Stormwater Management**

Any land disturbing activity or the development of land one acre or greater, or 10,000 square feet adjacent to a water body, unless specifically exempted by Rule C.

### **Rule D – Flood Control**

Any alteration or fill of land below the 100-year flood elevation or land disturbing activity below the 100-year flood elevation. Developments permitted under other District Rules must comply with relevant freeboard requirements for proposed and existing building structures.

### **Rule E – Wetland Management**

Any activity that may fill, drain, excavate, or otherwise alter the character of a wetland, unless specifically exempted by Rule E. Developments permitted under other District Rules must comply with wetland buffer requirements.

### **Rule F – Erosion and Sediment Control**

Any land disturbing activity or the development of land that is:

- one acre or greater;
- within the 100-year floodplain and greater than 1,000 square feet; or
- is adjacent to a public water or protected wetland and greater than 1,000 square feet.

### **Rule G – Illicit Discharge and Connection**

Any direct connections, replacement of existing connections, or significant changes to hydrology entering the Trout Brook Storm Sewer Interceptor or other components of the District MS4. All non-stormwater discharges entering the storm drain system generated on any developed or undeveloped lands are prohibited unless specifically exempted by Rule G.

## **What is the application timeline?**

The Board of Managers holds its regular monthly meetings on the first and third Wednesdays of each month, at 6:00 pm, at the District office located at 595 Aldine Street, St. Paul, MN. A complete permit [application package must be submitted online at least 21 calendar days](#) prior to the scheduled meeting date of the Board of Managers to be considered for inclusion on that meeting agenda. Late or incomplete submittals will be scheduled to a subsequent meeting date. To allow time to resolve questions and make necessary revisions, the District recommends that applications be submitted as early as possible depending on the complexity of the project.

## **What are the actions that can be taken by the Board of Managers on my permit application?**

District staff will make a recommendation to the Board after permit application materials have been reviewed and found sufficient. The Board may: deny, approve, approve pending completion of select conditions, or table the permit application.

# Rule C: Stormwater Management Guidance

## **What am I required to do for stormwater management?**

Applicants are required to meet three standards pertaining to stormwater management on their site. The following computer modeling programs will be accepted: HydroCAD, XP SWMMM, and TR-20. Other programs will be accepted when reviewed and approved by the District.

1. Rate Control – Runoff rates shall not exceed existing runoff rates for the 2-year, 10-year, and 100-year critical storm events using Atlas-14 rainfall magnitudes.
2. Volume Reduction – Stormwater runoff volume reduction shall be achieved onsite in the amount of 1.1 inches of runoff from the new and newly reconstructed impervious surfaces.
3. Water Quality – Developments must incorporate effective non-point source pollution reduction BMPs to achieve 90% total suspended solids removal from the runoff generated by a NURP water quality storm (2.5” rainfall), or on an annual basis.

## **What if I am not able to infiltrate on my site?**

Rule C includes a table that lists possible site conditions that may make it impossible or undesirable to infiltrate stormwater. If those conditions exist on your site and you submit documentation, you may follow the alternative compliance sequencing steps to determine the best way to meet the volume reduction standard.

## **What is Alternative Compliance Sequencing?**

The alternative compliance sequencing process includes three steps that must be followed to meet the volume reduction standard. The sequencing steps to be followed are:

1. First, the applicant shall comply, or partially comply, with the volume reduction standard to the fullest extent practicable on-site through alternative volume reduction methods. See the questions below for more information.
2. Second, the applicant shall meet the volume reduction standard at an offsite location or with qualified banking credits.
3. Third, as a last alternative, the applicant shall pay into the District’s Stormwater Impact Fund to cover the cost of implementing volume reduction elsewhere in the watershed.

## **What are some examples of alternative volume reduction BMPs?**

Infiltration of stormwater is often the first choice for applicants to achieve volume reduction on their site. There are also other techniques to reduce volume that do not rely solely on infiltration and are good alternatives whether or not you are able to infiltrate. Below is a list of possible alternative volume reduction BMPs. This list is not meant to be all-inclusive, but only an idea of other alternatives. All these techniques can be found on the [Minnesota Stormwater Manual Wiki](#).

- Bioretention (rain gardens with underdrains)
- Vegetated Swales
- Stormwater Harvest and Reuse
- Green Roofs/Roof Gardens
- Iron-Enhanced Sand Filters
- Sand and other Media Filter

The District will consider credits towards the volume reduction standard as follows:

- Filtration practices shall be credited at **55%**. For filtration practices, only the storage volume provided below the low outlet of the BMP will be credited towards the volume reduction requirement (perforated drain pipes for filtration will not be considered the low overflow outlet).
- Iron enhanced sand filtration systems shall be credited at **80%**. Other enhanced systems, including approved manufactured treatment filtration devices (MTDs), shall be allowed and credited as approved by the District. Detail of approved MTDs and can be found on the [CRWD website](#).
- Stormwater reuse systems shall be allowed at an approved credit as calculated by the Stormwater Reuse Calculator found in the application guidance materials, or other approved calculator.

Applicants are also encouraged to use Low Impact Design (LID) techniques to reduce and/or disconnect impervious surfaces.

### **Where do I find design guidance for stormwater BMPs?**

The [Minnesota Stormwater Manual](#) is now in Wiki format and provides the most recent information for stormwater BMP design, construction, and maintenance guidance. A wealth of information is available for developers and engineers planning and designing a development site.

### **How do I determine if the pretreatment I am providing is adequate?**

Infiltration BMPs require varying degrees of pretreatment of stormwater runoff to remove solids and maintain the long-term viability of the infiltration areas. Because the degree needed for pretreatment depends largely on the BMP used and the area draining to the BMP, one standard cannot be written to cover all situations and BMPs. General guidance on pre-treatment for surface practices can be found within the Minnesota Stormwater Manual. Pre-treatment practices for underground BMPs can vary from structures with sumps to proprietary devices and isolator rows. Modeling software such as SHSAM and P8 should be used to estimate annual removals for TSS. Designers should implement appropriate pre-treatment BMPs to achieve a minimum annual removal efficiency of roughly 15% TSS using the NURP particle size distribution.

### **What is required for long term maintenance?**

All stormwater management BMPs require maintenance to assure that the structures and facilities function as originally designed. Rule C requires that a maintenance agreement between the District and the responsible party be executed and recorded with the property. Agreements must be recorded with Ramsey County by the applicant, and a copy of the recorded declaration submitted to the District prior to a permit being issued. Stormwater BMPs on public developments may be covered with a single Memorandum of Agreement for all permitted facilities within the political subdivision's jurisdiction.

## **Rule D: Flood Control Guidance**

### **What is the definition of floodplain?**

Floodplain is the area adjoining a watercourse or natural or man-made water body, including the area around lakes, marshes and lowlands that is inundated during a 100-year flood.

### **What is required if I want to fill or build in a floodplain?**

No placement of fill within the 100-year floodplain is allowed unless compensatory storage is provided. Compensatory storage must be provided on the development or immediately adjacent to the development within the affected floodplain. Compensatory storage shall result in the creation of floodplain storage to fully offset the loss of storage.

## Are there freeboard requirements that need to be met?

Yes. Please reference Table 2 in Rule D for more information on the freeboard requirements that must be met.

## Are there any other requirements?

Rule D also requires that emergency overflow swales or areas be constructed to convey the peak 100-year discharge away from buildings and from each water body to the next downstream water body. Typically, the swales should be a minimum of ten feet wide and one foot deep and be lined completely with a permanent soil stabilization material.

# Rule E: Wetland Management Guidance

## How do I know if I have a wetland on my property?

Wetlands may exist on your site even if you do not see standing water and a wetland delineation is required to make an official determination. Staff has identified the location of most of the wetlands in the District by completing a wetland inventory. Although the wetlands in the District were identified and classified, they were not delineated. And while most of the wetlands have been located, there still may be other areas that are considered wetlands even if not on our map. The District map should only be considered a starting point for determining if wetlands exist on your site.

## What if I want to impact a wetland on my site?

The District's Wetland Management Rule adopts by reference the Wetland Conservation Act (WCA), with the following exceptions:

- (1) The de minimis size will be zero.
- (2) Flexibility Sequencing will not be allowed.
- (3) All other WCA non-temporary impact exemptions to wetlands will not be allowed.
- (4) All wetland replacements shall be within District boundaries.
- (5) A 25-foot buffer of permanent non-impacted vegetative cover abutting and surrounding the wetland is required.

Both the Wetland Management Rule and WCA require project applicants to complete a sequencing analysis before proposing to drain, fill, or excavate wetlands by completing the following steps:

1. Attempt to **avoid** direct and indirect impacts to wetland;
2. **Minimize** impacts to wetlands by limiting the degree or magnitude of wetland activity;
3. **Rectify** temporary impacts by repairing, rehabilitating, or restoring the affected wetland;
4. **Reduce** or eliminate impacts to wetlands over time by preserving the wetlands through proper maintenance, management, and operation of the project to avoid further draining or filling of wetlands; and
5. **Replace** unavoidable wetland impacts by replacing with wetland areas of equal or greater public value.

A separate WCA application form and process is required for projects proposing to impact a wetland. District staff should be contacted early to start that process.

Wetland buffers are required for all developments adjacent to a wetland whether or not the wetland is located on the same parcel as the proposed development.

## Am I able to grade or otherwise disturb the land in the buffer areas?

The required buffers are not to be disturbed. Generally, buffers may not be graded and stormwater management BMPs may not be placed in them. In areas where the buffer is unacceptable and has high

restoration potential, grading may be allowed as long as the required buffer width is achieved post construction with the restoration of a native buffer.

## **Rule F: Erosion and Sediment Control Guidance**

### **What is required for erosion and sediment control?**

The District requires an applicant to submit an erosion and sediment control plan and comply with the following criteria:

1. Erosion and sediment control plans shall comply with the standards of the Minnesota Pollution Control Agency's NPDES General Construction Permit except where more specific requirements are required.
2. All controls shall be installed before commencing the land disturbing activity and shall not be removed without District approval and final stabilization is confirmed at the completion of the project.
3. The permittee shall be responsible for proper operation and maintenance of all controls until the site has undergone final stabilization and has received an approved certificate of completion.

### **Are there manuals available for choosing erosion and sediment control BMPs or design of plans?**

The Minnesota Pollution Control Agency (MPCA) [Stormwater Program for Construction Activity](#) website is regularly updated and contains guidance for permitting, compliance, and Storm Water Pollution Prevention Plan creation. Additionally, the MPCA manual titled, "Protecting Water Quality in Urban Areas" is a good tool for choosing best management practices and design guidance. The manual can be found on the MPCA website at <http://www.pca.state.mn.us/water/pubs/sw-bmpmanual.html>.

## **Rule G: Illicit Discharge and Connection**

### **What do I need to do to connect to the Trout Brook Interceptor or other parts of the District MS4 system?**

New direct connections and replacement of existing connections require a permit to be obtained from the District. The connections must be done using a method that is approved by the District. Peak flow rate and the total volume of flow for new connections must be managed to not cause new water conveyance problems or exacerbate existing water conveyance problems in the Trout Brook Interceptor. Enlargement of existing connections is considered a new connection.