

## Summary of City of Columbia Heights and MWMO Stormwater Performance Standards

Category	MWMO Standard*	City Standard**	City Standard Reference**	City Contact	Applicable Tools
Trigger	> 1 acre of land disturbance  (see complete <a href="#">MWMO Standards</a> language for a list of exemptions)	All projects creating or disturbing more than one acre of impervious require stormwater management plan; projects disturbing 10,000 square feet or 500 cubic yards require erosion control plan	<a href="#">Surface Water Management Design Standards</a>	<a href="#">Engineering Department</a>	
Rate Control	Defer to City (or MS4) rate control standards	Maintain existing flow rates for the 2, 10, and 100-year 24-hour rainfalls based on Atlas 14 precipitation and type II 24-hour storm distribution. Detention basins must also be designed for the 100-year 10 day snowmelt event	<a href="#">Surface Water Management Design Standards</a>	<a href="#">Engineering Department</a>	<ul style="list-style-type: none"> <li>• <a href="#">HydroCAD</a></li> <li>• <a href="#">SWMM</a></li> </ul>
Water Quality/ Volume Control	<p>For nonlinear projects: 1.1 inches of runoff from the new and fully reconstructed impervious surfaces shall be captured and retained on site.</p> <p>For linear projects: the larger of the following shall be captured and retained on site:</p> <ul style="list-style-type: none"> <li>i. 0.55 inches of runoff from new and fully reconstructed impervious surfaces</li> <li>ii. 1.1 inches of runoff from the net increase in impervious area</li> </ul> <p>For projects on sites with limitations, follow the <a href="#">MWMO Design Sequence Flow Chart</a> (Appendix I of the MWMO's Watershed Management Plan) or an MWMO-approved alternative to identify a path to compliance through Flexible Treatment Options (also presented in Appendix I).</p>	<p>Project water quality performance standard is considered met if the volume control standard is met:</p> <p>The MWMO stormwater standards and flow chart (Appendix D) will be applied to development within the City.</p> <p>a) For developments that disturb one acre or more acre of land, 1.1 inches of runoff from the net increase in impervious area shall be captured and retained onsite. If this policy cannot be met due to site restrictions, the restrictions must be documented and the development shall follow the Flexible Treatment Options Approach through the MWMO Design Sequence Flow Chart.</p>	<a href="#">Surface Water Management Design Standards</a>	<a href="#">Engineering Department</a>	<ul style="list-style-type: none"> <li>• <a href="#">P8</a></li> <li>• <a href="#">MIDS calculator</a></li> <li>• <a href="#">WinSLAMM</a></li> </ul>

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Volume Control Guidance	See complete <a href="#">MWMO Standards</a> language for full details.	Infiltration is infeasible where: - Industrial facilities are not authorized to infiltrate industrial stormwater under and NPDES/SDS Industrial Stormwater Permit issued by the MPCA. - Vehicle fueling/maintenance occur. - Less than 3 feet of separation distance from the bottom of the infiltration system to the elevation of the seasonally saturated soils or the top of the bedrock. - High levels of contaminant in soil or groundwater will be mobilized by the infiltrating stormwater.	<a href="#">Surface Water Management Design Standards</a>	<a href="#">Engineering Department</a>	<ul style="list-style-type: none"> <li>• <a href="#">Minnesota Stormwater Manual</a></li> <li>• <a href="#">NPDES Construction Stormwater Permit</a></li> </ul>
Maintenance	Stormwater management facilities shall be maintained to assure they function as originally designed. Owners must follow an inspection and maintenance schedule approved by the permitting entity and correct any performance issues that arise.	No private stormwater facilities may be approved unless a maintenance plan is provided that defines how access will be provided, who will conduct the maintenance, the type of maintenance and the maintenance intervals. At a minimum, all private stormwater facilities shall be inspected annually and maintained in proper condition consistent with the performance goals for which they were originally designed and as executed in the stormwater facilities maintenance agreement.	<a href="#">Surface Water Management Design Standards</a>	<a href="#">Engineering Department</a>	
Drainage Alterations	No person shall alter stormwater flows at a property boundary by changing land contours, diverting or obstructing surface or channel flow, or creating a basin outlet, without obtaining any necessary city permits.	A land alteration permit is required when activity alters the drainage patterns of another property.	<a href="#">City Code Chapter 9.106</a>	<a href="#">Engineering Department</a>	

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Wetland Bounce and Duration Control	The project must meet maximum allowable water level bounce (i.e., water level increase) and drawdown times (time to return to normal water level) according to wetland susceptibility classification (see complete MWMO standard).	The water fluctuation (in a wetland) from storm water shall not be increased over what occurs naturally, unless the outlet elevation has been changed as allowed consistent with City Code Chapter 9.106.	<a href="#">City Code</a> Chapter 9.106	<a href="#">Engineering Department</a>	<ul style="list-style-type: none"> <li>• <a href="#">HydroCAD</a></li> <li>• <a href="#">SWMM</a></li> </ul>
Flood Control	Defer to City (or MS4) flood control standards.	<p>Low floor at or above the regulatory flood protection elevation (i.e., 1 foot above 100-year high water elevation)</p> <p>Low opening 2 feet above the 100-year high water elevation and DNR Ordinary High Water level</p>	<a href="#">City Code</a> Chapter 9.114  <a href="#">Surface Water Management Design Standards</a>	<a href="#">Engineering Department</a>	<ul style="list-style-type: none"> <li>• <a href="#">HydroCAD</a></li> <li>• <a href="#">SWMM</a></li> </ul>
Erosion and Sediment Control	<ul style="list-style-type: none"> <li>• Must meet NPDES Construction Stormwater General Permit requirements</li> <li>• Activity shall be phased to minimize disturbed areas subject to erosion at any one time.</li> <li>• All construction site waste shall be properly managed and disposed of so they will not have an adverse impact on water quality.</li> <li>• Silt fence, if installed, shall conform to sections 3886.1 and 3886.2, Standard Specifications for MnDOT</li> </ul>	See details in City Surface Water Management Design Standards.	<a href="#">Surface Water Management Design Standards</a>	<a href="#">Engineering Department</a>	

### Notes:

\* this table is a summary of MWMO Standards – the [full version](#) is included in the MWMO Watershed Management Plan. The MWMO is not a regulatory entity; permits related to stormwater management are issued by the City.

\*\* City information included in this table should be verified with appropriate City staff.

