MIDDLE ST. CROIX
WATERSHED MANAGEMENT ORGANIZATION

Project Review - Single Lot
Residential Submittal Items

This document is for guidance. Applicants should consult the MSCWMO Watershed Management Plan for specific requirements. MSCWMO may request other items during the review process in addition to those listed.

ALL SUBMITTALS MUST CONTAIN THE FOLLOWING ITEMS:

- [ ] 1. Review Fee: Single lot residential $350 fee.
- [ ] 2. Grading plan showing grading limits, existing and proposed contours related to NAVD 1988 datum (preferred) or NGVD 1929.
- [ ] 3. Location of existing and proposed permanent structures.
- [ ] 4. Ordinary High Water (OHW) elevations and location of all existing water bodies.
- [ ] 5. Location of all bluff lines.
- [ ] 6. Lowest floor elevations of structures built adjacent to stormwater management features and other water bodies must be a minimum of two feet above the 100-year flood elevation.
- [ ] 7. Delineation of existing wetland, shoreland, ordinary high water levels, drain tiling, and floodplain areas.
- [ ] 8. Details of proposed buffer upslope of water resources including size and vegetation characteristics (when applicable).
- [ ] 9. Erosion/sediment control plan demonstrating locations, specifications, and details of the following items:
    - A. Erosion Prevention
        - i. Stabilize all exposed soil areas (including stockpiles) with temporary erosion control (seed and mulch or blanket) within 7 days after construction activities in the area have temporarily or permanently ceased.
        - ii. Identify location, type and quantity of temporary erosion prevention practices.
        - iii. Identify permanent vegetation.
    - B. Sediment Control
        - i. Sediment control practices will be placed down-gradient before up-gradient land disturbing activities begin.

ii. Identify the location, type and quantity of sediment control practices.
iii. Vehicle tracking practices must be in place to minimize track out of sediment from the construction site. Streets must be cleaned if tracking practices are not adequate to prevent sediment from being tracked onto the street.

C. Inspections and Maintenance
    i. Applicant must inspect all erosion prevention and sediment control practices once every 7 days or after a ½" rain event to ensure integrity and effectiveness. All nonfunctional practices must be repaired, replaced or enhanced the next business day after discovery.
    ii. Plans shall include contact information including email and a phone number of the person responsible for inspection and compliance with erosion and sediment control.

D. Pollution Prevention
    i. Solid waste must be stored, collected and disposed of in accordance with state law.
    ii. Provide effective containment for all liquid and solid wastes generated by washout operations (concrete, stucco, paint, form release oils, curing compounds).
    iii. Hazardous materials that have potential to leach pollutants must be under cover to minimize contact with stormwater.

E. Final Stabilization
    i. For residential construction only, individual lots are considered final stabilized if the structures are finished and temporary erosion protection and downgradient sediment control has been completed.
    ii. Grading and landscape plans shall include soil tillage and soil bed preparation methods that are employed prior to landscape installation to a minimum depth of 8" and incorporate amendments to meet Minnesota State Stormwater Manual predevelopment soil type bulk densities.
        1. Observe minimum setbacks for areas within the dripline of existing trees, over utilities within 30 in of the surface, where compaction is required by design and inaccessible slopes.

☐ 10. Details of proposed structural stormwater practices (Meets Minnesota Stormwater Manual guidelines)

A. Stormwater flows are diverted away from bluffs whenever feasible.
B. Volume control facilities must drain down within 48 hours, as required by the MPCA NPDES Construction Stormwater Permit.
    i. The period of inundation shall be calculated using the maximum water depth below the surface discharge elevation and the soil infiltration rate.

C. The maximum water depth for volume control facilities is 1.5 feet.
D. Planting plan identified vegetation suitable for the hydrology of the basin.
E. Separation from seasonally saturated soils or bedrock is 3 feet or more for bioretention and infiltration practices.
F. Volume control facilities meet the following setback requirements:

Setback	***Minimum Distance (ft)***
Property line	*10*
*Building foundation**	*10*
Private well	*50*
Public water supply well	*50*
Septic system tank/leach field	*35*
**Minimum with slopes directed away from the building*	

G. Volume control is provided for the first 1.1"inch of runoff for all impervious:

Volume Retention Required (cu. ft.)	Volume Retention Provided (cu. ft.)
$XXXX\ ft^2 \times \frac{1.1\ in}{12\ {}^{in}/_{ft}} = XXX\ ft^3$ **XXX cf total required**	BMP #1 Volume = BMP #2 Volume = **Total Provided = cf**

H. Construction Standards
   i. To prevent soil compaction, the proposed volume control facility must be staked off and marked during construction to prevent heavy equipment and traffic from traveling over it.
   ii. Facilities may not be excavated within 2.0 feet of final grade until the contributing drainage area has been constructed and fully stabilized.
   iii. Facilities are in-place during construction activities, all sediment and runoff must be diverted away the facility, using practices such as pipe capping or diversions.
   iv. Facilities installation must occur in dry soil conditions. Excavation, soil placement and rapid stabilization of perimeter slopes must be accomplished prior to the next precipitation event.
   v. Excavation shall be performed by an excavator with a toothed bucket. Use excavator bucket to place materials. Construction equipment shall not be allowed into the basin.
   vi. Prior to the release of any remaining fee or security, the owner must provide documentation that constructed volume control facilities perform as designed.

I. Details
   i. Include a standard cross section of the infiltration device similar to those identified in the Minnesota Stormwater Manual http://stormwater.pca.state.mn.us/index.php/Bioretention_plan_and_section_drawings
   ii. The cross section must detail the infiltration media used in the device. Typically, devices use Mix B as described in the Minnesota Stormwater Manual: A well-blended, homogenous mixture of 70 to 85 percent washed construction sand; and 15 to 30 percent MnDOT Grade 2 compost .