LOWER MINNESOTA RIVER WATERSHED DISTRICT
PROJECT REVIEW REQUIREMENTS

Who should submit?
Local units of government shall submit project proposals to the LMRWD for review and comment whenever the project meets one or more of the following criteria:

- The project is a residential development affecting five or more acres of land.
- The project is a public/commercial/industrial development affecting one or more acres of land.
- The project involves construction or reconstruction of runoff management infrastructure where the contributing watershed is five acres or more.
- The project will result in diversion of surface water flows between defined subwatersheds.
- The project will change intercommunity flow rates.
- The project is located in the Minnesota River floodplain.

Submittal requirements
Project proposers shall submit to the LMRWD:

- A Runoff Management Plan containing:
    - Property lines and delineation of lands under ownership of the project proposer.
    - Delineation of on-site subwatersheds and off-site subwatersheds contributing runoff to the site.
    - Identification of the receiving waterbody, its subwatershed, and the subwatershed's water quality category (from Figures 3-6a through 3-6g and Table 5-6 of the LMRWD Water Management Plan, 1999).
    - Location, alignment, and elevation of proposed and existing surface water facilities.
    - Delineation of existing on-site wetlands, shoreland, and/or floodplain areas. Removal or disturbance of streambank or shoreland vegetation should be avoided. The plan shall address how unavoidable disturbances to this vegetation will be mitigated.
    - Existing and proposed normal, 5-year (10-year may be substituted), and 100-year water elevations.
    - All inlets to detention basins and wetlands shall be placed at or below the normal water elevation.
    - Existing and proposed site contour elevations relative to the NGVD, 1929.
    - Construction plans of all proposed surface water management facilities.
    - Hydrologic and hydraulic computations completed to design the proposed surface water management facilities.
    - Provision of outlots or easements for maintenance to detention basins, constructed wetlands, and other surface water management facilities.
    - Maintenance agreement between developer and local unit of government which addresses pond inspection and sediment removal and disposal.

    - Documentation indicating conformance with the existing local water management plan.
- An Erosion Control Plan that:
    - Conforms with the MPCA's NPDES General Permit to Discharge Stormwater from Construction Sites.
    - Incorporates the appropriate best management practices (BMPs) described in the MPCA's 2000 *Protecting Water Quality in Urban Areas*.
    - Contains sufficient detail to show erosion control methods on individual sites (e.g., silt fence, driveway entrances).
    - Meets applicable local standards.

Design Criteria

Runoff Management Plans shall comply with the following criteria:

- The peak rate of stormwater runoff from the developed project site shall not exceed the existing peak rate of runoff for the 5-year (10-year may be substituted) and 100-year return frequency critical duration storm events.
- Detention basins shall be designed for the 100-year storm event.
- To the extent practical, stormwater runoff from the site after development shall conform to the LMRWD's design considerations according to the subwatershed's water quality category (Level I, II, III, IV, or V; see attached).

Note to local units of government:

- Regional facilities are preferred over on-site facilities for surface water management. Where regional facilities that meet LMRWD standards are in place or are planned to be constructed/installed within five years, on-site detention and treatment facilities are not required.
- Where regional facilities that meet LMRWD standards are not in place and are not planned to be constructed/installed within five years, local units of government shall do one or more of the following:
    - Require construction of on-site detention and treatment facilities meeting LMRWD standards.
    - Require use of other stormwater quality treatment measures, such as in-line treatment devices or infiltration practices.
    - Collect an appropriate fee from the project proposer for the local unit of government to put towards construction of a future regional facility within the LMRWD.

DESIGN CONSIDERATIONS

Levels I and II Water Quality Category

- A permanent pool volume below the normal outlet shall be provided which is greater than or equal to the runoff from a 2.5-inch, 24-hour storm over the entire subwatershed for regional basins, or over the project site for on-site for on-site basins, assuming full development.
- The permanent pool mean depth (pond volume/pond surface area) shall be 4-10 feet.
- An emergency spillway shall be provided adequate to convey the 100-year storm event.
- Pond side slopes above the normal water level shall be no steeper than 3H:1V when possible, and preferably flatter. A shelf with a minimum width of 10 feet extending from the normal water level to a depth of 1 foot is recommended to enhance wildlife habitat, reduce potential safety hazards, and improve access for long-term maintenance.
- To prevent short-circuiting, the distance between the major inlets and normal outlet shall be maximized.
- The 100-year peak discharge rate for developed conditions shall not exceed the peak rate for existing conditions.
- If possible, the outlet should be designed to allow the pond to be drained for maintenance purposes and sediment removal.
- Energy dissipation structures shall be provided to prevent erosion at all stormwater inlets into the pond and at the pond outlet.
- Skimmer structures shall be provided at pond outlets to remove floatables.

Levels III, IV, and V Water Quality Category

- A permanent pool volume below the normal outlet shall be provided which is greater than or equal to the runoff from a 2.0-inch, 24-hour storm over the entire subwatershed for regional basins, or over the project site for on-site for on-site basins, assuming full development.
- All other requirements (except the first) as listed for the Levels I and II water quality category shall apply.