Project Purpose: The proposed project will reconstruct portions of Interstate I-35 W including the interchange with Highway 8. Roadway areas not reconstructed will include an 8-inch unbonded concrete overlay. The project includes approximately 7.2 areas of reconstructed impervious area within CLFLWD.

Project Location: I-35 W from County Road 8 to 11th Avenue SW. Site drains to Comfort Lake via the Sunrise River.

Applicable District Rules: 2.0 & 3.0

Recommendation: Approval of permit on basis of Initial Design as defined in “Submittals Received” section below subject to the following stipulations:

1. Submittal of final Storm Water Pollution Prevention Plan.
2. Before any land disturbance, Applicant must submit the design-build final design package for that disturbance for District Administrator approval based on review by the District Engineer. The District Administrator has approval authority under Rules 2.0, 3.0 and 6.0 for design packages that meet the standards and terms of those rules and provided that the design package is consistent with the approved Initial Design. Design package submittal and review is not subject to procedures for permit applications at District Rule 1.0, but the District Administrator may specify submittal procedures so that the time and resources of District staff and consultants are efficiently used.
3. Submittal of as-built survey of all stormwater features.
4. MnDOT will maintain all stormwater management features and conveyances installed under this permit in accordance with the “Cooperative Agreement for Maintenance of Stormwater Management Facilities and Watercourse and Basin Crossings” executed by MnDOT and the District on March 2, 2011.
**Rule 2.0: Stormwater Management**

The proposed project will reconfigure the I-35W Interchange with Highway 8. This new interchange will provide a loop and a longer separation distance between the entrance onto I-35W and the Broadway Avenue exit. The project will also incorporate an unbonded concrete overlay for the portions of the road that are not being reconstructed. The unbonded overlay will leave a bituminous base as a supporting layer and then incorporate a concrete pavement structure on top of that. The majority of the site flows to the north through road sided ditches which eventually flow through Bixby Park. A small portion of the site located in the CLFLWD political boundary flows to the south to Mud Lake which located in RCWD. This area does satisfy CLFLWD rules and coordination will with RCWD has and will continue to occur during the design build process. Drainage divides will be maintained with the project. For rate control, peak flows will be maintained or slightly reduced for the 2, 10 and 100-year events for all discharge locations. Overall rates to Bixby Park are summarized as follows:

<table>
<thead>
<tr>
<th>Conditions</th>
<th>2-year</th>
<th>10-year</th>
<th>100-year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing (cfs)</td>
<td>29.1</td>
<td>62.9</td>
<td>144.18</td>
</tr>
<tr>
<td>Proposed (cfs)</td>
<td>28</td>
<td>49.99</td>
<td>104.79</td>
</tr>
</tbody>
</table>

Stormwater treatment is provided with a combination of a stormwater pond, a constructed wetland, and 4 filtration features located along the road corridor. Pretreatment is provided in upstream ditch sections and basin forebays. Drain tile has been incorporated due to soil types being clay and/or poorly drained. Filtration basins with underdrains are proposed in lieu of infiltration. Vegetated filtration basins will provide filtration and volume reduction by uptake of water through the soil and vegetation. This is consistent with how CLFLWD historically has implemented volume control for areas that have poor soils for infiltration. The filtration basins are designed to filter the 2-year event through a surface soil medium into an underdrain system. The soil medium proposed indicates filter top soil borrow with 15% organic leaf matter (grade 2 compost) and MnDOT has indicated that native vegetation per MnDOT specs will be used for vegetation establishment in the basins. The soil medium design will promote vegetation that will allow for evapotranspiration while at the same time minimizes the potential for soil leaching. Three of the basins incorporate iron-sand in order to increase phosphorus uptake. For these basins a mixture of 95% sand and 5% iron by weight is proposed in-between the surface soil medium and the underdrain system. This is consistent with U of M recommendations for iron content and the design. The proposed design meets the District’s 2-year volume standard. Final plans will need to be reviewed with each design package regarding the specific specifications of the medium mixes and vegetation for each basin.

The proposed project will reconstruct 7.2 acres of impervious. The existing P load from the reconstructed area is 13.02 lbs of phosphorus loading. The proposed BMPs will remove approximately 6.79 lbs of phosphorus resulting in a final load of 6.23 lbs. The proposed features meet the required 50% decrease in phosphorus loading from existing conditions.

MnDOT has indicated that ditch crossings under I-35 will be inspected and maintained or repaired as needed. If any of the crossings need to be replaced, review by the District Engineer will be required as part of the design packages.
A construction schedule has been submitted indicating that stormwater management facilities required for compliance with Rule 2.0 will be constructed contemporaneous to the work and the final establishment of the filtration basins will occur after upstream areas are stabilized OR will provide rigorous erosion prevention if the filtration areas are completed prior to completion of ground disturbing areas.

MnDOT has indicated that they are willing to remove the old entrance ramp from Highway 8 to I-35W down to the grade of the adjacent wetlands such that this area can be restored. This is land that MnDOT currently owns. The watershed and MnDOT have discussed this opportunity and both parties consider it a good opportunity to restore previously filled wetland areas. MnDOT does not intend to use this area for wetland credits as they prefer to use banking sites where the implementation and maintenance is better managed. Final grading of this area and any potential agreements between MnDOT and CLFLWD should be reviewed and coordinated as the design packages are submitted. This is not a requirement of the permit, but a good faith effort between public entities to restore an area that was historically wetland. Any formal proposal that would require an agreement between CLFLWD and MnDOT would be brought before the Board in the future.

Enough information has been submitted such that if final plans are developed consistent with the preliminary plans and modeling assumptions then the project will meet District stormwater requirements. Because this project is design-build it is being requested that the permit be approved by the Board contingent on review and approval by the District Engineer of the design packages as they come in. If the design packages change the overall scope of project or if the project is no longer meeting District rules then the permit will be required to return to the Board of Managers for review. Delegation of authority by Board of Managers to District Administrator to issue design package approvals after review and recommendations by the District Engineer will be required to proceed in this manner.

**Rule 3.0: Erosion Control**

A draft Storm Water Pollution Prevention Plan (SWPP) has been submitted and some erosion control components have been included in the submitted plans, however a detailed erosion control plan has not been submitted. MnDOT has indicated that the project will be required to follow standard MnDOT best management practices from the MnDOT Construction Specifications. Assuming plans are created per these requirements they should satisfy District Erosion control requirements. Prior to construction activity, detailed erosion control plans will need to be submitted for review by the District Engineer with the design-build packages. These will need to be approved prior to any grading activity for each design package portion of work. A final SWPPP will also need to be submitted upon completion.

**Rule 4.0: Lake, Stream, and Wetland Buffer Requirements**

The proposed project does not trigger this rule; a subdivision was not proposed and no municipal rezoning or variance was required for this project.

**Rule 5.0: Shoreline and Streambank Alterations**

The proposed project does not trigger this rule; a DNR general permit excusing property owners who hold a District permit is not in effect.
**Rule 6.0: Watercourse and Basin Crossings**

Presently no work is proposed that triggers this rule. However, as the work occurs, MnDOT may determine the need to replace one or more existing ditch crossing culverts. The delegation as described in the Recommendation would authorize the administrator to approve any such replacements on finding that the criteria of Rule 6.0 are met.

**Rule 7.0: Floodplain and Drainage Alterations**

The proposed project does not trigger this rule; the City of Forest Lake has a state-approved floodplain ordinance.

**Rule 8.0: Wetland Management**

The proposed project does not trigger this rule; the District is not the LGU for wetland impacts.

**Rule 9.0: Fees**

The proposed project does not trigger this rule, government agencies are exempt.

**Rule 10.0: Financial Assurances**

The Board does not required financial assurances from government agencies

**Rule 11.0: Variances**

The proposed project does not request a variance.

**Submittals Received**

The following submittals were received and reviewed as the basis for this permit application review:

1. Application, received November 4, 2016, prepared November 4, 2016, prepared by MnDOT.
2. Project Summary Letter, received November 7, 2016, prepared November 7, 2016, prepared by MnDOT.
3. Phosphorous Reduction Modeling, received November 4, 2016, prepared October 28, 2016, prepared by MnDOT.
4. Hydrologic Modeling, received November 4, 2016, prepared November 3, 2016, prepared by MnDOT.
5. Drainage Details (11 sheets), received November 4, 2016, undated, prepared by MnDOT.
6. Soil Information and Borings, received November 4, 2016, undated, prepared by MnDOT.
7. Drainage Maps, received November 4, 2016, undated, prepared by MnDOT.
8. Draft SWPPP, received November 28, 2016, undated, prepared by MnDOT.
9. Updated Drainage Details (4 sheets), received November 29, 2016, undated, prepared by MnDOT.