

RICE CREEK WATERSHED DISTRICT RULES

BOARD APPROVED: JUNE 26, 2013

EFFECTIVE DATE: JULY 1, 2013

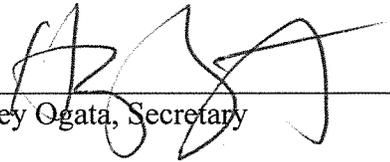
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CERTIFICATION OF
REVISED WATERSHED DISTRICT RULES

I, Harley Ogata, Secretary of the Rice Creek Watershed District Board of Managers, certify that the attached is a true and correct copy of the Rules of the Rice Creek Watershed District as revised and adopted by the Board of Managers on June 26, 2013, and effective July 1, 2013.

Dated: 6-26-13



Harley Ogata, Secretary

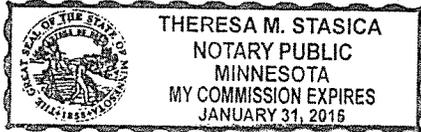
ACKNOWLEDGEMENT

State of Minnesota
County of Ramsey

This instrument was acknowledged before me on June 26, 2013, by Harley Ogata, as Secretary of the Rice Creek Watershed District Board of Managers.



Notary Public



GENERAL POLICY STATEMENT

The Rice Creek Watershed District (District) is a political subdivision of the State of Minnesota, established under the Minnesota Watershed Law. The District is also a watershed management organization as defined under the Minnesota Metropolitan Surface Water Management Act, and is subject to the directives and authorizations in that Act. Under the Watershed Law and the Metropolitan Surface Water Management Act, the District exercises a series of powers to accomplish its statutory purposes. The District's general statutory purpose is to conserve natural resources through development planning, flood control, and other conservation projects, based upon sound scientific principles.

As required under the Metropolitan Surface Water Management Act, the District has adopted a Watershed Management Plan, which contains the framework and guiding principles for the District in carrying out its statutory purposes. It is the District's intent to implement the Plan's principles and objectives in these rules.

Land alteration affects the rate, volume, and quality of surface water runoff which ultimately must be accommodated by the existing surface water systems within the District. The watershed is large, 186 square miles, and its outlet, Rice Creek, has limited capacity to carry flows. Flooding problems already occur in urbanized areas along Lower Rice Creek and other localized areas.

Land alteration and utilization also can degrade the quality of runoff entering the streams and waterbodies of the District due to non-point source pollution. Lake and stream sedimentation from ongoing erosion processes and construction activities reduces the hydraulic capacity of waterbodies and degrades water quality. Water quality problems already exist in many of the lakes and streams throughout the District.

Projects which increase the rate or volume of stormwater runoff can aggravate existing flooding problems and contribute to new ones. Projects which degrade runoff quality can aggravate existing water quality problems and contribute to new ones. Projects which fill floodplain or wetland areas can aggravate existing flooding by reducing flood storage and hydraulic capacity of waterbodies, and can degrade water quality by eliminating the filtering capacity of those areas.

In these rules the District seeks to protect the public health and welfare and the natural resources of the District by providing reasonable regulation of the modification or alteration of the District's lands and waters to reduce the severity and frequency of flooding and high water, to preserve floodplain and wetland storage capacity, to improve the chemical, physical and biological quality of surface water, to reduce sedimentation, to preserve waterbodies' hydraulic and navigational capacity, to preserve natural wetland and shoreland features, and to minimize public expenditures to avoid or correct these problems in the future.

The District rules include certain rules adopted to implement area-specific Comprehensive Wetland Protection and Management Plans (CWPMP) as provided under the Wetland Conservation Act (WCA). CWPMPs are designed to achieve identified wetland resource management needs within specific drainage areas of the watershed. These rules (within Rule F) apply to a delineated geographic area. Accordingly, a property owner intending an activity subject to District permitting requirements first should determine whether the activity will be governed by the CWPMP rule.

RELATIONSHIP OF RICE CREEK WATERSHED DISTRICT TO MUNICIPALITIES

The District recognizes that the primary control and determination of appropriate land uses is the responsibility of the municipalities. Accordingly, the District will coordinate permit application reviews involving land development with the municipality where the land is located.

The District intends to be active in the regulatory process to ensure that its water resources are managed in accordance with District goals and policies. Municipalities have the option of assuming a more active role in the permitting process after adoption of a local water management plan approved by the District and adoption and implementation of local ordinances consistent with the approved plan.

The District will also review projects sponsored or undertaken by municipalities and other governmental units, and generally will require permits for governmental projects impacting water resources of the District. These projects include but are not limited to, land development, road, trail, and utility construction and reconstruction.

The District desires to serve as technical advisor to the municipalities in their preparation of local surface water management plans and the review of individual development proposals prior to investment of significant public or private funds. To promote a coordinated review process between the District and the municipalities, the District encourages the municipalities or townships to contact the District early in the planning process.

RULE A: DEFINITIONS

For the purposes of these rules, the following words have the meanings set forth below.

References in these rules to specific sections of the Minnesota Statutes include any amendments, revisions or recodification of those sections.

As Constructed and Subsequently Improved Condition (ACSIC): the geometry of the public drainage system as constructed, including all subsequent legal repairs and alterations.

Beds of Protected Waters: all portions of public waters and public waters wetlands located below the ordinary high water level.

Best Management Practices (BMPs): measures taken to minimize the negative effects on water resources and systems as referenced in the Minnesota Construction Site Erosion and Sediment Control Planning Handbook (BWSR, 1988), Protecting Water Quality in Urban Areas (MPCA, 1989) and the Minnesota Stormwater Manual (MPCA, 2006) or similar guidance documents.

Better Site Design (BSD): an approach to managing runoff that seeks to attain post development hydrology which mimics the undeveloped condition in terms of volume, rate and timing of runoff. The goals of Better Site Design include reducing the amount of impervious cover, increasing the amount of natural lands set aside for conservation, using pervious areas for more effective stormwater treatment, innovative grading and drainage techniques and through the review of every aspect of the project site planning process. Better Site Design involves techniques applied early in the design process to reduce impervious cover, conserve natural areas and use pervious areas to more effectively treat stormwater runoff and promote a treatment train approach to runoff management.

Bridge: a road, path, railroad or utility crossing over a waterbody, wetland, ditch, ravine, road, railroad, or other obstacle.

Bridge Span: the clear span between the inside surfaces of a bridge's terminal supports.

Channel: a perceptible natural or artificial depression, with a defined bed and banks that confines and conducts water flowing either continuously or periodically.

Comprehensive Wetland Protection and Management Plan (CWPMP): a locally developed comprehensive wetland protection and management plan approved by the Minnesota Board of Soil and Water Resources, pursuant to Minnesota Rules 8420.0830.

Contributing Drainage Area: the geographic areas tributary to CWPMP jurisdictional areas from which banked or off-site wetland replacement credits may be used to replace wetland impacts under Rule F.6(c).

Criteria: specific details, methods and specifications that apply to all permits and reviews and that guide implementation of the District's goals and policies.

Critical Duration Flood Event: the 100-year precipitation or snow melt event with a duration resulting in the maximum 100 year return period water surface elevation. The critical duration flood event is generally either the 100-year, 24 hour rainfall event as found in NOAA Technical Paper #40 (TP-40) or the ten-day snow melt event assumed to be 7.2 inches of runoff occurring on frozen ground (CN=100); however, other durations (e.g., 6-hour) may result in the maximum 100 year return period water surface elevation.

Detention Basin: any natural or man-made depression that stores stormwater runoff temporarily.

Development: any land-disturbing activity resulting in creation or reconstruction of impervious surface including, but not limited to, municipal road construction. Normal farming practices part of an ongoing farming operation shall not be considered development.

District: the Rice Creek Watershed District established under the Minnesota Watershed Law, Minnesota Statutes Chapter 103D.

Drainage System: a system of open channel, pipe or tile, to drain property, including laterals, improvements, and improvements of outlets, which may or may not be a public system under the jurisdiction of the District under Minnesota Statutes Chapters 103B, 103D, or 103E.

Effectively Drained Wetland: an area whose natural hydrology has been altered to the point that it is no longer considered wetland.

Emergency Overflow (EOF): a primary overflow to pass flows above the design capacity around the principal outlet safely downstream without causing flooding.

Excavation: the displacement or removal of soil, sediment or other material.

Floodplain: the areas adjoining a waterbody that are inundated during the 100-year flood.

Floodway: the channel of a watercourse, the bed of waterbasins and those portions of adjoining floodplains that must be kept free of encroachment to accommodate the 100-year flood.

Floodway Fringe: the area between the floodway and the boundary of the 100-year flood.

Flood Management Zone: land within the Rice Creek Watershed District draining to and entering Rice Creek downstream from the outlets of Baldwin Lake and Golden Lake.

Freeboard: vertical distance between the 100-year flood elevation or emergency overflow elevation of a waterbasin or watercourse and the elevation of the regulatory elevation of a structure.

Governmental Project: projects sponsored or paid for by a governmental agency.

High Quality Wetland: an existing wetland reflecting a score of “high/high” for the functional indicators “outlet condition” and “vegetative quality”, respectively, using MnRAM 3.4 (or most recent version) or other state approved wetland functional model.

Impervious Surface: a compacted surface or a surface covered with material (i.e., gravel, asphalt, concrete, Class 5, etc.) that increases the depth of runoff compared to natural soils and land cover. Including but not limited to roads, driveways, parking areas, sidewalks and trails, patios, tennis courts, basketball courts, swimming pools, building roofs, covered decks, and other structures.

Infiltration: water entering the ground through the soil.

Land-Disturbing Activity: any disturbance to the ground surface that, through the action of wind or water, may result in soil erosion or the movement of sediment into waters, wetlands or storm sewers or onto adjacent property. Land-disturbing activity includes but is not limited to the demolition of a structure or surface, soil stripping, clearing, grubbing, grading, excavating, filling and the storage of soil or earth materials. The term does not include normal farming practices as part of an ongoing farming operation.

Landlocked Basin: a waterbasin lacking an outlet at an elevation at or below the water level produced by the critical duration flood event, generally the 10-day snowmelt event.

Local Government Unit (LGU): the public body responsible for implementing the Minnesota Wetland Conservation Act, as defined at Minnesota Statutes §103G.005, subdivision 10e.

Low Entry Elevation: the elevation of the lowest opening in a structure.

Low Floor Elevation: the elevation of the lowest floor of a habitable or uninhabitable structure, which is often the elevation of the basement floor or walk-out level.

Major Watercourse: any watercourse having a tributary area of 200 acres or more.

Marginally Degraded Wetland: an existing wetland reflecting a score of “high/low” or “low/high” for the functional indicators “outlet condition” and “vegetative quality”, respectively, using MnRAM 3.4 (or most recent version) or other state approved wetland functional model.

Mill, Reclamation and Overlay: removal of the top layer(s) of an impervious surface (e.g. roadway, parking lot, sport court) by mechanical means, followed by the placement of a new layer of impervious surface, without exposure of the underlying native soil.

Moderately Degraded Wetland: an existing wetland reflecting a score of “medium/medium” or “low/medium” for the functional indicators “outlet condition” and “vegetative quality”, respectively, using MnRAM 3.4 (or most recent version) or other state approved wetland functional model.

Municipal Separate Storm Sewer System (MS4): the system of conveyances owned or operated by the District and designed or used to collect or convey storm water, and that is not used to collect or convey sewage.

Municipality: any city or township wholly or partly within the Rice Creek Watershed District.

Native Vegetation: plant species that are indigenous to Minnesota or that expand their range into Minnesota without being intentionally or unintentionally introduced by human activity and that are classified as native in the Minnesota Plant Database.

NPDES Permit: general permit authorization to discharge storm water associated with construction activity under the National Pollutant Discharge Elimination System (NPDES), issued by the Minnesota Pollution Control Agency.

Non-Degraded Wetland: an existing wetland reflecting a score of “high/medium” or “medium/high” for the functional indicators “outlet condition” and “vegetative quality”, respectively, using MnRAM 3.4 (or most recent version) or other state approved wetland functional model.

Non-Invasive Vegetation: plant species that do not typically invade or rapidly colonize existing, stable plant communities.

NURP: Nationwide Urban Runoff Program.

100-Year Flood Elevation: the elevation of water resulting from the critical duration flood event.

Ordinary High Water Level (OHW): the highest water level elevation that has been maintained for a sufficiently long period of time to leave evidence upon the landscape. The OHW is commonly that point where the natural vegetation changes from predominantly aquatic to predominantly terrestrial. If an OHW has been established for a waterbody by the Minnesota Department of Natural Resources, it will constitute the OHW under this definition.

Parcel: a lot of record in the office of the county recorder or registrar or that otherwise has a defined legal existence.

Person: any natural person, partnership, unincorporated association, corporation, limited liability company, municipal corporation, state agency, or political subdivision of the State of Minnesota.

Political Subdivision: a municipality, county, town, school district, metropolitan or regional agency, or other special purpose district of Minnesota.

Pollutant: Anything that causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, ordinances, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind. (This definition is for the purpose of Rule H only and is incorporated from the U.S. EPA model ordinance.)

Public Linear Project: a project involving a roadway, sidewalk, trail or utility not part of an industrial, commercial, institutional or residential development.

Public Waters: waters identified as public waters under Minnesota Statutes section 103G.005, Subdivision 15.

Public Waters Wetlands: all wetlands identified as public waters wetlands under Minnesota Statutes section 103G.005, subdivision 15a.

Reconstruction: removal of an impervious surface such that the underlying structural aggregate base is effectively removed and the underlying native soil exposed.

Resource of Concern: lakes classified as Tier I, Tier II, Tier III and Tier IV within Table 4-6 of the District's 2010 Watershed Management Plan and subsequently amended Watershed Management Plans approved by BWSR.

Resource of Concern Drainage Area: Land draining to a Resource of Concern. The Resource of Concern drainage area excludes lands draining first to an upstream Resource of Concern.

Seasonal High Water Table: The highest known seasonal elevation of groundwater as indicated by redoximorphic features such as mottling within the soil.

Severely Degraded Wetland: an existing wetland reflecting a score of "medium/low" or "low/low" for the functional indicators "outlet condition" and "vegetative quality", respectively, using MnRAM 3.4 (or most recent version) or other state approved wetland functional model.

Site: All contiguous lots of record on which activity subject to any District rule is proposed to occur or occurs, as well as all other lots of record contiguous to any such lot under common ownership at the time of the permitted activity. Linear right of way does not disturb contiguity. For public linear projects not occurring in conjunction with land development, the term means the portion of right-of-way defined by the project work limits.

Storm Sewer: a pipe system for stormwater conveyance.

Stormwater Pond: Constructed basins placed in the landscape to capture stormwater runoff.

Structure: a building with walls and a roof, excluding structures such as pavilions, playgrounds, gazebos, and garbage enclosures.

Subdivision, Subdivide: the legal separation of an area, parcel, or tract of land under single ownership into two or more parcels, tracts, lots.

Technical Evaluation Panel (TEP): The body described in Minnesota Rules 8420.0240.

Upland Habitat Area: A non-wetland area that is contiguous with an existing, restored, or created wetland and scores "C" or better using the Natural Heritage Ranking methodology.

Waterbasin: an enclosed natural depression with definable banks capable of containing water.

Waterbody: a waterbasin, watercourse or wetland as defined in these Rules.

Watercourse: a channel that has definable beds and banks capable of conducting confined runoff from adjacent land.

Wetland: area identified as wetland under Minnesota Statutes section 103G.005, subdivision 19.

Wetland Management Corridor (WMC): high priority wetland resources identified at a landscape scale in a CWPMP and delineated at the time of individual project permitting as a wetland community that: (a) is physically contiguous with (not separated by upland from) the landscape scale WMC shown in Figure F1; or (b) ranks "High" for vegetative integrity using MnRAM 3.4 (or most recent version) and is within 50 feet of the physically contiguous WMC.

RULE B: PROCEDURAL REQUIREMENTS

1. **APPLICATION AND NOTICE OF INTENT REQUIRED.** Any person undertaking an activity for which a permit is required by these rules must obtain the required permit prior to commencing the activity that is subject to District regulation. Applications for permit must be submitted to the District in accordance with the procedures described in this rule. Required exhibits are specified for each substantive rule below. Applicants are encouraged to contact District staff before submission of an application to review and discuss application requirements and the applicability of specific rules to a proposed project. When the rules require a criterion to be met, or a technical or other finding to be made, the District makes the determination except where the rule explicitly states otherwise. All permit applications must bear the original signature of the landowner or the selected contractor for governmental projects.
2. **FORMS.** A District permit application or notice of intent, and District checklist of permit submittal requirements, must be submitted on the forms provided by the District. Applicants may obtain forms from the District office or website at <http://www.ricecreek.org/permits>.
3. **ACTION BY BOARD OF MANAGERS.** The Board of Managers shall act within sixty days of receipt of a complete permit application. A complete permit application includes all required information, exhibits, and fees. An application will not be ready for Board consideration unless all substantial technical questions have been addressed and all substantial plan revisions resulting from staff review have been accomplished. Permit decisions will be made by the Board except as delegated to the Administrator by written resolution.
4. **ISSUANCE OF PERMITS.** The permit will be issued only after applicant has satisfied all requirements and conditions for the permit, has paid all required District fees, and the District has received any required surety.
5. **CONDITIONAL APPROVAL PENDING RECEIPT OF CHANGES (CAPROC).** The District may conditionally approve an application, but such approval does not result in the issuance of a permit until all conditions precedent to the approval have been resolved. All conditions must be satisfied within twelve (12) months of the date of conditional approval. If a permit is not obtained within the 12-month period, the applicant will be required to reapply for a permit and pay applicable permit fees.
6. **PERMIT TERM.** Permits are valid for an eighteen-month period from the date of issuance unless otherwise stated within the permit, suspended or revoked. To extend a permit, the permittee must apply to the District in writing, stating the reasons for the extension. Any plan changes, and related project documents must also be included in the extension application. The District must receive this application at least thirty (30) days prior to the permit expiration date. The District may impose different or additional conditions on a renewal or deny the renewal in the event of a material change in circumstances. On the first renewal, a permit will not be subject to change because of a change in District rules. An extended stormwater management permit for phased development may be issued pursuant to Rule C.13.

7. **PERMIT ASSIGNMENT.** A permittee may assign a District permit to another party only upon approval by the District and findings that the following conditions have been met:

- (a) The proposed assignee in writing agrees to assume all the terms, conditions and obligations of the permit as originally issued to the permittee;
- (b) The proposed assignee has the ability to satisfy the terms and conditions of the permit as originally issued;
- (c) The proposed assignee is not changing the project as originally permitted;
- (d) There are no violations of the permit conditions as originally issued; and
- (e) The District has received from the proposed assignee any required surety to secure performance of the assigned permit.

8. **PERMIT FEES.** The District will charge applicants permit fees in accordance with a schedule that will be maintained and revised from time to time by the Board of Managers to ensure that permit fees cover the District's actual costs of administrating and enforcing permits. The current fee schedule may be obtained from the District office or the District website at <http://www.ricecreek.org/permits>. An applicant must submit the required permit fee to the District at the time it submits its permit application. No permit fee will be charged to the federal government, the State of Minnesota or a political subdivision of the State of Minnesota.

9. **PERFORMANCE SURETY.**

(a) **POLICY.** It is the policy of the Board of Managers to conserve the District's water resources by assuring compliance with its rules. The District ensures compliance by requiring a bond or other surety to secure performance of permit conditions and compliance with District rules, as well as protection of District water resources in the event of noncompliance with permit conditions and/or rules. A project for which the applicant is the federal government, the State of Minnesota or a political subdivision of the State of Minnesota is exempt from surety requirements.

(b) **PERFORMANCE SURETY REQUIREMENT.** A surety or sureties, when required, must be submitted in a form acceptable to the District. When a cash escrow is used, it will be accompanied by an escrow agreement bearing the original signature of the permittee and the party providing the escrow, if not the permittee. The District will require applicants to submit a surety or sureties in accordance with a schedule of types and amounts that will be maintained and revised from time to time by the Board of Managers. The current schedule of surety amounts and acceptable forms and sources as well as surety agreement may be obtained from the District office or the District website at <http://www.ricecreek.org/permits>.

An applicant may submit a bond or an irrevocable letter of credit to the District to secure performance of permit conditions for activities for which the required surety amount as determined above is in excess of \$5,000; however the first \$5,000 of any performance surety must be submitted to the District as a cash escrow. The bond or letter of credit must be submitted before the permit is issued.

(c) FORM AND CONTENT OF BOND OR LETTER OF CREDIT.

- (1)** The bond or irrevocable letter of credit must be in a form acceptable to the District and from a surety licensed to do business in Minnesota.
- (2)** The bond or irrevocable letter of credit must be in favor of the District and conditioned upon the performance of the party obtaining the bond or letter of credit of the activities authorized in the permit, and compliance with all applicable laws, including the District's rules, the terms and conditions of the permit and payment when due of any fees or other charges required by law, including the District's rules. The bond or irrevocable letter of credit must provide that if the bond conditions are not met, the District may make a claim against the bond or letter of credit.

- (d) RELEASE OF PERFORMANCE SURETY.** Upon written notification from permittee of completion of the permitted project, the District will inspect the project to determine if it is constructed in accordance with the terms of the permit and District rules. If the project is completed in accordance with the terms of the permit and District rules and the party providing the performance surety does not have an outstanding balance of money owed to the District for the project, including but not limited to unpaid permit fees, the District will release the bond or letter of credit, or return the cash surety if applicable. Final inspection compliance includes, but is not limited to, confirmation that all erosion and sediment control BMPs and stormwater management features have been constructed or installed as designed and are functioning properly, and completion of all required monitoring of wetland mitigation areas. The District may return a portion of the surety if it finds that a portion of the surety is no longer warranted to assure compliance with District rules.

RULE C: STORMWATER MANAGEMENT PLANS

- 1. POLICY.** It is the policy of the Board of Managers to manage stormwater and snowmelt runoff on a local, regional and watershed basis; to promote natural infiltration of runoff throughout the District to preserve flood storage and enhance water quality; and to address the unique nature of flooding issues within the Flood Management Zone, through the following principles:
 - (a)** Maximize water quality and flood control on individual project sites through Better Site Design practices and stormwater management.
 - (b)** Minimize land use impacts and improve operational and maintenance efficiency by siting stormwater BMPs, when needed, regionally unless local resources would be adversely affected.
 - (c)** Treat stormwater runoff before discharge to surface waterbodies and wetlands, while considering the historic use of District water features.
 - (d)** Ensure that future peak rates of runoff are less than or equal to existing rates.
 - (e)** Reduce the existing conditions peak rate of discharge along Lower Rice Creek and the rate of discharge and volume of runoff reaching Long Lake, to preserve the remaining floodplain storage volume within Long Lake and mitigate the historic loss of floodplain storage.
 - (f)** Preserve remaining floodplain storage volume within the Rice Creek Watershed to minimize flood potential throughout the District.

- 2. REGULATION.** A permit incorporating an approved stormwater management plan is required under this rule for development, consistent with the following:
 - (a)** A permit is required for development, except Public Linear Projects, that creates or reconstructs 10,000 square feet or more of impervious surface. This threshold is cumulative of all impervious surface created or reconstructed through multiple phases or connected actions of a single complete project, as defined by the District, on a single parcel or contiguous parcels of land under common ownership, development or use.
 - (b)** For Public Linear Projects, a permit is required to create or reconstruct 10,000 square feet or more of impervious surface through multiple phases or connected actions of a single complete project, as defined by the District, within a Resource of Concern Drainage Area.
 - (c)** A permit is not required for development on an individual lot within a residential subdivision if it conforms to a development plan approved by the District. Rule C, section 13, states terms for use of regional facilities in a non-residential subdivision.
 - (d)** Rule C requirements do not apply to sidewalks and trails 10 feet wide or less that are bordered down-gradient by vegetated open space or vegetated filter strip with a minimum width of 5 feet.

(e) Rule C requirements do not apply to Bridge Spans and Mill & Overlay projects.

3. **STORMWATER MANAGEMENT REQUIRED.** A stormwater management plan shall be submitted with the permit application for a project equaling or exceeding the threshold of Section 2. The stormwater management plan shall fully address the design and function of the project proposal and the effects of altering the landscape relative to the direction, rate of discharge, volume of discharge and timing of runoff.

4. **MODELING REQUIREMENTS FOR STORMWATER MANAGEMENT PLANS.**

(a) A hydrograph method or computer program based on NRCS Technical Release #20 (TR-20) and subsequent guidance must be used to analyze stormwater runoff for the design or analysis of discharge and water levels within and off the project site. The runoff from pervious and impervious areas within the model shall be modeled separately.

(b) In determining Curve Numbers for the post-development condition, the Hydrologic Soil Group (HSG) of areas within construction limits shall be shifted down one classification for HSG B (Curve Number 74) and ½ classification for HSG A (Curve Number 49) to account for the impacts of grading on soil structure unless the project specifications incorporate soil amendments in accordance with District Soil Amendment Guidelines. This requirement only applies to that part of a site that has not been disturbed or compacted prior to the proposed project.

(c) The analysis of flood levels, storage volumes, and discharge rates for waterbodies and stormwater management basins must include the NOAA Technical Paper #40 (TP-40) values, as amended, for the 2 year, 10 year and 100 year return period, 24-hour rainfall events and the 10-day snowmelt event (Curve Number 100), in order to identify the critical duration flood event. The District Engineer may require analysis of additional precipitation durations to determine the critical duration flood event. Analysis of the 10-day snowmelt event is not required for stormwater management detention basins with a defined outlet elevation at or below the 100 year return period, 24-hour rainfall event elevation.

5. **STORMWATER MANAGEMENT PLAN FRAMEWORK.**

(a) When an existing regional BMP is proposed to manage stormwater runoff, the applicant shall show that the BMP was designed and constructed to manage the stormwater runoff from the project site, the applicant has permission to utilize any remaining capacity in the BMP, the BMP is subject to maintenance obligations enforceable by the District, and it is being maintained to its original design.

(b) A combination of Stormwater BMPs may be used to meet the requirements of section(s) 6, 7, and 8.

(c) A local surface water management plan or ordinance of the local land use authority may contain standards or requirements more restrictive than these rules. The stormwater management plan must conform to the local surface water management plan or ordinance of the local land use authority.

- (d) The proposed project must not adversely affect off-site water levels or resources supported by local recharge, or increase the potential for off-site flooding, during or after construction.
- (e) A landlocked basin may be provided an outlet only if it:
 - (1) Conforms with District Rule F, as applicable.
 - (2) Provides sufficient dead storage volume to retain the runoff resulting from back-to-back 100-year, 24-hour rainfall events.
 - (3) Does not create adverse downstream flooding or water quality conditions as a result of the change in the rate, volume or timing of runoff or a change in drainage patterns.
- (f) A municipality or public road authority may prepare a comprehensive stormwater management plan setting forth an alternative means of meeting the standards of sections 6 and 7 within a defined subwatershed. Once approved by the District and subject to any stated conditions, the plan will apply in place of those sections.

6. WATER QUALITY TREATMENT.

- (a) Development creating or reconstructing impervious surface shall apply Better Site Design (BSD) techniques as outlined in Chapter 4 of the MPCA Minnesota Stormwater Manual. A BSD guidance document and checklist is available on the District's website.
- (b) Sediment shall be managed on-site to the maximum extent practicable before runoff resulting from new or reconstructed impervious surface enters the off-site drainage system.

(c) WATER QUALITY TREATMENT STANDARD.

- (1) The required water quality treatment volume standard for all projects, except Public Linear Projects, is determined as follows:

$$\text{Required Water Quality Treatment Volume (ft}^3\text{)} = \text{Area of New or Reconstructed Impervious Surface (ft}^2\text{)} \times 1.1 \text{ (in)} \div \text{TP Removal Factor from Table C1} \div 12 \text{ (in/ft)}$$

- (2) The required water quality treatment volume standard for Public Linear Projects is determined as follows:

$$\text{Required Water Quality Treatment Volume (ft}^3\text{)} = \text{Area of New or Reconstructed Impervious Surface (ft}^2\text{)} \times 0.75 \text{ (in)} \div 12 \text{ (in/ft)}$$

- (3) For alternative Stormwater BMPs not found in Table C1 or to deviate from TP Removal Factors found in Table C1, the applicant may submit a TP Removal Factor, expressed as annual percentage removal efficiency, based on supporting technical data, for District approval.
- (4) Stormwater runoff treated by the BMP during a rain event will not be credited towards the treatment requirement.

TABLE C1. TP REMOVAL FACTORS FOR PROPERLY DESIGNED BMPS.

BMP	BMP Design Variation	TP Removal Factor *
Infiltration **	Infiltration Feature	1.00
Water Reuse **	Irrigation	1.00
Biofiltration	Underdrain	0.65
Filtration	Sand or Rock Filter	0.50
Stormwater Wetlands	Shallow Wetland	0.40
	Pond/Wetland	0.55
Stormwater Ponds ***	Wet Pond	0.50
	Multiple Pond	0.60

Source: Adapted from Table 7.4 from the Minnesota Stormwater Manual, MPCA.

* Refer to MPCA Stormwater Manual for additional information on BMP performance.

Removal factors shown are average annual TP percentage removal efficiencies intended solely for use in comparing the performance equivalence of various BMPs.

** These BMPs reduce runoff volume.

*** Stormwater ponds must also provide 2.5” of dead storage as required by Section 9(d)(2).

(d) BMP LOCATIONAL SITING.

- (1) BMPs shall be located either on-site to treat runoff at the point of generation, or regionally within the Resource of Concern Drainage Area.
- (2) BMPs must provide infiltration where feasible. If the District concurs that infiltration BMPs are not feasible or directs that infiltration not be used (see Table C2), then any BMP may be chosen. If infiltration is feasible on-site, then a regionally sited BMP must provide equivalent runoff volume reduction.
- (3) Off-site and/or regional BMPs must be sited in the following priority order:
 - (i) In a downstream location that intercepts the runoff volume leaving the project site prior to the Resource of Concern.
 - (ii) Anywhere within the same Resource of Concern Drainage Area (see Figures C1A-C1E) that results in no greater mass of Total Phosphorus reaching the resource of concern than on-site BMPs.

TABLE C2. SPECIFIC CONDITIONS THAT MAY RESTRICT INFILTRATION.

Type	Specific Project Site Conditions	Required Submittals
Potential Contamination	Potential Stormwater Hotspots (PSH)	PSH Locations and Flow Paths
	Contaminated Soils	Documentation of Contamination Soil Borings
Physical Limitations	Low Permeability Soils (HSG C & D)	Soil Borings
	Bedrock within three vertical feet of bottom of infiltration area	Soil Borings
	Seasonal High Water Table within three vertical feet of bottom of infiltration area	Soil Borings High Water Table
	Karst Areas	Soil Borings
Land Use Limitations	Utility Locations	Site Map
	Nearby Wells (Private and/or Municipal) *	Well Locations

* Refer to Minnesota Stormwater Manual or the Minnesota Department of Health for setback requirements.

- (e) Stormwater runoff from new or reconstructed impervious surface untreated for total phosphorus must be minimized, and for such runoff TSS must be removed to the maximum extent practicable. For projects other than Public Linear projects, no more than 15% of the new or reconstructed impervious surface may be left untreated. Notwithstanding, runoff from undisturbed impervious surface may be treated in lieu of treating new or reconstructed impervious surface. Total water quality treatment volume for the project must be provided in aggregate pursuant to subsections 6(c) and 6(d).
- (f) Banked “volume control” credits and debits established by public entities for Public Linear Projects with the RCWD prior to the effective date of this rule will continue to be recognized and enforced until all credits are used or all debits are fulfilled. Existing credits and debits may be used and fulfilled, respectively, anywhere within the applicant’s jurisdiction.

7. PEAK STORMWATER RUNOFF CONTROL.

- (a) Peak stormwater runoff rates for the proposed project at the project site boundary, in aggregate, must not exceed existing peak runoff rates for the 2-year, 10-year and 100-year, 24-hour rainfall events, or a different critical event duration at the discretion of the District Engineer. Notwithstanding, peak runoff may be controlled to this standard in a regional facility consistent with paragraph 7(b). Aggregate compliance for all site boundary discharge will be determined with respect to runoff not managed in a regional facility.

- (b) Any increase in a critical duration flood event rate at a specific point of discharge from the project site must be limited and cause no adverse downstream impact. Table C3 shows the maximum curve numbers that may be utilized for existing condition modeling of those project site areas not covered by impervious surface.
- (c) Within the Flood Management Zone only (see Figure C2), the applicant shall provide peak rate control beyond the existing condition peak rate of runoff by reducing the peak rate to $\leq 80\%$ of the existing condition. This requirement does not apply if runoff from the 100-year, 24-hour precipitation event will be retained on-site or if the project is a Public Linear Project.

TABLE C3. CURVE NUMBERS FOR EXISTING CONDITION PERVIOUS AREAS.

Hydrologic Soil Group	Runoff Curve Number *
A	39
B	61
C	74
D	80

* Curve numbers from NRCS Technical Release #55 (TR-55).

TABLE C4. HYDROPERIOD STANDARDS.

Wetland Susceptibility Class	Permitted Storm Bounce for 2-Year and 10-Year Event *	Inundation Period for 2-Year Event *	Inundation Period for 10-Year Event *
Highly susceptible	Existing	Existing	Existing
Moderately susceptible	Existing plus 0.5 ft	Existing plus 1 day	Existing plus 7 days
Slightly susceptible	Existing plus 1.0 ft	Existing plus 2 days	Existing plus 14 days
Least susceptible	No limit	Existing plus 7 days	Existing plus 21 days

Source: Adapted from: Stormwater and Wetlands Planning and Evaluation Guidelines for Addressing Potential Impacts of Urban Stormwater and Snowmelt Runoff on Wetlands.

* Duration of 24-hours for the return periods utilizing NOAA Technical Paper #40 (TP-40).

8. BOUNCE AND INUNDATION PERIOD.

- (a) The project must meet the hydroperiod standards found in Table C4 with respect to all down-gradient wetlands.
- (b) Wetland Susceptibility Class is determined based on wetland type, as follows:
 - (1) Highly susceptible wetland types include: sedge meadows, bogs, coniferous bogs, open bogs, calcareous fens, low prairies, coniferous swamps, lowland hardwood forests, and seasonally flooded waterbasins.
 - (2) Moderately susceptible wetland types include: shrub-carrs, alder thickets, fresh (wet) meadows, and shallow & deep marshes.

- (3) Slightly susceptible wetland types include: floodplain forests and fresh wet meadows or shallow marshes dominated by cattail giant reed, reed canary grass or purple loosestrife.
- (4) Least susceptible wetland includes severely degraded wetlands. Examples of this condition include cultivated hydric soils, dredge/fill disposal sites and some gravel pits.

9. DESIGN CRITERIA.

- (a) Infiltration BMPs must be designed to provide:
 - (1) Adequate pretreatment measures to remove sediment before runoff enters the primary infiltration area;
 - (2) Drawdown within 48-hours or 72-hours from the end of a storm event, for surface or sub-surface features, respectively. Soil infiltration rates shall be based on the appropriate HSG classification and associated infiltration rates (see Table C5). The least permeable layer of the soil boring column must be utilized in BMP calculations (see Design Criteria (e)). Alternate infiltration rates based on a recommendation and certified measurement testing from a licensed geotechnical engineer or licensed soil scientist will be considered. Infiltration area will be limited to horizontal areas subject to prolonged wetting;
 - (3) A minimum of three feet of separation from the Seasonal High Water Table.
 - (4) Consideration of the Minnesota Department of Health guidance document Evaluating Proposed Stormwater Infiltration Projects in Vulnerable Wellhead Protection Areas. Documentation shall be submitted to support implementation of this guidance document and will be accepted at the discretion of the District Engineer.
- (b) Water Reuse BMPs must be designed to provide:
 - (1) A maximum irrigation rate of 1-inch per week over the irrigated lawn/turf grass area(s), or as approved by the District;
 - (2) No greater than a 26 week (April 15th to October 15th) growing season; and
 - (3) No increase in stormwater runoff from the irrigated area or project site.

The amount of water quality treatment volume credit given will be based upon the three year average of the volume irrigated, determined by the average of three years of monitoring records;

- (c) Biofiltration/filtration BMPs must be designed to provide:
 - (1) Adequate pretreatment measures to remove sediment before runoff enters the primary biofiltration area;

- (2) Drawdown within 48-hours or 72-hours from the end of a storm event, for surface or sub-surface features, respectively;
- (3) A minimum of 12-inches of organic material or sand above the rock trench or draitile system; and
- (4) Drain tile system must be designed above the Seasonal High Water Table.

TABLE C5. SOIL TYPE AND INFILTRATION RATES.

Hydrologic Soil Group	Soil Textures	Corresponding Unified Soil Classification		Infiltration Rate (in/hr)
A	Gravel Sand Sandy Gravel Silty Gravel Loamy Sand Sandy Loam	GW	Well-graded gravel or well-graded gravel with sand	1.6
		GP	Poorly graded gravel or poorly graded gravel with sand	
		GM	Silty gravel or silty gravel with sand	0.8
		SW	Well-graded sand or well-graded sand with gravel	
		SP	Poorly graded sand or poorly graded sand with gravel	
B	Loam Silty Loam	SM	Silty sand or silty sand with gravel	0.6
		ML	Silt	0.3
		OL	Organic silt or organic silt with sand or gravel or gravelly organic silt	
C	Sandy Clay Loam	GC	Clayey gravel or clayey gravel with sand	0.2
		SC	Clayey sand or clayey sand with gravel	
D	Clay Clay Loam Silty Clay Loam Sandy Clay Silty Clay	CL	Lean clay or lean clay with sand or gravel or gravelly lean clay	< 0.2
		CH	Fat clay or fat clay with sand or gravel or gravelly fat clay	
		OH	Organic clay or organic clay with sand or gravel or gravelly organic clay	
		MH	Elastic silt or elastic silt with sand or gravel	

Source: Adapted from Table 12.BIO.8 from the Minnesota Stormwater Manual, MPCA.

- (d) Stormwater ponds must be designed to provide:
 - (1) Water quality features consistent with NURP criteria and accepted design standards for average and maximum depth;

- (2) A permanent wet pool with dead storage at least equal to the runoff volume from a 2.5-inch rainfall over the area tributary to the pond;
 - (3) An outlet structure capable of preventing migration of floating debris and oils for at least the one-year storm;
 - (4) An identified emergency overflow spillway sufficiently stabilized to convey flows for the 100-year critical storm event; and
 - (5) An outlet structure to control the 2-year, 10-year & 100-year frequency events.
- (e) Soil borings (utilizing ASTM D5921 and D5879, as amended) shall be considered for design purposes, and provided to the District, for each proposed BMP. The soil borings must be taken to a depth of at least 5 feet below the bottom of the proposed feature.
 - (f) An outfall structure discharging directly to a wetland, public water or public water wetland must incorporate a stilling-basin, surge-basin, energy dissipater, placement of ungrouted natural rock riprap or other feature to minimize disturbance and erosion of natural shoreline and bed resulting from stormwater discharges. Where feasible, outfall structures are to be located outside of the natural feature.

TABLE C6. LOW FLOOR AND LOW ENTRY FREEBOARD REQUIREMENTS.

Freeboard	Regional Flood Elevations		Detention Basins, Wetlands & Stormwater Ponds		Infiltration and Biofiltration Basins			Rain Gardens *
	100-yr	EOF	100-yr	EOF	Bottom	100-yr	EOF	EOF
Low Floor	2.0 ft	1.0 ft	0.0 ft	NA	0.0 ft	NA	NA	NA
Low Entry	NA	NA	2.0 ft	1.0 ft	NA	2.0 ft	1.0 ft	0.5 ft

* Rain gardens are “off-line” infiltration or bio-filtration basins.

- (g) All new residential, commercial, industrial and other habitable or non-habitable structures, and all stormwater BMPs, must be constructed so that the lowest floor and lowest entry elevations comply with Table C6.

The low entry freeboard criterion of Rule C.9(f) may be deemed met when the structure does not have the required vertical separation, but is protected from surface flooding to the required elevation by a berm or other natural or constructed topographic feature capable of providing flood protection.

Within a landlocked basin, minimum low floor elevations must be at least one foot above the surveyed basin run out elevation. Where a structure is proposed below the run out elevation of a land-locked basin, the low floor elevation will be a minimum of two feet above the highest water level of either the 10-day snowmelt event or back-to-back 100-year, 24-hour rainfalls. Aerial photos, vegetation, soils,

and topography may be used to derive a "normal" water elevation for the purpose of computing the basin's 100-year elevation.

- (h) All stormwater management structures and facilities must be designed for maintenance access and be properly operated and maintained in perpetuity to assure that they continue to function as designed. The maintenance responsibility must be memorialized in a document executed by the property owner in a form acceptable to the District and filed for record on the deed. Alternatively, a public permittee may meet its perpetual maintenance obligation by executing a programmatic or project-specific maintenance agreement with the District. Regional ponds owned by public entities that are only used to meet the rate control requirements of the District rule do not need a maintenance agreement with the District.
- (i) Before work under the permit is deemed complete, the permittee must submit as-built plans demonstrating that at the time of final stabilization, stormwater facilities conform to design specifications.

10. EASEMENTS.

- (a) Before permit issuance, the permittee must, submit a copy of any plat or easement required by the local land use authority establishing drainage or flowage over stormwater management facilities, stormwater conveyances, ponds, wetlands, on-site floodplain up to the 100-year flood elevation, or any other hydrologic feature.
- (b) Before permit issuance, the permittee must convey to the District an easement over the public drainage system specifying a District right of maintenance access over the following minimum widths:
 - (1) For tiled/piped systems, 66 feet wide perpendicular to the direction of flow, centered on the tile line or pipe;
 - (2) For open channel systems, a variable width perpendicular to the direction of flow, to include the open channel itself and all areas within 16.5 feet from the top of the ditch bank.
- (c) Public Linear Projects are exempt from the public drainage system easement requirement of Section 10(b).
- (d) For projects within the District's Comprehensive Wetland Protection and Management Plan (CWPMP) areas, the Wetland Management Corridor (WMC) boundary delineation, buffer and easement requirements found at Rule F.6 apply. As stated in Rule F.5(e), Public Linear Projects are not subject to the requirements of Rule F.6.

11. REQUIRED EXHIBITS. The following exhibits must accompany the permit application. One set, full size (22 inches by 34 inches) and one reduced (maximum size of 11 inches by 17 inches) or electronic version.

- (a) An erosion & sediment control plan and, for projects that require an NPDES permit, a Storm Water Pollution Prevention Plan.

- (b) Property lines and delineation of lands under ownership of the applicant.
- (c) Delineation of the subwatershed contributing runoff from off-site, proposed and existing subwatersheds onsite, emergency overflows, and drainageways.
- (d) Geotechnical analysis including soil borings at all proposed stormwater management facility locations utilizing ASTM D5921 and D5879, as amended.
- (e) Proposed and existing stormwater facilities' location, alignment and elevation.
- (f) Delineation of existing on-site wetland, marshes and floodplain areas.
- (g) Identification of existing and proposed normal, ordinary high and 100-year water elevations on-site.
- (h) Identification of existing and proposed contour elevations within the project site related to NGVD, NAVD 88.
- (i) Construction plans and specifications of all proposed stormwater management facilities, including design details for outlet control structures.
- (j) Stormwater runoff volume and rate analyses for the 2- 10- and 100-year critical events, existing and proposed conditions utilizing NOAA Technical Paper #40 (TP-40) as amended.
- (k) All hydrologic, water quality and hydraulic computations completed to design the proposed stormwater management facilities.
- (l) Narrative including a project description, discussion of BMP selection, and revegetation plan for the project site.
- (m) Other project site-specific submittal requirements as may be required by the District.

12. EXCEPTIONS.

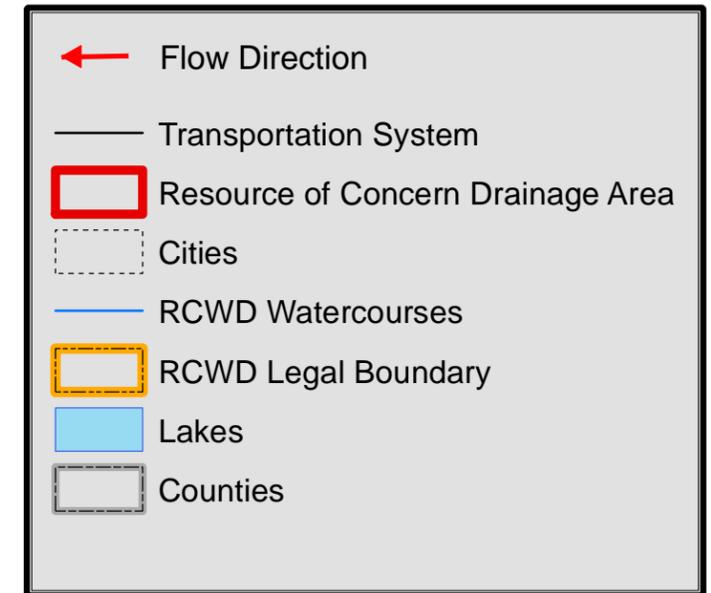
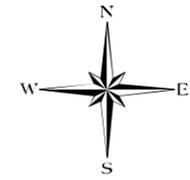
- (a) Rate control criteria of Section 7 may be waived if the project site discharges directly to a water body with large storage capacity (such as a public water), the volume discharged from the project site does not contribute to a downstream flood peak, and there are no downstream locations susceptible to flooding.
- (b) Section 6 and Section 7 are waived for a portion of a project that paves a gravel roadway if the right-of-way ditch is maintained and does not discharge a concentrated flow directly to a wetland or another sensitive water body.

13. EXTENDED PERMIT TERM AND REGIONAL FACILITIES FOR NON-RESIDENTIAL PHASED DEVELOPMENT.

- (a) The District will not apply an intervening rule change so as to deny a parcel water quality, abstraction and peak flow capacity in regional facilities allocated to it in a District – issued area development permit, provided that:

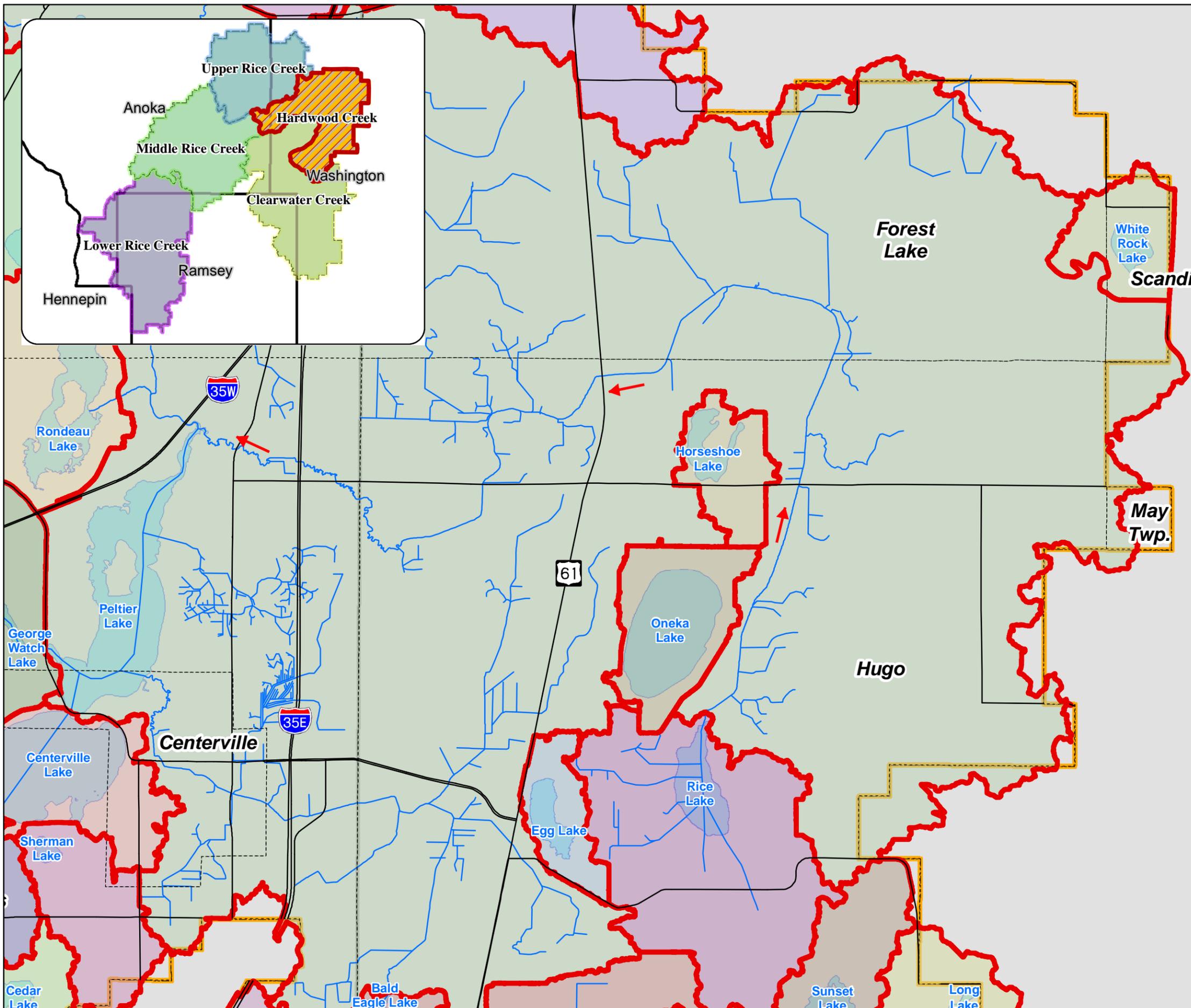
- (1) the District permit provided for construction of those facilities to serve identified multiple parcels within the area development; and,
 - (2) the stormwater management facilities have been constructed in accordance with the permit.
- (b) Subsection (a) will not apply if, on the basis of new knowledge or information, the District makes written findings that use of the regional facilities would have a material adverse impact on a water quality, flood management or other specific public interest.
- (c) Unless the area development permit explicitly states otherwise, development on an individual parcel will require a permit in accordance with District rules at the time of parcel development. Except as stated in subsection (a), parcel development will be subject to standards in effect at the time of permitting. As a result, a permittee may be required to provide for stormwater management in addition to that provided by the regional facilities.
- (d) Subsection (a) will apply only to parcel development permits issued within 10 years of the area development permit issuance date.
- (e) For subsection (a) to apply, an applicant must demonstrate that the owner of the regional facilities assents to applicant's proposed use; the facilities are subject to a legal maintenance obligation in favor of the District; and facility maintenance conforms to the terms of that obligation.
- (f) In its judgment, the District may issue a permit for phased development on a single parcel or contiguous parcels under common ownership with a permit term of up to 10 years, for which period the development will not be subject to an intervening rule change. Any phased development permit with an extended term must state the design criteria to which subsequent development under the permit must conform in order to receive the protection of this paragraph.
- (g) This section applies to area development permits issued before the section's effective date. If a phased development permit is in effect as of this section's effective date, on application the District will extend the permit expiration date in accordance with subsection (f), above. For such prior-issued permits, the requirement that the permit state design criteria is relaxed. However, the applicant bears the burden to submit all data necessary to demonstrate that the criteria of this section are met, including the design and constructed capacity of the facilities and the allocation of that capacity to applicant's parcel.
- (h) If a phased development permit was issued less than 10 years before the effective date of this section but expired before that date, applications for subsequent development phases will be considered in the same manner as applications for parcel development under this section.

Rice Creek Watershed District

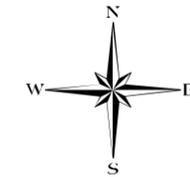


Sources: RCWD, TLG, MN DOT

**C1A: Resources of Concern
Drainage Area of Hardwood Creek**



Rice Creek Watershed District

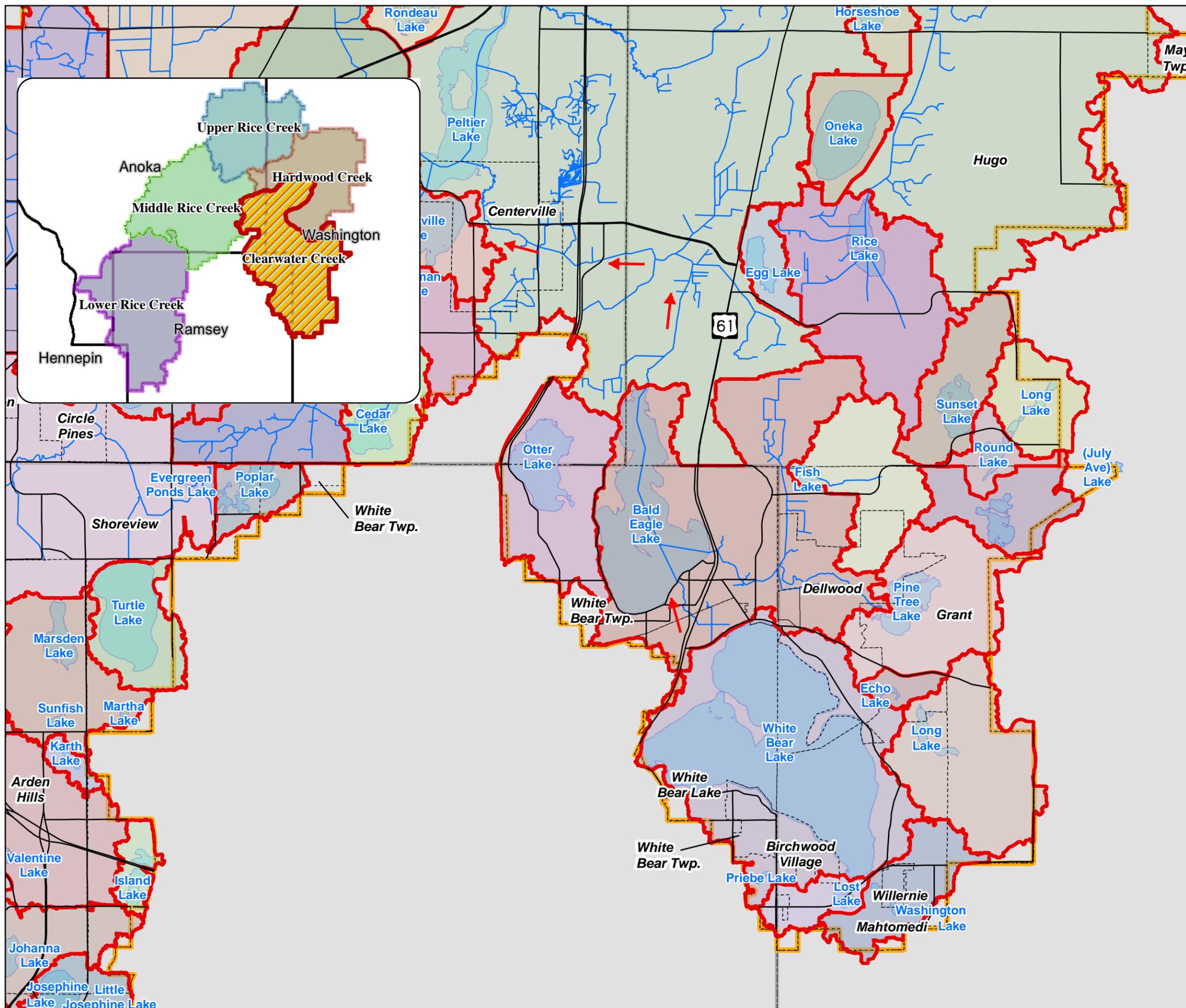


	Flow Direction
	Transportation System
	Resource of Concern Drainage Area
	Cities
	RCWD Watercourses
	RCWD Legal Boundary
	Lakes
	Counties

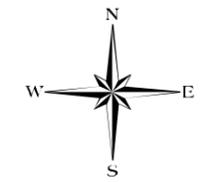


Sources: RCWD, TLG, MN DOT

C1B: Resources of Concern Drainage Area of Clearwater Creek



Rice Creek Watershed District

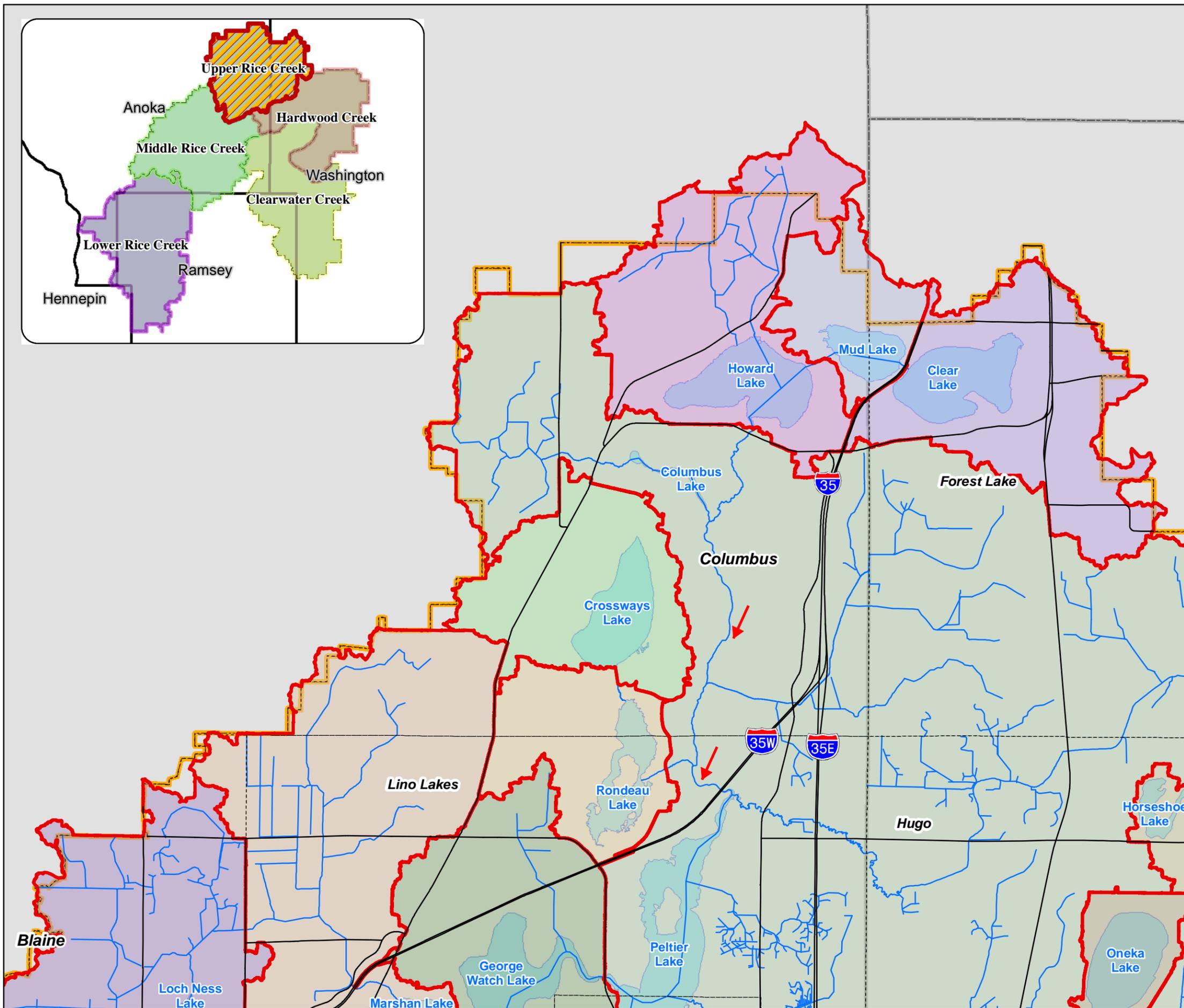


	Flow Direction
	Transportation System
	Resource of Concern Drainage Area
	Cities
	RCWD Watercourses
	RCWD Legal Boundary
	Lakes
	Counties

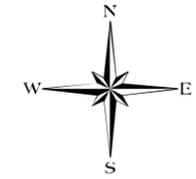


Sources: RCWD, TLG, MN DOT

**C1C: Resources of Concern
Drainage Area of Upper Rice Creek**



Rice Creek Watershed District

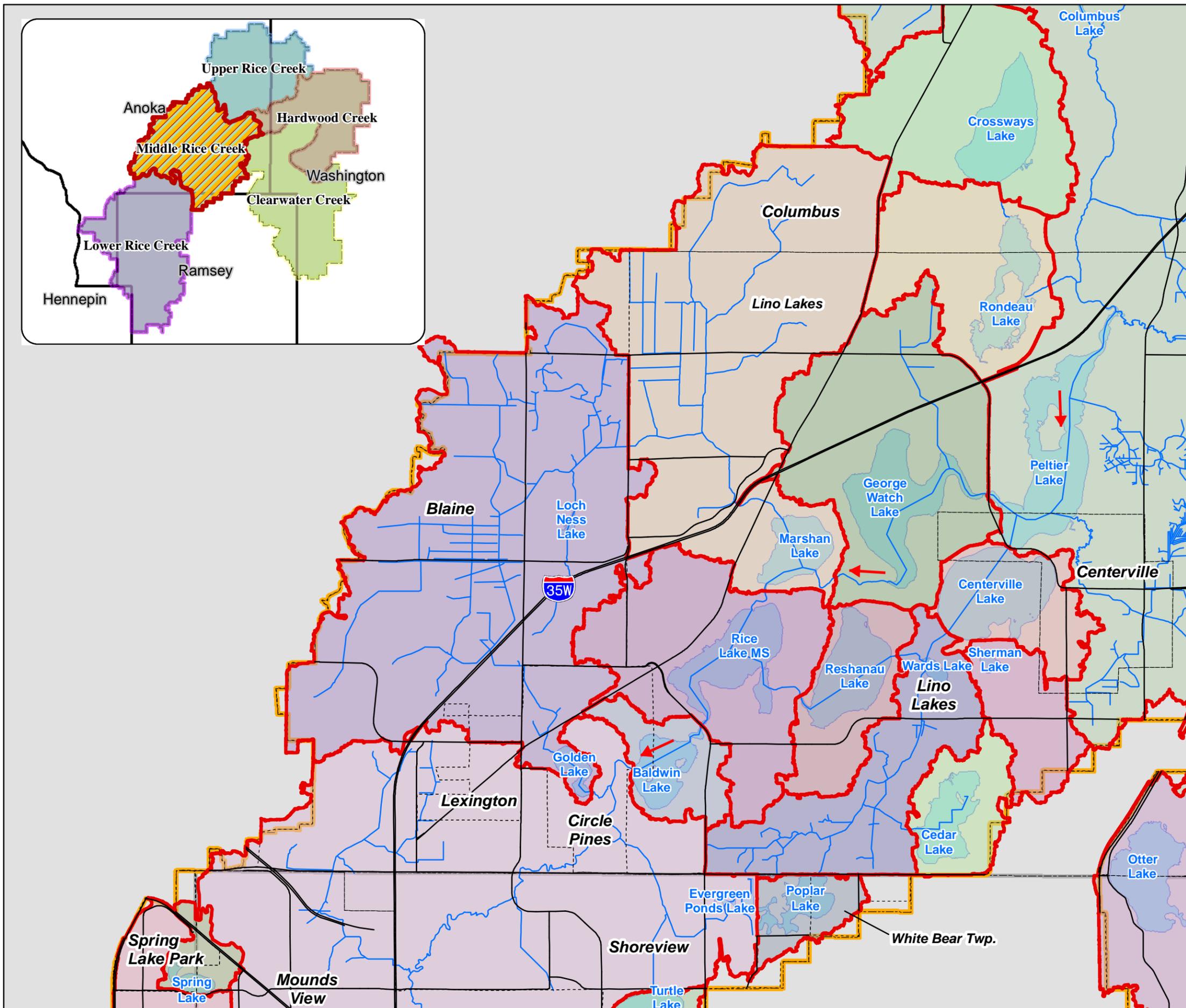


	Flow Direction
	Transportation System
	Resource of Concern Drainage Area
	Cities
	RCWD Watercourses
	RCWD Legal Boundary
	Lakes
	Counties

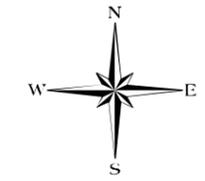


Sources: RCWD, TLG, MN DOT

**C1D: Resources of Concern
Drainage Area of Middle Rice Creek**



Rice Creek Watershed District

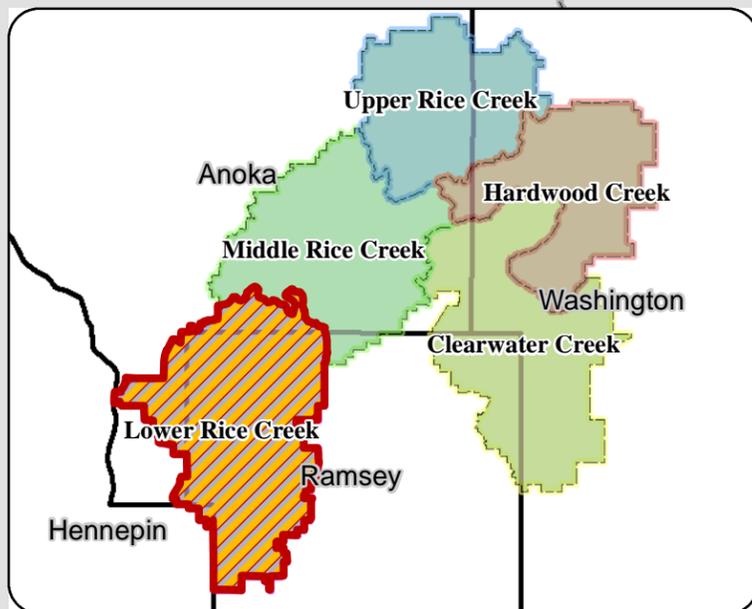
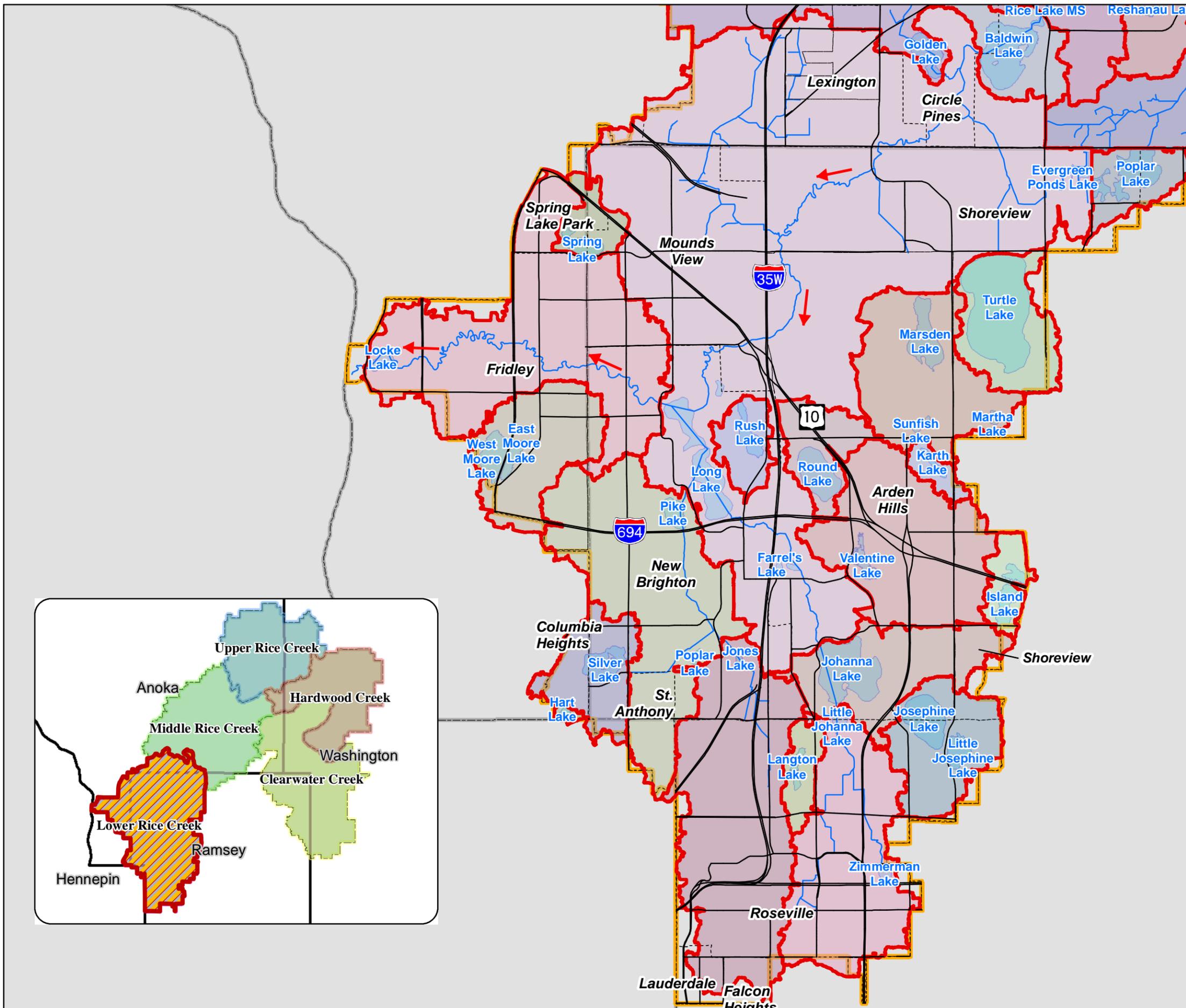


	Flow Direction
	Transportation System
	Resource of Concern Drainage Area
	Cities
	RCWD Watercourses
	RCWD Legal Boundary
	Lakes
	Counties

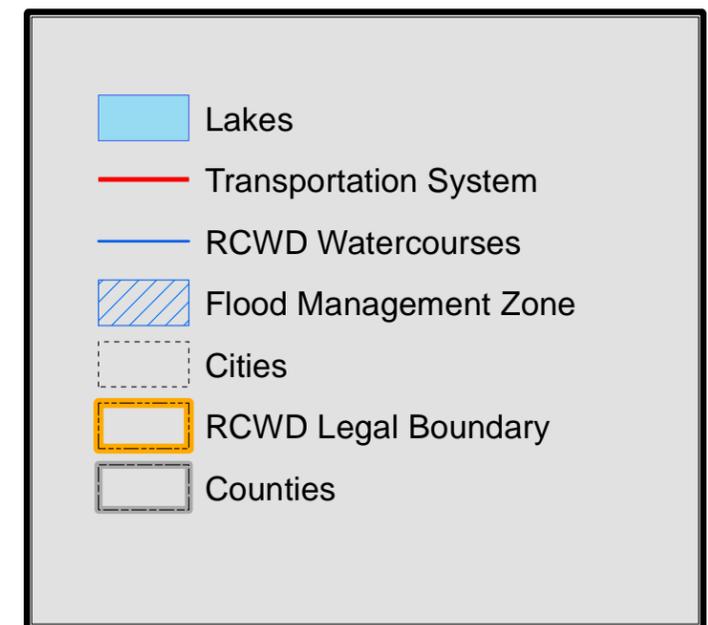
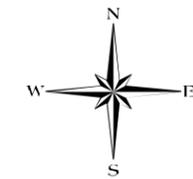


Sources: RCWD, TLG, MN DOT

**C1E: Resources of Concern
Drainage Area of Lower Rice Creek**

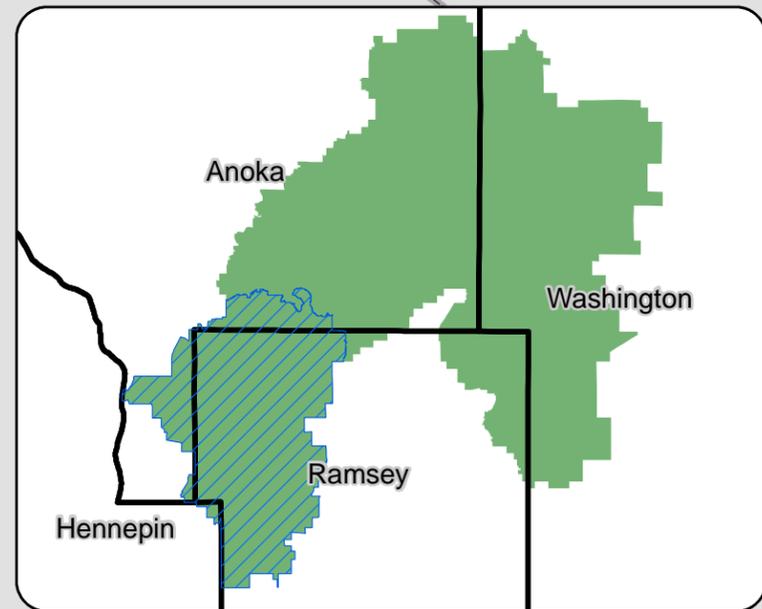
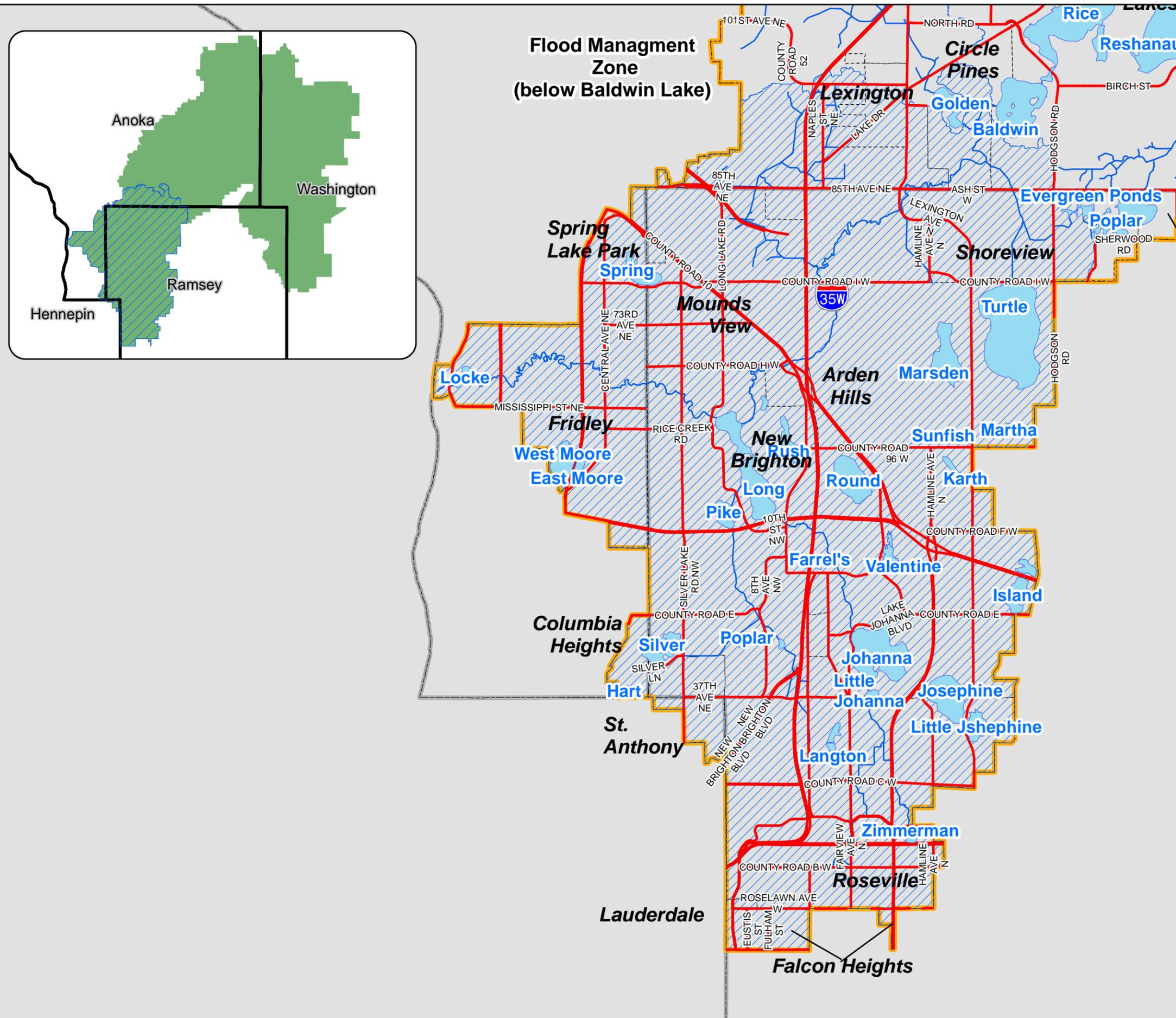


Rice Creek Watershed District



Sources: RCWD, TLG, MN DOT

C2: Flood Management Zone



RULE D: EROSION AND SEDIMENT CONTROL PLANS

1. **POLICY.** It is the policy of the Board of Managers to prevent erosion of soil into surface water systems by requiring erosion and sediment control for land-disturbing activities.
2. **REGULATION.**
 - (a) An erosion and sediment control plan must be submitted, and a permit received from the District, for:
 - (1) Surface soil disturbance or removal of vegetative cover on one acre or more of land;
 - (2) Surface soil disturbance or removal of vegetative cover on 10,000 square feet or more of land, if any part of the disturbed area is within 300 feet of and drains to a lake, stream, wetland or public drainage system; or
 - (3) Any land-disturbing activity that requires a District permit under a rule other than Rule D.
 - (b) A person disturbing surface soils or removing vegetative cover on more than 5,000 square feet of land, or stockpiling on-site more than fifty (50) cubic yards of earth or other erodible material, but not requiring a permit under the criteria of this rule, must submit a notice in advance of disturbance on a form provided by the District and conform the activity to standard best practices established by and available from the District.
 - (c) Rule D does not apply to normal farming practices that are part of an ongoing farming operation.
3. **DESIGN CRITERIA FOR EROSION CONTROL PLANS.** Erosion and Sediment Control Plans must comply with the following criteria:
 - (a) Natural project site topography and soil conditions must be specifically addressed to reduce erosion and sedimentation during construction and after project completion.
 - (b) Site erosion and sediment control practices must be consistent with the Minnesota Pollution Control Agency document "Protecting Water Quality in Urban Areas" (1994), as amended, and District-specific written design guidance and be sufficient to retain sediment on-site.
 - (c) The project must be phased to minimize disturbed areas and removal of existing vegetation, until it is necessary for project progress.
 - (d) The District may require additional erosion and sediment control measures on areas with a slope to a sensitive, impaired or special water body, stream, drainage system or wetland to assure retention of sediment on-site.
 - (e) The plan must include conditions adequate to protect facilities to be used for post-construction stormwater infiltration.

- 4. REQUIRED EXHIBITS.** The following exhibits must accompany the permit application. One set, full size (22 inches by 34 inches) and one reduced (maximum size of 11 inches by 17 inches) or electronic version.
- (a) An existing and proposed topographic map which clearly indicates all hydrologic features and areas where grading will expose soils to erosive conditions. The Plan must also indicate the direction of all project site runoff.
 - (b) Tabulation of the construction implementation schedule.
 - (c) Name, address and phone number of party responsible for maintenance of all erosion and sediment control measures.
 - (d) Quantification of the total disturbed area.
 - (e) Clear identification of all temporary erosion and sediment control measures that will remain in place until permanent vegetation is established. Examples of temporary measures include, but are not limited to, seeding, mulching, sodding, silt fence, erosion control blanket, and stormwater inlet protection devices.
 - (f) Clear identification of all permanent erosion control measures such as outfall spillways and riprap shoreline protection, and their locations.
 - (g) Clear Identification of staging areas, as applicable.
 - (h) Documentation that the project applicant has applied for the NPDES Permit from the Minnesota Pollution Control Agency (MPCA), when applicable.
 - (i) A stormwater pollution prevention plan for projects that require an NPDES Permit.
 - (j) Delineation of any floodplain and/or wetland area changes.
 - (k) Other project site-specific submittal requirements as may be required by the District.
- 5. CONSTRUCTION ACTIVITY REQUIREMENTS.** Any activity subject to a permit under this rule must conform to the standards of the NPDES construction general permit, as amended, regarding construction-site erosion and sediment control.
- 6. INSPECTIONS.**
- (a) The permittee shall be responsible for inspection, maintenance and effectiveness of all erosion and sediment control measures until final soil stabilization is achieved or the permit is assigned (see Rule B), whichever comes first.
 - (b) The District may inspect the project site and require the permittee to provide additional erosion control measures as it determines conditions warrant.
- 7. FINAL STABILIZATION.**
- (a) Erosion and sediment control measures must be maintained until final vegetation and ground cover is established to a density of 70%.
 - (b) Temporary erosion and sediment control BMPs will be removed after disturbed areas have been permanently stabilized.

RULE E: FLOODPLAIN ALTERATION

1. **POLICY.** It is the policy of the Board of Managers to:
 - (a) Utilize the best information available in determining the 100-year flood elevation.
 - (b) Preserve existing water storage capacity within the 100-year floodplain of all waterbodies and wetlands in the watershed to minimize the frequency and severity of high water.
 - (c) Enhance floodplain characteristics that promote the natural attenuation of high water, provide for water quality treatment, and promote groundwater recharge.
 - (d) Preserve and enhance the natural vegetation existing in floodplain areas for aquatic and wildlife habitat.

2. **REGULATION.** No person may alter or fill land within the floodplain of any lake, stream, wetland, drainage system, major watercourse, or public waters without first obtaining a permit from the District. Shoreline/streambank restoration or stabilization, approved in writing by the District and/or County Conservation District as necessary to control erosion and designed to minimize encroachment and alteration of hydraulic forces, does not require a permit under this Rule.

3. **CRITERIA FOR FLOODPLAIN ALTERATION.**
 - (a) Fill within a designated floodway is prohibited.
 - (b) Fill within the floodplain is prohibited unless compensatory floodplain storage volume is provided within the floodplain of the same water body, and within the permit term. If offsetting storage volume will be provided off-site, it shall be created before any floodplain filling by the applicant will be allowed.
 - (c) Any structure or embankments placed within the floodplain will be capable of passing the 100-year flood without increasing the elevation of the 100-year flood profile.
 - (d) Compensatory floodplain storage volume is not required for the extension of an existing culvert or minor modifications to an existing bridge approach associated with a Public Linear Project if there is no adverse impact to the 100-Year Flood Elevation.
 - (e) Compensatory floodplain storage volume is not required for a one time deposition of up to 10 cubic yards of fill, per parcel, if there is no adverse impact to the 100-Year Flood Elevation. The one time deposition does not include public linear projects.
 - (f) Floodplain alteration is subject to the District's Wetland Alteration Rule F, as applicable.
 - (g) Structures subject to flooding built within the 100-year floodplain will have two feet of freeboard between the lowest floor and the 100-year flood profile.

4. DRAINAGE EASEMENTS.

- (a)** Before permit issuance, the permittee must submit a copy of any plat or easement required by the local land use authority establishing drainage or flowage over stormwater management facilities, stormwater conveyances, ponds, wetlands, on-site floodplain up to the 100-year event, or any other hydrological feature.
- (b)** Before permit issuance, the permittee must convey to the District an easement over the public drainage system specifying a District right of maintenance access over the following minimum widths:

 - (1)** For tiled/piped systems, 66 feet wide perpendicular to the direction of flow, centered on the tile line or pipe;
 - (2)** For open channel systems, a variable width perpendicular to the direction of flow, to include the open channel itself and all areas within 16.5 feet from the top of the ditch bank.
- (c)** Public Linear Projects are exempt from the public drainage system easement requirement of Section 4(b).

5. REQUIRED EXHIBITS. The following exhibits must accompany the permit application. One set, full size (22 inches by 34 inches) and one reduced (maximum size of 11 inches by 17 inches) or electronic version.

- (a)** Site plan showing property lines, delineation of the work area, existing elevation contours of the work area, ordinary high water elevations, and 100-year flood elevations. All elevations must be reduced to NAVD 1988 datum.
- (b)** Grading plan showing any proposed elevation changes.
- (c)** Determination by a professional engineer or qualified hydrologist of the 100-year flood elevation before and after the project.
- (d)** Computation of change in flood storage capacity resulting from proposed grading.
- (e)** Erosion and sediment control plan in accordance with District Rule D.
- (f)** Other project site-specific submittal requirements as may be required by the District.

RULE F: WETLAND ALTERATION

1. **POLICY.** It is the policy of the Board of Managers to:
 - (a) Maintain no net loss in the quantity, quality, and biological diversity of Minnesota's existing wetlands.
 - (b) Increase the quantity, quality, and biological diversity of Minnesota's wetlands by restoring or enhancing diminished or drained wetlands.
 - (c) Avoid direct or indirect impacts from activities that destroy or diminish the quantity, quality, and biological diversity of wetlands.
 - (d) Replace wetland values where avoidance of activity is not feasible or prudent.
 - (e) Accomplish goals of the adopted Comprehensive Wetland Protection and Management Plans (CWPMPs).

2. **REGULATION.** No person may fill, drain, excavate or otherwise alter the hydrology of a wetland without first obtaining a permit from the District.
 - (a) The provisions of the Minnesota Wetland Conservation Act (WCA), Minnesota Statutes §§103G.221 through 103G.2372, and its implementing rules, Minnesota Rules 8420, apply under this Rule and govern District implementation of WCA as well as District regulation of non-WCA wetland impacts, except where the Rule provides otherwise.
 - (b) This rule does not regulate alteration of incidental wetlands as defined in Minnesota Rules chapter 8420, as amended. An applicant must demonstrate that the subject wetlands are incidental.
 - (c) An activity for which a No-Loss decision has been issued under Minnesota Rules chapter 8420 is subject to the applicable requirements of chapter 8420 but not otherwise subject to this Rule.
 - (d) Clearing of vegetation, plowing or pasturing in a wetland as part of an existing and ongoing farming operation is not subject to this rule unless the activity results in draining or filling the wetland.

3. **LOCAL GOVERNMENT UNIT.** The District intends to serve as the "Local Government Unit" (LGU) for administration of the Minnesota Wetland Conservation Act (WCA), except where a particular municipality in the District has elected to assume that role in its jurisdictional area or a state agency is serving as the local government unit on state land. Pursuant to its regulatory authority under both WCA and watershed law, when the District is serving as the LGU it will require wetland alteration permits for wetland-altering activities both as required by WCA and otherwise as required by this Rule.

4. **CRITERIA.**
 - (a) When the District is serving as the LGU, it will regulate wetland alterations that are not subject to WCA rules and do not qualify for an exemption at Minnesota Rules 8420.0420 or do not meet the "no-loss" criteria of Minnesota Rules

8420.0415 according to the rules and procedures of WCA, except as specifically provided in this Rule. Alteration under this paragraph requires replacement at a minimum ratio of 1:1 to ensure no loss of wetland quantity, quality or biological diversity. Replacement activities will be credited consistent with the actions eligible for credit in Minnesota Rules 8420.0526.

- (b) A wetland alteration not subject to WCA that does not change the function of a wetland and results in no net loss of wetland quantity, quality or biological diversity is exempt from the replacement requirement in Section 4(a) of this Rule.
- (c) The wetland replacement exemptions in Minnesota Rules 8420.0420 are applicable under this Rule, except as modified within CWPMP areas under Section 6.
- (d) Alterations in wetlands for the purposes of wildlife enhancement must be certified by the local Soil and Water Conservation District as compliant with the criteria described in Wildlife Habitat Improvements in Wetlands: Guidance for Soil and Water Conservation Districts and Local Government Units.

5. ADDITIONAL DISTRICT REQUIREMENTS. In addition to the wetland replacement plan components and procedures in WCA, the following more specific requirements will apply to the District's review of WCA and, except as indicated, non-WCA wetland alterations:

- (a) Applicants must adequately explain and justify each individual contiguous wetland alteration area in terms of impact avoidance and minimization alternatives considered.
- (b) Where the wetland alteration is proposed in the context of land subdivision, on-site replacement wetland and buffer areas must:
 - (1) Be located within a platted outlet.
 - (2) Be protected from future encroachment by a barrier (i.e. stormwater pond, infiltration basin, existing wetland, tree line, fence, trail or other durable physical feature).
 - (3) Have boundaries posted with signage approved by the District identifying the wetland/buffer protected status.
- (c) The upland edge of new wetland creation must have an irregular and uneven slope. The slope must be no steeper than 8:1 over the initial 25 feet upslope from the projected wetland elevation contour along at least 50 percent of the upland/wetland boundary and no steeper than 5:1 along the remaining 50 percent of the boundary.
- (d) The District will not allow excess replacement credits to be used for replacement on a different project unless the credits were designated for wetland banking purposes in the original application in accordance with WCA rules and have been deposited into the WCA wetland banking system.

- (e) Within the boundary of a District developed and BWSR approved CWPMP (see Figure F1), Rule F and WCA are further modified to include Section 6. Public Linear Projects located in a CWPMP jurisdictional area and not part of an industrial, commercial, institutional or residential development are not subject to Section 6 of this Rule.

6. COMPREHENSIVE WETLAND PROTECTION AND MANAGEMENT PLANS. All District Comprehensive Wetland Protection and Management Plans (CWPMPs) are incorporated into this Rule. The specific terms of this Rule will govern, but if a term of this Rule is susceptible to more than one interpretation, the District will apply the interpretation that best carries out the intent and purposes of the respective CWPMP.

(a) PRE-APPLICATION REVIEW.

- (1) In cases where wetland fill, excavation or draining, wholly or partly, is contemplated, the applicant is encouraged to submit a preliminary concept plan for review with District staff and the Technical Evaluation Panel (TEP) before submitting a formal application. The following will be examined during pre-application review:
 - (i) Sequencing (in accordance with WCA and Federal Clean Water Act requirements, reducing the size, scope or density of each individual proposed action, and changing the type of project action to avoid and minimize wetland impacts).
 - (ii) Wetland assessment.
 - (iii) Applying Better Site Design principles as defined in Rule A.
 - (iv) Integrating buffers and other barriers to protect wetland resources from future impacts.
 - (v) Exploring development code flexibility, including conditional use permits, planned unit development, variances and code revisions;
 - (vi) Reviewing wetland stormwater susceptibility (see Rule C.8) and coordinating Wetland Management Corridor (WMC) establishment with existing adjacent WMCs.
- (2) At the pre-application meeting, the applicant shall provide documentation sufficient to assess project alternatives at a concept level and such other information as the District specifically requests.
- (3) On receipt of a complete application, the District will review and act on the application in accordance with its procedural rules and WCA procedures.
- (4) The TEP shall be consulted on decisions related to replacement plans, exemptions, no-loss, wetland boundaries and determination of the WMC.

(b) WETLAND MANAGEMENT CORRIDORS.

- (1) At the time of permitting, the preliminary Wetland Management Corridor (WMC) boundary (see Figure F1) will be adjusted in accordance with

subsections F(6)(b)(2) and (3), below. Notwithstanding, within the Columbus CWPMP, commercial/Industrial zoned areas within Zone 1 will remain outside of the WMC (see Figure F2).

- (2) The applicant must delineate the site level WMC when wetland impacts are proposed:
 - (i) Within the Preliminary WMC; or
 - (ii) Within 150 feet of the Preliminary WMC and greater than the applicable *de minimis* exemption amount, per Minnesota Rules 8420.0420;

If the proposed project does not meet criterion (b)(2)(i) or (b)(2)(ii), above, an applicant may accept the Preliminary WMC boundary on the project site, as modified by the use of landscape-scale delineation methods applied or approved by the District and need not comply with Section 6(b)(3) and 6(b)(4).

- (3) The applicant shall complete a wetland functional analysis using MnRAM 3.4 (or most recent version) when defining the site level WMC boundary.
 - (i) If the site level functional analysis shows the presence of Non-degraded or High Quality wetlands within 50 feet of the project site level WMC, the WMC shall be adjusted to the lateral extent of those Non-degraded or High Quality wetland boundaries plus the applicable buffers as defined in section 6(e).
 - (ii) The lateral extent of the final WMC may be increased by the applicant to include all wetlands or actions eligible for credit contiguous with the site level WMC.
- (4) A map of the final WMC boundary must be prepared and submitted to the District for approval. The map will reflect any change to the boundary as a result of the permitted activity. The final WMC, including associated buffer, shall be subject to an easement in favor of the District as described in Section 6(f). A GIS shapefile or CADD file of the final WMC boundary shall be submitted to the District.

(c) WETLAND REPLACEMENT.

- (1) The wetland replacement exemptions in Minnesota Rules 8420.0420 are not applicable within CWPMP areas, except as follows:
 - (i) The agricultural, wetland restoration, utilities, *de minimis* and wildlife habitat exemptions found at Minnesota Rules 8420.0420, subparts 2, 5, 6, 8 and 9, respectively, are applicable, subject to the scope of the exemption standards found at Minnesota Rules 8420.0420, subpart 1.
 - (ii) The drainage exemption, Minnesota Rules 8420.0420, subpart 3, is applicable if the applicant demonstrates, through adequate

hydrologic modeling, that the drainage activity will not change the hydrologic regime of a CWPMP-mapped high quality wetland (see Figure F3) within the boundary of a WMC. Wetland and plant community boundaries will be field-verified.

- (iii) Buffer and easement requirements of Section 6(e) and 6(f) do not apply to wetland alterations that qualify for one of the exemptions listed in Section 6(c)(1)(i), unless the project of which the wetland alteration is a part is subject to Rule C.10(d).
- (2) Replacement plans will be evaluated and implemented in accordance with Minnesota Rules 8420.0325 through 8420.0335, 8420.0500 through 8420.0544 and 8420.0800 through 8420.0820, except that the provisions of this Rule will apply in place of Minnesota Rules 8420.0522, and 8420.0526. The foundation of the CWPMPs is to limit impact to, and encourage enhancement of, high-priority wetlands and direct unavoidable impact to lower-priority wetlands. In accordance with Minnesota Rules 8420.0515, subpart 10, this principle will guide sequencing and other elements of replacement plan review. The District will use the methodology of Minnesota Rules 8420.0522, subpart 2 to determine wetland replacement requirements for partially drained wetlands.
- (3) A replacement plan must provide at least one replacement credit for each wetland impact acre, as shown in Table F1. The replacement methods must be from the actions listed in Table F2 or an approved wetland bank consistent with Section 6(d)(1).
- (4) Acres of impact and replacement credit are determined by applying the following two steps in order:

 - (i) Multiply actual wetland acres subject to impact by the ratios stated in Table F1.
 - (ii) Calculate the replacement credits by multiplying the acreage for each replacement action by the percentage in Table F2. All replacement areas that are not within the final WMC will receive credit based on a replacement location outside the final WMC. When the replacement area is within the parcel boundaries of the project and there is no Preliminary WMC within those boundaries, then the mitigation area will be credited as replacement inside the final WMC. If an applicant intends replacement also to fulfill mitigation requirements under Section 404 of the Clean Water Act, then the applicant may elect replacement credit based on a replacement location outside the final WMC.
- (5) The replacement plan must demonstrate that non-exempt impacts will result in no net loss of wetland hydrological regime, water quality, or wildlife habitat function through a wetland assessment methodology approved by BWSR pursuant to the Wetland Conservation Act, Minnesota Statutes §103G.2242.

TABLE F1. WETLAND REPLACEMENT RATIOS FOR CWPMP AREAS.

Wetland Degradation Type	Anoka County		Washington County	
	Outside WMC	Inside WMC	Outside WMC	Inside WMC
Moderately or Severely Degraded Wetland	1:1	2:1	2:1	3:1
Non-Degraded Wetland	1.5:1	2.5:1	2.5:1	3.5:1
High Quality Wetland and/or hardwood, coniferous swamp, floodplain forest or bog wetland communities of any quality	2:1	3:1	3.5:1	4:1

TABLE F2. ACTIONS ELIGIBLE FOR CREDIT FOR CWPMP AREAS.

Actions Eligible for Credit	Inside of the Final WMC	Outside of the Final WMC
Wetland Restoration		
Hydrologic and vegetative restoration of moderately and severely degraded wetland	up to 75% Determined by LGU and TEP	up to 50% Determined by LGU and TEP
Hydrologic and vegetative restoration of effectively drained, former wetland	100%	75%
Wetland Creation		
Upland to wetland conversion	50%	50%
Wetland Protection & Preservation		
Protection via conservation easement of wetland previously restored consistent with MN Rule 8420.0526 subpart 6	up to 75% Determined by LGU and TEP	up to 75% Determined by LGU and TEP
Columbus CWPMP Only: Preservation of wetland or wetland/upland mosaic (requires a 3rd party easement holder and other matching action eligible for credit)	25% Determined by LGU and TEP	12.5% Determined by LGU and TEP
Restoration or protection of wetland of exceptional natural resource value consistent with MN Rule 8420.0526, subpart 8	Up to 100% Determined by LGU and TEP	Up to 100% Determined by LGU and TEP
Buffers		
Non-native, non-invasive dominated buffer around other action eligible for credit, consistent with Section 6(e)	10%	10%
Native, non-invasive dominated buffer around other action eligible for credit, consistent with Section 6(e)	25%	25%
Upland habitat area contiguous with final WMC wetland (2 acre minimum), as limited by Rule F.6(e)(5)	100%	NA
Vegetative Restoration		
Positive shift in MnRAM assessment score for "Vegetative Integrity" from "Low" to "Medium" or "High"	Up to 50% Determined by LGU and TEP	NA

- (6) The location and type of wetland replacement will conform as closely as possible to the following standards:
- (i) No wetland plant community of high or exceptional wildlife habitat function and high or exceptional vegetative integrity, as identified in the required wetland assessment, may be disturbed.
 - (ii) No replacement credit will be given for excavation in an upland natural community with Natural Heritage Program rank B or higher, or with identified Endangered, Threatened or Special Concern species.
- (7) In the Columbus CWPMP only, preservation credit can be used for up to 50% of the wetland replacement required. The remaining 50% must be supplied by a non-preservation replacement action as shown within Table F2. Additionally:
- (i) All other eligible actions for credit within this rule must be considered before preservation is approved as an action eligible for credit.
 - (ii) The Technical Evaluation Panel must find that there is a high probability that, without preservation, the wetland area to be preserved would be degraded or impacted and that the wetland meets the criteria of Minnesota Rules 8420.0526 subpart 9.A through 9.D.
 - (iii) Non-degraded, High Quality, and Moderately Degraded wetland is eligible for Preservation Credit within Zone 1 (see Figure F2).
 - (iv) Non-degraded and High Quality wetland is eligible for Preservation Credit within Zone 2 (see Figure F2).
 - (v) Wetland ranked “Low” for “vegetative integrity” is not eligible for replacement credit through Preservation.
 - (vi) Banked preservation credit may be used only within the Columbus CWPMP area (see Figure F1).
- (8) Replacement credit for Wetland Protection and Preservation (see Table F2) requires that a perpetual Conservation Easement be conveyed to and accepted by the District. The easement must encompass the entire replacement area, and must provide for preservation of the wetland’s functions by the fee owner and applicant. The applicant must provide a title insurance policy acceptable to the District, naming the District as the insured. The fee owner and the applicant also must grant an access easement in favor of the District, the local government unit and any other state, local or federal regulatory authority that has authorized use

of credits from the mitigation site for wetland replacement. The fee owner must record or register these easements on the title for the affected property.

- (9) Replacement credit for Vegetative Restoration (see Table F2) may be granted only for wetland communities scoring “Low” for Vegetative Integrity. The TEP must find that there is a reasonable probability for restoration success.
- (10) Unless a different standard is stated in the approved replacement or banking plan, the performance standard for upland and wetland restored or created to generate credit is establishment, by the end of the WCA monitoring period, of a medium or high quality plant community ranking with 80% vegetative coverage consisting of a native, non-invasive species composition.
- (11) Notwithstanding any provision in this rule to the contrary, for wetland impacts resulting from public drainage system repairs undertaken by the Rice Creek Watershed District that are exempt from Clean Water Act Section 404 permit requirements but are not exempt from replacement under Section 6(c)(1) of this Rule, replacement may occur subject to the following priority of replacement site sequencing:
 - (i) Within bank service areas 6 or 7 or with the concurrence of governing board of the local county or watershed district, within any county or watershed district whose county water plan, watershed management plan, or other water resource implementation plan contains wetland restoration as a means of implementation.
 - (ii) Throughout the state in areas determined to possess less than 80% of pre-settlement wetland acres.
- (12) A variance from a requirement of Section 6(c) otherwise meeting the criteria of District Rule L may be granted if the TEP concurs that the wetland protection afforded will not be less than that resulting from application of standard WCA criteria.

(d) WETLAND BANKING.

- (1) Replacement requirements under Section 6(c) of this Rule may be satisfied in whole or part by replacement credits generated off-site within any CWPMP area, but not by credits generated outside of a CWPMP area except as provided in Section 6(d)(5).
- (2) The deposit of replacement credits created within a CWPMP area for banking purposes and credit transactions for replacement will occur in accordance with Minnesota Rules 8420.0700 through 8420.0745. Credits generated within a CWPMP area may be used for replacement within or outside of a CWPMP area.

- (i) The District will calculate the amount of credit in accordance with the standard terms of WCA. This measure of credit will appear in the BWSR wetland banking account.
 - (ii) The District also will calculate the amount of credit in accordance with Section 6(c) of this rule. The District will record this measure of credit internally within the CWPMP's wetland bank accounting. The District will adjust this internal account if the BWSR account is later debited for replacement outside of a CWPMP area. Where credits are used for replacement within a CWPMP area, the District will convert credits used into standard WCA credits so that the BWSR account is accurately debited.
 - (3) To be recognized, bank credit from Preservation in the Columbus CWPMP (see Table F2) must be matched by an equal amount of credit from a non-Preservation replacement action.
 - (i) Credit derived from Preservation as the replacement action may be used only within the Columbus CWPMP boundary.
 - (ii) If the matching non-Preservation credit is used outside of the Columbus CWPMP area, the Preservation credit within the Columbus CWPMP wetland bank account will be debited in the amount of the matching non-Preservation credit.
 - (5) Banked wetland credit created outside of the CWPMP areas, but within their Contributing Drainage Area (see Figure F4), may be used to replace impact within the CWPMP areas. An applicant proposing to use credits under this paragraph must field verify at the time of application that the banked wetlands are located within the Contributing Drainage Area.
 - (6) Credits generated under an approved wetland banking plan, inside a CWPMP or its contributing drainage area (See Figure F4), utilized to replace impact within a CWPMP area will be recognized in accordance with the approved banking plan.
- (e) **VEGETATED BUFFERS.** Vegetated buffers are required to be established adjacent to wetlands within CWPMP areas as described below.
 - (1) Wetland buffer will consist of non-invasive vegetated land; that is not cultivated, cropped, pastured, mowed, fertilized, used as a location for depositing snow removed from roads, driveways or parking lots, subject to the placement of mulch or yard waste, or otherwise disturbed except for periodic cutting or burning that promotes the health of the buffer, actions to address disease or invasive species, or other actions to maintain or improve buffer or habitat area quality, each as approved in writing by District staff.

The application must include a vegetation management plan for District approval. For public road authorities, the terms of this subsection will be modified as necessary to accommodate safety and maintenance feasibility needs.

- (2)** Buffer adjacent to wetland within the final WMC must average at least 50 feet in width, measure at least 25 feet at all points, and meet the average width at all points of concentrated inflow.
- (3)** Buffer adjacent to wetland restored, created or preserved for replacement credit, not within the final WMC, must meet the minimum width standards as described in MN Rule 8420.0522, subpart 6.
- (4)** Buffer adjacent to High Quality Wetland, or to replacement wetland adjacent to High Quality Wetland, must be at least 50 feet wide at all points.
- (5)** The area of buffer for which replacement credit is granted must not exceed the area of the replacement wetland except and specific to when the buffer is to meet the 50 foot requirement of Sections 6(e)(2) and 6(e)(4) and is further limited to the buffer area required to encapsulate another action eligible for credit.
- (6)** Buffer receiving replacement credit as upland habitat area contiguous with the final WMC must be at least two acres in size.
- (7)** No above- or below-ground structure or impervious surface may be placed within a buffer area permanently or temporarily, except as follows:
 - (i)** A structure may extend or be suspended above the buffer if the impact of any supports within the buffer or habitat area is negligible, the design allows sufficient light to maintain the species shaded by the structure, and the structure does not otherwise interfere with the function afforded by the buffer.
 - (ii)** A public utility, or a structure associated with a public utility, may be located within a buffer on a demonstration that there is no reasonable alternative that avoids or reduces the proposed buffer intrusion. The utility or structure shall minimize the area of permanent vegetative disturbance.
 - (iii)** Buffer may enclose a linear surface for non-motorized travel no more than 10 feet in width. The linear surface must be at least 25 feet from the wetland edge. The area of the linear surface will not be eligible for replacement credit. Trail edge mowing is not permitted.

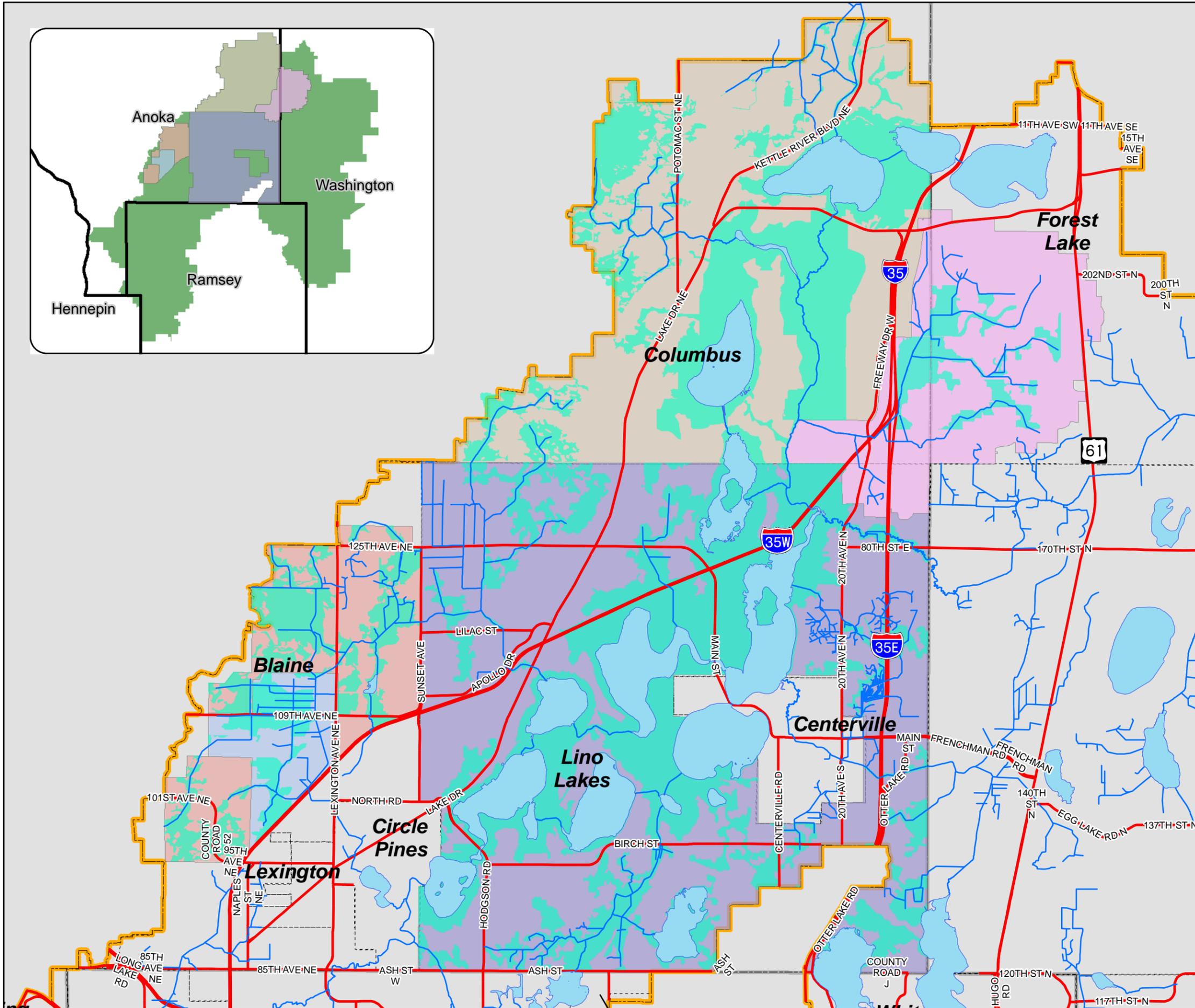
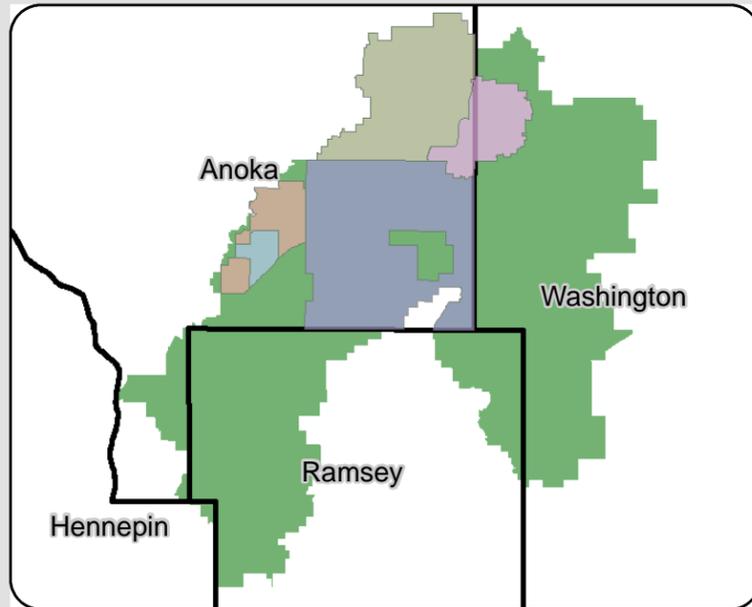
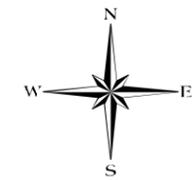
- (8) Buffer area is to be indicated by permanent, freestanding markers at the buffer edge, with a design and text approved by District staff in writing. A marker shall be placed at each lot line, with additional markers placed at an interval of no more than 200 feet. If a District permit is sought for a subdivision, the monumentation requirement will apply to each lot of record to be created. On public land or right-of-way, the monumentation requirement may be satisfied by the use of markers flush to the ground, breakaway markers of durable material, or a vegetation maintenance plan approved by District staff in writing.
- (9) As a condition of permit issuance under this Rule, a property owner must file on the deed a declaration in a form approved by the District establishing a vegetated buffer area adjacent to the delineated wetland edge within the final WMC and other wetland buffers approved as part of a permit under this Rule. The declaration must state that on further subdivision of the property, each subdivided lot of record shall meet the monumentation requirement of Section 6(e)(8). On public land or right-of-way, in place of a recorded declaration, the public owner may execute a written maintenance agreement with the District. The agreement will state that if the land containing the buffer area is conveyed to a private party, the seller must file on the deed a declaration for maintenance in a form approved by the District.
- (10) Buffer may be disturbed to alter land contours or improve buffer function if the following criteria are met:
- (i) An erosion control plan is submitted under which alterations are designed and conducted to expose the smallest amount of disturbed ground for the shortest time possible, fill or excavated material is not placed to create an unstable slope, mulches or similar materials are used for temporary soil coverage, and permanent vegetation is established as soon as possible after disturbance is completed.
 - (ii) Wooded buffer and native riparian canopy trees are left intact;
 - (iii) When disturbance is completed, sheet flow characteristics within the buffer are improved; average slope is not steeper than preexisting average slope or 5:1 (horizontal: vertical), whichever is less steep; preexisting slopes steeper than 5:1 containing dense native vegetation will not require regrading; the top 18 inches of the soil profile is not compacted, has a permeability at least equal to the permeability of the preexisting soil in an uncompacted state and has organic matter content of between five and 15 percent; and habitat diversity and riparian shading are maintained or improved.

- (iv) A re-vegetation plan is submitted specifying removal of invasive species and establishment of native vegetation suited to the location.
 - (v) A recorded Declaration or, for a public entity, maintenance agreement is submitted stating that, for three years after the project site is stabilized, the property owner will correct erosion, maintain and replace vegetation, and remove invasive species to establish permanent native vegetation according to the re-vegetation plan.
 - (vi) Disturbance is not likely to result in erosion, slope failure or a failure to establish vegetation due to existing or proposed slope, soil type, root structure or construction methods.
- (11) Material may not be excavated from or placed in a buffer, except for temporary placement of fill or excavated material pursuant to duly-permitted work in the associated wetland, or pursuant to paragraph 6(e)(10) of this Rule.
- (f) **EASEMENT.** The property owner must convey to the District and record or register, in a form acceptable to the District, a perpetual, assignable easement granting the District the authority to monitor, modify and maintain hydrologic and vegetative conditions within the WMC wetland and buffer adjacent to WMC wetland, including the authority to install and maintain structural elements within those areas and reasonable access to those areas to perform authorized activities. The WMC shall be identified and delineated as part of the recorded easement.
 - (g) **PARTIAL ABANDONMENT.** As a condition of permit issuance, the District may require a property owner to petition the District for partial abandonment of a public drainage system pursuant to Minnesota Statutes §103E.805. A partial abandonment under this Section may not diminish a benefited property owner's right to drainage without the owner's agreement.
7. **REQUIRED EXHIBITS.** The following exhibits must accompany a permit application for both WCA and non-WCA wetland alterations.
- (a) **SITE PLAN.** An applicant must submit one full size (22 inches by 34 inches) and one reduced (maximum size of 11 inches by 17 inches) or electronic version of a site plan showing:
 - (1) Property lines and delineation of lands under ownership of the applicant.
 - (2) On-site location of all public and private ditch systems
 - (3) Existing and proposed elevation contours, including the existing run out elevation and flow capacity of the wetland outlet, and spoil disposal areas.
 - (4) Area of wetland to be filled, drained, excavated or otherwise altered.

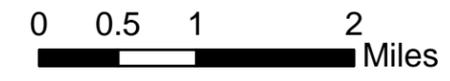
- (b) WETLAND DELINEATION REPORT.** An applicant must submit four copies of a wetland delineation report conforming to a methodology authorized for WCA use and otherwise consistent with Minnesota Board of Water & Soil Resources guidance. The following requirements and clarifications apply to submittals of wetland delineation reports to the District and supplement the approved methodology and guidance:
- (1)** Wetland delineations should be conducted and reviewed during the period of May 1 - October 15. The District may accept delineations performed outside this time frame on a case-by-case basis. The District will determine if there is sufficient information in the report and visible in the field at the time to assess the three wetland parameters (hydrophytic vegetation, hydric soils, hydrology) in relation to the placement of the wetland delineation line. If proper assessment of the delineation is not possible, the District may consider the application incomplete until appropriate field verification is possible.
 - (2)** An applicant conducting short- or long-term wetland hydrology monitoring for the purpose of wetland delineation/determination must coordinate with the District prior to initiating the study.
 - (3)** For a project site with row-cropped agricultural areas, the wetland delineation report must include a review of Farm Service Agency aerial slides (if available) for wetland signatures per Minnesota Wetland Mapping Conventions for 1985 Food Security Act, as amended, and Section 404 Clean Water Act or subsequent State-approved guidance. This review is to be considered along with field data and other pertinent information, and is not necessarily the only or primary basis for a wetland determination in an agricultural row-cropped area.
 - (4)** The wetland delineation report must follow current BWSR/ACOE Guidance for Submittal of Delineation Reports, and include:
 - (i)** Documentation consistent with the 1987 Corps of Engineers Wetlands Delineation Manual and Northcentral and Northeast Regional Supplement.
 - (ii)** National Wetland Inventory (NWI) map, Soil Survey Map, and Department of Natural Resources (DNR) Protected Waters Map of the area being delineated.
 - (iii)** Results of a field investigation of all areas indicated as potential wetland by mapping sources including: NWI wetlands, hydric soil units, poorly drained or depressional areas on the Soil Survey Map, and DNR Protected Waters or Wetlands.

- (iv) Classifications of each delineated wetland using the following systems:
 - Classification of Wetlands and Deep Water Habitats of the United States (Cowardin et al. 1979)
 - Fish and Wildlife Service Circular 39 (Shaw and Fredine 1971)
 - Wetland Plants and Plant Communities of Minnesota and Wisconsin (Eggers & Reed, 3rd Edition, 2011)
 - (v) A survey map (standard land survey methods or DGPS) of delineated wetland boundaries.
- (5) As a condition of District approval of any wetland delineation, applicants shall submit X/Y coordinates (NAD 83 state plane south coordinate system) and a GIS shapefile of the delineated wetland boundaries. All data shall be collected with a Trimble Geoexplorer or equivalent instrument with sub-meter accuracy.
- (c) **WETLAND REPLACEMENT PLAN APPLICATION.** An applicant submitting a plan involving a wetland alteration requiring replacement must submit seven copies of a replacement plan application and supporting materials conforming to WCA replacement plan application submittal requirements and including the following additional documents:
- (1) Plan sheet(s) clearly identifying, delineating, and denoting the location and size of each wetland impact area and all replacement actions for credit.
 - (2) Plan sheet(s) with profile views and construction specifications of each replacement wetland including proposed/estimated normal water level, proposed/estimated boundary of replacement wetland, topsoiling specifications (if any), grading specifications, and wetland/buffer seeding specifications.
- (d) **FUNCTIONS AND VALUES ASSESSMENT.** An applicant must submit a before-and-after wetland functions and values assessment using a WCA-accepted methodology for a project involving at least one acre of wetland impact requiring replacement.
- (e) Erosion and sediment control plan in accordance with District Rule D.
- (f) On District request, the applicant will conduct an assessment of protected plant or animal species within the project site, where such assessment is not available from existing sources.
- (g) Other project site-specific submittal requirements as may be required by the District.

Rice Creek Watershed District



	Lakes
	RCWD Watercourses
	Transportation System
	Wetland Management Corridor
	Cities
	RCWD Legal Boundary
	Counties
CWPMPs	
	Village Meadows
	Anoka County Ditch 53-62
	Anoka/Washington Judicial Ditch 4
	Lino Lakes CWPMP
	Columbus CWPMP

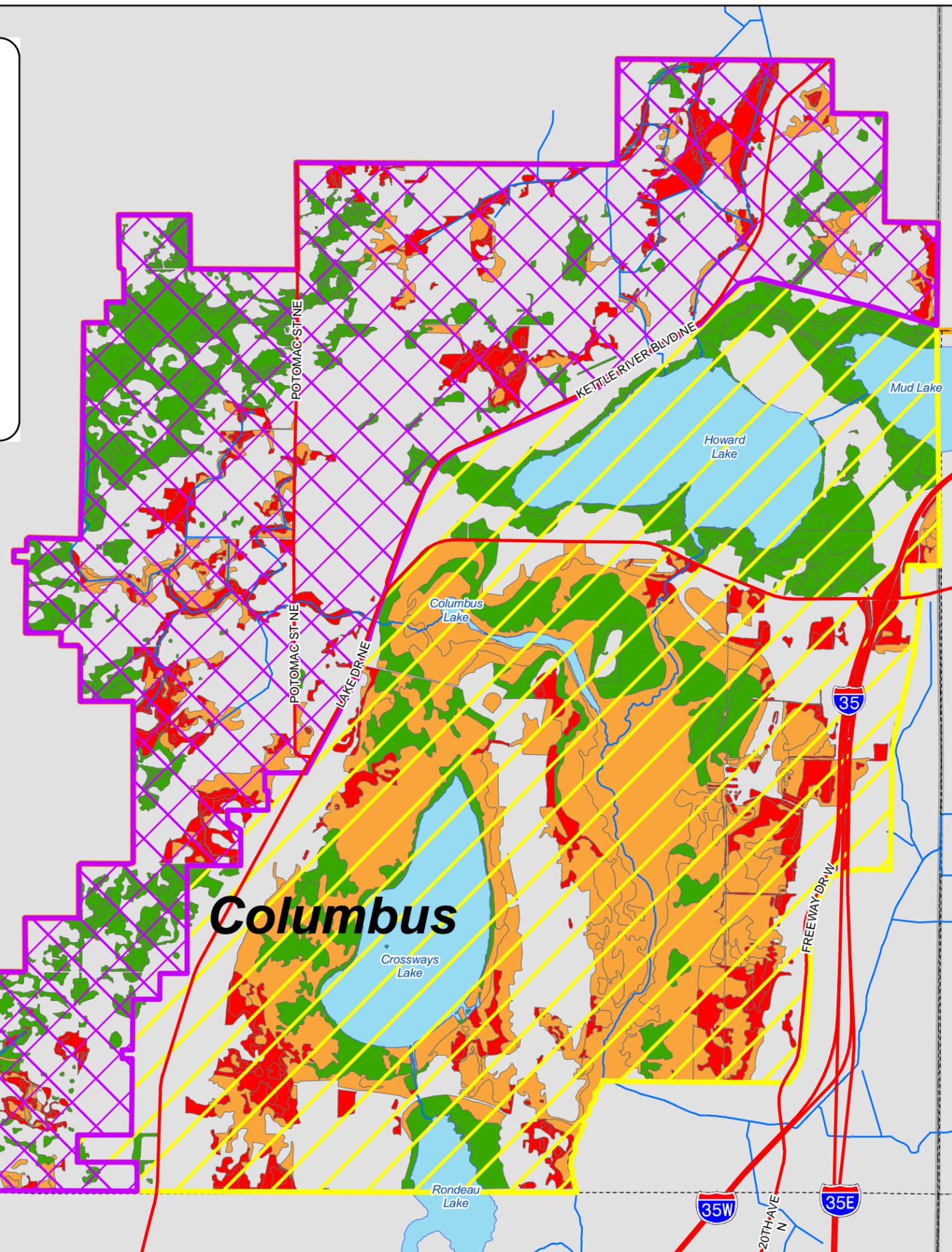
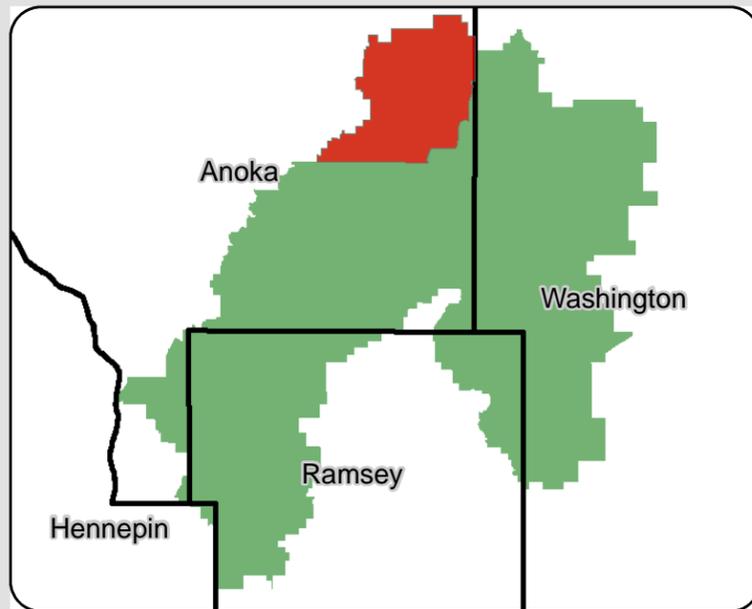
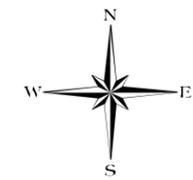


Sources: RCWD, TLG, MN DOT

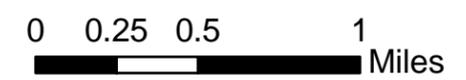
F1: Comprehensive Wetland Protection and Management Plan Boundaries and Wetland Management Corridor



Rice Creek Watershed District



- Transportation System
- RCWD Watercourses
- WMC Adjustment Zones**
- Zone I
- Zone II
- Lakes
- Wetland Degredation Status**
- Non-Degraded
- Moderately
- Severely
- Cities
- RCWD Legal Boundary
- Counties

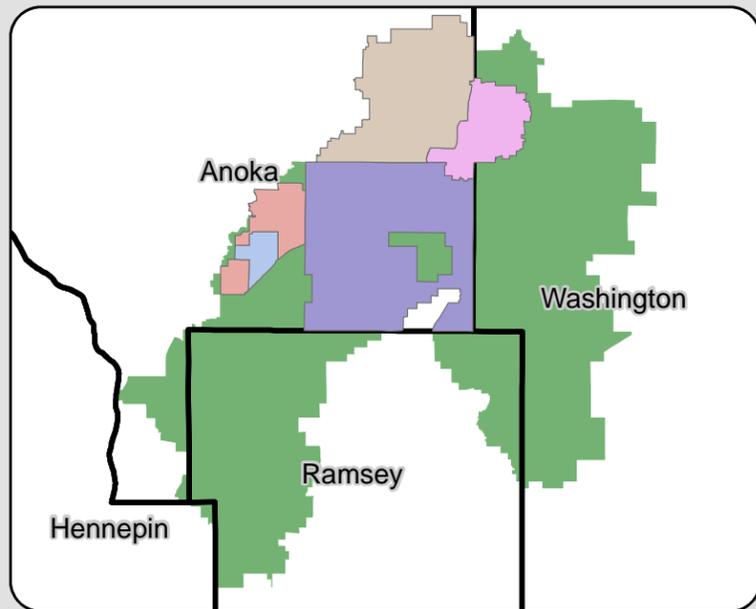
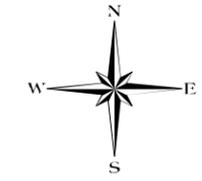


Sources: RCWD, TLG, MN DOT

F2: Columbus Commerical/Industrial Zoned Areas and Wetland Degradation Status



Rice Creek Watershed District

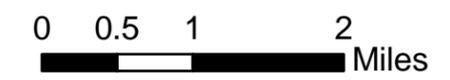


Notes:
Wetland quality has been determined utilizing data from the Minnesota Land Cover Classification System, or as defined within the CWPMPs. This data has been shown to be generally accurate, however the majority of the data presented here has not been field verified.

- RCWD Watercourses
- Lakes
- Transportation System
- High Quality Wetland (see Notes)
- Cities
- RCWD Legal Boundary
- Counties

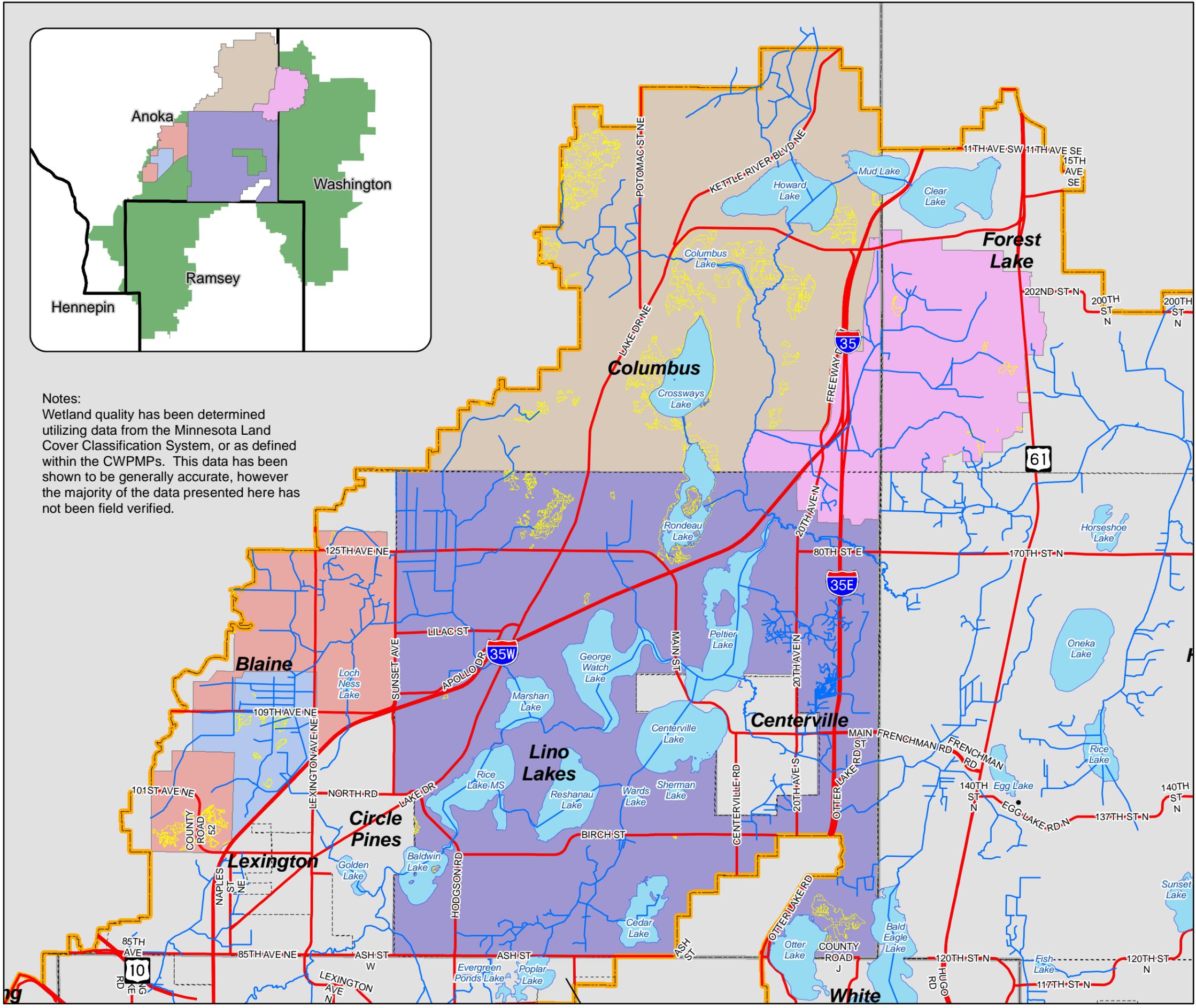
CWPMPs

- Village Meadows
- Anoka County Ditch 53-62
- Anoka/Washington Judicial Ditch 4
- Lino Lakes CWPMP
- Columbus CWPMP

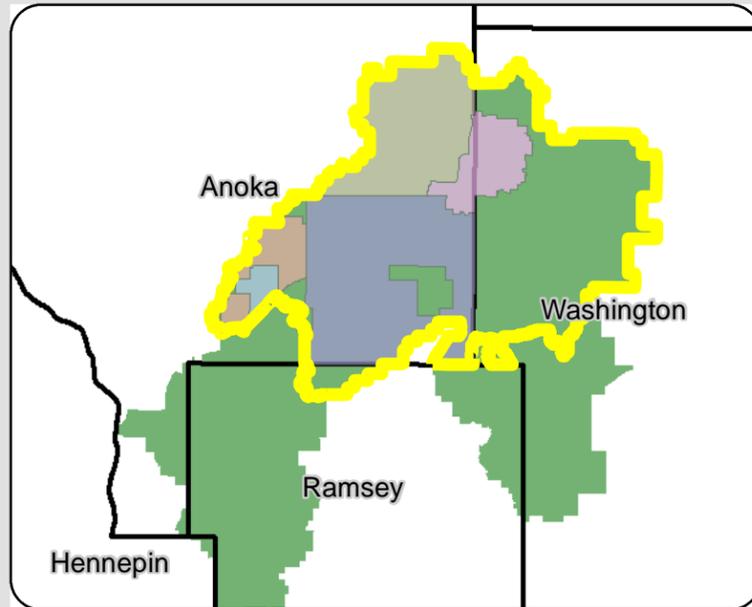
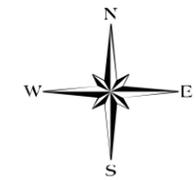


Sources: RCWD, TLG, MN DOT

F3: High Quality Wetlands Within CWPMPs



Rice Creek Watershed District



Contributing Drainage Area to CWPMPs

- Yellow outline: Contributing Drainage Area to CWPMPs
- Light blue: Lakes
- Blue line: RCWD Watercourses
- Red line: Transportation System

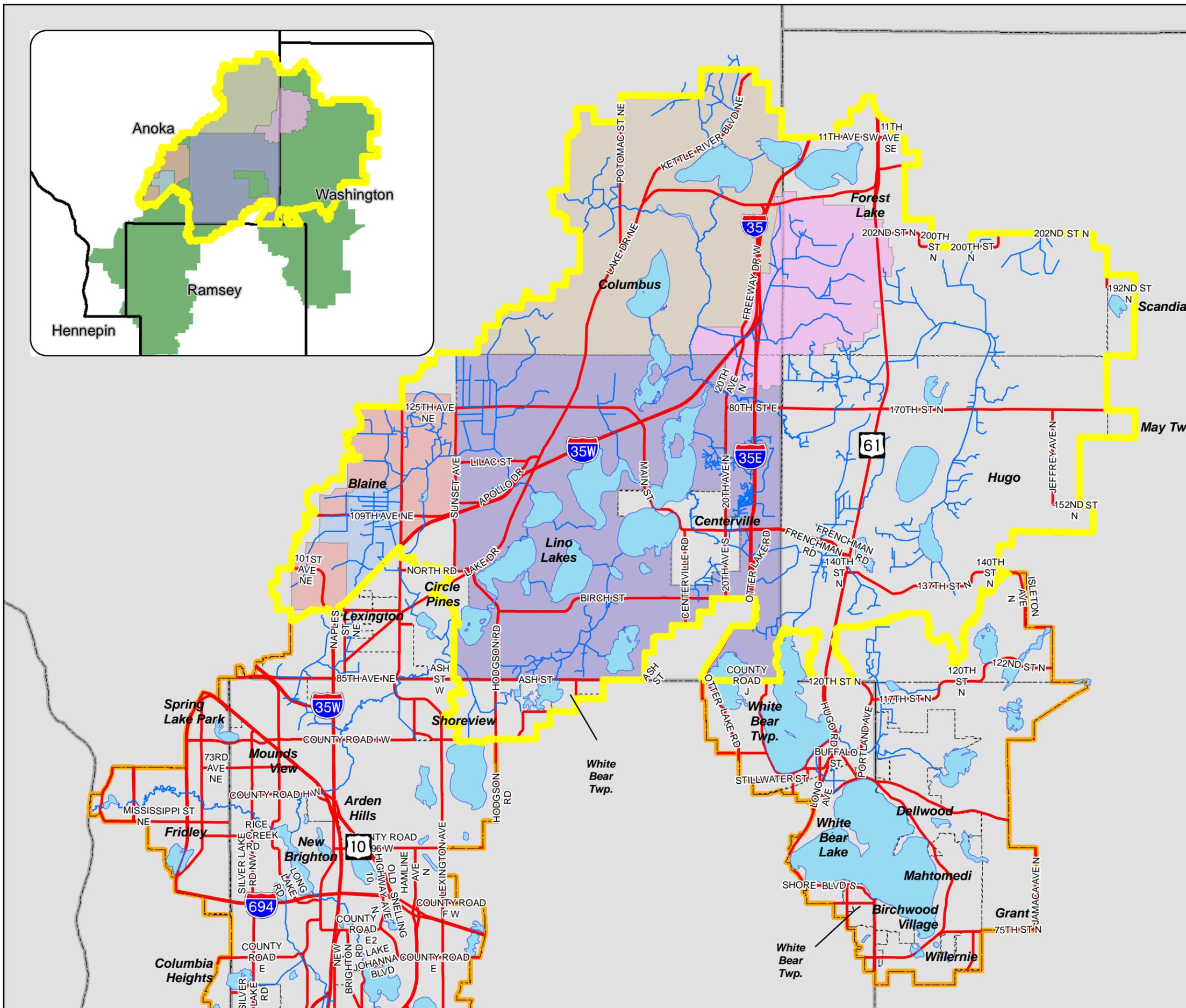
CWPMPs

- Light blue box: Village Meadows
- Light orange box: Anoka County Ditch 53-62
- Pink box: Anoka/Washington Judicial Ditch 4
- Light purple box: Lino Lakes CWPMP
- Light brown box: Columbus CWPMP
- White box with dashed border: Cities
- Yellow outline box: RCWD Legal Boundary
- Grey box: Counties



Sources: RCWD, TLG, MN DOT

F4: Contributing Drainage Area to CWPMPs



RULE G: CROSSINGS OF NATURAL & ARTIFICIAL CONVEYANCE SYSTEMS

1. **POLICY.** It is the policy of the Board of Managers to preserve the capacity of the present drainage systems to accommodate future needs.
2. **REGULATION.** No person may construct, improve, repair or alter the hydraulic characteristics of a utility, bridge or culvert structure (i.e., crossing) on a creek, public drainage system or major watercourse in the District, without first obtaining a permit from the District.
3. **CRITERIA.** A permit application for a crossing of a public drainage system will not obligate the District, in its function as drainage authority, to investigate or hold proceedings to establish the As Constructed and Subsequently Improved Condition (ACSIC) of the drainage system. Permit issuance is not a warranty and the crossing owner will remain responsible should the crossing at any time be found to be an obstruction or subject to future modification or replacement under the drainage law. In addition, a crossing must:
 - (a) Preserve existing design hydraulic capacity or, if on a public drainage system, hydraulic capacity conforming to the drainage right of benefited lands consistent with existing drainage proceedings.
 - (b) Retain existing navigational capacity.
 - (c) Not adversely affect water quality.
 - (d) Be designed to allow for future erosion, scour, and sedimentation considerations.
4. **REQUIRED EXHIBITS.** The following exhibits must accompany the permit application. One set, full size (22 inches by 34 inches) and one reduced (maximum size of 11 inches by 17 inches) or electronic version.
 - (a) Construction details showing:
 - (1) Size and description of structure including existing and proposed flow line (invert) elevations.
 - (2) Existing and proposed elevations of utility, bridge or culvert.
 - (3) End details with flared end sections or other appropriate energy dissipaters.
 - (4) Emergency overflow elevation and route.
 - (b) Narrative describing construction methods and schedule
 - (c) Erosion and sediment control plan in accordance with District Rule D.
 - (d) Computations of watershed area, peak flow rates and elevations, and discussion of potential effects on water levels above and below the project site.

5. **EXCEPTION.** Criterion 3(a) may be waived if the applicant can demonstrate with supporting hydrologic calculations the need for an increase in discharge rate in order to provide for reasonable surface water management in the upstream area and that the downstream impacts of the increased discharge rate can be reasonably accommodated and will not exceed the existing rate at the municipal boundary.

RULE H: ILLICIT DISCHARGE AND CONNECTION

1. **POLICY.** It is the policy of the Board of Managers to:
- (a) Regulate the contribution of pollutants to the District's Municipal Separate Storm Sewer System (MS4) by any user;
 - (b) Prohibit Illicit Connections and Discharges to the District's MS4;
 - (c) Carry out inspection and monitoring procedures necessary to ensure compliance with this Rule under statutory and related authority.
2. **PROHIBITION.** No person shall discharge or cause to be discharged into a public drainage system within the District any materials, including but not limited to pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards, other than stormwater.
3. **EXCEPTIONS.** The commencement, conduct or continuance of any illegal discharge to the waters of the District is prohibited except as described as follows:
- (a) The following discharges are exempt from discharge prohibitions established by this rule:
 - (1) Water line flushing or other potable water sources
 - (2) Landscape irrigation or lawn watering
 - (3) Diverted stream flows
 - (4) Rising ground water
 - (5) Ground water infiltration to storm drains
 - (6) Uncontaminated pumped ground water
 - (7) Foundation and footing drains
 - (8) Firefighting activities
 - (b) Discharges specified in writing by the District, or other federal, state or local agency as being necessary to protect the public health and safety.
 - (c) Dye testing is an allowable discharge, but requires a verbal notification to the

District prior to the time of the test.

- (d) The prohibition shall not apply to any non-storm water discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the Federal Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the storm drain system.

4. ILLICIT CONNECTIONS PROHIBITED

- (a) The construction, use, maintenance or continued existence of illicit connections to the public drainage system is prohibited.
- (b) This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.
- (c) A person is considered to be in violation of this rule if the person connects a line conveying sewage to the public drainage system, or allows such a connection to continue.

RULE I: DRAINAGE SYSTEMS

1. **POLICY.** It is the policy of the Board of Managers to regulate new construction, improvement or repair of drainage systems (open and tiled) for the following purposes:
 - (a) To preserve the capacities of drainage systems to accommodate future needs.
 - (b) To improve water quality and prevent localized flooding.
 - (c) To prevent the loss of drainage.
2. **REGULATION.** No drainage system may be altered, constructed, improved or repaired without first obtaining a permit from the District. The permit is in addition to any formal procedures or District approvals that may be required under Minnesota Statutes Chapter 103E or other drainage law. The Board of Managers may waive the requirement of a permit under this rule for repair to a drainage system if the applicant proposes to repair a tiled system of less than fifty feet in length, and where such repair would not alter the invert of the system.
3. **CRITERIA.** A project proposing to alter, construct, improve or repair a drainage system must:
 - (a) Comply with orders or findings issued by the District or a previous Drainage Authority.
 - (b) Comply with all Federal, State and District wetland protection rules and regulations.

- (c) Demonstrate that such activity will not adversely impact upstream and/or downstream water quality or quantity.
 - (d) Provide stable channel and outfall.
 - (e) Demonstrate concurrence with regional pond or subdivision drainage plans approved by the District, if applicable.
 - (f) Conform to District Rule F (Wetland Alteration), as applicable.
 - (g) If drainage system is proposed to outlet a landlocked basin, provide sufficient dead storage volume to retain back-to-back 100-year, 24-hour rainfalls and runoff.
4. **REQUIRED EXHIBITS.** The following exhibits must accompany the permit application. One full size (22 inches by 34 inches) and one reduced (maximum size of 11 inches by 17 inches).
- (a) Map showing location of project and tributary area.
 - (b) Existing and proposed cross sections and profile of affected area.
 - (c) Description of bridges or culverts required.
 - (d) Narrative and calculations describing wetland impacts and affects on water levels above and below the project site.
 - (e) Erosion and sediment control plan in accordance with District Rule D.
 - (f) Hydrologic and hydraulic analysis of the proposed project.

RULE J: APPROPRIATION OF PUBLIC WATERS

1. **POLICY.** It is the policy of the Board of Managers to regulate the appropriation of public waters as follows.
2. **REGULATION.** A permit from the District is required for the appropriation of water from:
 - (a) A public waterbasin or wetland that is less than 500 acres and is wholly within Hennepin or Ramsey County.
 - (b) A protected watercourse within Hennepin or Ramsey County that has a drainage area of less than 50 square miles.
3. **CRITERIA.** A permit applicant for appropriation of public waters as described above must complete and submit to the District an appropriation checklist. The appropriation checklist form may be obtained from the District office.

RULE K: ENFORCEMENT

1. **VIOLATION OF RULES IS A MISDEMEANOR.** Violation of these rules, a stipulation agreement made, or permit issued by the Board of Managers under these rules, is a misdemeanor subject to a penalty as provided by law.
2. **DISTRICT COURT ACTION.** The District may exercise all powers conferred upon it by Minnesota Statutes Chapter 103D in enforcing these rules, including criminal prosecution, injunction, or action to compel performance, restoration or abatement.
3. **ADMINISTRATIVE ORDER.** The District may issue a cease and desist or compliance order when it finds that a proposed or initiated project presents a serious threat of soil erosion, sedimentation, or an adverse effect upon water quality or quantity, or violates any rule or permit of the District.

RULE L: VARIANCES

1. **VARIANCES AUTHORIZED.** The Board of Managers may hear a request for variance from a literal provision of these rules where strict enforcement would cause undue hardship or practical difficulty because of circumstances unique to the property under consideration. The Board of Managers may grant a variance if an applicant demonstrates that such action will be in keeping with the spirit and intent of these rules and in doing so may impose conditions on the variance as necessary to find that it meets the standards of section 2, below. A variance request must be addressed to the Board of Managers as part of a permit application and must address each of the four criteria listed in the standard.
2. **STANDARD.** In order to grant a variance the Board of Managers must determine that:
 - (a) Special conditions apply to the structures or lands under consideration that do not apply generally to other land or structures in the District.
 - (b) Because of the unique conditions of the property involved, undue hardship or practical difficulty to the applicant would result, as distinguished from mere inconvenience, if the strict letter of the rules were applied. Economic considerations alone do not constitute undue hardship or practical difficulty if any reasonable use of the property exists under the terms of the District's rules.
 - (c) The proposed activity for which the variance is sought will not adversely affect the public health, safety or welfare; will not create extraordinary public expense; and will not adversely affect water quality, water control or drainage in the District.
 - (d) The intent of the District's rules is met.
3. **PRACTICAL DIFFICULTY DEFINED.** In evaluating practical difficulty, the Board of Managers will consider the following factors:
 - (a) How substantial the variation is from the rule provision;
 - (b) The effect of the variance on government services;

- (c) Whether the variance will substantially change the character of watershed resources or be a substantial detriment to neighboring properties;
 - (d) Whether the practical difficulty can be alleviated by a technically and economically feasible method other than a variance;
 - (e) How the practical difficulty occurred, including whether the landowner created the need for the variance; and
 - (f) In light of all of the above factors, whether allowing the variance will serve the interests of justice.
4. **TERM.** A variance expires on expiration of the CAPROC approval or permit associated with the variance request.
5. **VIOLATION.** A violation of any condition set forth in a variance is a violation of the District permit that it accompanies and automatically terminates the variance.