Analysis of Retained and Assumable Waters in Minnesota

A Supplement to the January 17, 2017 Minnesota Federal Clean Water Act Section 404 Permit Program Feasibility Study Report to the Legislature

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MINNESOTA

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ED_005978A_00062165-00002 FL CWA 404 Assumption FOIA_Interim Release 13

Table of Contents

Executive Summary 3
Chapter 1. Introduction 5
1.1. Assumable Waters 5
1.2. Important Terms 7
Chapter 2. Process and Timeline 8
Chapter 3. Results of Mapping Analysis 10
3.1. Lakes and Non-Wetland Basins 10
3.2. Streams 11
3.3. Wetlands 12
Chapter 4. Permitting Activity and Assumable Waters 15
4.1. Permit Locations within Mapped Water/Wetland Polygons 15
4.2. Proximity Analysis 15
4.3. Watershed Analysis 16
4.4. Permitting Analysis Conclusions 18
Chapter 5. Implementation 19
5.1. Identification Procedures 19
5.2. Division of Regulatory Responsibilities 20
5.3. Effects on Potential Section 404 Assumption 22
Chapter 6. Assumable Waters Subcommittee Recommendations 24
Chapter 7. Implications for Minnesota 25
Appendix A: January 25, 2017 Resolution of the Minnesota Board of Water and Soil Resources 26
Appendix B: January 25, 2017 Letter from the COE St. Paul District Describing Retained Waters 30
Appendix C: May 19, 2017 BWSR Request for COE Concurrence with Mapping Criteria and Analysis 34
Appendix D: June 19, 2017 COE Response to BWSR Request for Concurrence with Mapping Analysis 36
Appendix E: Criteria for Estimating COE-Retained and State-Assumable Waters in Minnesota 38
Appendix F: November 9, 2017 E-mail from the COE, St. Paul District to BWSR 42
Appendix G: February 2, 2018 State Letter to COE Requesting Identification of Retained Waters 45
Appendix H: February 16, 2018 E-mail from the COE, St. Paul District to BWSR 48
Appendix I: Compilation of Assumable Waters Mapping Analysis Data 51
Appendix J: Examples of Mapping Analysis Results 52

ED_005978A_00062165-00003 FL CWA 404 Assumption FOIA_Interim Release 13

Executive Summary

Section 404 of the federal Clean Water Act (CWA) is administered by the U.S. Army Corps of Engineers (COE) with oversight by the U.S. Environmental Protection Agency (EPA). Section 404(g) of the CWA allows for state "assumption" of the Section 404 permitting program. However, that assumption authority does not apply to all waters; the COE retains permitting authority over certain waters. Those Section 404-jurisdictional waters that are not retained by the COE are "assumable" by the state. Under current EPA regulations, the COE has the sole authority to identify which waters they will retain.

In 2015, the Minnesota legislature directed the State's Board of Water and Soil Resources (BWSR) and Department of Natural Resources (DNR) to study the feasibility of state assumption. In January 2017, BWSR and the DNR, in collaboration with the Minnesota Pollution Control Agency (PCA), submitted the final assumption feasibility study report to the legislature. The report noted that the extent of assumable waters is one of the most significant factors affecting the feasibility of state Section 404 assumption and the agencies committed to conducting an assumable waters assessment, in cooperation with the COE.

In a letter dated January 25, 2017, the COE St. Paul District described the waters which the COE would retain (Appendix B). BWSR and Minnesota IT Services staff then worked with the COE to develop specific criteria to map the approximate extent of COE-retained waters described in the letter using Geographic Information Systems (GIS). The mapping results were reviewed and there was general agreement that, although there are limitations in using GIS data layers to map on-the-ground resources, it appeared to provide a reasonable way to estimate the proportions of retained and assumable waters. Specifically, the COE indicated that, given the substantive GIS limitations, it "*is reasonable to illustrate an estimate of the relative proportion of waters and wetland that would be assumable under 40 CFR 233*."

Consequently, BWSR and MNIT moved forward with assembling the resulting data, including an analysis of Section 404 permit locations in an attempt to assess the extent to which permit activity occurred in retained versus assumed waters and wetlands. The mapping analysis showed that the vast majority of Section 404-jurisdictional wetlands, lakes, and non-wetland basins in Minnesota would be retained by the COE under Section 404 Assumption. In contrast, a significant majority (in terms of linear miles) of streams would be assumable by the State primarily because the State would assume all first and second order (headwater) streams, which comprise the majority of statewide total stream length. Due to limitations in the data, the analysis of Section 404 permitting was largely inconclusive with respect to the extent to which permits were issued in waters that would be retained or assumed.

Relative statewide proportions of COE-retained and State-assumable waters in Minnesota:

Type of Water	% COE-Retained	% State-Assumable
Wetlands (acres)	91.5%	8.5%
Lakes/Basins (acres)	98.7%	1.3%
Streams (miles)	12.0%	88.0%

The COE had initially indicated concerns with the mapping results and draft report. However, on February 16, 2018, after further review of a modified version of the draft report, the COE commented that, "Given the limitations acknowledged in the report, the most recent draft appears to be as representative an estimate as can reasonably be obtained using landscape scale GIS data."

Particularly given the goals of State assumption to improve efficiency and certainty for the regulated public, and to reduce regulatory redundancy by assuming the majority of waters and permitting authority, the outcome of the State's current attempt to estimate and map assumable waters is not favorable for Section 404 assumption in Minnesota for the following reasons:

1) The results of the current analysis indicate that, with the exception of first and second order streams, relatively few waters in Minnesota would be assumable by the State.

2) While the COE has indicated that this analysis may be a reasonable, representative estimate of COE-retained and State-assumable waters, they also have emphasized that there are limitations to mapping the waters described in their January 25, 2017 letter. Therefore, while this analysis may be useful for planning purposes, some uncertainties remain about the extent to which Minnesota could assume Section 404 responsibilities.

3) Regardless of the potential extent of assumption, the COE has indicated that they would rely, to some degree, on case-by-case determinations to specifically identify COE-retained waters (particularly wetlands) thereby diminishing the potential gains in permitting efficiency from State assumption.

In light of concerns expressed by the COE during completion of the report, the State agencies were concerned that the outcome of the current analysis may not result in a sufficiently accurate representation of COE-retained and State-assumable waters to reasonably assess the feasibility of state assumption. On February 2, 2018, in order to obtain the information on COE-retained waters necessary to inform further decision-making, BWSR, DNR, and PCA sent a joint letter to the COE to begin the process of preparing a Memorandum of Agreement that satisfies the requirement for an assumption application package to the EPA (Appendix G). As the first step in this process, the agencies requested that the St. Paul District, in accordance with 40 CFR § 233.14(b)(1), specifically identify the waters that would be retained by the COE under Section 404 assumption in Minnesota. The agencies are hopeful that the outcome of this request may provide additional information and certainty related to the feasibility of Section 404 assumption in Minnesota.

Difficulties in identifying retained and assumable waters in a way that is both implementable and results in sufficiently extensive assumable waters to make state assumption feasible are not unique to Minnesota. In 2015, partly in response to a request by three state associations, EPA established the Assumable Waters Subcommittee of the National Advisory Council for Environmental Policy and Technology to provide advice and develop recommendations on how to best clarify for which waters a state or tribe may assume CWA section 404 responsibilities. The Subcommittee's final report was completed in May, 2017 and submitted to EPA Administrator Scott Pruitt on June 1, 2017. Implementation of the Subcommittee's majority recommendations would result in a reasonable amount of waters for Minnesota to assume, while utilizing a process that both provides certainty and is implementable on the ground. These recommendations, if adopted, would significantly improve the feasibility of Section 404 Assumption in Minnesota. The federal government, however, would need to take action to implement the Subcommittee's majority recommendations in order to address impediments to Section 404 assumption related to assumable waters. The Subcommittee's majority recommendations should be supported.

Chapter 1. Introduction

Section 404 of the federal Clean Water Act (CWA) regulates the discharge of dredged or fill material into waters of the U.S. (33 USC §1344). It is administered by the U.S. Army Corps of Engineers (COE) (in Minnesota, the St. Paul District) with oversight by the U.S. Environmental Protection Agency (EPA)(Region 5, for Minnesota). Section 404(g) of the CWA allows states or tribes to apply to the EPA to administer their own state/tribal regulatory program(s) to meet Section 404 requirements, thereby eliminating the need for separate, federally-issued permits for projects affecting those waters covered by state assumption. This process is known as Section 404 Program assumption.

1.1. Assumable Waters

There are multiple factors that affect a particular state's decision to pursue Section 404 assumption. Probably the most important of these factors relates to what is known as "assumable waters." When a state or tribe assumes administration of Section 404, the assumption authority does not apply to all waters; the COE retains permitting authority over certain waters. Those Section 404-jurisdictional waters that remain (i.e. are not retained by the COE) are "assumable" by the state. The specific waters that a state or tribe may *not* assume, and for which permitting authority must be retained by the COE, are defined in a parenthetical within the first sentence of Section 404(g)(1) of the 1977 amendments to the Clean Water Act:

> *"...other than those waters which are presently used, or are susceptible to use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce shoreward to their ordinary high water mark, including all waters which are subject to the ebb and flow of the tide shoreward to their mean high water mark, or mean higher high water mark on the west coast, including wetlands adjacent thereto..."*

A complete application to the EPA for Section 404 program assumption must include a Memorandum of Agreement (MOA) between the State and the COE that defines the waters for which the COE will retain regulatory authority and addresses other procedural issues. The MOA must include a description of the waters within the State over which the COE retains jurisdiction, as identified by the COE. Consequently, under current EPA regulations the COE has the sole authority to identify which waters they will retain.

On January 17, 2017, the Minnesota Board of Water and Soil Resources (BWSR) and the Minnesota Department of Natural Resources (DNR), in collaboration with the Minnesota Pollution Control Agency (PCA), submitted the "Minnesota Federal Clean Water Act Section 404 Permit Program Feasibility Study" (Feasibility Study) final report to the State legislature. That report fulfilled the requirements of Laws of Minnesota 2015, Special Session Chapter 4, Section 137. This law required the DNR and BWSR to, ". . . study the feasibility of the state assuming administration of the Section 404 permit program of the federal Clean Water Act." The Feasibility Study is available on the BWSR website at: http://www.bwsr.state.mn.us/wetlands/index.html

The aforementioned Feasibility Study noted that the extent of assumable waters is one of the most significant factors affecting the feasibility of state Section 404 assumption. However, a complete analysis of assumable waters in Minnesota could not be completed by the stipulated completion date of the report. On January 25, 2017 via a BWSR Board resolution (Appendix A), the State agencies agreed on the next steps regarding the potential assumption of the Section 404 permitting program by the State of Minnesota. Those next steps included working with the COE, St. Paul District to estimate and

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map the approximate extent of assumable and non-assumable waters in the State. The analysis was to include georeferenced past permit data (to compare the locations of COE-permitted projects with the location and extent of assumable waters) and a description of the process or procedures by which specific waters would be identified as COE-retained or State-assumable for program implementation. This report summarizes the results of that analysis.

In a letter dated January 25, 2017, the St. Paul District of the COE described the waters and wetlands for which the COE would retain permitting authority should the State of Minnesota pursue Section 404 Assumption (Appendix B). Specifically, the 1-25-17 letter, which according to the St. Paul District reflects the national COE interpretation, indicated that the COE would retain:

> *"...navigable-in-fact waters regulated under Section 10 of the Rivers and Harbors Act (§10 waters), other "traditionally navigable waters" (TNWs), and the wetlands adjacent to each. TNWs may be identified programmatically or determined on a case-by-case basis. Our view of the waters properly included as retained waters for purposes of §404 assumption is consistent with the definition of traditional navigable waters discussed in Appendix D of the guidance promulgated by the Environmental Protection Agency (EPA) and Corps following the Rapanos and Carabell Supreme Court Decisions ("Clean Water Act Jurisdiction Following the Supreme Court's Decision in Rapanos v. U.S. and Carabell v. U.S." (2 December 2008))."*

In regards to identifying which adjacent wetlands would be retained by the COE:

> *"The District believes that the statutory term "wetlands adjacent thereto" should be interpreted using the definition that was in use when the phrase was enacted into law and has been subsequently applied by the Corps, EPA and the courts. The Corps definition of adjacent ("bordering, contiguous, or neighboring") is applied on a case-by-case, fact-specific basis."*

It should be noted that many states disagree with the current COE interpretation of the waters to be retained by the COE under Section 404(g)(1) of the Clean Water Act, as described in the 1-25-17 letter from the St. Paul District (see Chapter 6). However, according to 40 CFR § 233.14(b)(1), the COE is solely responsible for identifying which waters they will retain under Section 404 assumption. Consequently, the purpose of this report is not to debate the proper interpretation of federal statute, but to analyze the implications of the COE interpretation on potential Section 404 assumption in Minnesota.

This report summarizes the process used to estimate and map the approximate extent of waters and wetlands retained by the COE based on the 1-25-17 COE letter, including a description of the results and a brief discussion of the implications for Section 404 assumption in Minnesota.

As noted above, Indian tribes can also assume administration of Section 404 of the Clean Water Act. This analysis does include some data regarding assumable waters within Indian Reservations. However, for purposes of simplicity, most of the discussion contained within this report does not differentiate between State-assumable and Tribal-assumable waters. Unless specifically identified otherwise, "State-assumable" generally refers to all assumable waters within the State, including those occurring on Indian Reservations even though Reservation waters would not be regulated by the State if the State were to assume the Section 404 program.

1.2. Important Terms

The following terms are used throughout the report. These are not necessarily legal definitions, but are intended to enhance understandability.

Adjacent or adjacent wetlands. Wetlands that are adjacent to a COE-retained water are also retained by the COE under state assumption. The COE provided direction that, for the purposes of determining COE-retained wetlands, adjacent should be defined as "bordering, contiguous, or neighboring" consistent with the definition used to determine Clean Water Act jurisdiction (33 CFR 328.3 (c)). Wetlands separated from other waters of the United States by man-made dikes or barriers, natural river berms, beach dunes and the like are "adjacent wetlands."

Assumable waters or State-assumable waters. Waters, including wetlands, for which the State would assume Section 404 permitting authority under State Section 404 Program assumption.

Lakes. Water bodies identified as lakes under the State's Public Waters Inventory.

Non-wetland basins or non-public water basins. Lake or pond-like waterbodies that do not meet the criteria for being a wetland (most likely because they are too deep), but are not identified as lakes under the Public Waters Inventory.

Non-wetland water. Any water (i.e. lakes, streams, rivers) that does not meet the criteria for being a wetland.

Public waters. Waters in Minnesota that are regulated under the Public Waters Permit Program, administered by the DNR. Public Waters include most lakes, streams and rivers, and some wetlands (public waters wetlands). Public waters are identified under the State's Public Waters Inventory.

Retained waters or COE-retained waters. Waters, including wetlands, which would remain under COE permitting authority under State Section 404 Program assumption.

Section 10 waters. Waters that are regulated by the COE under Section 10 of the Federal Rivers and Harbors Act of 1899 (33 U.S.C. § 403).

Traditionally navigable waters: Traditional navigable waters (TNWs) are defined by the Corps and EPA in Appendix D of the Jurisdictional Determination Form Instructional Guidebook dated June 5, 2007. The guidebook defines TNWs as "[a]ll waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide." 33 C.F.R. § 328.3(a)(1). TNWs include all of the "navigable waters of the United States," defined in 33 CFR Part 329 and by numerous decisions of the federal courts, plus all other waters that are navigable-in-fact (e.g. Great Salt Lake, UT and Lake Minnetonka, MN).

Water or waters. Generally an inclusive term for all features potentially subject to water/wetland regulations (lakes, streams, rivers, ditches, wetlands, etc.) but sometimes used to refer to rivers, streams and lakes as distinct from wetlands – see non-wetland water definition.

Wetlands. Waters that meet the criteria for being a wetland under Minnesota or Federal regulations. Wetlands include public waters wetlands regulated under the Public Waters Permit Program and all other wetlands in the State, which are regulated under the Minnesota Wetland Conservation Act.

Chapter 2. Process and Timeline

The first step of the analysis was to develop, with the concurrence of the COE, specific criteria to identify the approximate extent of COE-retained waters and wetlands using a Geographic Information Systems (GIS) mapping program. BWSR contracted with Minnesota IT Services (MNIT) to perform the GIS analysis. BWSR staff worked closely with COE staff to jointly develop criteria that implemented the 1-25-17 COE letter. Criteria were developed to complete the analysis in the following sequential order:

1) Identification of non-wetland waters (lakes, rivers, streams) retained by the COE;
2) Identification of adjacent wetlands (adjacent to the waters identified in step 1) retained by the COE;
3) Identification of non-wetland waters that are subject to Section 404 jurisdiction and that are assumable by the State; and
4) Identification of adjacent wetlands that are subject to Section 404 jurisdiction and that are assumable by the State.

Using the best available statewide data, MNIT staff developed the GIS map as the criteria were finalized. During the analysis, the COE reviewed and commented on the identification criteria and preliminary results at several interim milestones. The COE acknowledged the limitations associated with the process but did not specifically identify any flaws that should be corrected. The mapping analysis was completed in early May, 2017.

On May 19, 2017, BWSR staff provided the full set of criteria and a link to the completed statewide map to the COE for final review and concurrence (Appendix C). On June 19, 2017, the COE provided concurrence, given the substantive limitations of the geospatial datasets, that "*the GIS-based approach you have used is reasonable to illustrate an estimate of the relative proportion of waters and wetland that would be assumable under 40 CFR 233*" (Appendix D). The jointly developed and agreed-upon criteria are documented in Appendix E.

After receiving concurrence from the COE, MNIT staff worked on developing the mapping program for external (public) viewing, and to extract various data requested by BWSR and DNR. On October 23, 2017, the interagency 404 Assumption project management team (including staff from BWSR, DNR, PCA, COE, and EPA) met and reviewed a draft outline of this report, including the jointly developed criteria, a partial representation of data and text, and some illustrative screenshots of the map. The team agreed on the general approach for reporting the results of the analysis.

On November 9, 2017, the COE expressed concerns that the mapping results "*paint a picture that is not a very realistic estimation of the scope of retained waters or permit activity.*" For full context, see Appendix F which contains the complete set of COE comments. In subsequent discussions, the COE stated that the quantitative results of the mapping exercise underscore the difficulty in estimating resources on a landscape scale when many of those resources require case-specific analyses to determine their status. The COE also noted that "acres of wetlands" may not be a good surrogate for actual regulated activities under Section 404 and that the permitting analysis that was conducted further revealed the data limitations of the GIS-based approach.

In light of the COE comments, the State agencies were concerned that the current analysis may not result in a sufficiently accurate representation of COE-retained and State-assumable waters to reasonably assess the feasibility of state assumption. On February 2, 2018, in order to obtain the

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information on COE-retained waters necessary to inform further decision-making, BWSR, DNR, and PCA sent a joint letter to the COE to begin the process of preparing an MOA that satisfies the requirement for an assumption application package to the EPA (Appendix G). As the first step in this process, the agencies requested that the St. Paul District, in accordance with 40 CFR § 233.14(b)(1), specifically identify the waters that would be retained by the COE under Section 404 assumption in Minnesota. The State's desired outcome of this request is a precise identification of COE-retained waters resulting from a clear and implementable protocol for determining administrative responsibility.

Meanwhile, numerous modifications were made to the draft report in order to address comments provided by the COE. On February 7, 2018, state agency staff presented the draft report and analysis results to stakeholders. On February 16, 2018, after further review of the modified version of the draft report, the COE commented that, "Given the limitations acknowledged in the report, the most recent draft appears to be as representative an estimate as can reasonable be obtained using landscape scale GIS data" (Appendix H). The report was then finalized.

Concerns expressed by the COE about the limitations in mapping the waters outlined in the 1-25-17 COE letter raise some questions about the overall utility of the State's attempt to estimate the extent of retained and assumable waters described by the COE. While the results of the analysis may be useful for planning purposes, the COE has clearly indicated that the mapping analysis is not sufficient for determining the actual status of a particular water or wetland. Consequently, some uncertainties remain about the extent to which Minnesota could assume Section 404 responsibilities.

This report also includes a discussion of how retained and assumable waters would actually be identified in practice under State assumption, as it is an important consideration for the State's assumption feasibility analysis. Finally, difficulties associated with identifying assumable waters is relevant not only for Minnesota, but for other states and tribes that may be considering Section 404 Assumption.

Chapter 3. Results of Mapping Analysis

Using the approach described above, State-assumable and COE-retained waters were estimated and mapped Statewide for the following categories:

1) Lakes and Non-Wetland Basins,
2) Streams, and
3) Wetlands.

Corresponding data pertaining to various types of water bodies and land ownership was also collected. The full set of data collected is presented in Appendix I.

Based on the criteria used in this analysis, the vast majority of Section 404-jurisdictional wetlands, lakes, and non-wetland basins in Minnesota would be retained by the COE under Section 404 Assumption. However, a significant majority (in terms of linear miles) of streams would be assumable by the State.

Table 1. Relative statewide proportions of COE-retained and State-assumable waters in Minnesota.

Type of Water	% COE-Retained	% State-Assumable
Wetlands (acres)	91.5%	8.5%
Lakes/Basins (acres)	98.7%	1.3%
Streams (miles)	12.0%	88.0%

3.1. Lakes and Non-Wetland Basins

Based on the January 25, 2017 COE letter, the criteria used to identify COE-retained lakes and non-wetland basins were developed to select basins that would qualify as Traditionally Navigable Waters (TNW). Based on these criteria, all water bodies classified as public waters lakes under the State Public Waters Permitting Program (PWPP) would be retained by the COE based on their size, public access, and resulting potential for use in interstate commercial activities (including fishing, canoeing, etc.). There are 12,168 public waters lakes covering 3,330,046 acres in Minnesota.

Minnesota also contains a surprising number of lake-like or pond-like (non-wetland) basins that are not identified as public waters. According to available remote mapping data, there are 109,717 non-public water basins covering 265,975 acres. An estimated 20,248 of these non-public water basins (covering 152,098 acres) are Section 404-jurisdictional, of which 5,005 (107,546 acres) would be retained by the COE and 15,243 (44,552 acres) would be assumable by the State.

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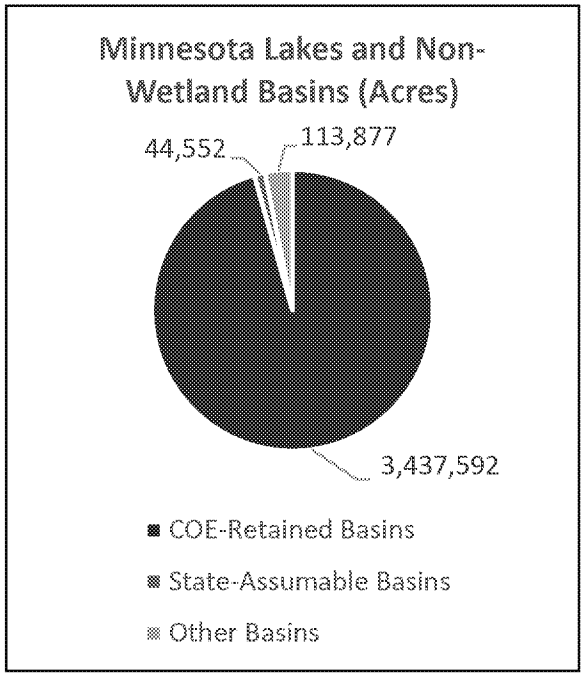
In addition to public waters lakes and Section 404-jurisdictional non-public waters basins, the mapping exercise identified an estimated 89,469 non-wetland basins (covering 113,877 acres) that are not protected under either Section 404 or State law. However, given the limitations of the mapping data layers, many of these "other basins" may actually be State-regulated and/or Section 404-jurisdictional *wetlands*. Since there are no adjacency criteria developed for these basins, the classification as retained/assumable for those that are in-fact wetlands would be determined on a case-by-case analysis according to the wetlands criteria. It is also likely that many of these "other basins" are stormwater ponds, private dugout ponds, gravel pits, and similar man-made features.

Figure 1. Estimated Section 404 Assumption Status for Minnesota Lakes and Non-Wetland Basins.

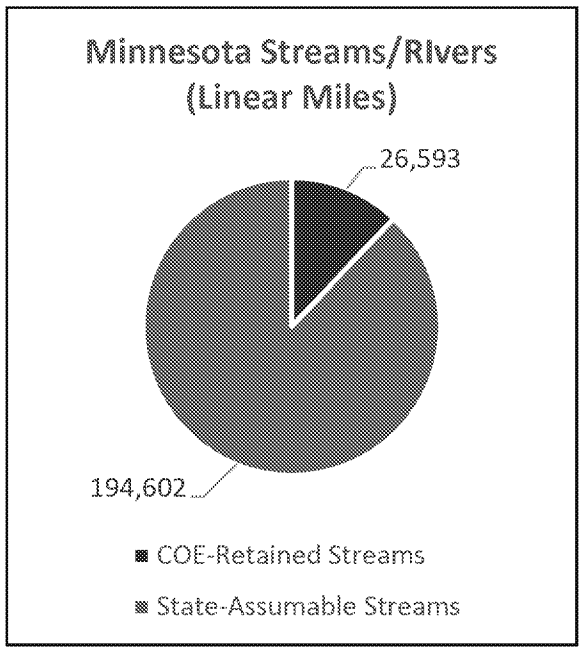


If the State were to pursue Section 404 assumption, some level of State regulatory authority would need to be extended to certain non-public water, non-wetland basins. This regulatory authority could potentially be added through the Wetland Conservation Act, the Public Waters Permitting Program, another regulatory mechanism, or some combination.

3.2. Streams

Based on the jointly-developed criteria, there are a significant amount of streams that could be assumable by the State under Section 404 assumption. This is due to the likelihood that first and second order streams (Strahler stream order from DNR waters data) would not qualify as TNWs. First and second order streams typically include small and/or intermittent streams, many ditches, and headwaters or upstream segments of larger streams and rivers. First and second order stream segments which would be assumable by the State under Section 404 assumption are estimated at 194,602 linear miles of streams, which represents 88 percent of all mapped stream miles.

Figure 2. Estimated Section 404 Assumption Status for Minnesota Streams and Rivers.



Streams of third order or higher are more likely to qualify as TNWs, which would be retained by the COE according to the January 25, 2017 COE letter. There are an estimated 26,593 linear miles of these larger

stream and river segments that would be retained by the COE under Section 404 assumption.

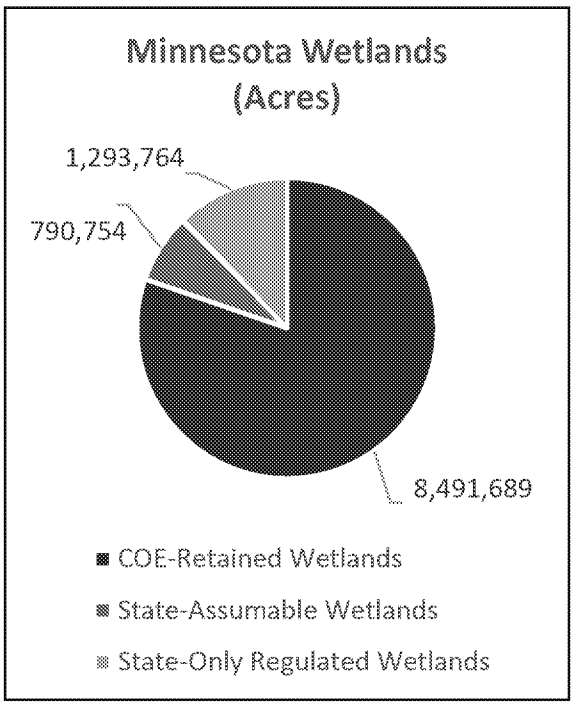
For purposes of the analysis, it was assumed that all streams for which mapping data was available would be jurisdictional under Section 404. In addition, Section 404 authority over streams will generally extend beyond the upstream limit of State public waters designation. Therefore, there were no "State-only" or "other" stream segments identified; they are either State-assumable or COE-retained.

Since Section 404 jurisdiction over streams can extend upstream of current State regulatory jurisdiction, additional State regulatory authority would be necessary to cover certain stream headwaters areas. This regulatory authority could potentially be added through the Wetland Conservation Act, the Public Waters Permitting Program, another regulatory mechanism, or some combination. Available data was not conducive to easily estimate the linear miles of State-assumable stream segments that are not public waters and for which State authority would need to be added under Section 404 assumption.

3.3. Wetlands

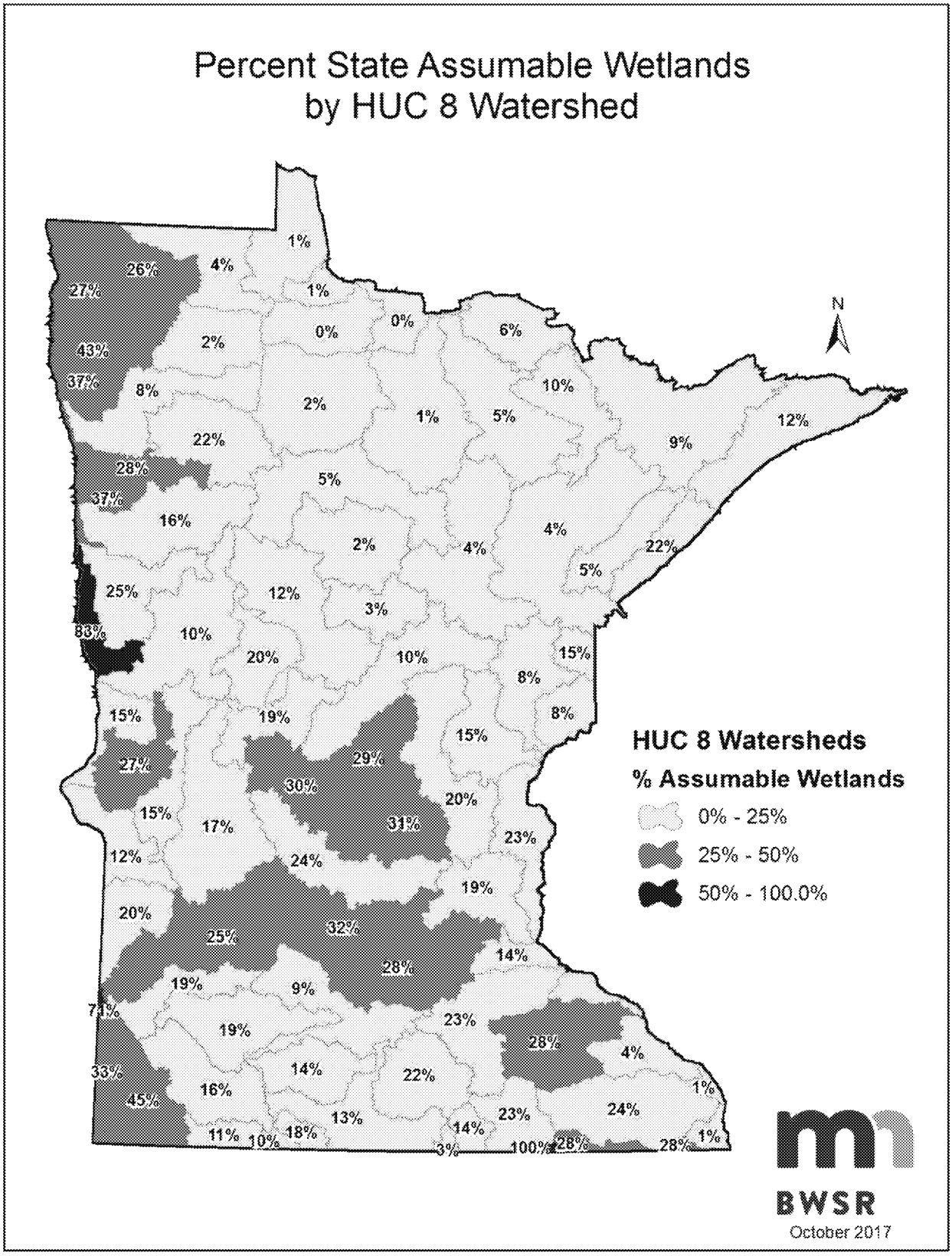
Wetlands are the most common water resource in Minnesota, are most commonly affected by activities requiring permits, and are of the greatest importance to stakeholders interested in Section 404 assumption. Wetlands are also the most difficult to determine their status in terms of potential State assumption. Based on the 1-25-17 COE letter, all wetlands adjacent to a retained water (lake, non-wetland basin, or stream/ditch) would be retained by the COE, regardless of the distance to which the wetland extends from the retained water. Since the COE definition of adjacency is not based on a defined distance, adjacency determinations would be case-specific and based on the same protocols and guidance that the COE uses in making Clean Water Act jurisdictional determinations. The amount of retained wetlands is directly related to the amount of retained waters, and the COE, based on their current interpretation, would retain the adjacent wetland for the entire distance for which the wetland displays an unbroken hydrologic connection.

Figure 3. Estimated Section 404 Assumption Status for Minnesota Wetlands.



Using the criteria developed to estimate adjacency in this mapping analysis, approximately 8,491,689 acres (91.5 percent) of Section 404 jurisdictional wetlands in Minnesota would be retained by the COE, leaving 790,754 acres (8.5 percent) to be assumable by the State (Figure 3). However, the abundance and distribution of wetlands varies significantly across the State. In general, a lower percentage of wetlands in the northeastern part of the State are assumable compared to the western and southern portions of the State where fewer presettlement wetlands remain and relatively more wetlands are isolated. However, with a few minor exceptions near the State's border, the vast majority of major watersheds contain less than 40 percent assumable wetlands. The estimated percentage of State-assumable wetlands in each of the State's major watersheds (HUC 8) is shown in Figure 4.

Figure 4. Percent State-Assumable Wetland Acres by Major Watershed.



In addition to the greater abundance and relative distribution of wetlands, northeastern Minnesota contains significantly more publicly owned property compared to the remainder of the State. It is also possible that publicly owned property includes a greater proportion of wetlands than privately owned property. Ownership is relevant to potential Section 404 assumption as permitting activity will generally be less on publicly owned property. The results of the mapping analysis were compared with property ownership data to estimate the distribution of State-assumable wetlands across private and public lands (Table 2). While the percentage of State-assumable wetlands is greater on privately owned property (17.9 percent) than all properties combined (8.5 percent), it is still a relatively small proportion of Section 404 jurisdictional wetlands in Minnesota.

Table 2. COE-Retained and Assumable Wetlands by Property Ownership.

Section 404 Jurisdictional Wetlands (Acres)	Land Ownership		
	Private Land	Public Land	Indian Reservations
COE-Retained	2,868,151	5,216,743	406,795
State-Assumable	627,171	161,308	2,275
Percent State-Assumable	17.9%	3.0%	0.6%

Current State regulatory authority applies to all wetlands in the State, regardless of federal jurisdiction. The Minnesota Wetland Conservation Act (or in some cases the PWPP) applies to all Section 404 jurisdictional wetlands plus an additional 1,285,785 acres of non-tribal wetlands. As such, additional State wetland regulatory authority for regulating wetlands is not necessary, although adjustments to certain State policies would be necessary as discussed in the Minnesota Federal Clean Water Act Section 404 Permit Program Feasibility Study Report.

Chapter 4. Permitting Activity and Assumable Waters

Differences between the distribution of assumable waters and distribution of Section 404 permitting activity could have an effect on the amount of permitting activity that the State could assume (the proportion of waters that are assumable might not directly correlate to the geographic distribution of where permits are actually issued). The January 25, 2017 BWSR resolution directs staff to compare the locations of COE-permitted projects with the location and extent of assumable waters. Section 404 permit location data was requested and received from the COE in order to analyze the relationship between permitting activity and retained/assumable waters as estimated by the mapping analysis. The data included permits authorized from October 2012 through September 2016. Due to the limitations of both the permit location data and the geospatial wetland/waters mapping layers, analyzing the data in a way that produces informative and accurate results was challenging. Three different methods were used to analyze the data in an effort to draw meaningful conclusions from it which, in the end, was difficult given the limitations of the data.

4.1. Permit Locations within Mapped Water/Wetland Polygons

Each permit location point that fell within a mapped water/wetland polygon was assigned the classification (COE-retained, State-assumable, or State-only) of that water body. A substantial majority of the mapped permit locations fell outside of any mapped water body. Instances where the permit location falls outside a mapped water body does not suggest that the permit was issued for a project located in upland, but rather it is potentially a result of: 1) incorrect data entry, 2) the permit location data was not collected with the level of accuracy necessary for this analysis, 3) the impact location was marked as a centroid of a linear project, and/or 4) the mapping layers for wetlands and waters do not provide sufficiently accurate delineations of actual wetland/water body boundaries.

Table 3. Analysis of COE permit location data compared to mapped waters.

COE Permit Location	Number	Percent
Falling Within a COE-Retained Water	1,022	18.9%
Falling Within a State-Assumable Water	141	2.6%
Falling Within a State-Only Water	194	3.6%
Falling Outside a Mapped Water	4,056	74.9%

4.2. Proximity Analysis

Under this analysis, the mapped location for each permit was assigned to the closest mapped wetland or water polygon. While this analysis should provide somewhat more confidence than the above analysis, it assumes that the nearest mapped water/wetland to the mapped permit location is the water/wetland that was in-fact affected by the permitted activity – and that may not necessarily be the case. In addition, inaccuracies in the permit location and mapping data layers affect the accuracy of this analysis.

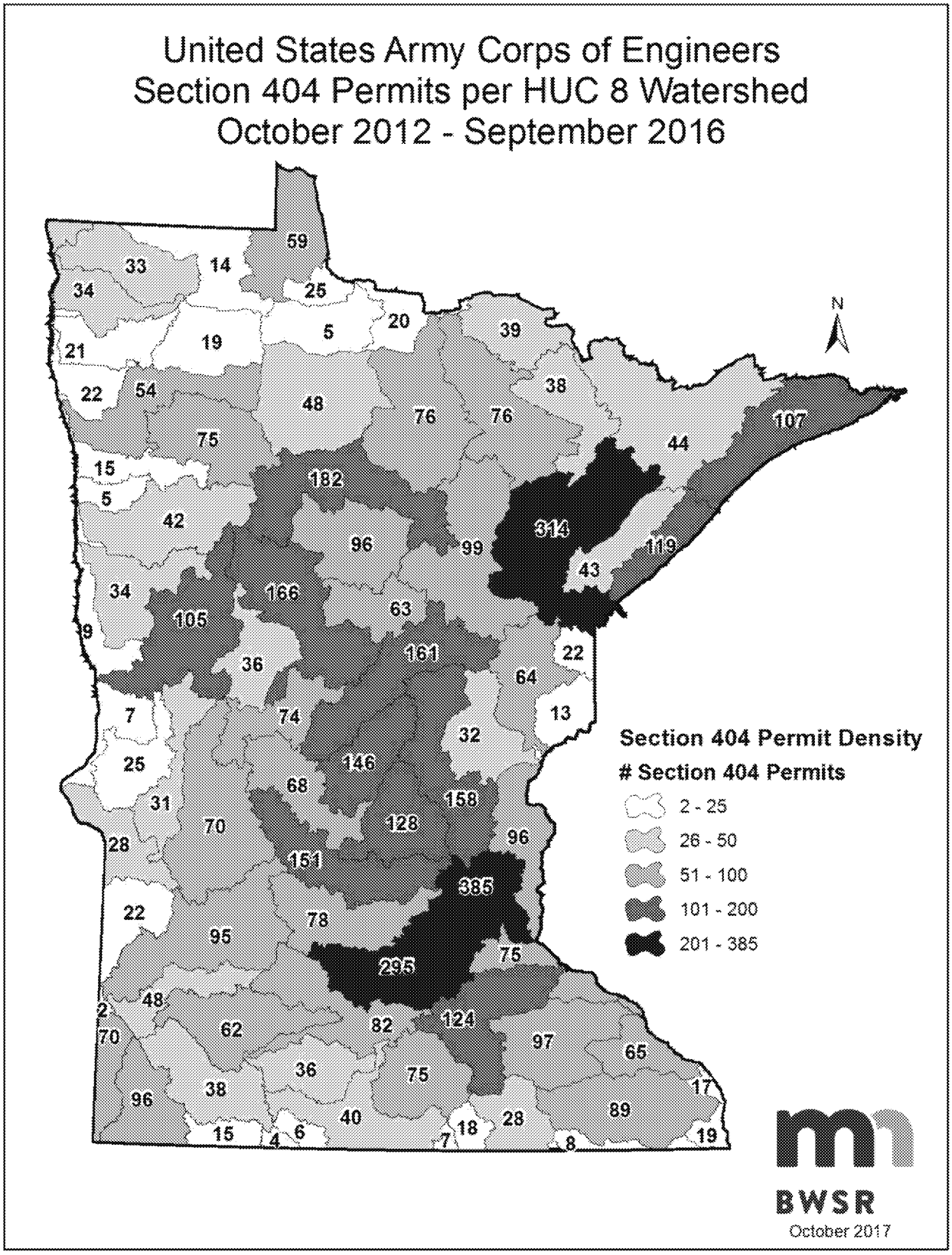
Table 4. Analysis of COE permit location data compared to water of closest proximity.

COE Permit Location Proximity	Number	Percent
Within or Closest to a COE-Retained Water	3,112	57.5%
Within or Closest to a State-Assumable Water	1,204	22.2%
Within or Closest to a State-Only Water	1,097	20.3%

4.3. Watershed Analysis

The number of COE permits issued within each of the State's major watersheds (Hydrologic Unit Code 8) was identified to provide a better indication of permitting activity density (Figure 5), which can then be compared to the relative proportion of assumable wetlands within those watersheds. Wetlands were chosen as the basis for this analysis as they are typically affected by permitted activities more so than lakes or streams.

Figure 5. COE Permits by Major Watershed.



In general, there may be a slight difference in the amount of assumable wetlands in those watersheds with the highest Section 404 permitting densities compared to the remainder of the state, although any differences do not appear to be substantial enough to affect the feasibility of Section 404 assumption. Of the 13 major watersheds with the highest permit density, the amount of State-assumable wetlands ranged from four percent to 31 percent (Table 5).

Table 5. Percent assumable wetlands for the 13 major watersheds with the highest COE permit density.

Major Watershed ID[1]	Number of COE Permits	Percent Assumable Wetlands
#20 – Mississippi River	385	19%
#3 – St. Louis River	314	4%
#33 – Minnesota River, Shakopee	295	28%
#7 – Mississippi River, Headwaters	182	5%
#12 – Crow Wing River	166	12%
#10 – Mississippi River, Brainerd	161	10%
#21 – Rum River	158	20%
#18 – North Fork Crow River	151	24%
#15 – Mississippi River, Sartell	146	29%
#17 – Mississippi River, St. Cloud	128	31%
#2 – Lake Superior, South	119	22%
#1 – Lake Superior, North	107	12%
#56 – Otter Tail River	105	10%

4.4. Permitting Analysis Conclusions

Due to the previously discussed data limitations, none of the foregoing analyses yielded definitive conclusions. However, the observed results suggest that the amount of State-assumable permitting activity may not be substantially different than the amount of assumable wetlands and waters, particularly on private lands. It is also important to note that, while the analysis did not specifically differentiate between lakes/wetlands (the majority of which are retained) and streams (the majority of which are assumable), the amount of regulatory activity associated with streams is typically much less than the regulatory activity associated with wetlands.

[1] See the Minnesota Department of Natural Resources website for a map and listing of the State's watersheds: https://www.dnr.state.mn.us/watersheds/index.html

Chapter 5. Implementation

While the overall *amount* of COE-retained vs. State-assumable waters and wetlands is an important factor in evaluating the feasibility of Section 404 assumption, an equally important factor is knowing specifically *which* waters and wetlands are COE-retained vs. State-assumable. During completion of the Feasibility Study, improved permitting efficiency, simplification, and certainty was the most important benefit identified by stakeholders in support of Section 404 assumption. Efficiency, simplification, and certainty in the permitting process is directly affected by the ability of both the potential applicant and the agencies to know which entity has regulatory authority over an activity affecting a given waterbody or wetland. Consequently, 1) the ability to identify and know which specific waters are COE-retained and State-assumable, and 2) the distribution of those waters, are two factors that significantly affect the feasibility of Section 404 assumption. Accuracy and certainty relating to these factors is essential for the State to make an informed decision regarding potential Section 404 assumption.

5.1. Identification Procedures

The Feasibility Study concluded that, for many projects, permitting timeframes would likely improve if the State assumed the Section 404 permitting program. This conclusion, however, presumed a known set of COE-retained waters (and therefore, a known set of State-assumed waters), which is not possible given the current COE interpretation of retained waters. While the mapping effort described in this report was undertaken to *estimate* the approximate extent of COE-retained waters, the 1-25-17 COE letter was clear that the *actual* identification of many such waters and wetlands would rely on case-by-case determinations by the COE, often involving on-site investigations. For example, see the following comments provide by the COE:

> *"Please note that TNWs may be identified on a programmatic or a case-by-case basis and that the St. Paul District has used this guidance to identify several TNWs in the State of Minnesota (not included on the §10 list). We anticipate that there are many more waters that will eventually be identified as TNWs based on case-by-case evaluations."* (Appendix B)

> *"The Corps definition of adjacent ("bordering, contiguous, or neighboring") is applied on a case-by-case, fact-specific basis. While we realize the difficulty in identifying retained waters using case-by-case analyses (either TNW analyses or adjacency analyses), it would be inappropriate to determine adjacency based on a prescribed distance from another water or some other purely mechanical method."* (Appendix B)

> *"Oftentimes, a site visit is necessary to evaluate the subsurface hydrologic connections, shallow sub-surface connections and ecological connections between a wetland and a navigable water."* (Appendix D)

> *"However, I think it is very informative and underscores the difficulty in estimating resources on a landscape scale when, by definition, many of those resources require case-specific analysis to determine their status."* (Appendix F)

In a situation where the status of potential COE-retained water is uncertain, particularly those involving adjacent wetlands, a case-by-case analysis would be required to determine which agency has permitting authority over a particular project. State agency staff are unaware of any such process currently defined or used elsewhere in the country. However, since the identification of COE-retained wetlands in

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accordance with the 1-25-17 COE letter relies on the adjacency criteria also used by the COE to determine Section 404 jurisdiction, the case-by-case process proposed by the COE would most likely be similar to the current Section 404 jurisdictional determination process. This conclusion is consistent with COE comments, which clearly assert that it is the COE alone that "*determines the waters over which it will retain jurisdiction*" (Appendix B).

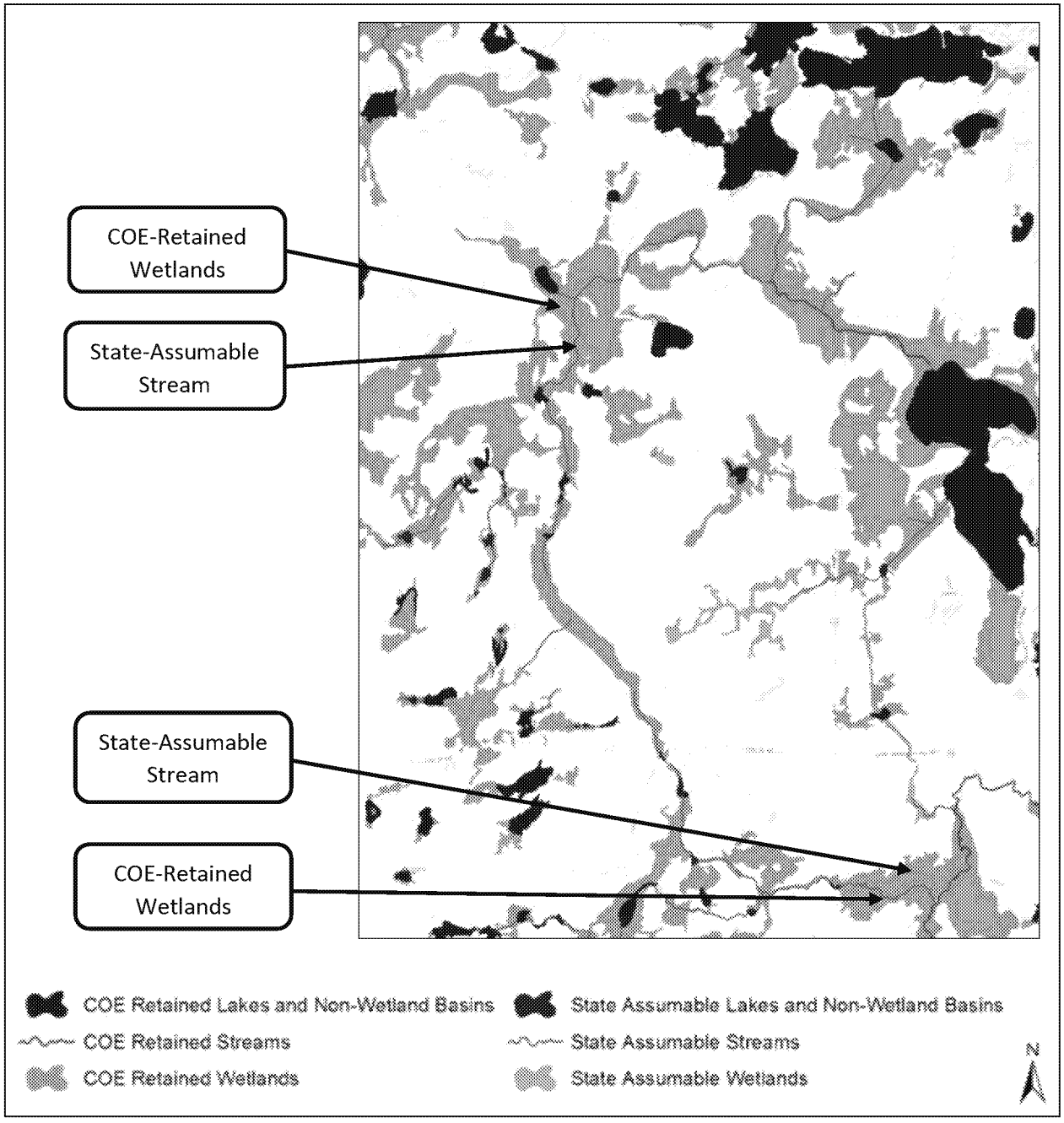
The COE has indicated that they believe the retained or assumable status of many waters can be determined with some confidence; however, the COE also maintains that because the navigability of waters, and even more so adjacency of wetlands, relies on case-specific characteristics, there are many waters and wetlands that would require site-specific information to determine their status.

For projects affecting non-wetland waters (i.e. streams, rivers, or lakes), the status of the affected water may be known at the time a permit application is submitted (i.e. "identified programmatically") or, in some cases, easily determined (e.g. large lakes and rivers). In other cases, a case-by-case determination using a specific set of criteria would need to be completed for that waterbody in order to determine if it is a Traditionally Navigable Water. If the waterbody is determined to be a TNW, it is retained by the COE according to the 1-25-17 COE letter. For projects affecting wetlands, the case-by-case determination would involve two steps: 1) whether the affected wetland meets the test for being adjacent to a non-wetland water; and 2) for those wetlands that are adjacent to a non-wetland water, whether that water is retained by the COE.

5.2. Division of Regulatory Responsibilities

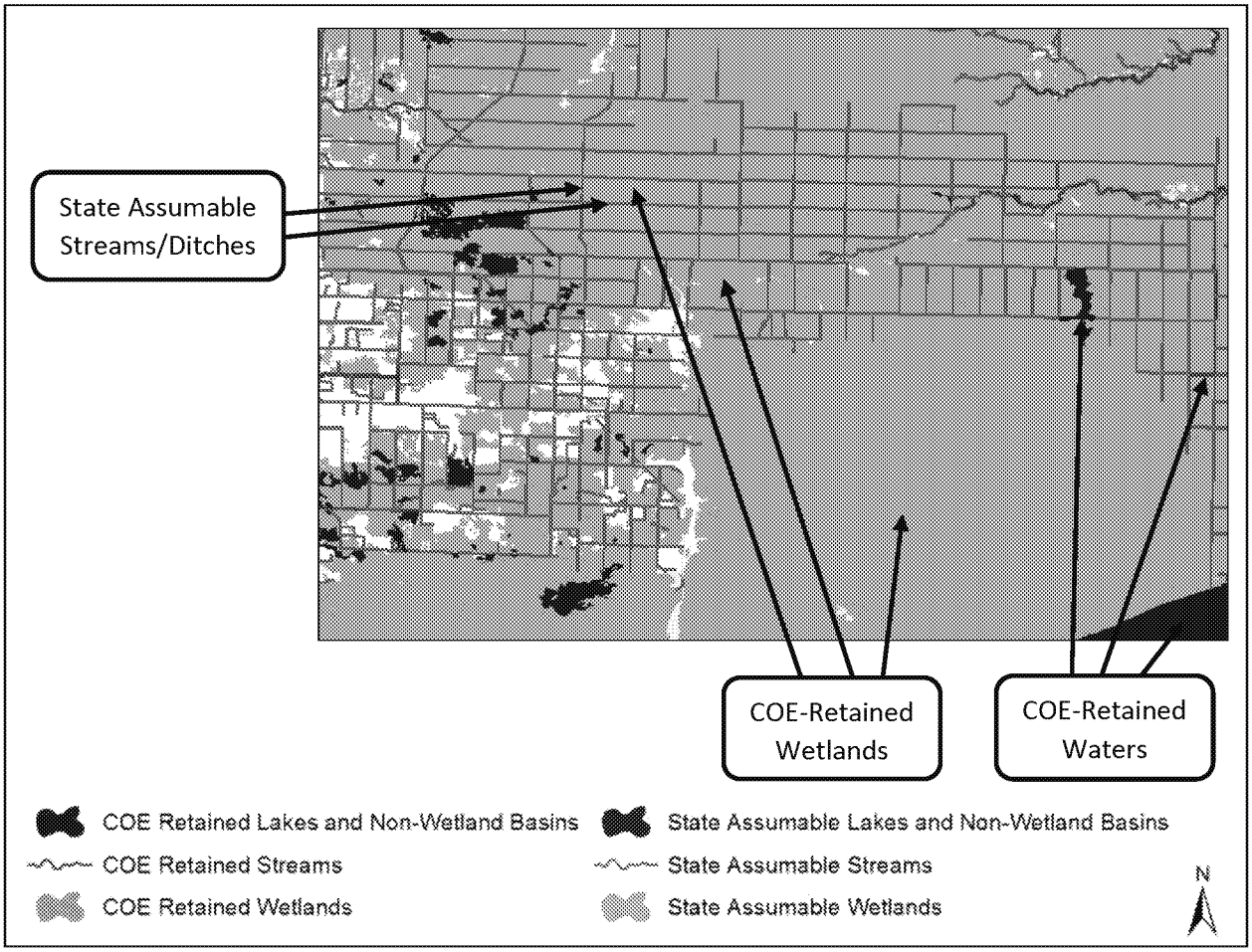
Based on the 1-25-17 COE letter, all wetlands that are bordering, contiguous to, or neighboring a COE-retained water are also retained by the COE, and the geographical extent of a wetland does not affect or sever adjacency. Therefore, in situations where a wetland is adjacent to more than one non-wetland water body (i.e. dual adjacency), such as at the confluence of a stream with a lake, the wetland would likely be retained by the COE if either waterbody is determined to be retained by the COE. This situation also exists for wetlands that are adjacent to both COE-retained and State-assumable portions of the same stream. The result of using these criteria is a complicated implementation scenario that includes a patchwork of fragmented regulatory authority across various waters/wetlands. See Appendix J for examples. In addition, the unusual situation can exist where the State assumes Section 404 implementation responsibilities for a stream, while the COE retains the adjacent wetlands. See Figure 6 for an example of this situation resulting from dual adjacency.

Figure 6. Example of Split Regulatory Authorities and Dual Adjacency.



Similar to the example above, situations exist where a wetland that is adjacent to a COE-retained water has been bisected by ditches that would be assumable by the State. However, based on available mapping resources, the wetlands remain as a continuous, adjacent wetland to the COE-retained water (i.e. the ditching has not effectively drained the wetlands). In some instances, the ditches can even completely encircle a portion of the adjacent wetland. This scenario creates the odd situation where a wetland area is surrounded by State-assumable waters, but is adjacent to a COE-retained water according to the COE definition of adjacency and therefore retained by the COE. See Figure 7 for an example of dual adjacency where COE-retained wetlands are surrounded by State-assumable ditches.

Figure 7. Example of Dual Adjacency with Retained Wetlands Surrounded by Assumable Waters.



A solution to these situations would likely need to be developed prior to the identification of COE-retained and State-assumable waters. These situations may also need be addressed in the required MOA between the COE and the State. However, as long as the regulatory definition of adjacency is being used to determine the extent of COE-retained wetlands, it is unknown how or if these situations could be addressed. Cutting off adjacency from a particular water, or section of water, based on distance (and/or despite the fact that the wetland area remains contiguous to the retained water) is inconsistent with the COE definition of adjacency and the 1-25-17 COE letter.

5.3. Effects on Potential Section 404 Assumption

As mentioned previously, the case-by-case process for determining regulatory authority described in this section is not currently in use anywhere in the United States. Therefore, it is difficult to estimate the time that would be required to determine which agency had jurisdiction over the activity in order to process an application. The process outlined in the 1-25-17 COE letter is very similar to the process used by the COE today when making an approved jurisdictional determination, but current COE guidance does not indicate or prescribe timeframes for completion of these determinations. However, it is reasonable to assume that, based on previous experiences, the time associated with making these determinations could vary significantly and timeframes of several weeks would not be implausible. For

projects requiring a case-by-case COE-retained water determination, the timeframe necessary to make the determination would generally be prior, and in addition, to the permit review timeframe.

As described in Chapter 2, the COE has indicated that they believe there are limitations in mapping the waters described in the 1-25-17 COE letter and, consequently, some uncertainties remain. However, while modifications to the mapping analysis could change the estimated amount of COE-retained waters to some extent, they would not affect the case-by-case process that would often be necessary to actually identify those waters for purposes of program implementation according to the 1-25-17 COE letter.

The COE position on determining retained waters adds complexity and uncertainty to potential Section 404 assumption in Minnesota. Instead of a clearly defined and established division of regulatory responsibility, the COE interpretation of federal statute would often require a case-specific analysis of their attributes to determine their status, which could increase the level of complexity and the time associated with the permitting process. In many cases, the public would be required to await a determination from the COE on whether a wetland or waterbody would be retained by the COE or whether it was assumed by the State. While Minnesota state agencies may not agree with the COE interpretation of retained waters under 33 U.S.C. § 1344(g)(1), it is clear from the 1-25-17 COE letter that determining such waters would require case-by-case determinations by the COE in many instances, particularly relating to wetlands. Such a process would significantly diminish the benefits and overall feasibility of Section 404 assumption in Minnesota.

Chapter 6. Assumable Waters Subcommittee Recommendations

Difficulties in identifying retained and assumable waters, including a lack of results that are both implementable and sufficiently extensive to make state assumption feasible, are not unique to Minnesota. In 2015, partly in response to a request by three state associations,[2] EPA established the Assumable Waters Subcommittee of the National Advisory Council for Environmental Policy and Technology (NACEPT) *"to provide advice and develop recommendations for NACEPT on how the EPA can best clarify for which waters a state or tribe may assume CWA section 404 permit responsibilities, and for which waters the USACE retains CWA section 404 permit responsibility under an approved state or tribal program."*[3] Minnesota was represented on this national Subcommittee.

The Assumable Waters Subcommittee's final report was completed in May, 2017 and submitted to EPA Administrator Scott Pruitt on June 1, 2017, after completion of the State's Feasibility Study. The report included majority and minority recommendations, with all members but the COE agreeing to the majority recommendations. In general, the majority recommendations would:

1) Define COE-retained waters primarily based on Rivers and Harbors Act Section 10 lists of navigable waters.
2) Define COE-retained wetlands as those wetlands adjacent to a COE-retained water, landward to an administrative boundary (e.g. 300 feet) established during the development of the MOA with the COE.
3) Allow flexibility in establishing the COE-retained wetland administrative boundary in order to address state-specific circumstances and provide consistency with existing state programs.

The Assumable Waters Subcommittee's Final Report is available on the EPA website at: https://www.epa.gov/cwa-404/submission-assumable-waters-subcommittees-final-report

State agency staff have requested a GIS layer of all Section 10 waters in Minnesota from the COE for the purpose of estimating and mapping the Assumable Waters Subcommittee majority recommendations. At the time this report was completed, the COE had not yet completed the Section 10 GIS layer. If adequate funding is available when the Section 10 layer is completed, State agency staff will complete the analysis and provide the results in a publicly accessible format.

The State agency staff involved with the analysis documented in this report believe that the Assumable Waters Subcommittee majority recommendations would provide the clarity that EPA requested. Implementation of the majority recommendations should result in a reasonable amount of waters for Minnesota to assume, utilizing a process that both provides certainty and is implementable on the ground. These recommendations, if adopted, would significantly improve the feasibility of Section 404 Assumption in Minnesota. The federal government, however, would need to take action to implement the Subcommittee's majority recommendations. Those interested in Section 404 Assumption should support the Assumable Wates Subcommittee majority recommendations to clarify the identification of retained waters.

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[2] Letter from the Association of Clean Water Administrators, the Environmental Council of the States, and the Association of State Wetland Managers to the U.S. Environmental Protection Agency, April 30, 2014.
[3] Final Report of the Assumable Waters Subcommittee, May 2017.

Chapter 7. Implications for Minnesota

This report is provided as a supplement to the Feasibility Study to aid in the State's decision-making process relating to potential Section 404 assumption in Minnesota. The outcome of the State's current attempt to estimate and map assumable waters is not favorable for Section 404 assumption in Minnesota for the following reasons.

1) The results of the current analysis indicate that, with the exception of first and second order streams, relatively few waters in Minnesota would be assumable by the State.

2) While the COE has indicated that this analysis may be a reasonable, representative estimate of COE-retained and State-assumable waters, they also have emphasized that there are limitations to mapping the waters described in their January 25, 2017 letter. Therefore, while this analysis may be useful for planning purposes, some uncertainties remain about the extent to which Minnesota could assume Section 404 responsibilities.

3) Regardless of the potential extent of assumption, the COE has indicated that they would rely, to some degree, on case-by-case determinations to identify COE-retained waters (particularly wetlands), thereby diminishing the potential gains in permitting or implementation efficiency from State assumption.

The outcome of the process undertaken by the State of Minnesota to identify State-assumable waters illustrates one of the significant impediments to Section 404 assumption. The agencies are hopeful, however, that the outcome of the State's February 2, 2018 letter to the COE requesting that the COE specifically identify COE-retained waters (Appendix G) may provide additional precision and certainty related to assumable waters and the feasibility of Section 404 assumption in Minnesota.

In addition, the solution to the assumable waters impediment to Section 404 assumption lies primarily with the federal government. Changes to the COE' interpretation of federal statute, or changes to the federal regulations that govern Section 404 assumption, could vastly improve the feasibility of assumption for states and tribes. For example, implementation of the majority recommendations of the Assumable Waters Subcommittee would clarify and simplify the identification of COE-retained waters while providing a reasonable amount of waters for states to assume. Those recommendations should be supported and we encourage EPA to take the steps necessary to implement them.

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Appendix A: January 25, 2017 Resolution of the Minnesota Board of Water and Soil Resources

Board Resolution # 17-05

Federal Clean Water Act Section 404 Assumption Feasibility Study Report and Recommendations

WHEREAS, Laws of Minnesota 2015, Special Session Chapter 4, Section 137 required the Minnesota Department of Natural Resources (DNR) and the Minnesota Board of Water and Soil Resources (BWSR) to study the feasibility of the state assuming administration of the section 404 permit program of the federal Clean Water Act (CWA) under 33 U.S.C. § 1344(g), and to report the study findings to the legislative policy and finance committees and divisions with jurisdiction over environment and natural resources by January 15, 2017; and

WHEREAS, the DNR and BWSR sought input from stakeholders representing a broad range of interests in state water/wetland policy and regulation in developing the study and in preparing the Section 404 Assumption Feasibility Study Report (Report); and

WHEREAS, the DNR and BWSR, in collaboration with the Minnesota Pollution Control Agency (PCA), have concluded the study and completed the Report; and

WHEREAS, the Report provides a comprehensive, factual review of the feasibility of potential Section 404 program assumption by the State of Minnesota that fully addresses the specific requirements of the 2015 legislation; and

WHEREAS, two key findings of the report are that:

1) The CWA provisions on state assumption stipulate that the U.S. Army Corps of Engineers (COE) must retain regulatory authority over certain waters described in the Act (non-assumable waters), with the COE charged with specifying which waters are non-assumable. There are differing interpretations among the states and the federal agencies regarding the CWA definition of non-assumable waters. The U.S. Environmental Protection Agency (EPA) has established a national subcommittee to provide advice and develop recommendations on how the EPA can best clarify which waters a state can assume. The subcommittee is expected to complete its work in 2017, but at this time it is unknown if or when revised guidance would be forthcoming. The COE, St. Paul District has informed the DNR and BWSR that the District will provide a formal letter to the State agencies that will clearly outline the COE interpretation in identifying non-assumable waters in Minnesota. This interpretation would have significant implications for the potential benefits of state assumption of the Section 404 Program--i.e. if relatively few waters would be assumable, or if the process for determining whether a specific water/wetland can be assumed is impracticable, there would be little to be gained in terms of regulatory efficiency by the state assuming Section 404. Identifying non-assumable waters, and consequently developing a clearer picture of the potential benefits of state assumption, would require additional coordination and analysis with the COE, St. Paul District.

2) Existing Minnesota water/wetland regulatory programs would require several changes, both statutory and programmatic, to align with the federal requirements for state assumption of the Section 404 permitting program. These changes are identified broadly in the Report, but extensive additional coordination would be needed with the EPA to identify all of the specific revisions required; and

WHEREAS, the DNR and PCA, as the state agencies that share regulatory responsibility for the state's waters and wetlands with BWSR, agree on the recommended next steps identified below that would address these two key findings regarding the potential state assumption of the Section 404 permitting program; and

WHEREAS, any agreement by the state of Minnesota to assume the Section 404 program would be contingent upon enactment of the necessary policy adjustments and the agencies receiving the necessary personnel and budgetary resources to support assumption as described in the application to the EPA.

NOW THEREFORE BE IT RESOLVED, that BWSR accepts the Section 404 Assumption Feasibility Study Report dated January 17, 2017 and recommends the following next steps regarding the potential assumption of the Section 404 permitting program by the State of Minnesota:

1) The DNR, BWSR and the PCA should work with the COE, St. Paul District to estimate and map the approximate extent of assumable and non-assumable waters in Minnesota, based on the forthcoming letter from the COE outlining their current position on non-assumable waters. This analysis should also include geo-referenced past permit data (to compare the locations of COE-permitted projects with the location and extent of assumable waters) and a description of the process by which the specific extent of retained waters would be identified for program implementation. This analysis should be prepared and distributed as an appendix to the Report.

2) If the results of step 1 suggest that relatively few waters in Minnesota would be assumable, or the process to identify them is impracticable, then pursuit of Section 404 assumption should not proceed unless and until:

    a. the COE's position changes,

    b. clarifying guidance is provided by EPA, or

    c. the issue is otherwise addressed, such as through controlling court cases.

    Such changes that occur within four years of this resolution should trigger a reevaluation under step 1, including an update or addendum to the corresponding Report appendix.

3) If the results of step 1, including any reevaluation triggered under step 2, suggest that a significant proportion of waters in Minnesota would be assumable, and the process to identify them is practicable, then the agencies should assess whether the identified extent of assumable waters and other relevant factors identified in the Report would combine to provide sufficient benefits to warrant state assumption. The agencies should then report to the legislative committees with jurisdiction with their recommendation regarding whether to apply for assumption and, if the agencies' recommendation is to pursue assumption, seek funding for an

agency position to coordinate with the federal agencies and develop an application to submit to the EPA.

Development of the application to EPA would initially consist of the following concurrent steps:

a. In consultation with EPA, identify the specific statutory and programmatic changes necessary for state assumption and inform the legislative committees with jurisdiction of the statutory and budget adjustments necessary to support assumption of the Section 404 program.

b. Develop a Memorandum of Agreement with the COE, St. Paul District, that includes the specific identification of non-assumable waters; and

BE IT FURTHER RESOLVED, that this resolution is effective immediately, upon signing by the board chair.

Gerald Van Amburg

Date: January 25, 2017

Gerald Van Amburg, Acting Chair
Board of Water and Soil Resources

Attachments:

1. Minnesota Federal Clean Water Act Section 404 Permit Program Feasibility Study, January 17, 2017.

Appendix B: January 25, 2017 Letter from the COE St. Paul District Describing Retained Waters

DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
180 FIFTH STREET EAST, SUITE 700
ST. PAUL, MN 55101-1678

REPLY TO ATTENTION OF
REGULATORY BRANCH

January 25, 2017

Mr. Doug Norris
MnDNR Division of Ecological and Water Resources
500 Lafayette Road, Box 25
St. Paul, MN 55155

Dear Mr. Norris:

Thank you for the opportunity to review and comment on the State of Minnesota's 404 Assumption Feasibility Report (Report). We provided comment's on Chapter 3.2 "Extent of Assumption" of the Report in an email dated November 18, 2016. Per your request, I am also providing those comments by letter.

Under federal law, there are certain waters over which the U.S. Army Corps of Engineers (Corps) retains §404 permit jurisdiction in the event of a state or tribal assumption of the §404 program under 33 USC 1344(g) and its implementing regulations. Those waters retained by the Corps of Engineers are "those waters which are presently used, or are susceptible to use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce shoreward to their ordinary high water mark, including all waters which are subject to the ebb and flow of the tide shoreward to their mean high water mark, or mean higher high water mark on the west coast, including wetlands adjacent thereto".[1] As a practical matter, those reserved waters include navigable-in-fact waters regulated under Section 10 of the Rivers and Harbors Act (§10 waters), other "traditionally navigable waters" (TNWs), and the wetlands adjacent to each.[2] TNWs may be identified programmatically or determined on a case-by-case basis. Our view of the waters properly included as retained waters for purposes of §404 assumption is consistent with the definition of traditional navigable waters discussed in Appendix D of the guidance promulgated by the Environmental Protection Agency (EPA) and Corps following the Rapanos and Carabell Supreme Court Decisions ("Clean Water Act Jurisdiction Following the Supreme Court's Decision in Rapanos v. U.S. and Carabell v. U.S." (2 December 2008)). The Corps of Engineers uses these definitions consistently for purposes of implementing §404 and does not have the latitude to read the retained waters language in §1344(g)(1) in a manner inconsistent with these definitions.

We have previously provided to you the St. Paul District's most current list of §10 waters formally identified to date. That list contains an inventory of waters where the Corps of Engineers has conducted a navigability study applying the criteria in 33 CFR Part 329 **and** found that the waters meet those criteria. As you review that list of §10 waters, please be aware that the list is not an exhaustive inventory of all §10 waters within the State but rather a compilation of locations where we have, to date, found those criteria to have been met. The absence of a water body from the §10 list in no way suggests that it is not navigable-in-fact (unless the Corps has conducted a navigability study and affirmatively found that water to be non-navigable).[3] Also, please note that the Corps' listing of known §10 waters in the state of Minnesota may include some waters where the only basis for initially including those waters on the list was their demonstrated historic use for interstate or foreign commerce. However, even some (or all) of those waters may also meet the retained waters criteria identified in §1344(g)(1)

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[1] 33 USC §1344(g)(1).
[2] Less any water where the *only* basis for determining navigability is the historic use of that water for interstate commerce.
[3] 33 CFR 329.16(b).

as they may also be susceptible to use for interstate or foreign commerce with reasonable improvements.

In addition to those waterbodies identified on the §10 list, those waters identified as "traditionally navigable" (TNWs) under the joint Corps/EPA CWA jurisdiction guidance issued in December 2008[4] are also retained waters for purposes of §404 assumption (unless the *sole* basis for the assertion of CWA jurisdiction is the historic use of that water in interstate or foreign commerce). Please note that TNWs may be identified on a programmatic or a case-by-case basis and that the St. Paul District has used this guidance to identify several TNWs in the State of Minnesota (not included on the §10 list). We anticipate that there are many more waters that will eventually be identified as TNWs based on case-by-case evaluations.

It is also important to note that retained waters also include wetlands adjacent to those §10 and other TNWs. While the assumption statute does not define the term "adjacent", the definition of "adjacent" used in Corps and EPA CWA regulations has been essentially consistent since July 1977[5] and was in place when Congress enacted 404(g)(1) in December of 1977. The District believes that the statutory term "wetlands adjacent thereto"[6] should be interpreted using the definition that was in use when the phrase was enacted into law and has been subsequently applied by the Corps, EPA and the courts. The Corps definition of adjacent ("bordering, contiguous, or neighboring") is applied on a case-by-case, fact-specific basis. While we realize the difficulty in identifying retained waters using case-by-case analyses (either TNW analyses or adjacency analyses), it would be inappropriate to determine adjacency based on a prescribed distance from another water or some other purely mechanical method.

We recommend adding a footnote in the Report describing that the "Secretary" referred to in the EPA implementing regulations is the Secretary of the Army - acting through the Chief of Engineers for the Corps of Engineers. That addition will clarify how the memorandum of agreement (MOA) with the Secretary relates to discussions about the Corps in the Report's following paragraphs.

The District also believes it is important to clarify that, while the Corps of Engineers will happily collaborate with the State in the development of an MOA outlining the extent of assumable and retained waters in Minnesota, the development of that agreement cannot involve a negotiation regarding which waters will be retained by the Corps; the waters over which the Corps will retain jurisdiction are defined by federal law. Further, we recommend that the Report note that it is the Corps (rather than EPA) that determines the waters over which it will retain jurisdiction. See the note at 40 CFR §233.11, which says "Note: States should obtain from the Secretary an identification of those waters of the U.S. within the State over which the Corps retains authority under section 404(g) of the Act."

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[4] U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook, Appendix D: Legal Definition of "Traditional Navigable Waters" (http://www.usace.army.mil/cw/cecwo/reg/cwa guide/app d traditional navigable waters.pdf)

[5] The definition of "adjacent" used in the current version of the Code of Federal Regulations is slightly different than the definition of "adjacent" referenced above. However, the current definition of "adjacent" was incorporated into the Corps of Engineers regulations as part of the Obama administration's CWA jurisdiction rule, the implementation of which has been suspended by court order. Therefore, the definition of the term "adjacent" historically used by the Corps and EPA (and endorsed by Justice Kennedy (and four other Justices) in the Supreme Court's *Rapanos* decision as the appropriate standard for evaluating the jurisdictional status of wetlands adjacent to navigable-in-fact waters) will be used by the Corps in identifying retained waters.

[6] 33 USC 1344(g)(1) and 33 CFR 323.5.

Again, thank you for the opportunity to comment on the Report. We look forward to continuing to work with Minnesota in the assumption process and in our efforts to protect Minnesota's wetlands and waterways.

Sincerely,

Chad Konickson
Chief, Regulatory Branch

Appendix C: May 19, 2017 BWSR Request for COE Concurrence with Mapping Criteria and Analysis

From: Lemm, Les P (BWSR)
Sent: Friday, May 19, 2017 2:23 PM
To: Konickson, Chad S CIV USARMY CEMVP (US) <chad.konickson@usace.army.mil>
Cc: Norris, Doug J (DNR) <doug.norris@state.mn.us>; Smith, Tim J (BWSR) <tim.j.smith@state.mn.us>; Bathke, Jill C MVP <Jill.C.Bathke@usace.army.mil>; Morningstar, Desiree L <Desiree.L.Morningstar@usace.army.mil>
Subject: 404 Assumption Study - Assumable Waters GIS Analysis

Chad,

Attached is a draft outline of the process we used to estimate retained and assumable waters based on the 1-25-17 letter from the Corps. The map resulting from this GIS analysis can be viewed externally at: http://bwsr.maps.arcgis.com/apps/View/index.html?appid=2613cd13a332466e84236153dc366009

Can you or your staff please review Parts III and IV of the attached process? I believe Tim had sent you Parts I and II a few months back and had discussed them with Jill. They are the same, except we re-worded a few things and added a page or so of explanatory text at the beginning so it would be more understandable to the public.

Parts III and IV were developed to estimate the remaining jurisdictional waters that would be assumable (i.e. of those remaining waters/wetlands that would not be retained by the Corps, which ones fall under the authority of 404 and thus could be assumed). I think the methods we used are about as good as we can do in a GIS exercise such as this, but we want to make sure you have had a chance to review them and concur with our approach.

The results of this analysis/estimate will be summarized in an appendix to the already completed report. We will be sure to include numerous "disclaimers" to be clear that this is just an estimate based on a GIS exercise and in no way an actual determination or accurate map of what is on the ground, the purpose of the analysis is purely to estimate the likely approximate extent of assumable waters if the State were to pursue assumption and it should not be used for any other purpose, etc. Right now the write-up says that the Corps has had the opportunity to review and comment on the analysis - we would, however, like to also be able to say that you found our methods to be a reasonable approach to estimating retained/assumable waters given the limitations associated with such a GIS exercise.

We're hoping to finish this up in the next few weeks, so we would greatly appreciate it if someone from the Corps could take a look at it. Let Tim or I know if you or your staff have any questions or would like to discuss.

Thanks!

Les Lemm
Wetlands Section Manager
Minnesota Board of Water and Soil Resources
520 Lafayette Road North
St. Paul, MN 55155
651-296-6057 (office)
651-341-4208 (cell)

Appendix D: June 19, 2017 COE Response to BWSR Request for Concurrence with Mapping Analysis

From: Bathke, Jill C CIV CEMVP CEMVD (US) [mailto:Jill.C.Bathke@usace.army.mil]
Sent: Monday, June 19, 2017 10:27 AM
To: Lemm, Les P (BWSR) <les.lemm@state.mn.us>
Cc: Bathke, Jill C CIV CEMVP CEMVD (US) <Jill.C.Bathke@usace.army.mil>; Konickson, Chad S CIV USARMY CEMVP (US) <chad.konickson@usace.army.mil>; Norris, Doug J (DNR) <doug.norris@state.mn.us>; Morningstar, Desiree L CIV USARMY CEHQ (US) <Desiree.L.Morningstar@usace.army.mil>; Smith, Tim J (BWSR) <tim.j.smith@state.mn.us>
Subject: RE: 404 Assumption Study - Assumable Waters GIS Analysis

Hi Les,

Sorry for the delay in responding to your email.

We believe the GIS-based approach you have used is reasonable to illustrate an estimate of the relative proportion of waters and wetland that would be assumable under 40 CFR 233. However, please note the substantive limitations described below.

1. The dataset may carry forward errors in the original GIS data layers that were used to develop the analysis. These include but are not limited to: incorrectly drawn limits due to misinterpretations of, or limitations in the ability to interpret, the hydrologic landscape; changes in land-cover from completion of the dataset; metadata entry errors or exclusions; the fact that the MN DNR stream data layer excludes some ditches or straightened natural channels; and possible unrecognized hydrologic connections through or under man-made barriers that were not corrected in the dataset preparation.
2. The understanding that adjacency, in many situations, cannot be determined for jurisdictional purposes solely on the basis of GIS data. Oftentimes, a site visit is necessary to evaluate the subsurface hydrologic connections, shallow sub-surface connections and ecological connections between a wetland and a navigable water. The attached figure shows a large wetland complex just over 100' from a navigable water that is identified, based on the agreed criteria as assumable. This is an example of a wetland where adjacency is questionable based solely on the GIS data used in your analysis but perhaps on further site investigation, may have continuous hydrologic surface water connection to the nearby river with perennial flow to navigable water.
3. This dataset does not represent any conclusions regarding which waters are and are not assumable under 40 CFR Part 233. From the Corps perspective, this map can only be used to show, understanding the above limitations, one possible estimate of the extent of assumable waters in the State of Minnesota. This map should not be interpreted to show the extent of waters of the US, Section 10 or navigable waters in the State nor does it communicate the extent of Corps jurisdiction.

Thank you and please let me know if you have any other questions.

Jill Bathke
MN Policy Liaison
St. Paul District Army Corps of Engineers
651.290.5697

Appendix E: Criteria for Estimating COE-Retained and State-Assumable Waters in Minnesota

Based on the 1-25-17 COE Description of Retained Waters

The analysis described herein was undertaken by staff at the Minnesota Board of Water and Soil Resources (BWSR) and Minnesota IT Services (MNIT) to estimate the extent of waters (lakes, rivers, streams, wetlands, etc.) that would be retained by the U.S. Army Corps of Engineers (COE) if the State of Minnesota pursued assumption of the Federal Clean Water Act (CWA) Section 404 permitting program according to Section 404(g)(1) of the Act. The analysis also approximated the extent of waters currently regulated by the COE that would be assumed by the State if assumption was pursued. It was completed using a geographic information system (GIS) and readily available statewide geospatial data. This analysis is based on the current Corps interpretation of retained waters, as communicated to the State of Minnesota in a letter dated January 25, 2017.

Since the process for estimating retained waters had to be conducted in series because of the jurisdictional relationship between wetlands and other waters under the CWA, criteria were developed jointly with the COE and concurrence obtained at several points during the analysis. The first set of criteria identified lakes, streams, and rivers that, consistent with the 1-25-17 COE letter, would be considered Traditional Navigable Waters (TNWs) and thus retained by the COE under State-assumption. The second set of criteria then focused on identifying wetlands that would be adjacent to these retained waters consistent with current federal guidance for jurisdictional determinations under the CWA. Adjacency determinations frequently require more site-specific analyses than what could be accomplished in the analysis conducted for this report. However, to the greatest extent possible, the criteria for identification of adjacent wetlands was intended to identify those wetlands that would be considered jurisdictional under the CWA consistent with current COE and EPA guidance.

According to the 1-25-17 COE letter, the set of waters retained by the COE would include waters regulated under Section 10 of the Rivers and Harbors Act (Section 10 waters), TNWs, and wetlands adjacent to these waters. The process for identifying these waters is described in Parts I and II below. Since a complete map of Section 10 waters in Minnesota did not exist at the time the analysis was initiated, the process for identifying retained non-wetland waters focused primarily on the identification of TNWs using the criteria in Part I. All or most Section 10 waters are likely captured using this method, although verification should be performed if 100 percent reliability is required. The next part of the process for identifying retained waters is the identification of wetlands adjacent to the non-wetland waters identified in Part I using the criteria discussed in the previous paragraph.

The next steps of this analysis consisted of determining the extent of non-wetland waters and wetlands currently jurisdictional under Section 404 that would be assumable by the State of Minnesota (i.e. those waters and wetlands that would no longer require a separate Section 404 permit from the COE if the State were to assume the program). Essentially, these are waters currently regulated by the COE that are not TNWs or their adjacent wetlands. The criteria used to identify these non-wetland waters and wetlands are described in Parts III and IV.

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Part I. Identification of Non-Wetland Waters Retained by the COE.

Waters meeting any of the following criteria would likely be determined to be TNWs by the COE:

1. All waters subject to State jurisdiction under the Public Waters Permitting Program administered by the Minnesota Department of Natural Resources (DNR) as identified on the DNR's Public Waters Inventory (PWI)[4] with the following exclusions:
    a) Public water wetlands (having a "W" designation in the PWI); and
    b) First and second order streams and rivers (Strahler stream order from DNR data).[5]
2. Non-wetland waters not identified in Part I of this section that meet the following criteria:
    a) Lakes larger than 5 acres[6] that border any type of public land (local, state, or federal);[7]
    b) Lakes larger than 5 acres that have a designated public access;[8]
    c) Lakes larger than 5 acres that are located within 100 feet of a mapped public road, not including interstate highways (this 100 foot distance includes half of the road width since the analysis would be conducted from the centerline of the road); and
    d) Rivers or streams that are third order or higher (including ditches and altered watercourses)

Part II. Identification of Adjacent Wetlands Retained by the COE.

Wetlands were identified using statewide data from the National Wetland Inventory (NWI).[9] Wetlands meeting any of the following criteria are likely to be determined to be adjacent wetlands by the COE, and retained by the COE under State assumption:

1. All wetlands that have a border that, at any point, is within 100 feet of a TNW as identified in Part I other than rivers or streams (which are addressed in paragraph 2 of this Part);
2. Wetlands that have a border of any length[10] that at any point is within:
    a) 100 feet of the centerline of a third order stream;
    b) 150 feet of the centerline of a fourth order stream;

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[4] DNR Public Waters (PW) Basin and Watercourse Delineations; ftp://ftp.gisdata.mn.gov/pub/gdrs/data/pub/us_mn_state_dnr/water_mn_public_waters/metadata/metadata.html

[5] DNR Stream Routes with Strahler Stream Order; ftp://ftp.gisdata.mn.gov/pub/gdrs/data/pub/us_mn_state_dnr/water_strahler_stream_order/metadata/metadata.html

[6] Five acres was set as the minimum size for a lake to be a considered a TNW based on the potential to be related to interstate commerce. Lakes smaller than 5 acres were thought to be less likely to be used in interstate commerce and were excluded from the analysis.

[7] DNR GAP Stewardship, 2008.

[8] DNR Public Water Access Sites in Minnesota; ftp://ftp.gisdata.mn.gov/pub/gdrs/data/pub/us_mn_state_dnr/loc_water_access_sites/metadata/metadata.html

[9] National Wetlands Inventory, Minnesota, 1980-1986; ftp://ftp.gisdata.mn.gov/pub/gdrs/data/pub/us_mn_state_dnr/water_nat_wetlands_inventory/metadata/metadata.html

[10] The proximity to streams was based on the assumption that wetlands within the floodplain of a stream are likely to be jurisdictional under the CWA. The distances were determined using best professional judgement. The distance from the centerline was increased with stream order in recognition of the increased cross sectional area and discharge as stream order increases.

c) 250 feet of the centerline of a fifth order stream;
d) 500 feet of the centerline of a sixth or seventh order stream; or
e) 1,000 feet of the centerline of an eighth or higher order stream;

3. All wetlands that have an unbroken mapped wetland connection (using the NWI) to a TNW as identified in Part I. This criteria is intended to capture wetlands that are part of a complex but that are mapped as separate but contiguous polygons because of distinct vegetation, hydrologic conditions, or other physical features.
4. All wetlands that are separated by a linear man-made or artificial barrier where one of the wetlands has been determined to be adjacent in accordance with paragraphs 1, 2, or 3 of this Part. For purpose of this analysis, a man-made or artificial barrier was identified as a road or railroad having a width less than or equal to 200 feet. This criteria is intended to capture wetlands that have been bisected by a man-made feature or barrier but that historically were likely to have been one continuous wetland. Under COE regulations, these man-made barriers do not sever adjacency to a TNW.

Part III. Identification of Section 404 Jurisdictional Non-Wetland Waters Assumable by the State.

The following criteria were used to identify non-wetland waters that are likely to be jurisdictional under current Section 404 regulations, and that would not be retained by the COE under assumption:

1. All first and second order streams and rivers (Strahler stream order from DNR data) except those that were identified as a TNW in Part I.
2. All remaining non-wetland waters not identified as a TNW in Part I that are intersected by a non-wetland water that eventually flows to a TNW identified in Part I. This criteria is intended to capture lakes and basins that are not TNWs but are part of a tributary system that drains to a TNW.

Part IV. Identification of Section 404 Jurisdictional Adjacent Wetlands Assumable by the State.

Wetlands adjacent to the non-wetland waters identified in Part III would be assumable by the State under assumption. The following criteria were used to identify those wetlands that would be adjacent to those non-wetland waters.

1. All wetlands that have a border that, at any point, is within 50 feet[11] of an assumable non-wetland water identified in Part III.
2. All wetlands that have an unbroken, mapped wetland connection (using the NWI) to an assumable non-wetland water identified in Part III. This criteria is intended to capture wetlands that are part of a complex but that are mapped as separate but contiguous polygons because of distinct vegetation, hydrologic conditions, or other physical features.
3. All wetlands that are separated by a linear man-made or artificial barrier where one of the wetlands has been determined to be adjacent in accordance with paragraph 1 or 2 of this Part.

[11] The proximity to streams was based on the assumption that wetlands within the floodplain of a stream or in close proximity to other non-wetland waters are likely to be jurisdictional under the CWA. A distance of 50 feet was used because the non-wetland waters identified in Part III are likely to be first and second order streams with less expansive floodplains as well as smaller lakes and ponds.

For purpose of this analysis, a man-made or artificial barrier was identified as a road or railroad having a width less than or equal to 200 feet. This criteria is intended to capture wetlands that have been bisected by a man-made feature or barrier but that historically were likely to have been one continuous wetland. Under COE regulations these man-made barriers do not sever adjacency to a jurisdictional non-wetland water.

4. Any wetland identified as adjacent to a TNW in Part II is excluded from consideration under this Part. This criteria clarifies that any wetland that may be adjacent to both a TNW and a non-wetland water assumed by the State would be retained by the COE under assumption.

Appendix F: November 9, 2017 E-mail from the COE, St. Paul District to BWSR

From: "Konickson, Chad S CIV USARMY CEMVP (US)" <chad.konickson@usace.army.mil>
Date: November 9, 2017 at 12:28:46 PM CST
To: "Jaschke, John (BWSR)" <john.jaschke@state.mn.us>
Subject: Assumable/Retained Waters (UNCLASSIFIED)

CLASSIFICATION: UNCLASSIFIED

John,

Thanks for meeting last Friday to discuss the ongoing effort to estimate the scope of waters of the U.S. that would be retained by the Corps if the State of MN pursues assumption of the CWA 404 program. It was helpful to review the draft results of the GIS-based estimation that the State prepared. While the draft report is well-organized and clearly explains the process undertaken, I am concerned that the results paint a picture that is not a very realistic estimation of the scope of retained waters or permit activity. Specifically, it states that nearly all wetlands in MN would be retained by the Corps, which will imply to some that nearly all regulatory activity under 404 would be retained by the Corps. Corps experience in MN does not support that conclusion. One challenge is that the result is presented in "acres of wetlands", which is not necessarily the most useful measure, as there are vast expanses of wetlands that are under little or no development pressure. It is true that there are large acreages of wetlands adjacent to navigable waters, and therefore would be retained by the Corps, particularly in northern MN. However, as the report notes, this is not a good surrogate for regulated activities under 404. The draft results also include an effort to relate past permit actions to the identified wetlands and waters. It indicates that nearly 70% of the permits did not occur in a water of any kind, which suggests a substantial data limitation. Using proximity to known waters, the report estimates that 83% of past regulated activities occurred in waters that would be retained by the Corps. That conclusion doesn't appear to correlate well with the practical experience the Corps has in MN.

The parameters used for the GIS analysis were jointly developed by BWSR and Corps staff and I endorsed them as a reasonable way to attempt to estimate navigable waters and adjacent wetlands. I know our staff coordinated as the analysis progressed. I believe it was a thoughtful approach and I am surprised that the results, once compiled, appear to differ so noticeably from our practical experience. However, I think it is very informative and underscores the difficulty in estimating resources on a landscape scale when, by definition, many of those resources require case-specific analysis to determine their status. I don't believe the effort was wasted. I'm confident our staff can reevaluate the parameters and assumptions in light of the results and potentially refine them to provide an estimation that aligns more with practical experience regulating waters in Minnesota. Perhaps there is a way to utilize permit data differently to inform the analysis. If the State ultimately pursues assumption, an agreement between the State and the Corps identifying assumed/retained waters (or how they will be determined) is required. Perhaps this current analysis can be refined in a way to also provide a basis for that effort, if it is ultimately needed.

I understand that these draft results may have been shared broadly. I think we should anticipate that the picture painted by the document may lead to inaccurate conclusions being drawn, particularly by those less familiar with the complexities and limitations of this analysis. Being prepared to address that might be important. If the conclusions of this draft report are included in

the assumption report or presented to your Board, I think it would be important to emphasize that despite a joint effort to devise a reasonable methodology, the results are somewhat unexpected and do not appear to align well with our practical experience implementing the 404 program.

As you know, the Corps is neither an opponent nor proponent of assumption. I remain committed to continuing to provide information and data to support the State's analysis. My objective has been, and still is, to provide information to the State that is as accurate as possible. While I believe it is widely recognized that Minnesota has a substantial number of navigable waters and wetlands adjacent to those waters, it is equally important to avoid an over-estimation as it is an under-estimation. While the methodology devised to estimate those waters was thoughtfully developed, and the analysis was carried out in accordance with that methodology, it is challenging to square the impression created by the draft results with our practical experience.

I can always count on the long-standing collaborative relationship between our agencies and staff to produce effective solutions and I'm confident that will be the case here as well.

Let me know if there's anything I can do or if you want to chat more about this. Thanks John.
Chad

Chad Konickson
Chief, Regulatory Branch

US Army Corps of Engineers
St. Paul District
180 East 5th Street, Suite 700
St. Paul, MN 55101
651.290.5364

Appendix G: February 2, 2018 State Letter to COE Requesting Identification of Retained Waters

MINNESOTA

February 2, 2018

Colonel Sam Calkins
U.S. Army Corps of Engineers
St. Paul District
180 5th Street East
St. Paul, Minnesota 55101-1678

Dear Colonel Calkins,

In January 2017, the Minnesota Department of Natural Resources (DNR) and the Board of Water and Soil Resources (BWSR), in cooperation with the Minnesota Pollution Control Agency (PCA), completed a report to the State Legislature that studied the feasibility of the State assuming administration of the Clean Water Act (CWA) Section 404 permitting program in Minnesota. Section 404(g) of the CWA allows states or tribes to apply to the U.S. Environmental Protection Agency (EPA) to administer their own regulatory program(s) to meet Section 404 requirements, thereby eliminating the need for separate, federally issued permits for projects affecting those waters covered by state assumption. Minnesota has investigated Section 404 assumption previously but has not applied to the EPA for assumption for a variety of reasons.

One of the required elements of an assumption application to the EPA is a memorandum of agreement (MOA) between the state and the Secretary of the Army (acting through the Corps of Engineers) that identifies the waters that the Corps would retain jurisdiction over, describes procedures for transferring pending Section 404 permit applications to the state, and identifies any general permits currently issued by the Corps that the state intends to administer. Determining which waters the Corps would retain jurisdiction over has been an obstacle for other states contemplating assumption, and has proven to be equally complicated for the state of Minnesota.

Specifically, we attempted to work informally with your Regulatory Branch staff to develop a preliminary estimate of the extent of Corps-retained waters in Minnesota. We thought this was a prudent first step that would allow us to assess whether to explore the potential for assumption further through more formal coordination with the Corps and EPA. We were disappointed that these efforts did not produce a realistic and consensus estimation of the scope of retained waters.

In light of this and given our need to reach a greater level of certainty on the extent of Corps-retained waters in Minnesota, we are seeking a commitment from the St. Paul District to work cooperatively with DNR, BWSR, and PCA to begin the process of preparing an MOA that satisfies the requirement for an assumption application package to the EPA. We want to emphasize that Minnesota has not made any decision on whether to proceed with such an application. Rather, we are initiating the MOA process in order to obtain the information on Corps-retained waters that we need to inform our further decision-making.

As the first step in this process we are requesting the St. Paul District, in accordance with 40 CFR § 233.14(b)(1), specifically identify the waters that would be retained by the Corps under Section 404 assumption in Minnesota. Our expected outcome is the identification of Corps-retained waters resulting from a clear and implementable protocol for determining administrative responsibility, should Minnesota elect to apply to EPA to assume the Section 404 program.

We look forward to your response. If you have any questions or if you would like to discuss this further please do not hesitate to contact John Jaschke, BWSR Executive Director, at 651-296-0878 or John.Jaschke@state.mn.us.

Sincerely,

John Jaschke, Executive Director	Tom Landwehr, Commissioner	John Linc Stine, Commissioner
Minnesota Board of Water and Soil Resources	Minnesota Department of Natural Resources	Minnesota Pollution Control Agency

Appendix H: February 16, 2018 E-mail from the COE, St. Paul District to BWSR

From: Konickson, Chad S CIV USARMY CEMVP (US) [mailto:chad.konickson@usace.army.mil]
Sent: Friday, February 16, 2018 4:39 PM
To: Jaschke, John (BWSR) <john.jaschke@state.mn.us>
Cc: Weirens, David (BWSR) <david.weirens@state.mn.us>; Lemm, Les P (BWSR) <les.lemm@state.mn.us>; Smith, Tim J (BWSR) <tim.j.smith@state.mn.us>; Norris, Doug J (DNR) <doug.norris@state.mn.us>
Subject: Analysis of Retained and Assumable Waters in MN (UNCLASSIFIED)

CLASSIFICATION: UNCLASSIFIED

John,

I appreciate the opportunity BWSR has provided for the Corps to review the various drafts of the assumable waters report and the opportunity to attend the stakeholder meeting on January 7. Following the first partial draft report I received in October, 2017, I shared my concern that some of the draft estimates, or how they were characterized, didn't appear to align well with our experience permitting in MN and could be easily misinterpreted. The revisions and additions made to the draft report over the last several months have gone a long way toward reducing the risk of misinterpretation. There was also a notable data correction made related to estimating the percentage of recent 404 permit actions that occurred in what the report estimates would be retained waters. The original estimate that 83% of permits occurred in retained waters was the figure that I questioned most; after a closer look at permit data, it has since been revised to 57%, which seems considerably more plausible. As I've noted before, it's not surprising that the report reflects that MN has numerous navigable waters and abundant wetlands adjacent to those waters. Given the limitations acknowledged in the report, the most recent draft appears to be as representative an estimate as can reasonably be obtained using landscape scale GIS data.

There were excellent discussions at the January 7 stakeholder meeting. Some stakeholders noted the natural tendency for readers to assign more accuracy to estimates than is appropriate, especially when maps and tables are involved. It underscores the importance of emphasizing that the study provides an estimate of retained and assumable waters, rather than precise identification. Also at the January 7 meeting, stakeholders asked what other efforts or actions are underway or contemplated that could generate some of the same benefits that 404 assumption would. It was an opportunity to point out our continuing joint efforts to align the state and federal programs, reduce redundancy, and increase efficiency. I shared my gratitude for the coordination BWSR staff are extending to the Corps during your rulemaking efforts, to ensure maximum alignment of our programs. I also shared the major milestone that will be reached on February 20, which is the effective date of a new comprehensive suite of Corps Regional General Permits. Coordination with BWSR and DNR was instrumental in developing those permits. Along with the implementation of the Nationwide General Permits last year, this represents a complete replacement of all previous general permits, and a fundamental retooling of our general permit program. Our goals of increasing consistency and predictability, extending general permit coverage to more activities, and reducing the number of activities that require notification to the Corps is already being realized. Feedback from stakeholders has been encouraging. I believe there is also a real opportunity to pursue a State Programmatic General Permit that reduces or eliminates federal review for activities that receive approval under state law. These programmatic permits have been very successful in eliminating redundancy in other states.

BWSR and MNIT staff had a difficult task and I think they did a commendable job developing and executing a methodology, preparing the report, and explaining the results. I'm also grateful for the coordination with Corps staff throughout this effort.

As always, if you'd like to discuss this or anything else, please don't hesitate to let me know.

Chad Konickson
Chief, Regulatory Branch

US Army Corps of Engineers
St. Paul District
180 East 5th Street, Suite 700
St. Paul, MN 55101
651.290.5364

Type of Water and Associated Metric		Ownership			
		Private Land or Mixed Ownership[1]	Entirely within Public Land[2]	Entirely within Reservations	Total
Wetlands	Acres of COE-Retained Wetlands	2,868,151	5,216,743	406,795	8,491,689
	Acres of State-Assumable Wetlands	627,171	161,308	2,275	790,754
	Percent of State-Assumable Wetland Acres	17.9%	3.0%	0.6%	8.5%
	Acres State-Only Regulated Wetlands	901,999	383,786	7,979	1,293,764
Lakes & Non-Wetland Basins	Total # COE-Retained Basins	10,796	6,354	23	17,173
	Total Acres COE-Retained Basins	2,259,530	880,626	297,436	3,437,592
	Total # State-Assumable Basins (non-PW)[3]	10,400	4,759	84	15,243
	Percent Total # State-Assumable Basins	49.1%	42.8%	78.5%	47.0%
	Total Acres State-Assumable Basins (non-PW)[3]	35,020	8,851	681	44,552
	Percent of State-Assumable Basin Acres	1.5%	1.0%	0.2%	1.3%
	# of "Other Basins"	73,694	15,352	423	89,469
	Acres of "Other Basins"	96,046	16,731	1,100	113,877
Streams	Linear Miles of COE-Retained Streams	21,603	4,715	275	26,593
	Linear Miles of State-Assumable Streams	133,693	59,518	1,391	194,602
	Percent of State-Assumable Stream Miles	86.1%	92.7%	83.5%	88.0%

1. The "Private Land or Mixed Ownership" category includes basins that are partly within public land or Indian Reservations.

2. The "Entirely within Public Land" category includes basins that are partly within Indian Reservations.

3. All 12,168 Public Water Basins (3,330,046 acres) are retained by the COE. In addition, 5,005 non-Public Waters Basins (107,546 acres) are retained by the COE.

Appendix J: Examples of Mapping Analysis Results

The following maps are excerpts from the statewide mapping analysis completed to estimate the Federal Clean Water Act Section 404 jurisdictional waters that would likely be retained by the U.S. Army Corps of Engineers (COE), and those waters likely to be assumable by the State, should the State of Minnesota pursue Section 404 program assumption.

These map excerpts are intended to provide some general, relatively broad "snapshots" of the mapping results in various parts of the State, with a three examples of closer views also included. A map excerpt is included for each of the following areas:

1. Northwest MN
2. North-Central MN
3. Northeast MN
4. West-Central MN
5. Central MN
6. East-Central MN
7. Southwest MN
8. South-Central MN
9. Southeast MN
10. Twin-Cities Metropolitan Area
11. North-Central Metro Area
12. Lake George Area - Cass County
13. Litchfield - Maple Lake Area

A legend is provided for each map. In general, COE-retained waters are shown in shades of red, while State-assumable waters are shown in shades of blue. Note that these maps show the waters and wetlands that are relevant to Section 404 assumption (i.e. those estimated to be currently regulated by the COE based on the criteria used in this mapping exercise). Waters and wetlands estimated to be regulated by the State only through application of the mapping criteria can be viewed by activating the appropriate data layer on the state-wide GIS mapping application associated with this analysis.

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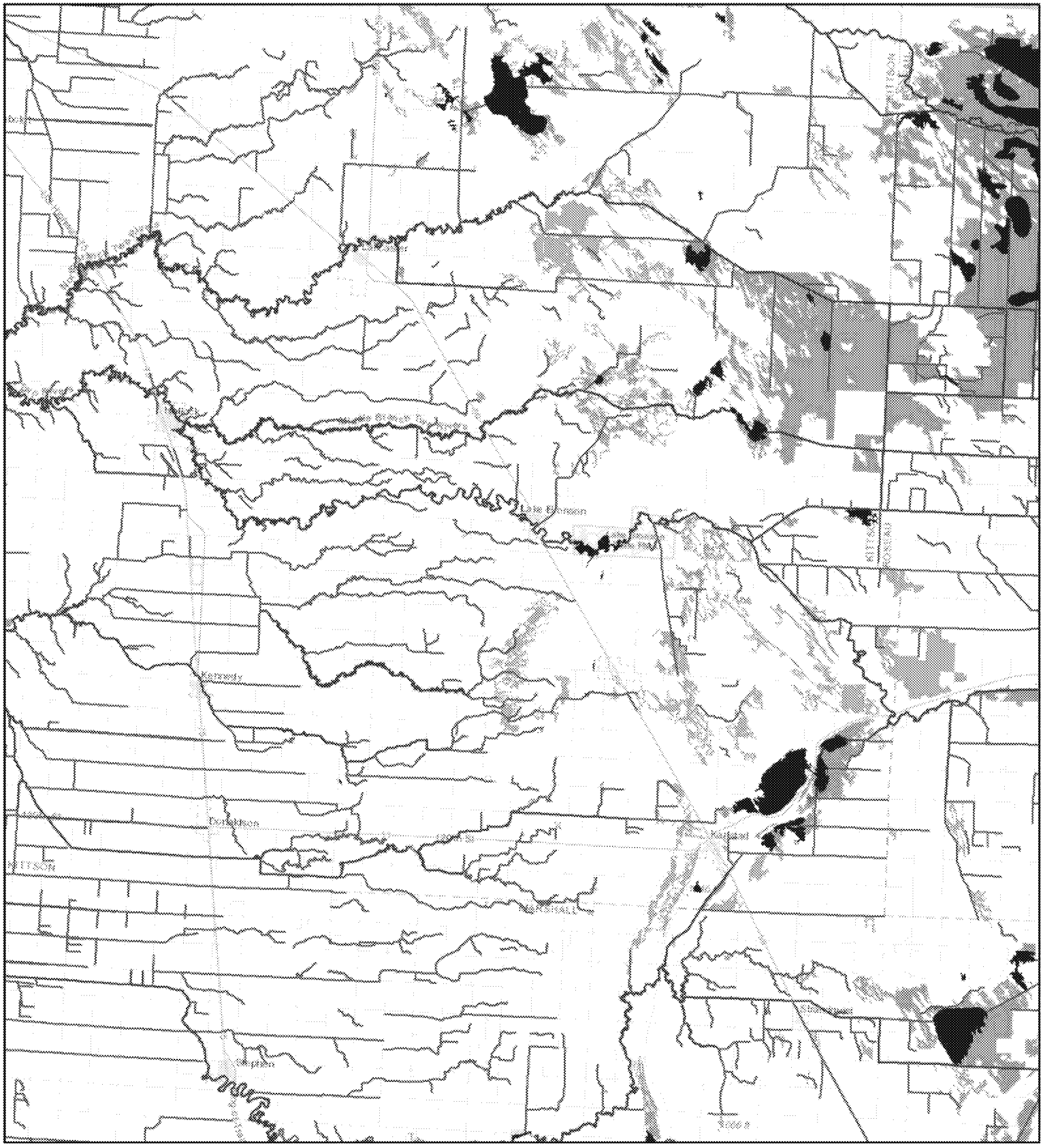
Assumable Waters Analysis
NW Minnesota

N

BWSR



COE Retained Lakes and Non-Wetland Basins

COE Retained Streams

COE Retained Wetlands

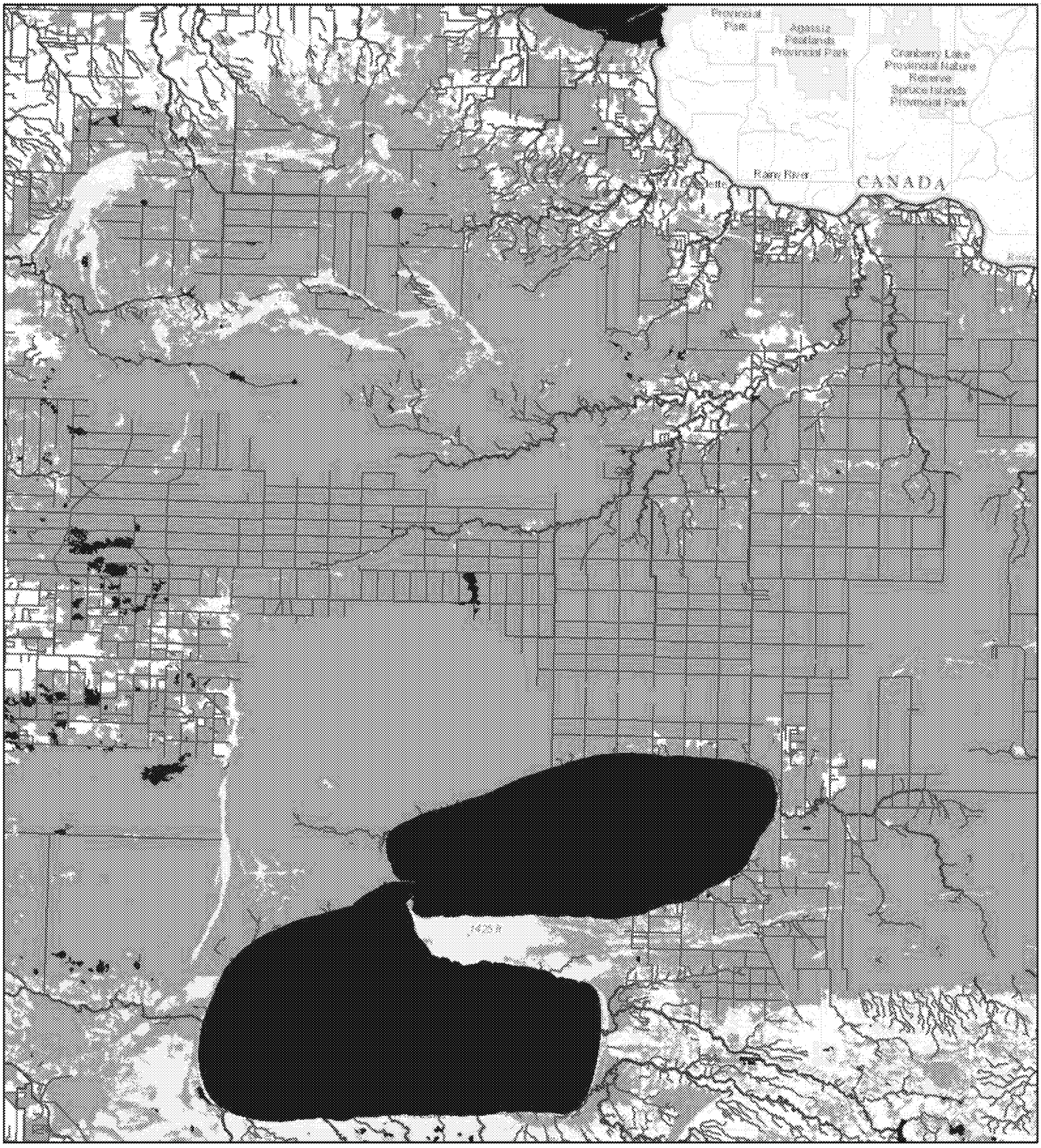
State Assumable Lakes and Non-Wetland Basins

State Assumable Streams

State Assumable Wetlands

Assumable Waters Analysis
North Central Minnesota

BWSR



COE Retained Lakes and Non-Wetland Basins

COE Retained Streams

COE Retained Wetlands

State Assumable Lakes and Non-Wetland Basins

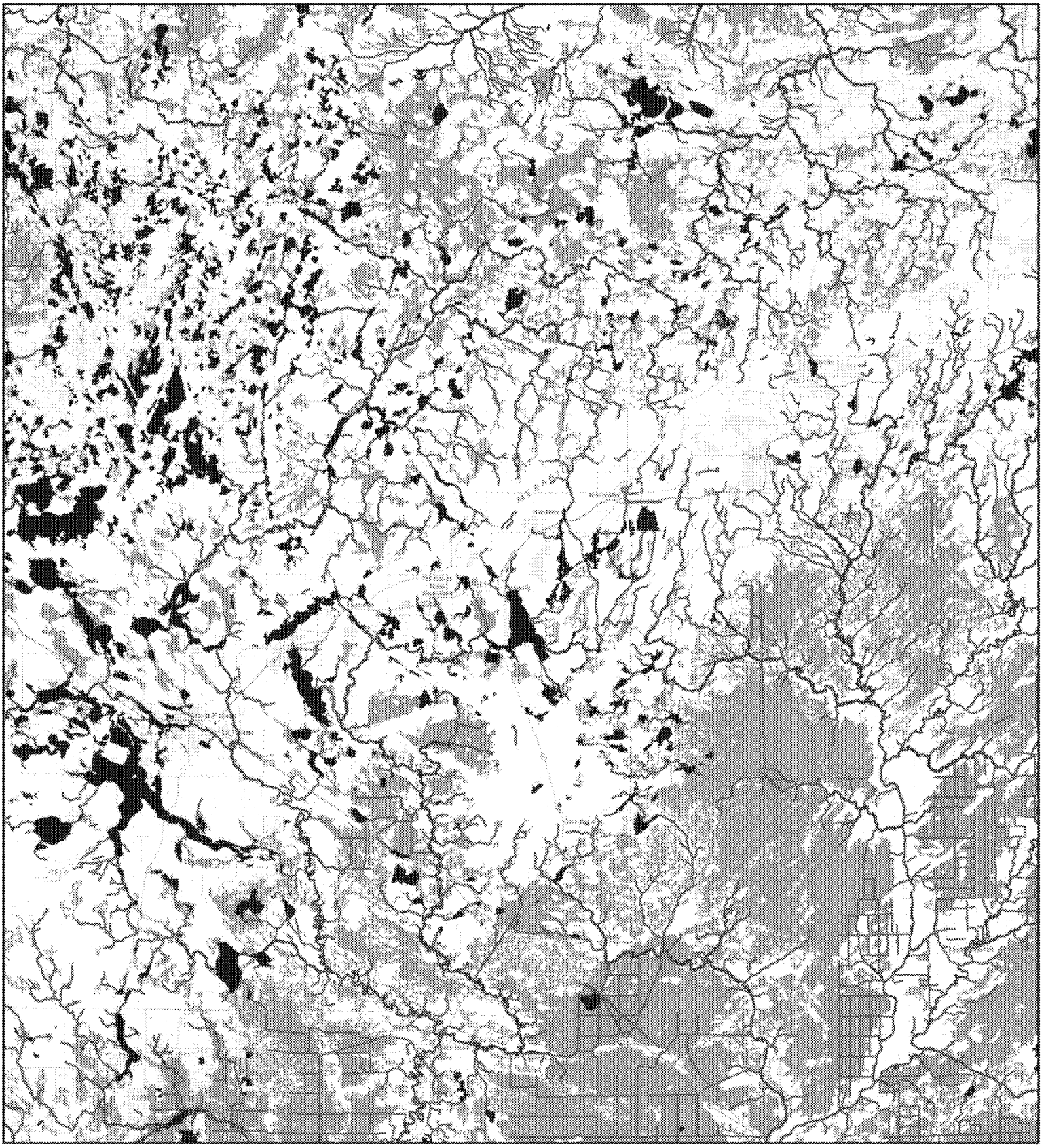
State Assumable Streams

State Assumable Wetlands

Assumable Waters Analysis
NE Minnesota

N

BWSR



COE Retained Lakes and Non-Wetland Basins

COE Retained Streams

COE Retained Wetlands

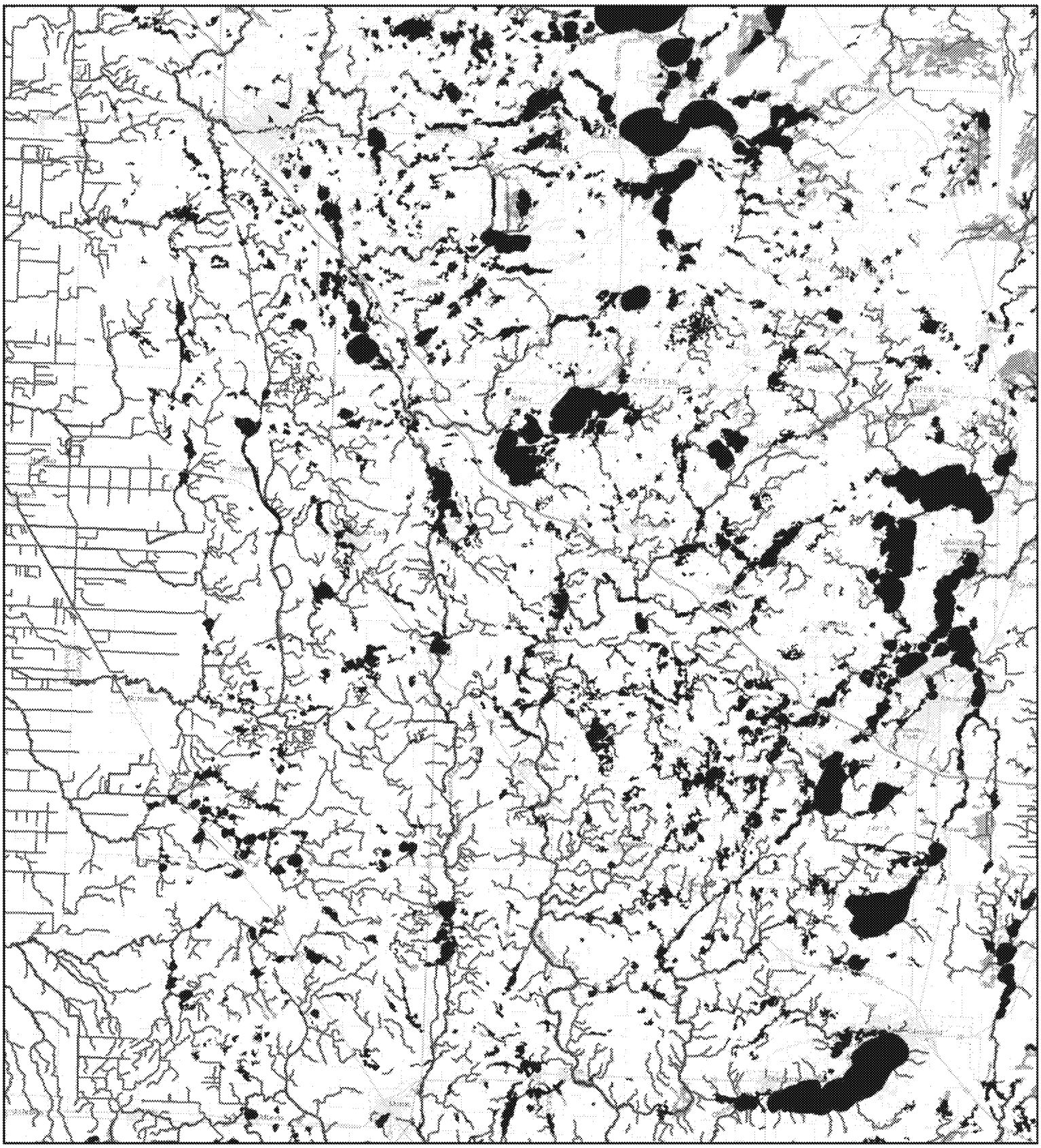
State Assumable Lakes and Non-Wetland Basins

State Assumable Streams

State Assumable Wetlands

Assumable Waters Analysis
West Central Minnesota

BWSR



COE Retained Lakes and Non-Wetland Basins

COE Retained Streams

COE Retained Wetlands

State Assumable Lakes and Non-Wetland Basins

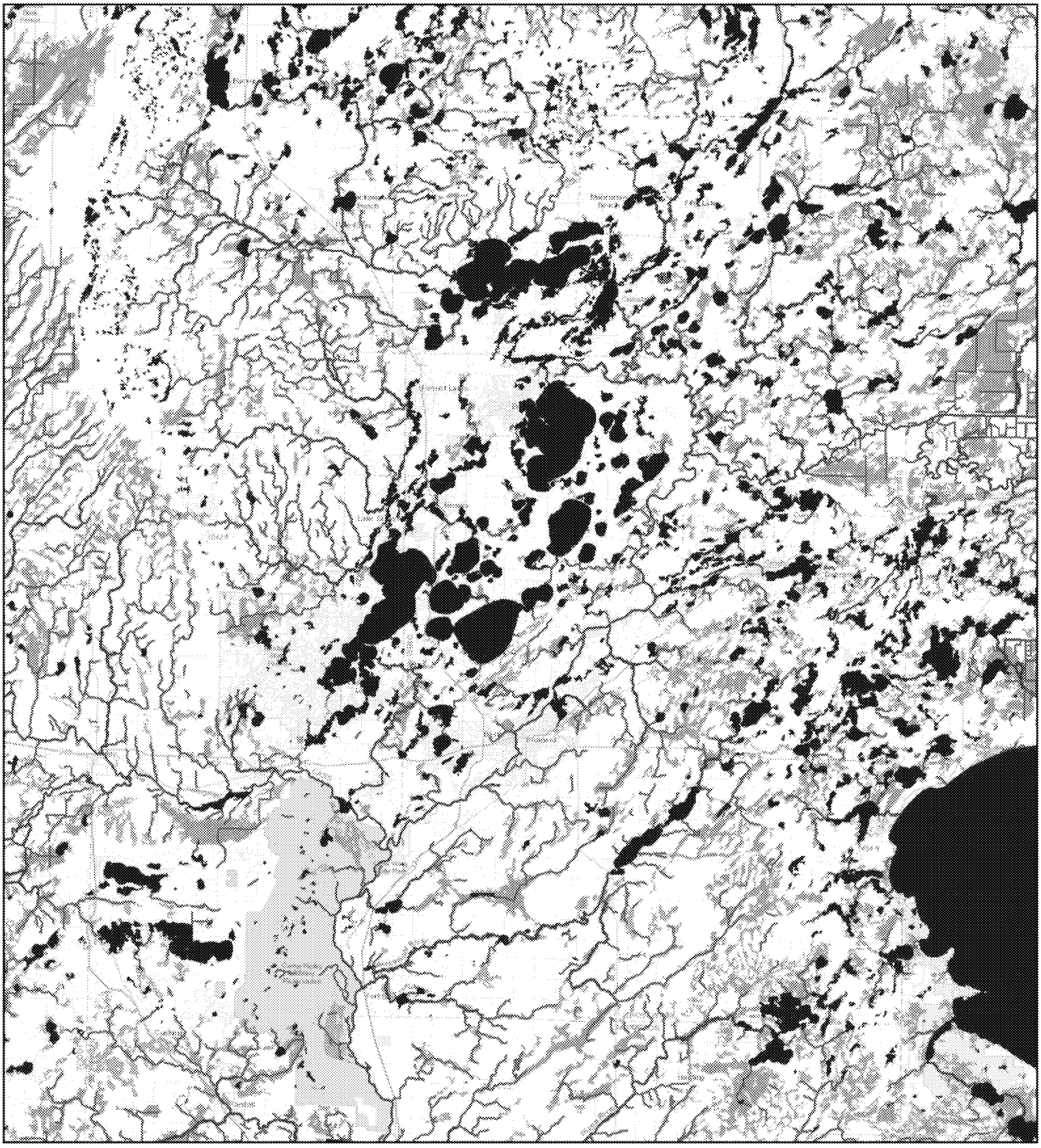
State Assumable Streams

State Assumable Wetlands

Assumable Waters Analysis
Central Minnesota

N

BWSR



COE Retained Lakes and Non-Wetland Basins

COE Retained Streams

COE Retained Wetlands

State Assumable Lakes and Non-Wetland Basins

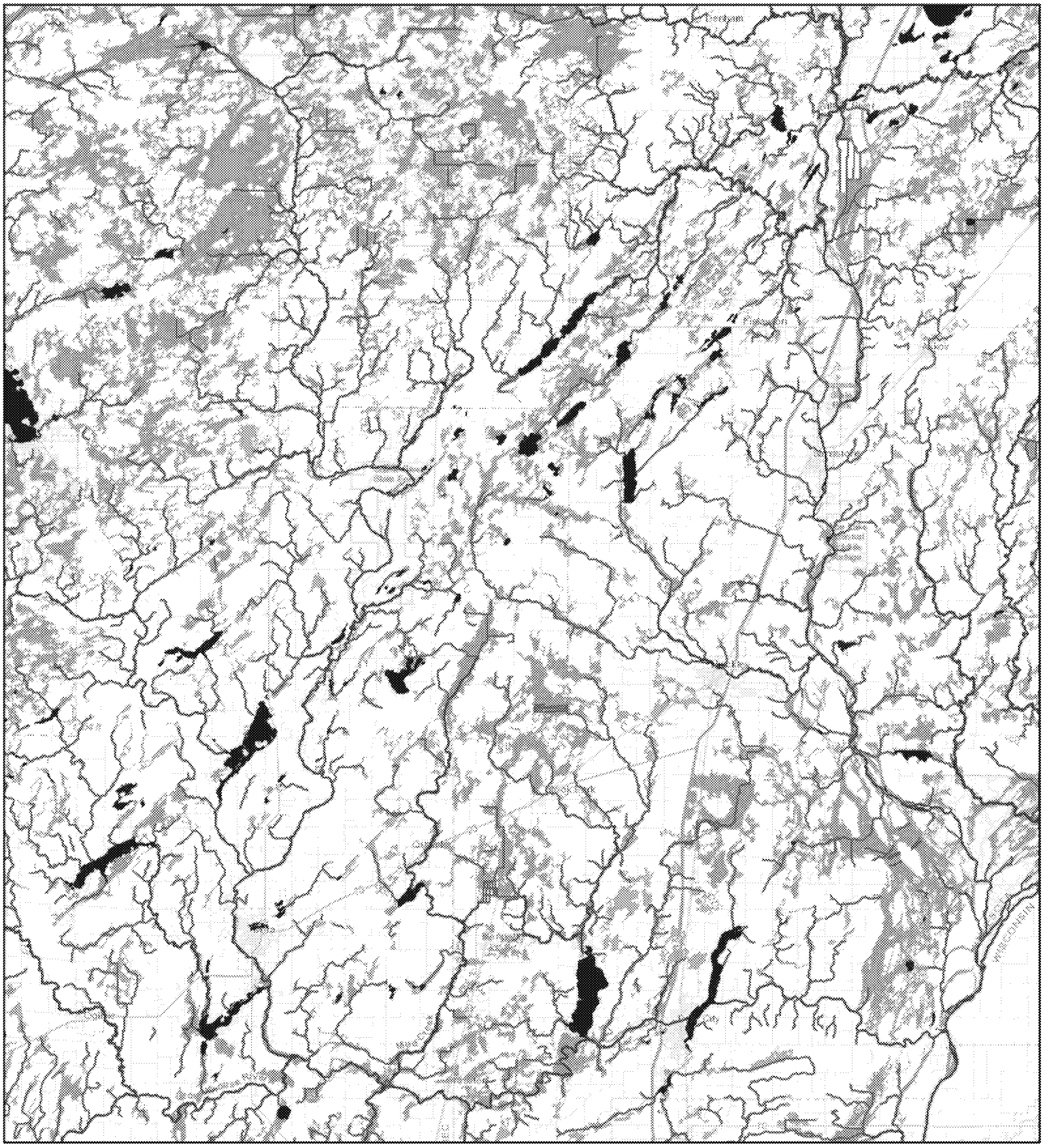
State Assumable Streams

State Assumable Wetlands

Assumable Waters Analysis
East Central Minnesota

N

BWSR



COE Retained Lakes and Non-Wetland Basins

COE Retained Streams

COE Retained Wetlands

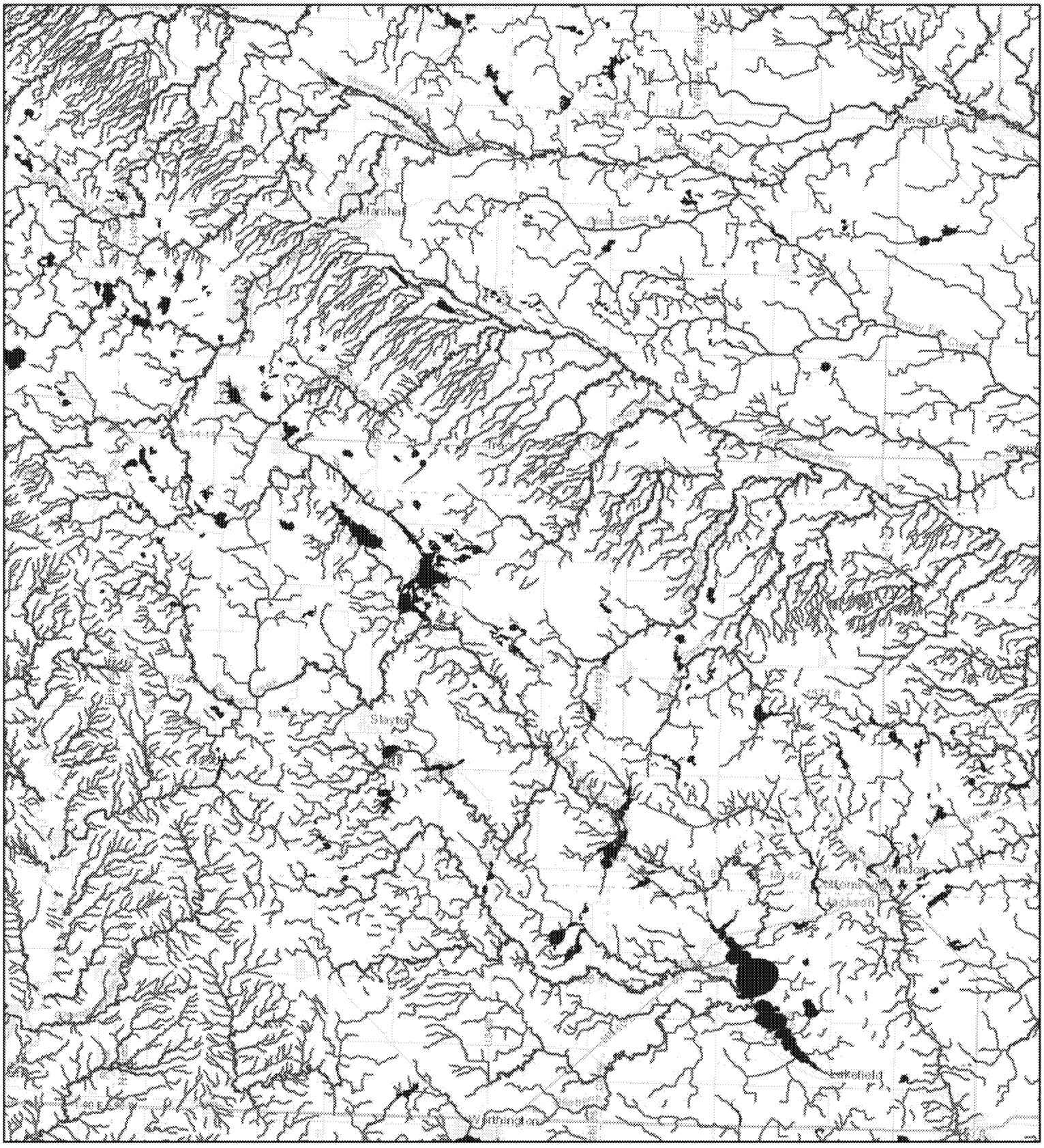
State Assumable Lakes and Non-Wetland Basins

State Assumable Streams

State Assumable Wetlands

Assumable Waters Analysis
SW Minnesota

BWSR



COE Retained Lakes and Non-Wetland Basins

State Assumable Lakes and Non-Wetland Basins

COE Retained Streams

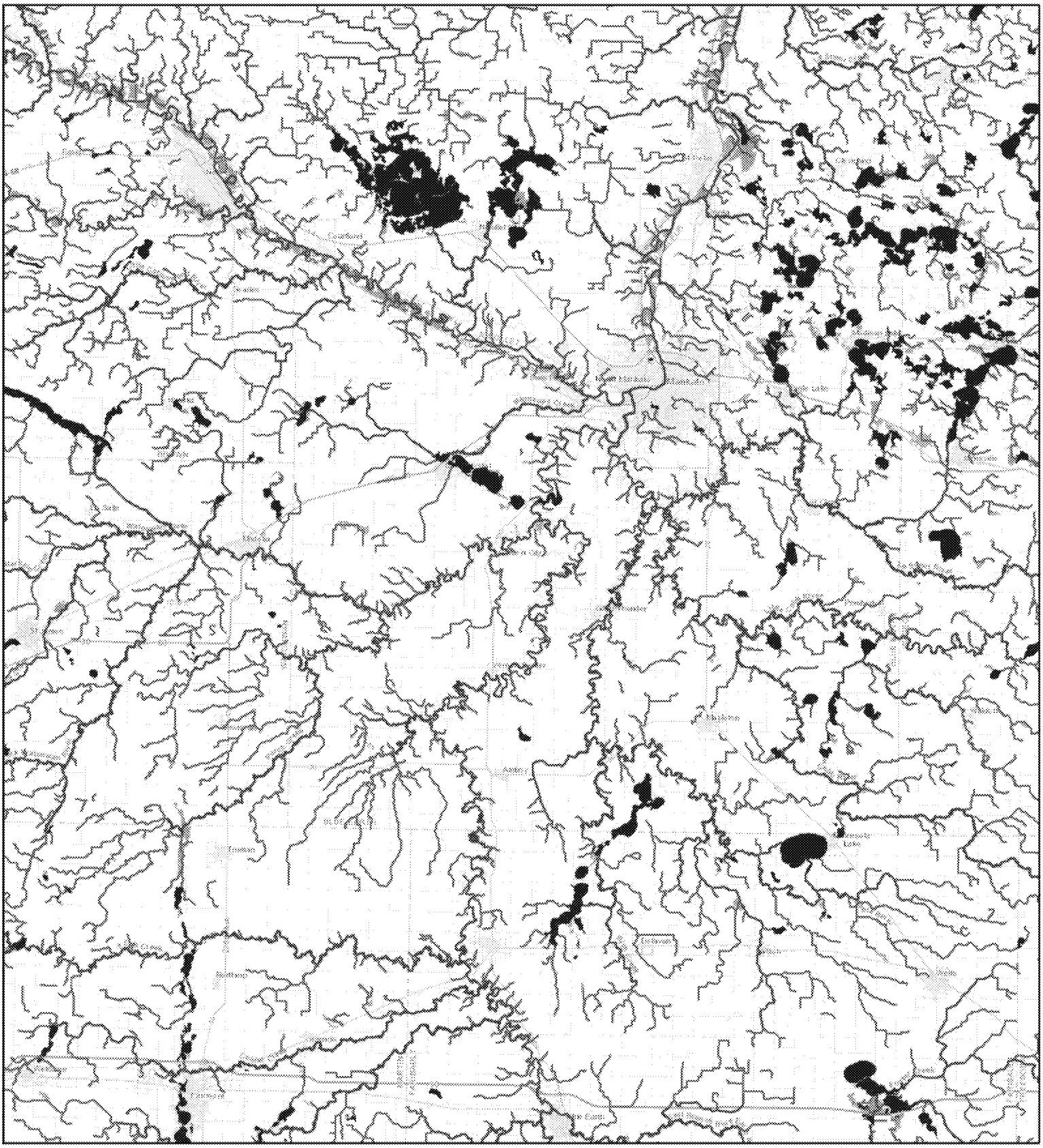
State Assumable Streams

COE Retained Wetlands

State Assumable Wetlands

Assumable Waters Analysis
South Central Minnesota

BWSR



COE Retained Lakes and Non-Wetland Basins

COE Retained Streams

COE Retained Wetlands

State Assumable Lakes and Non-Wetland Basins

State Assumable Streams

State Assumable Wetlands

Assumable Waters Analysis
SE Minnesota

N

BWSR

COE Retained Lakes and Non-Wetland Basins

COE Retained Streams

COE Retained Wetlands

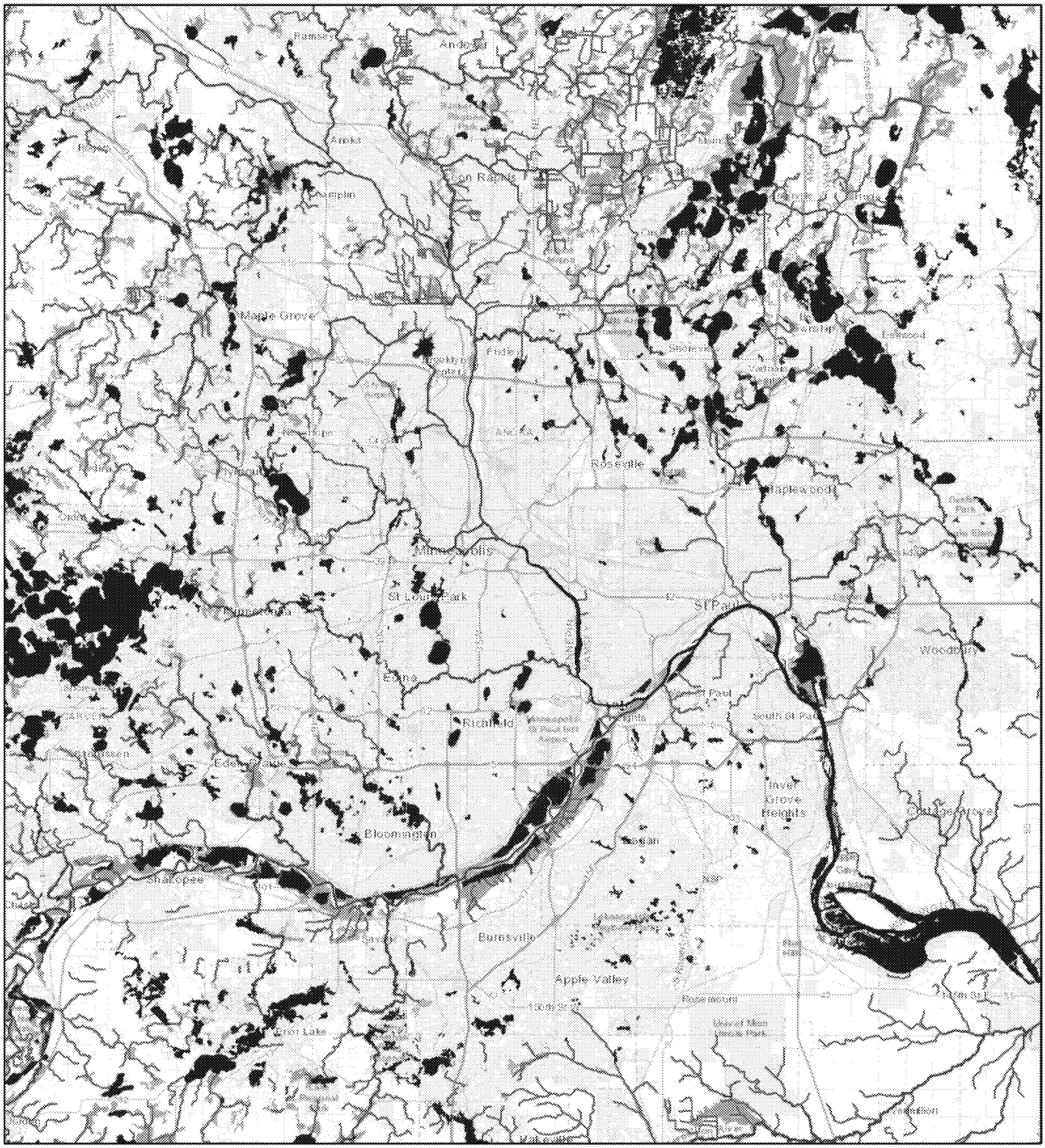
State Assumable Lakes and Non-Wetland Basins

State Assumable Streams

State Assumable Wetlands

Assumable Waters Analysis
Metro Area Minnesota

BWSR



COE Retained Lakes and Non-Wetland Basins

State Assumable Lakes and Non-Wetland Basins

COE Retained Streams

State Assumable Streams

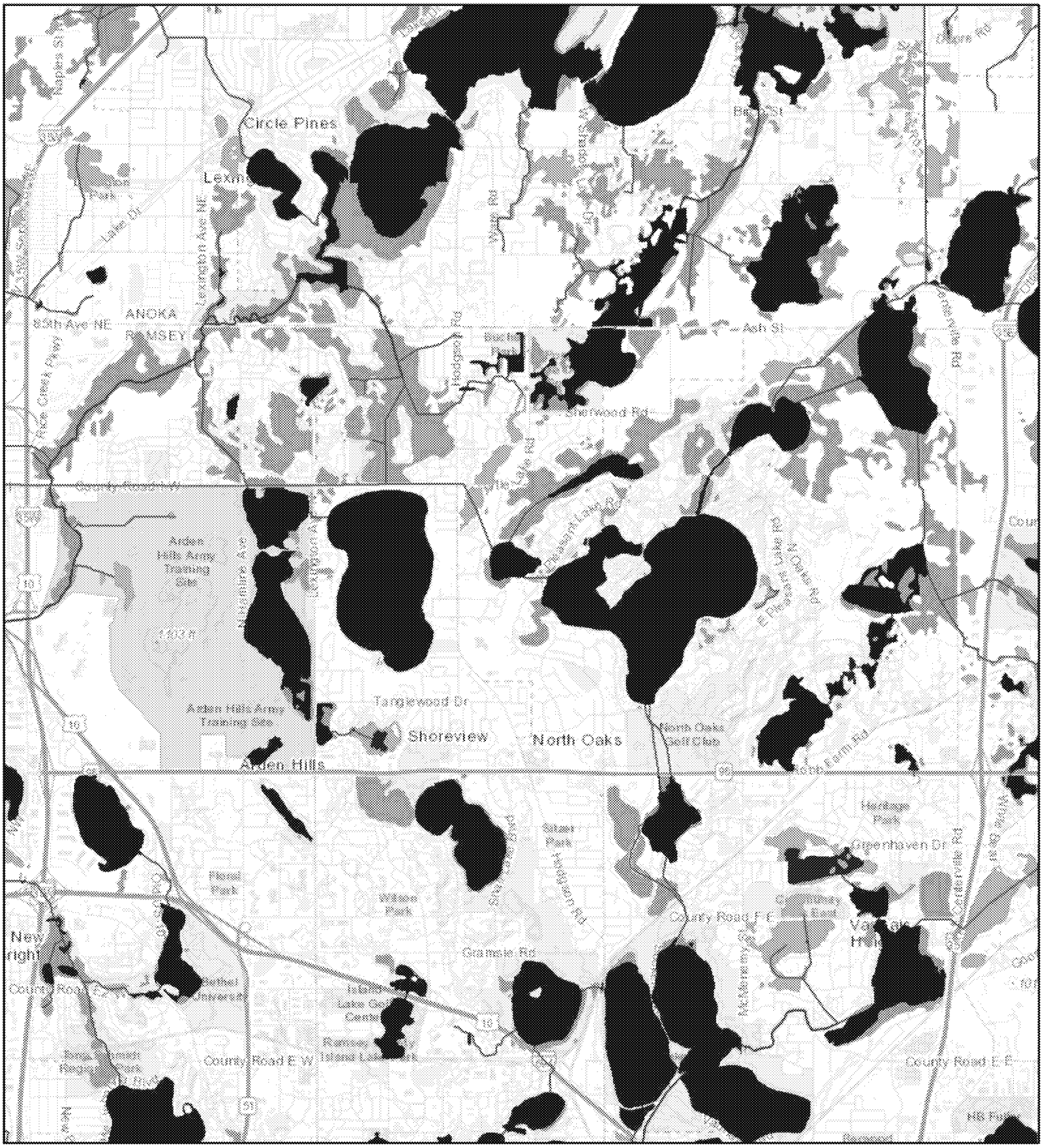
COE Retained Wetlands

State Assumable Wetlands

Assumable Waters Analysis
North Central Metro Area Minnesota

N

BWSR



COE Retained Lakes and Non-Wetland Basins

COE Retained Streams

COE Retained Wetlands

State Assumable Lakes and Non-Wetland Basins

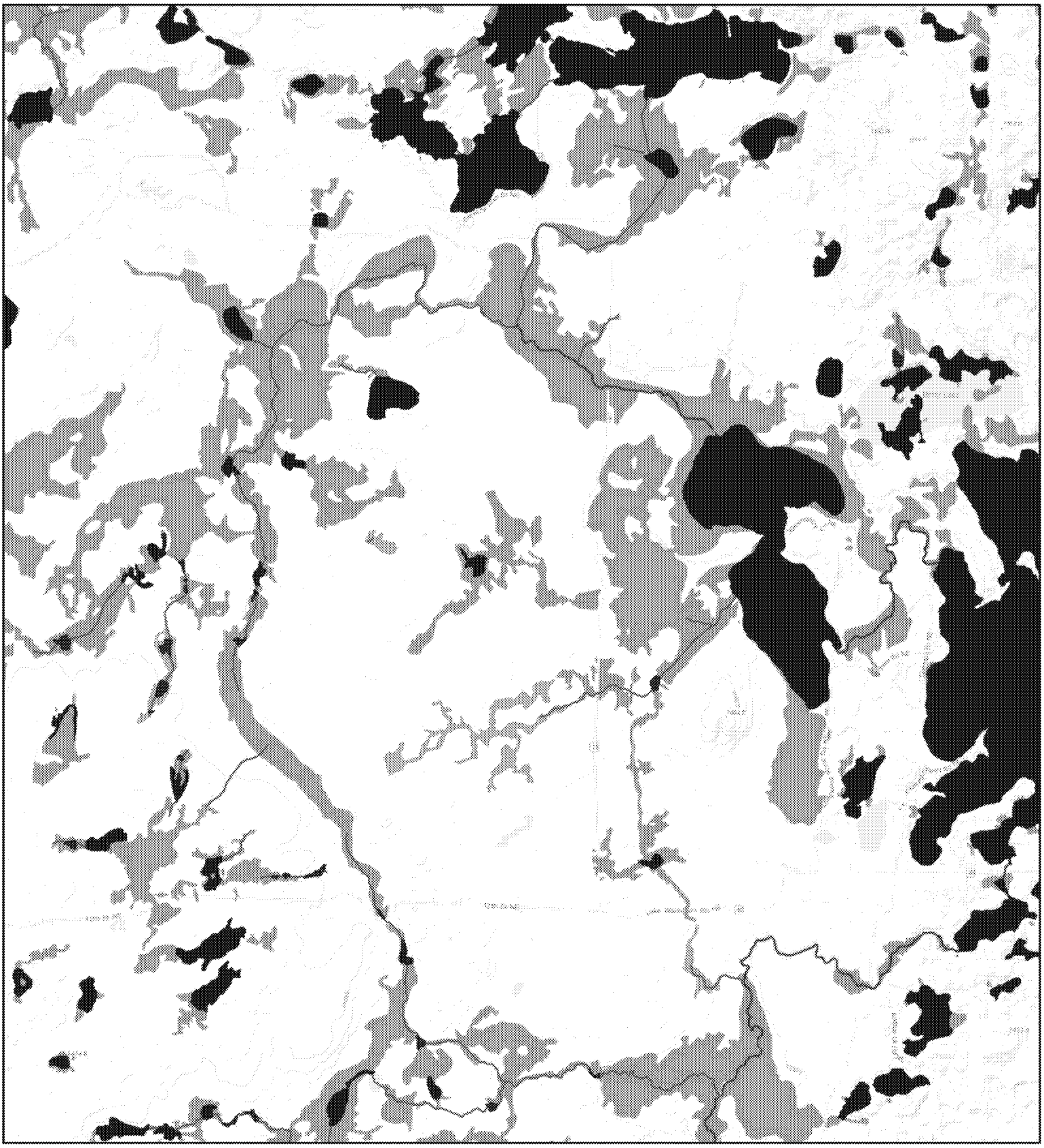
State Assumable Streams

State Assumable Wetlands

Assumable Waters Analysis
Lake George Area - Cass County Minnesota

N

BWSR



COE Retained Lakes and Non-Wetland Basins

COE Retained Streams

COE Retained Wetlands

State Assumable Lakes and Non-Wetland Basins

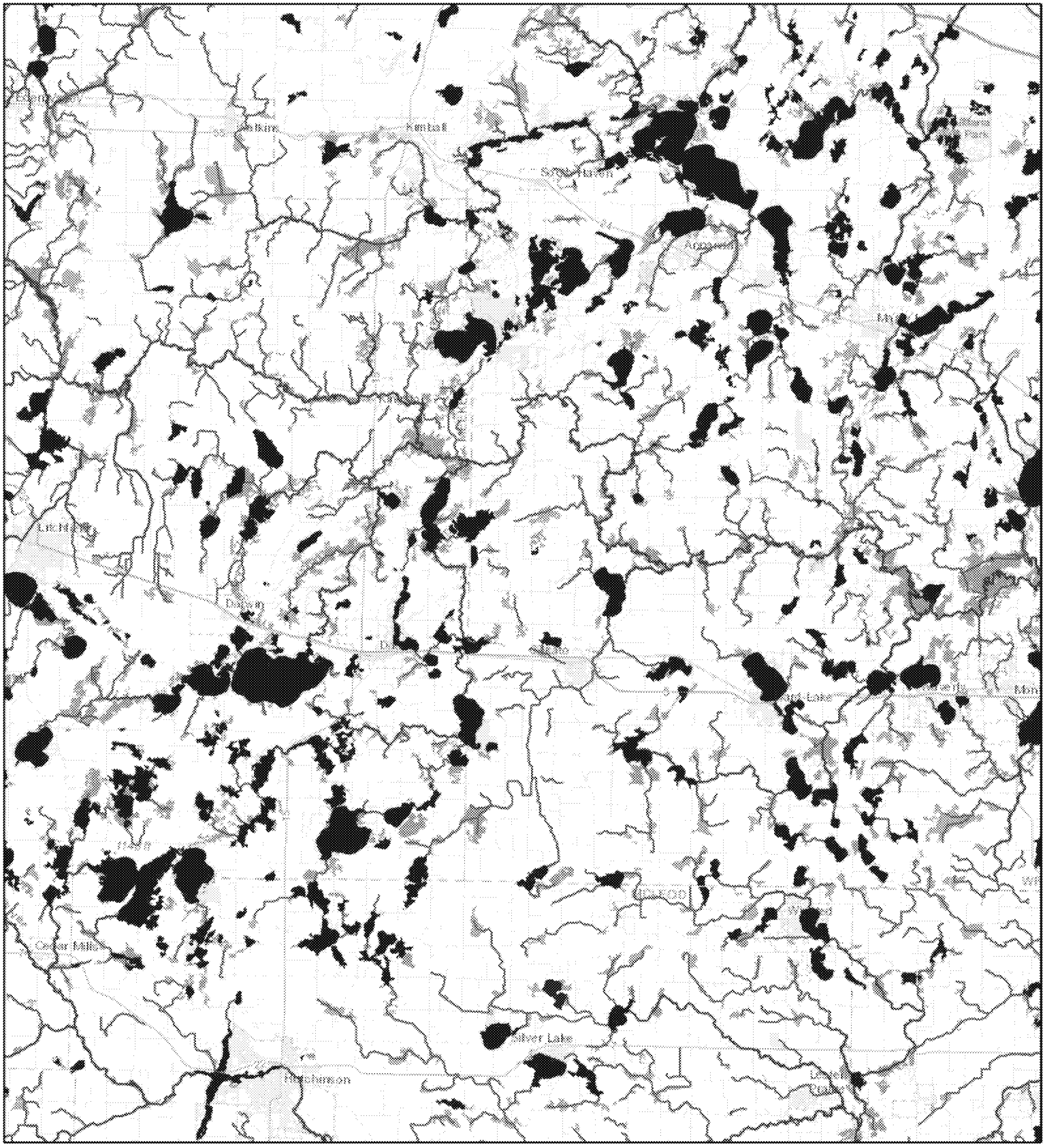
State Assumable Streams

State Assumable Wetlands

Assumable Waters Analysis
Litchfield - Maple Lake Area Minnesota

N

BWSR



COE Retained Lakes and Non-Wetland Basins

State Assumable Lakes and Non-Wetland Basins

COE Retained Streams

State Assumable Streams

COE Retained Wetlands

State Assumable Wetlands