Minnesota's Environmental Permitting Process

Benchmarking, Opportunities, and Economic Growth

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Minnesota Chamber Foundation

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Abbreviations

APCD	Colorado Air Pollution Control Division
AUAR	alternative urban areawide review
BWSR	Board of Water and Soil Resources
CAA	Clean Air Act
CDPHE	Colorado Department of Public Health and Environment
Ch.	chapter
CWA	Clean Water Act
SDDANR	South Dakota Department of Agriculture & Natural Resources
NCDEQ	North Carolina Department of Environmental Quality
MDNR	Minnesota Department of Natural Resources
WDNR	Wisconsin Department of Natural Resources
EA	Environmental Assessment
EAW	Environmental Assessment Worksheet
EGLE	Michigan Department of Environment, Great Lakes, and Energy
EIS	Environmental Impact Statement
USEPA	U. S. Environmental Protection Agency
EQB	Minnesota Environmental Quality Board
IDEM	Indiana Department of Environmental Management
IDNR	Iowa Department of Natural Resources
IEPA	Illinois Environmental Protection Agency
LGU	local government units
MAAQS	Minnesota Ambient Air Quality Standards
MEPA	Minnesota Environmental Policy Act
Minn. R.	Minnesota Rules
Minn. Stat.	Minnesota Statutes
MPCA	Minnesota Pollution Control Agency
NAAQS	National Ambient Air Quality Standards
NAICS	North American Industry Classification System
NCDAQ	North Carolina Department of Air Quality
NDAQ	North Dakota Division of Air Quality
NDDEQ	North Dakota Department of Environmental Quality
NEPA	National Environmental Protection Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NNSR	Nonattainment New Source Review
NPDES	National Pollutant Discharge Elimination System
NSR	New Source Review
PNG	Policy Navigation Group
PQR	permit quality review
PSD	Prevention of Significant Deterioration

RGU	responsible governmental unit
SDS	State Disposal System
SPB	Squire Patton Boggs
Subd.	subdivision
Subp.	subpart
TDEC	Tennessee Department of Environment and Conservation
TMDLs	total maximum daily loads
USACE	U.S. Army Corps of Engineers
WCA	Wetland Conservation Act
WQC	water quality certification

Purpose of the Report

Minnesotans have grown businesses and protected the local environment for generations by implementing a solid and protective environmental review and permitting process. These strong environmental protections must also be balanced with a fair, transparent, and timely process for issuing businesses approvals and permits to construct, expand, or modify facilities.

The Minnesota business community has expressed concern that Minnesota's environmental review and permitting processes may inhibit economic growth and development in the state. In response, the Minnesota Chamber Foundation enlisted Barr Engineering Co. (Barr) and its partners to conduct a technical analysis of Minnesota's environmental program. This analysis compares Minnesota's environmental review and permitting processes to states with similar physical environments and geographies, referred to as benchmark states (Colorado, Illinois, Indiana, Iowa, Michigan, North Carolina, North Dakota, South Dakota, Tennessee, and Wisconsin), and it identifies potential opportunities for improving Minnesota's permitting processes that could drive further economic expansion while retaining strong environmental protections.

Environmental permitting reform has emerged as a federal and state priority to enable investments in infrastructure, energy, and economic development projects.

- The Minnesota Chamber Foundation -

This report includes an economic analysis of Minnesota's current air permitting processes, and analyzes the process of environmental permitting for air, water, wetlands, and environmental review.

Economic Analysis | **Air Permitting** | **Water Permitting** | **Wetland Permitting** | **Environmental Review**

"Congress should approach federal permitting reform in a way that maximizes efficiency in government decision making through shorter timelines for regulatory approvals without sacrificing the value of the current process in protecting the environment and local stakeholders."
– Brookings Institution

BROOKINGS

"Ultimately, permitting reform affects every part of the American supply chain—from modernizing energy projects to building new manufacturing facilities."
– National Association of Manufacturers

NATIONAL ASSOCIATION OF Manufacturers

"States are finding innovative ways to make public interactions with government more user-friendly with efforts aiming to save businesses time and money and thereby helping contribute to economic growth."
– National Governors Association

NATIONAL GOVERNORS ASSOCIATION

"Permitting delays can increase costs and uncertainty for communities and businesses. That's why today, I am signing an executive order aimed at speeding up state permitting and refunding permit application fees for missed deadlines whenever possible. Those applying for a state permit must know how long the process will take and that when the state commits to a deadline, we will meet it."
– Michigan Governor Gretchen Whitmer

STATE OF MICHIGAN
OFFICE of the GOVERNOR

The Minnesota Chamber Foundation's case for permitting reform in Minnesota

1. Business investment is key to growing Minnesota's economy, fueling innovation, and developing the industries of tomorrow.

2. There is growing recognition of the need for permitting reform at the national and state levels to free up capital investments in infrastructure, energy, and economic development projects.

3. The state has an opportunity to lead in critical sectors but lags peers in securing new business investments.

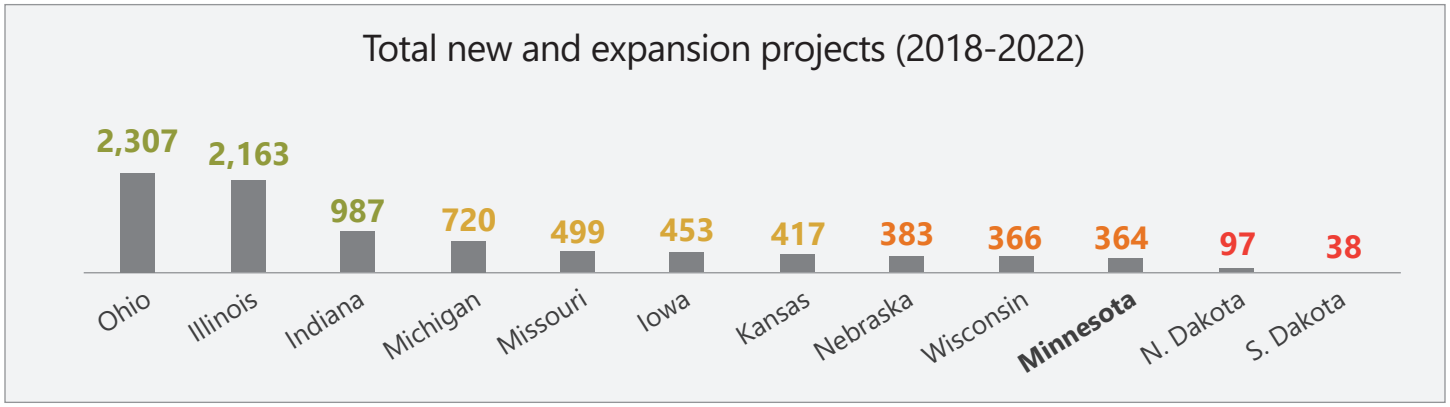
4. Minnesota's permitting system has been cited by industry leaders as a substantial barrier to expanding in the state.

More expansions are leaving than coming to Minnesota

2020-2022	Expansions from MN-based companies occurring in other states	Expansions from out-of-state companies coming to MN	Projects coming to MN (-) projects leaving MN
Total projects	155	101	-54
Total jobs created	14,364	9,835	-4,529
Total $ investment	$10.6 billion	$4 billion	-$6.6 billion

Source: fDi markets

Minnesota lags Midwest states in new and expansion projects



Source: Site Selection Magazine, Conway Projects Database
Note: Criteria for inclusion on the list is minimum investment of $1 million, creation of 20 or more new jobs, or 20,000 square feet or more of new construction.

Minnesota permitting reports do not provide the full picture.

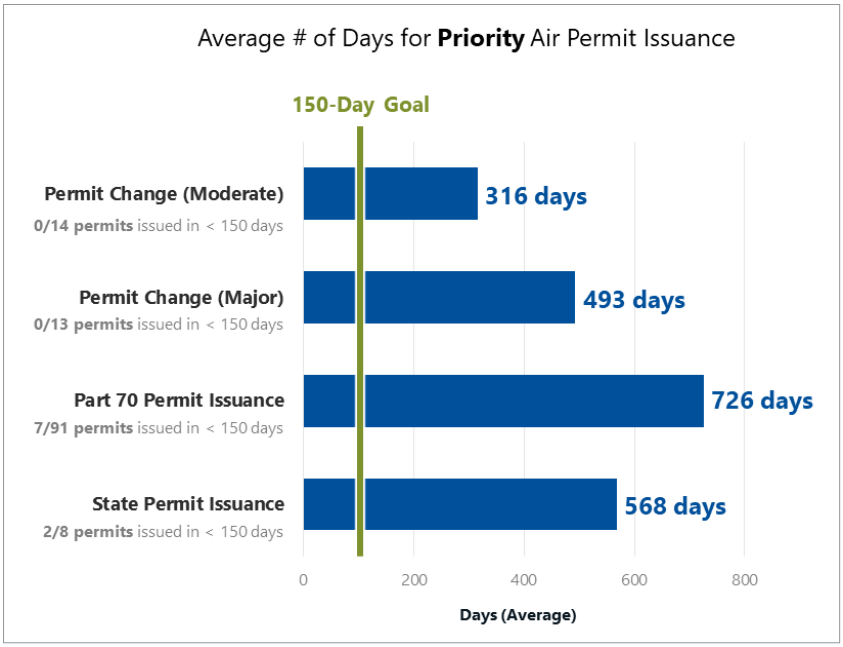
The analysis contained in this report focuses on the systems and programs of the regulatory agencies responsible for the state's environmental permitting processes.

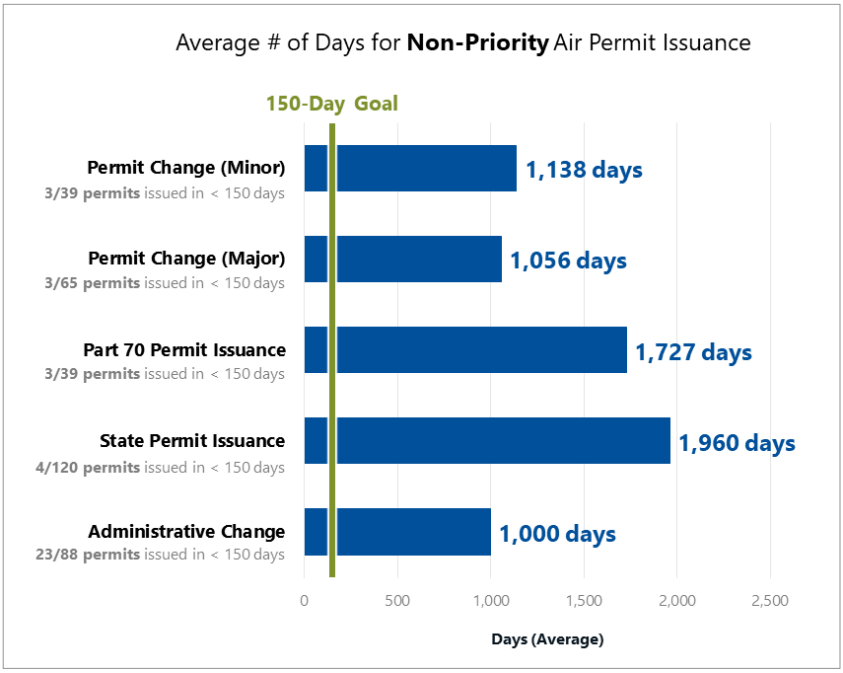
While the agencies are known for their careful, science-based assessments, businesses and elected officials continue to express concerns regarding the length and uncertainty of permitting processes in Minnesota. These issues may stem from resource constraints or other longstanding practices that are difficult to change.

The MPCA produces an annual report to the Minnesota legislature on environmental permitting efficiency, to fulfill a requirement under the Permitting Efficiency Law (codified in Minn. Stat. § 116.03). When reviewed and compared to collected data, the reports didn't always tell the complete story.

The figures to the right, produced as part of the research undertaken for this report, summarize air permits issued by the MPCA between January 1, 2018 and September 28, 2023 and defined as "priority" or "non-priority" applications based on information obtained from the MPCA's website. The MPCA has defined priority applications as those specifically involving construction and can include both Tier I and Tier II permit applications.

These figures demonstrate the high number of days on average for air permits to be issued, which commonly surpass the MPCA's 150-day goal. This is an example of an inconsistency with the MPCA's Annual Permitting Efficiency Report (August 2023), which stated that "overall permitting efficiency continued to be positive regarding the MPCA's priority permits, which represents economic growth and new job opportunities for the state." The statistics that inform this statement are dominated by the priority Tier 1 water permits, which include construction stormwater general permit coverages that are typically effective upon application and payment.





According to data gathered and evaluated by partner Policy Navigation Group

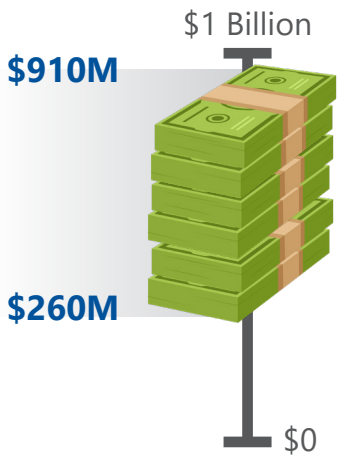
Economic Analysis

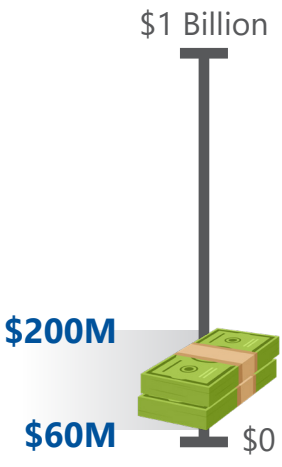
Policy Navigation Group (PNG) estimated the missed economic gains and economic impact of Minnesota's current air permitting processes. The analysis for this report is limited to the evaluation of air quality permits issued between 2017 and 2022. Air quality permits were chosen for this evaluation as this is the program with the most available data, and this is often the permit that takes the longest to issue.

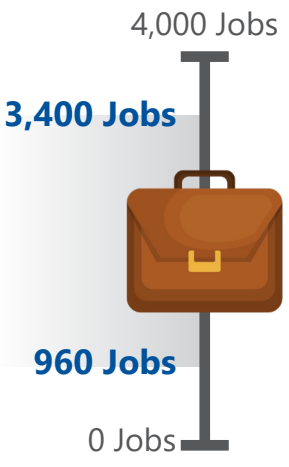
The results show that Minnesota could have enjoyed an additional $260 million to $910 million annually in economic activity and between $60 million and $200 million per year in household income if the state's permitting review times matched those of the states selected for this analysis, shown in the table below. This additional output and household income would have included an estimated 960 to 3,400 additional full-time jobs in the state.

Economic impact of reduced air permit review times (2017 – 2022)

Gains if MN's permitting process was similar to:	Economic activity ($ millions/yr)	Household income ($ millions/yr)	Full-time jobs
Colorado	260	60	960
Illinois	910	200	3,400
Iowa	800	170	3,000
North Carolina	630	140	2,330
North Dakota	760	160	2,800
Tennessee	540	120	2,010
Wisconsin	910	200	3,400

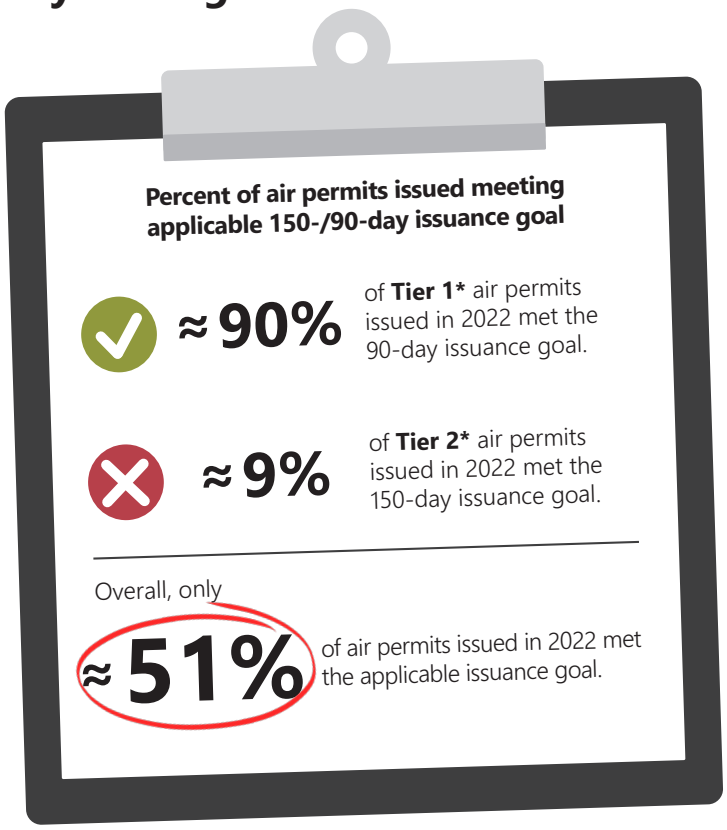






Air Permitting

Key Findings



Why does meeting issuance goals matter?

- Missing state permitting issuance goals, or federal/CAA regulatory deadlines for permitting actions, potentially means communities are not getting timely opportunities to review and comment on air permit applications and draft permits.
- Long delays in reviewing permit applications may increase compliance risk for facilities. (If the permit is out of date, it is harder to comply with all applicable requirements.)
- Not meeting the issuance goals may negatively affect economic growth and may hinder job creation.

**Tier 1 permits are permits that do not require individualized actions or public comment periods and have a 90-day issuance goal. Tier 2 permits are permits that require individualized actions or a public comment period and have a 150-day issuance goal.*

Minnesota compared to other states

Minnesota takes longer to issue permits than every other benchmark state, with Illinois having the shortest time on average.

State	Average days from agency receipt to issuance
Minnesota	656
Colorado	441
Iowa	109
Illinois	110
North Carolina	405
North Dakota	261
Tennessee	244
Wisconsin	121

Averages between 2017-2022, PNG Dataset

Colorado, Iowa, Illinois, and Wisconsin issue more permits in less time than Minnesota on average.

State	Average air permits issued by year
Minnesota	17
Colorado	18
Iowa	144
Illinois	57
North Carolina	8
North Dakota	4
Tennessee	14
Wisconsin	54

Averages between 2017-2022, PNG Dataset

Considerations for Improvement

Implement air-permitting process enhancements

Issue construction permits separately from operating permits	This has the potential to help improve permit issuance times. Nearly all states included in this study have separate construction and operating permit programs and have better permit issuance times.
Review and revise approach to completeness evaluations	This has the potential to get permits assigned to engineers in a more timely manner, and prevent applications from being rejected for minor, non-technical reasons.
Review the format and organization of air permits	The regulated community believes the TEMPO database is overly restrictive and creates overly long and complex air permits. This introduces inefficiencies for MPCA and permit holders. Improving or replacing TEMPO could help MPCA issue more clear, concise, and understandable air permits.
Collect and publish more detailed data on air permit processing timelines	Improved data could benefit the MPCA, the public, and applicants with increased transparency—driving accountability and encouraging better conformance with permitting timelines. Additional data could help identify bottlenecks in the permitting process.
Provide more support for regulated community and permit applicants	Currently, the small business ombudsman can only assist companies with less than 100 employees. Expanding this role to support larger businesses could help applicants know what is happening with their application or have a resource familiar with MPCA to help navigate issues.
Review and revise expedited permitting options	Currently, applicants using the expedited permitting process experience inconsistent timing and results. The MPCA should consider reviewing and revising the expedited permitting process, and include relevant statistics or performance metrics in the Permitting Efficiency Report.

Reevaluate the MPCA Permitting Efficiency Report

Currently, this report does not fully portray the status of air permit application processing in Minnesota. It could be improved to show how well permit application review is going for each group or division that issues permits. MPCA receives far more Tier 1-priority-water permit applications than any other type; as a result, the MPCA's annual Permitting Efficiency Report is driven by the data from this category of permit applications. This makes it difficult to discern how efficiently other types of permit applications are processed. This report should also assess all permits issued in the fiscal year, not just those received in the current fiscal year, to better highlight timeliness.

Expand the MPCA's web-based resource for air permit applications received

This resource provides certain details important to air permit applicants and the public—however, additional information could be collected to provide a more comprehensive representation of the permitting process. Examples of additional details to include are:

- Summary statistics of applications awaiting assignment and issued permits
- Identification of priority and non-priority applications
- Schedules and deadlines, among others as outlined in this report

Water Permitting

Key Findings

PRIORITY PERMIT APPLICATIONS

MPCA received **15** priority applications (issuance, reissuance, and modification) associated with individual industrial NPDES/SDS permits in fiscal years 2018 through 2023.

- Only **3** requests, for minor permit modifications, were completed during the MPCA's 150-day goal timeframe.

ALL PERMIT APPLICATIONS (Priority and non-priority)

- MPCA issued **~5 new** individual industrial NPDES/SDS permits in the last 5 years.
- MPCA reissued **~72** individual industrial NPDES/SDS permits in the last 5 years.
  - » **Average of ~15** individual industrial permits issued or reissued per year.

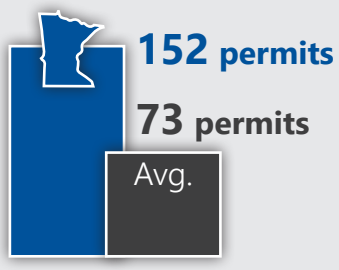
- MPCA currently administers **~226** individual industrial NPDES/SDS permits:
  - » ~74 are current (i.e., within the five-year term)
  - » ~ 152 are administratively continued (i.e., past the expiration date, but still in effect) as of the end of Q3 2023

Average amount of time permits are administratively continued is **~6.5 years**

Longest amount of time a permit has been administratively continued is **>23 years**

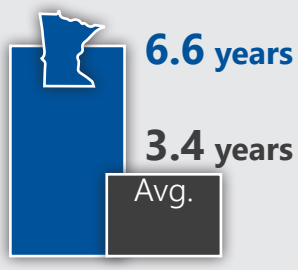
Minnesota compared to other states

MPCA has a **higher than average** number of administratively continued (i.e., extended beyond the permit term) individual industrial NPDES permits.



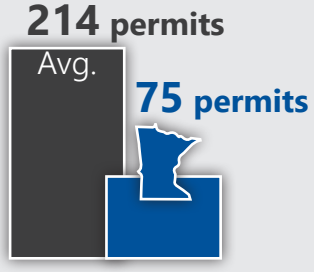
As of Q3 2023 end

MPCA has a **longer than average** time that individual industrial NPDES permits have been administratively continued.



As of Q3 2023 end

MPCA has **issued fewer than average** individual industrial NPDES permits in the last five years.



As of Q3 2023 end

Considerations for Improvement

Further prioritize commitment to permit issuance timelines:

Encourage and provide leadership support for timely issuance and reissuance of permits, while also preserving the ability to modify schedules as appropriate to work through complicated issues with permittees → Increased schedule certainty for permittees, especially for those that need a permit action prior to new or expanded activities

Reduce regulatory complexity:

Develop additional general permits for similar operations and types of discharges → Increased options for streamlined and efficient permitting, while achieving the same environmental protection goals

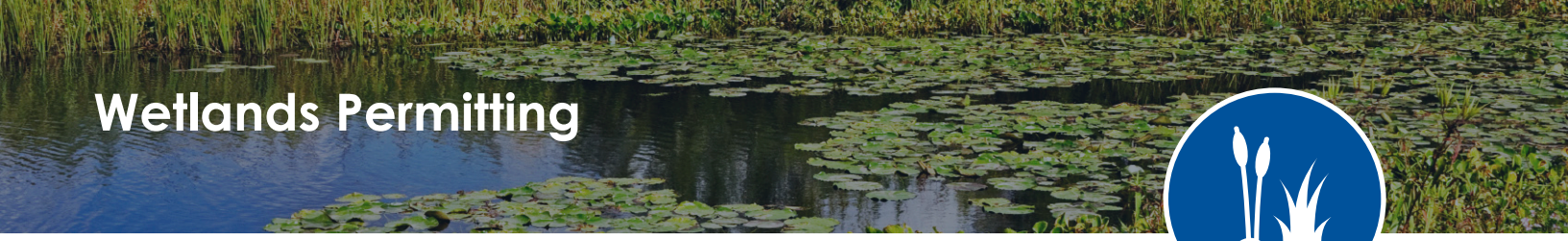
Clarify and streamline antidegradation procedures to remove barriers for potential and existing permittees

Develop guidance and tools to assist both agency staff and permittees with ways to efficiently and effectively navigate Minnesota's permitting process, complex water quality criteria, and significant number of impaired waters

→ Increased ease of navigating permitting process, while achieving same environmental protection goals

Increase transparency for new and existing permittees:

Develop an online resource for tracking the status of NPDES permit applications within the permitting process → Improved transparency to increase understanding of schedule and progress



Wetlands Permitting

Key Findings

TIMEFRAMES

Minnesota's timeframes under the Wetland Conservation Act (WCA) generally do account for timely processing of applications; however, there is a simple, commonly used procedure available to the Local Governmental Unit (LGU) for extending the decision timeframe. Of the benchmark states, North Carolina's express review program allows for the fastest approval timeframe, especially for general permit authorizations.

Comparisons	Minnesota	Benchmark states
Local administration of state wetland regulations	✓	
Compensatory mitigation requirements	✓	✓
General and individual permits available		✓

AUTHORIZATION

Minnesota has been exploring the potential to submit a request to the EPA to assume administration of Section 404 authorizations. Overall, this would **reduce the number of overlapping authorizations required** for wetlands except where the U.S. Army Corps of Engineers retains jurisdiction. Only state agencies can be permitting authorities for an assumed Section 404 program; therefore, changes to state statutes and rules are necessary to gain approval from the EPA.

TRANSPARENCY

Minnesota Rules Chapter 8420.0200, Subpart 2.I. requires LGUs to submit an annual report of its implementation of the Wetland Conservation Act to the Board of Water and Soil Resources. The summary report does not include data on timeframes to process decisions or issuance of extensions. Therefore, publicly available statistics that provide transparency regarding the actual timelines to obtain a WCA decision do not appear to be accessible.

Considerations for Improvement

Complete the 404 assumption to reduce duplication between the Wetland Conservation Act and the U.S. Army Corps of Engineers.

Expand the Board of Water and Soil Resources annual Local Government Units report to further evaluate effectiveness of specifically administering the WCA, such as timing of completeness review and decisions to understand the actual decision timeframes, and to help identify areas for improvement.

Revise Minnesota Statute 15.99 Subdivision 3(f) to be clear about the maximum number of times a Responsible Governmental Unit (RGU) can extend the initial 60-day decision timeframe for WCA determinations.

Environmental Review

The environmental review process has two major purposes: 1) requiring agencies to consider the significant environmental consequences of their proposed actions; and 2) informing the public about their decision-making. Environmental review at the state level is not a permit or authorization, but an analysis to support agency decision-making.

Key Findings

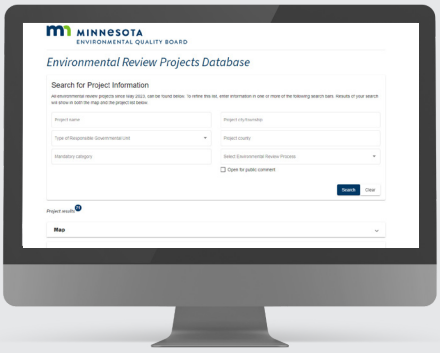
State-level review for private projects is rare. Of the benchmark states, North Carolina and Wisconsin are the only ones that, like Minnesota, may require completion of state-level environmental review for private development projects prior to issuance of permits or authorizations.

Some states don't require review by local authorities. Unlike Minnesota, North Carolina's and Wisconsin's environmental review requirements do not extend to local authorities.

Minnesota's defined environmental impact statement (EIS) triggers can help save time. The Wisconsin DNR has subjective criteria to consider when deciding whether to require an EIS for a project, while Minnesota has specific triggers. This means the Wisconsin DNR might need additional time to determine if it will require an EIS, whereas in Minnesota, the determination can typically be made relatively swiftly because of the defined triggers.

Some states do not allow petitions for environmental reviews. North Carolina and Wisconsin do not have provisions like Minnesota that allow the public to petition an agency to conduct an environmental review.

There is no central, publicly available repository for environmental review documents occurring prior to May 2023. Minnesota's Environmental Quality Board (EQB) launched the Environmental Review Projects Database on its website, which allows users to obtain environmental review documents for projects from May 2023 onward. The database does not provide summary statistics regarding timelines for projects to complete environmental review; however, statistics could be generated by manually extracting the information from each individual project listed when there is a more sizable dataset available. In addition, it appears that the EQB and other responsible governmental units (RGUs) do not maintain publicly available data that summarizes the timeline for the RGU to deem an environmental assessment worksheet (EAW) complete. This is an important step in the approval process and timeliness for approval can vary greatly.

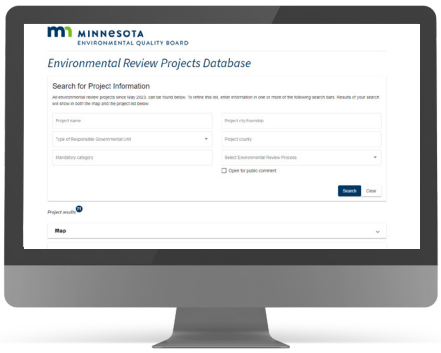


Considerations for Improvement

Update the EQB's Environmental Review Projects Database to include additional statistics that would provide transparency regarding the actual timelines to complete an environmental review.

The statistics should include each step of the process for an EAW or EIS following the flowcharts presented in Section 5.4.1.1.

The database should include the ability to export and summarize the data by project type and RGU.



Based on the data gathered and reviewed in the report, **greater transparency** could allow for more detailed evaluation of potential opportunities for improvements to the process, better understanding of timelines for specific project types, as well as improved ability to measure performance of RGUs.

Narrow the focus of EAW content. Permit applications often require more detailed information and analysis than an EAW for specific resource areas. EAW content could focus more specifically on those questions where the impacts would not require permits (i.e., subject to the mitigation of an ongoing authority) or those impacts subject to permits that do not have public comment/engagement as part of the process.

Revise the scoping requirements for a mandatory EIS to provide project proponents more certainty regarding the time it takes to complete the process. **If a mandatory EIS is necessary, eliminate the scoping EAW**, and instead, align the scoping process with NEPA (40 CFR 1501.9 currently, 1502.4 in the pending regulations) where an environmental assessment (EA) is not a necessary precursor to an EIS. In addition, amend Minnesota Rules Chapter 4410.2100 to set a maximum time limit for the RGU to complete the scoping process similar to the requirement for determination of a final EIS within 280 days of the publication of the preparation notice.

1 Introduction

Minnesota has always existed at the intersection of commerce and the environment. The "Land of 10,000 Lakes" borders the largest freshwater lake in the world and contains more shoreline than California and Florida combined, as well as the headwaters of the mighty Mississippi, and three unique biogeographical biomes. The Twin Cities were built on commerce and now house the highest number of Fortune 500 companies per capita among the 30 largest metropolitan areas in the country.

Minnesotans have grown businesses and protected the local environment for generations by implementing a solid and protective environmental review and permitting process. These strong environmental protections also must be accomplished with a fair, transparent, and timely process for issuing businesses approvals and permits to construct, expand, or modify facilities. The Minnesota business community has expressed concern that Minnesota's environmental review and permitting processes may inhibit economic growth and development in the state. In response, the Minnesota Chamber Foundation enlisted Barr Engineering Co. and its partners to conduct a technical analysis of Minnesota's environmental program. This analysis compares Minnesota's environmental review and permitting process to those of other states with similar physical environments and geographies, and it identifies potential opportunities for improving Minnesota's permitting processes that could drive further economic expansion while retaining strong environmental protections.

This report contains an in-depth, objective analysis of Minnesota's environmental processes, organized into the following sections:

- Section 2: Methodology – a description of the study methods
- Section 3: Prior Reports, Litigation Changes, and Outcomes – summary of prior reports and litigation findings
- Section 4: Economic Analysis – technical and procedural comparison of Minnesota's environmental processes to select benchmark states
- Section 5: Environmental Review and Permitting – economic assessment of Minnesota's environmental processes
- Section 6: Litigation – discussion of structural or legal issues that may inhibit permitting

The remainder of this introduction provides background information on Minnesota's environmental programs.

1.1 Economic Analysis

When companies consider building and/or expanding in any state, they need to estimate costs not only for construction, but also for what is required to obtain permits prior to construction or modification. If environmental permits are delayed, those costs increase. Without reliable estimates for the time, it will take to obtain the necessary permits, businesses face great uncertainty regarding their bottom line. The more certainty that exists related to the environmental permitting timeline, the more businesses will be attracted to growing and expanding in the state.

To better understand how permit issuance times impact the economy, the Policy Navigation Group (PNG) was engaged to explore the differences between Minnesota's air permitting review times to those of benchmarked states, and to estimate the economic gains/impacts of permit issuance timelines.

PNG gathered project-specific permit review duration data between 2017 – 2022 for the following permit types:

- Clean Air Act (CAA) New Source Review (NSR) Major permits and Synthetic Minor permits[1];
- CAA Title V Operating construction/significant change permits that are not renewals or administrative; and,
- Minnesota and any other state-specific permitting process permits.

The analysis only considers permits triggered by new facility construction, new capital investments at existing facilities, and other significant changes. It does not include permit renewals, administrative changes, and other permits actions. Firms seeking construction permits are committing new capital and are thus considering environmental permitting costs across states in their investment decision. The effect of differing permitting costs should be incorporated in the firm's choices.

There are several reasons to model all environmental permitting costs as represented by these air emission permits. First, most manufacturing facilities need air permits. Second, the most common water permits are general permits for stormwater control or not directly reviewed by agencies (indirect discharge permits to wastewater treatment plants). These water permits do not depend typically on state agency approvals. Similarly, relatively few private projects require National Environmental Protection Act (NEPA) review. Wetland permits for waters of the United States are issued by federal agencies. Since states differ in their certification process under the Clean Water Act (CWA) for these federal permits, permitting costs can be driven by CWA permits for some projects. However, air permitting experiences provide the most consistent and data-rich metric of permitting costs across states and industries.

[1] For simplicity, "NSR" refers to both PSD and NNSR permits for major sources under the Clean Air Act.

1.2 Environmental Review and Permitting

Any new or expanded business activity may impact the environment, local communities, and the economy. New and expanded facilities will typically create local jobs, both directly and indirectly. In addition to providing direct employment, many facilities require suppliers, subcontractors, and ancillary support from emergency services, healthcare providers, teachers, restaurants, and stores for families moving to the area. Many new developments will also require raw materials, energy, and water. Once operational, most will have potential ongoing impacts on air, water, groundwater, wetlands, and the existing physical environment. Figure 1-1 is a diagram of the types of potential impacts typically expected.

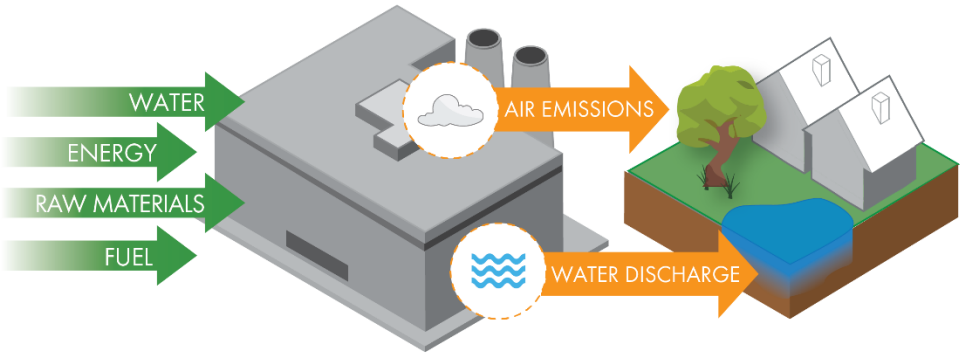


Figure 1-1 New Activity Impacts

Environmental review and permitting programs exist to contain impacts within reasonable and agreed-on bounds. Before development, the project's potential overall impact is considered and weighed against its economic and social benefits. As the project is developed, the owners and operators receive permission to emit into the air or discharge into the water at levels informed by federal and local regulations. Those permissions take the form of permits to construct and operate a facility or project. If owners and operators exceed authorized emissions, they are subject to enforcement action and fines. This review, permitting, and enforcement process is the backbone of environmental regulation and is consistent across the United States.

This study focused on environmental review and air, water, and wetland permitting programs. Each program is described in further detail in Sections 1.2.4 through 1.2.3.

1.2.1 Air Permitting

The CAA of 1970 and the major amendments made to it in 1990 charged the U.S. Environmental Protection Agency (USEPA) with establishing limits on air pollutants to improve and maintain air quality across the United States.

In the United States, air permitting programs require facilities being constructed, expanded, or modified to undergo preconstruction review before installing new equipment or making a change in operations. Air permitting programs are developed to help ensure that air emissions from facilities do not adversely

impact air quality and that the facilities comply with applicable regulations to manage impacts from air emissions.

Depending on the type of facility and total emissions, air permitting authorizations can be accomplished by standardized "general" permits for a simple facility (e.g., a small manufacturer with limited emissions) or could require detailed analysis, evaluation, and design considerations to ensure that a facility can comply with all standards and programs applicable in the location where it is sited (e.g., chemical manufacturing, petroleum refining, or power generation).

The analysis presented in this report focuses on Minnesota's state-level air permitting requirements and compares them to those of the identified benchmark states where applicable.

1.2.2 Water Permitting

In the early 1900s, water quality protections were developed to support navigation and human health. At the time, navigation and commerce in major riverways (including the Mississippi River) were inhibited by copious trash, waste, and refuse present in the water. Communities in major metropolitan areas were plagued by disease outbreaks caused by consuming or living near contaminated water. The 1969 fire on the Cuyahoga River in Cleveland, Ohio, was at least the twelfth on that river since 1868, but it took national journalistic coverage of that event to finally spark a groundswell of environmental-protection sentiment, culminating in the 1972 CWA.

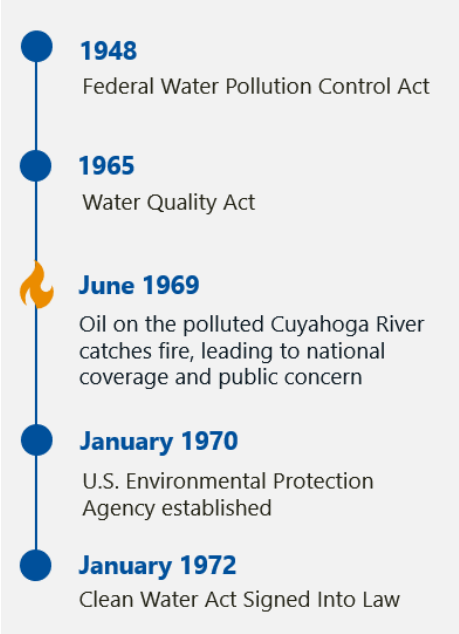


Figure 1-2 Events leading to 1972 Clean Water Act

The CWA was a popular and bipartisan law that established the basic structure for regulating pollutants discharged into waters of the United States. The law made it illegal for any person or entity to discharge pollutants from a point source[2] into a navigable water without first obtaining a permit. It also established a system of water quality standards and a permitting framework called the National Pollutant Discharge Elimination System (NPDES) that is still in use today. Since 1972, numerous amendments have been made to the CWA, and many states and American Indian tribes have been delegated authority to implement the act's provisions within their jurisdictions.

When a state is delegated authority to implement the CWA, it must meet all federal requirements. However, states are free to develop additional requirements that go above and beyond the federal requirements, as long as they go through public notice and approval by the USEPA. Additionally, within a

[2] "Point source means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff." (40 CFR 122.2)

single state, the requirements typically vary greatly based on the waters to which a facility discharges. As ecology and science progress, some states are developing continually more complex and conditional standards.

The analysis presented in this report focuses on Minnesota's state-level implementation of NPDES permitting requirements and compares them to those of the identified benchmark states where applicable.

1.2.3 Wetland Permitting

At the federal level, projects impacting wetlands that are waters of the U.S. are subject to authorization from the U.S. Army Corps of Engineers (USACE) under Section 404 of the CWA. USACE issues approval for projects using general permits (typically Nationwide Permits) or individual permits, depending on the level of impact. Furthermore, Section 404 permits require a water quality certification (WQC) issued under Section 401 of the CWA. The USEPA, states, or tribes administer Section 401 WQCs, depending on the location of the project and its impacts. Lastly, the CWA allows states and tribes to apply to the USEPA to assume administration of Section 404 authorizations.

Separate from administration of Section 401, states may have other requirements regulating impacts to wetlands that are, or are not, waters of the U.S. Therefore, development projects that impact wetlands could require a USACE permit, a 401 WQC, and a separate state-level permit.

The analysis presented in this report focuses on Minnesota's state-level wetland permitting requirements related to development projects and compares them to those of the identified benchmark states where applicable.

1.2.4 Environmental Review

NEPA requires federal agencies to consider the environmental effects of their proposed actions when making decisions about proposed projects subject to their jurisdiction. The environmental review process has two major purposes: 1) requiring agencies to consider the significant environmental consequences of their proposed actions; and 2) informing the public about their decision-making. The Council on Environmental Quality NEPA regulations establish three levels of review for federal agencies to assess proposals for agency action: Categorical Exclusion (CE), Environmental Assessment (EA), and Environmental Impact Statement (EIS). Each federal agency determines the level of NEPA review an action requires (reference (1)).

Many states also have statutes and/or policies that require agencies to evaluate the potential environmental impacts of their actions. Like NEPA, state-level environmental review is not a permit or authorization, but an analysis to support agency decision-making.

The analysis presented in this report focuses on Minnesota's state-level environmental review requirements related to development projects and compares them to those of the identified benchmark states where applicable.

1.3 Litigation

The environmental review and permitting process in Minnesota is typically thorough and contains multiple opportunities for public engagement. However, if differences between regulators, the regulated community, and other stakeholders cannot be resolved during the prescribed process, actions may be challenged in court through litigation. While the goal for the permittee is to achieve the desired result without litigation, agencies may be sued over alleged violations of environmental laws or to challenge the approval of a permit for a project where stakeholders take objection. Some members of the business community have also expressed concern that litigation may be used as a tool to intentionally delay proposed projects. Any litigation adds uncertainty regarding when permits and approvals may be issued, resulting in unplanned time and expenses for companies and regulatory agencies.

Squire Patton Boggs (SPB), a full-service global law firm providing insight at the point where law, business, and government meet, was engaged to examine the factors that make the litigation environment in Minnesota unique. SPB's analysis included which litigation rights—such as permit challenges, environmental review challenges, or Minnesota Environmental Rights Act actions—exist only in Minnesota and how they impact project timeframes.

2 Methodology

The goal of this analysis was to identify barriers and opportunities associated with the timelines for environmental review and permitting processes and improving transparency for Minnesota businesses in the states' environmental review and permitting processes. This section describes the methodology used for the analysis.

2.1 Economic Analysis

PNG collected project-specific data on the permit-review length, capital costs, and expected rate of return of capital projects that require state permits. The gathered data was used to measure differences in mean and in variances in permitting review durations by categories of states, industry sectors, and permit type to better understand the economics of a permitting process for a capital investment. The measured results are used to calculate the potential gains from reducing permit review times in Minnesota and, thus, boost the economic benefits of future projects.

The economic analysis for this report is limited to the evaluation of air quality permits issued between 2017 and 2022. Air quality permits were chosen for this evaluation as this is the program with the most available data, and this is often the permit that takes the longest to issue. The states included in the analysis were grouped into four categories outlined in Figure 2-1. Similarly, the industry sectors included in the analysis were grouped into the three broader categories shown in Industry Sectors used for Economic Analysis.[3] For the states below and sectors outlined in Industry Sectors used for Economic Analysis, project-specific permit review duration data was gathered for the following permit types:

- CAA NSR and synthetic minor permits
- Title V operating minor permits that are not renewals or administrative changes
- Minnesota and any other state-specific permits

The analysis only considers permits triggered by new facility construction, new capital investments at existing facilities, and other significant changes. Companies seeking construction permits are committing new capital and for this reason are frequently comparing environmental permitting costs and the time it will take to reach production across states as they make their investment decision. The effect of differing permitting costs should be more apparent in these types of air quality permits. The analysis excludes the permits that are:

- missing permit application date
- missing permit approval date

[3] Industry sectors are identified with four-digit North American Industry Classification System (NAICS) codes.

- permits falling outside the period of analysis
- permits which were not in the North American Industry Classification System (NAICS) codes included in this study
- minor permits
- duplicates
- labeled as renewals or administrative reviews or determined to be such on closer review

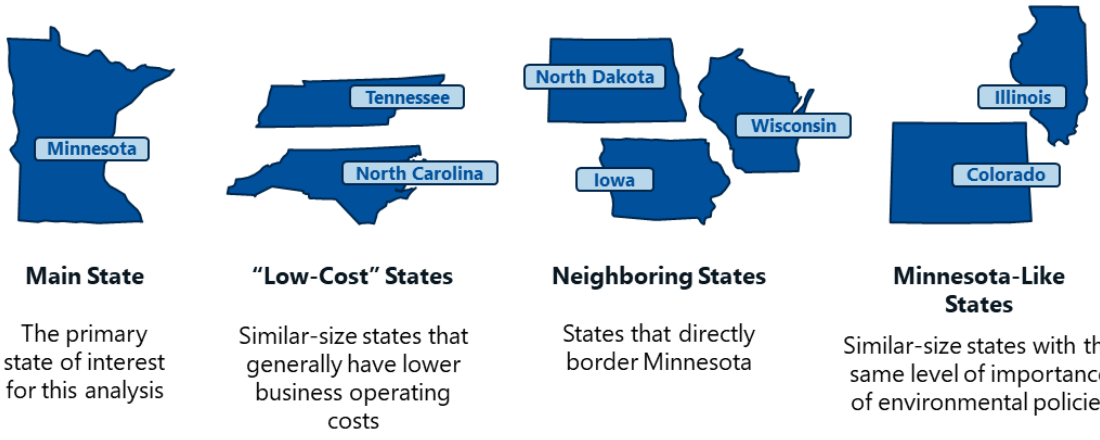


Figure 2-1 State Categories

Various datasets label permits as "construction" regardless of whether they are minor modifications and amendments, major NSR projects, synthetic minor permits, or even non-significant or administrative changes. Where actual permits were available, each permit was reviewed to recategorize them as major, synthetic minor, or minor. State databases were used to the extent possible. However, due to the complexities and/or limitations of the databases for Indiana, Michigan, and South Dakota data from these states were not included in the analyses. To identify major permits, in particular, two USEPA databases provide some information on a facility's CAA regulatory status and major classification. The first is the Technology Transfer Network Clean Air Technology Center - RACT/BACT/LAER Clearinghouse.[4] The second is the Enforcement and Compliance History Online database.[5]

[4] U.S. Environmental Protection Agency. n.d. *Clean Air Technology Center - RACT/BACT/LAER Clearinghouse.* https://cfpub.epa.gov/rblc/index.cfm?action=Search.BasicSearch.
In our experience, this database is often incomplete and only serves as a complementary resource.
[5] U.S. Environmental Protection Agency. n.d. *ECHO Facility Search – Enforcement and Compliance Data* . https://echo.epa.gov/facilities/facility-search.

Table 2-1 Industry Sectors used for Economic Analysis

Category	Sectors (NAICS)	North American Industry Classification System (NAICS) Description
MN-Competitive Advantage	3112	Grain and oilseed milling
	3219	Other wood product manufacturing
	3231	Printing and related support activities
	3322	Cutlery and hand tool manufacturing
	3341	Computer and peripheral equipment manufacturing
	3345	Navigational, measuring, electromedical, and control instruments manufacturing
	3369	Other transportation equipment manufacturing
	3391	Medical equipment and supplies manufacturing
	2122	Metal ore mining
Other Key Sectors	1110	Crop production
	1120	Animal production and aquaculture
	1152	Support activities for animal production
	3111	Animal food manufacturing
	3114	Fruit and vegetable preserving and specialty
	3116	Animal slaughtering and processing
	3118	Bakeries and tortilla manufacturing
	3221	Pulp, paper, and paperboard mills
	3261	Plastics product manufacturing
	3321	Forging and stamping
	3324	Boiler, tank, and shipping container manufacturing
	3325	Hardware manufacturing
	3326	Spring and wire product manufacturing
	3328	Coating, engraving, and heat-treating metals
	3332	Industrial machinery manufacturing
	3333	Commercial and service industry machinery
	3334	HVAC and commercial refrigeration equipment
	3335	Metalworking machinery manufacturing
	3339	Other general purpose machinery manufacturing
	3343	Audio and video equipment manufacturing
	3362	Motor vehicle body and trailer manufacturing
	3371	Household institutional furniture manufacturing
	3372	Office furniture and fixtures manufacturing

Category	Sectors (NAICS)	North American Industry Classification System (NAICS) Description
Other Manufacturing Sectors	3116	Dairy product manufacturing
	3119	Other food manufacturing
	3222	Converted paper product manufacturing
	3254	Pharmaceutical and medicine manufacturing
	3323	Architectural and structural metals manufacturing
	3327	Machine shops; turned product; and screw, nut, and bolt manufacturing
	3329	Other fabricated metal product manufacturing
	3331	Agriculture, construction, and mining machinery manufacturing
	3344	Semiconductor and other electronic component manufacturing
	3359	Other electrical equipment and component manufacturing
	3399	Other miscellaneous manufacturing

Information on air quality permits issued between 2017 and 2022 was gathered from individual state permitting databases. For each air quality permit, information gathered included facility name and location, the permit application date, and the permit issuance date. The information from individual state databases was extracted directly when the information was publicly available. When it was not, PNG contacted the state environmental agencies to obtain the information. Data provided by state environmental agencies was further processed by assigning appropriate NAICS codes. To determine the corresponding NAICS code, PNG took the following approach:

- Some state environmental agencies publish air emission reports listing facilities with their respective NAICS code. Where available, the relevant facilities were matched to their NAICS code.
- For facilities with listed addresses, PNG used online business directories (e.g., Manta.com or Dun & Bradstreet) to find the primary NAICS code for the listed facility. If a NAICS code is not provided, the company or industry description for that facility was used to look for the NAICS code corresponding to that industry in the U.S. Census NAICS website.[6]
- For facilities without addresses, PNG searched for the company name in online business directories and matched the facility to other identifiable information (e.g., city). The primary NAICS code listed for that location was used, or a NAICS code for that facility using the company description.

[6] U.S. Census Bureau, "North American Industry Classification System (NAICS) Main Page."

2.2 Environmental Review and Permitting

To support the goals of the analysis, PNG focused on agency procedures, state demographics and stakeholders, and differences in the physical environment. The approach was to:

- Identify states for benchmarking
- Identify relevant information
- Gather identified information
- Analyze gathered data and interpret what may influence timely issuance of permits and approvals

Benchmark states were identified collectively by the Foundation advisory members and Barr based on proximity to Minnesota, similarity in physical environment, and contrasting regulatory programs. After considering those factors, Barr performed a second level of review to best ensure that the results would not be biased by inclusion of states on one end of the political spectrum or the other. The chosen benchmark states are:

- Colorado
- Illinois
- Indiana
- Iowa
- Michigan
- North Carolina
- North Dakota
- South Dakota
- Tennessee
- Wisconsin

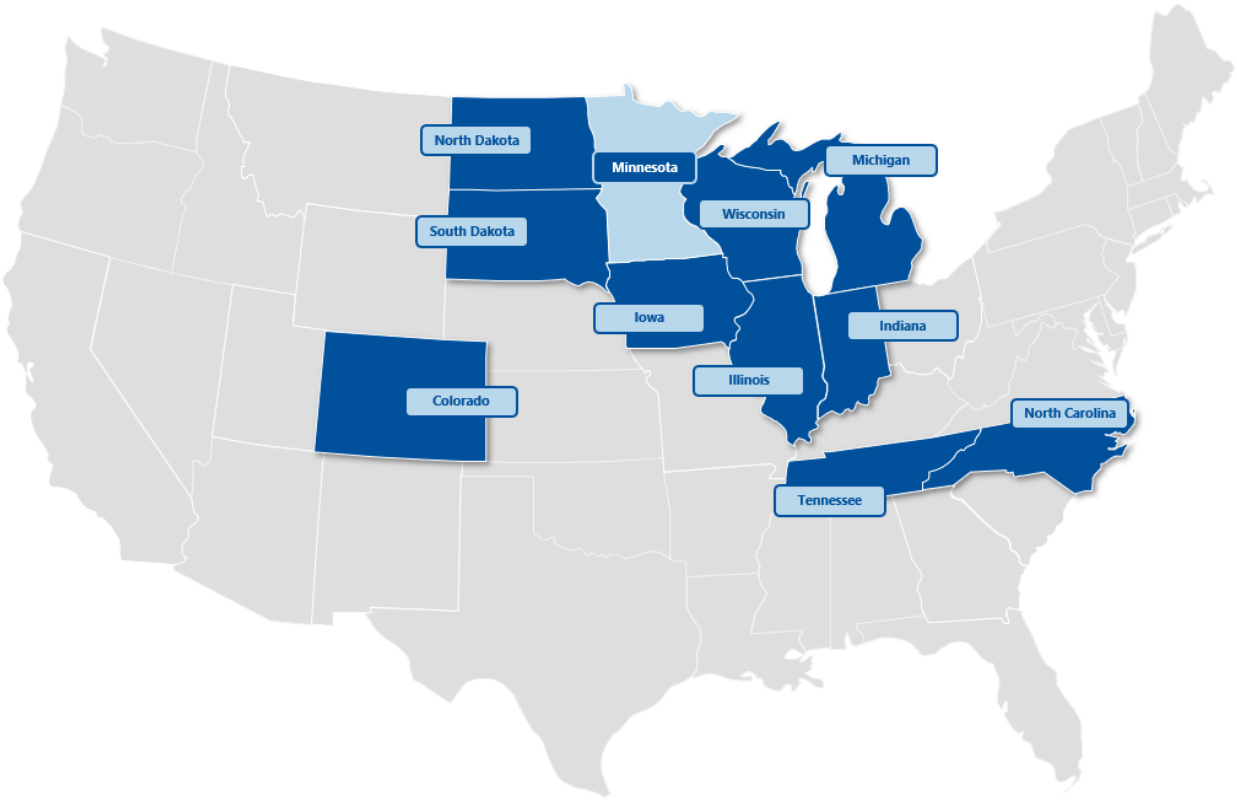


Figure 2-2 Benchmark States

Before beginning the research process, Barr identified information that could facilitate the analysis. Agency processes and procedures are influenced by agency size, staffing data, permitting timelines, and regulatory-interpretation differences between states. The purpose of collecting information related to demographics and stakeholders in the states is to understand how many interested parties are involved in each environmental action, and whether environmental actions are likely to receive input from third-party stakeholders. To assess these factors, information was collected related to state population size, environmental agencies, tribal governments, and nongovernmental advocacy groups.

Once the relevant information was identified, PNG gathered, reviewed, and summarized the data. The reviews and summaries were then used to assess trends and differences between Minnesota and the other benchmark states.

Specific methods for each environmental program are further described in Sections 2.2.1 through 2.2.4.

2.2.1 Air Permitting

Barr staff reviewed publicly available websites for each air quality permitting agency for information summarizing its air permitting programs for Minnesota and the benchmark states. Additionally, the team collected information on the organizational layout of each state's air permitting entity. Generally, this information included:

- Agency organization, structure, and permitting staff count
- Summaries of air permitting programs
- Overview of publicly available air permitting resources

Specific, individual air permits were not directly reviewed under this effort; however, the team supporting the economic analysis assessed the permit issuance timelines of multiple states, and that analysis was incorporated into the evaluation of the overall air permitting process.

Beyond air permitting programs, Barr collected information about features and characteristics of each state that could impact an individual state's air permitting process. The features include, by state:

- State population data for normalization
- National Emission Inventory total emissions
- National Ambient Air Quality Standards (NAAQS) nonattainment areas
- Class I areas
- Presence of tribal lands
- Status of environmental justice programs

In addition to collecting numeric and regulatory data for each state, Barr prepared a permitting process flow diagram Figure 5-5 for select benchmark states. This diagram compared the Prevention of Significant Deterioration (PSD) permitting process and any administrative or programmatic differences with which Barr is familiar.

Barr also reviewed publicly available reports and data related to air permitting timeliness (see Section 5.1.1.4), including Minnesota Pollution Control Agency's (MPCA) 2023 Annual Permitting Efficiency Report (Appendix 7), data exported from MPCA's "Air Permit Applications Received" web-based resource.

Finally, Barr reviewed USEPA Title V Program Evaluation reports to find information about Title V permitting backlogs in Minnesota and benchmark states (see Section 5.1.3 and statements under "EPA Title V Program Evaluation" in Appendix 1).

2.2.2 Water Permitting

Information about water permitting is not consolidated in one location. The Barr team reviewed a variety of sources to identify relevant data. These included but are not limited to:

- Federal and state agency websites
- MPCA annual permitting efficiency reports and supporting data requested from the MPCA
- USEPA NPDES program and permit quality review (PQR) reports for each state

- USEPA and state permitting records
- Federal and state regulations, statutes, and impaired waters lists

The first step was to gather general information and statistics for each of the benchmark states, such as whether the state had authority to administer the NPDES permitting program, the number of permits in the state, typical permitting timelines, and the agency size. Other key pieces of information that Barr assessed for each state were the number of general permits available, promulgated water quality criteria, and designated impaired waters and how much information on permitting actions was readily and transparently available online.

In addition to the numeric and regulatory data collected for each state, Barr prepared permitting-process flow diagrams for select benchmark states. These diagrams compare the permitting process and any administrative or programmatic differences with which Barr is familiar.

2.2.3 Wetlands

Barr staff reviewed state statutes, regulations, and agency websites to answer the following questions for Minnesota and the benchmark states, specific to regulation of impacts to wetlands that are above and beyond administration of CWA Section 404/401 requirements:

- Does the state regulate dredging or filling of wetlands? If so:
    - Which agency administers the program?
    - Does the scope extend beyond waters of the U.S. (i.e., wetlands that are not waters of the United States)?
    - Does the application require additional details beyond what is necessary for a CWA Section 404 permit and 401 Water Quality Certification?
    - What is the estimated timeframe to receive authorization after application submittal?
    - Are there requirements for compensatory mitigation? (this study did not include evaluations of each state's specific compensatory mitigation requirements or estimated costs)

In addition, counties, cities, and tribal nations may have specific ordinances regulating dredging and filling of wetlands within their areas of jurisdiction. Barr's data-gathering did not include local or tribal ordinances.

2.2.4 Environmental Review

Barr staff reviewed state statutes, regulations, and agency websites to answer the following questions for Minnesota and the benchmark states:

- Does the state have state-specific environmental review requirements, like NEPA or the Minnesota Environmental Policy Act (MEPA), that are overarching and separate from individual permitting programs? If so:
    - What is the governing statute and/or rule/regulation?
    - Do the requirements apply only to state-agency decisions/actions or do they also extend to local entities?
    - If NEPA compliance is required, is the state process also necessary?
    - Are there thresholds or specific types of projects that are required to conduct an environmental review?
    - What type of environmental review document(s) are necessary?
    - Do the rules specify a maximum timeframe to complete environmental review?
    - Are there opportunities under the rules for third-party intervention in the process?
    - Does the state have a counterpart to Minnesota's Environmental Quality Board (EQB)?
    - Is there a website available that shows the status of projects in the process?

2.3 Litigation

This portion of the analysis was not driven by data, but instead relied on the informed judgment and experience of the SPB partners. SPB evaluated the basic structure of Minnesota's laws, in comparison to the laws of other states, to determine if there were issues unique to Minnesota that give rise to an inordinate or unusual amount of litigation. They then considered if the risk of litigation leads to longer permit processing times and delays. SPB also evaluated upcoming legislative changes that could impact the timeliness of environmental permitting.

Recommendations to help deter litigation, and gain support of impacted stakeholders (including state and federal government, business, environmental organizations) would require a separate analysis outside the scope of this report.

3 Prior Reports, Litigation Changes, and Outcomes

In a report from USEPA to MPCA in 2014, USEPA stated that as of June 30, 2014, 53.5% of MPCA's Title V permits were backlogged – the second largest backlog in the nation. While MPCA made efforts to address some of the concerns raised in USEPA's 2010 program evaluation report, according to the USEPA, "*none (of the streamlining efforts) have been effective at making a dramatic improvement in the Title V permit backlog.*"

As a result of these findings, the MPCA employed several streamlining efforts including:

- Online permit application submittal for Title V permit renewals and administrative modifications available through Tempo
- Consistent National Emission Standards for Hazardous Air Pollutants and New Source Pollution Standards permit references in reports
- Hired two data coordinators to assist permit writers with Tempo data entry
- Implemented a team Priority Permit Issuance Improvement Project to track and achieve steady progress in processing permit applications

Nevertheless, according to the 2018 Evaluation Report of MPCA's NSR and Title V permit programs issued by the USEPA, the agency states that "efforts taken by MPCA since the last program evaluation have not been effective at making a dramatic improvement in the backlog." The USEPA goes on to state that as of September 28, 2018, "MPCA's backlog of Title V renewal permits was approximately 50%." USEPA recommends that state Title V permit program backlog targets should be at or below 10%. The changes implemented during the four-year period between reports resulted in a change of less than 4% in the backlog.

MPCA has a team working on measures of the efficacy of these processes and streamlining improvements including more prescriptive instructions for tracking staff milestones, standardizing milestone reports, as well as tracking application processing times for industry sectors. But more work is needed. The experiences drawn from others that have attempted to streamline their states permitting efficiency programs could help Minnesota overcome some of the obstacles and challenges.

In its economic report, Minnesota: 2030 (reference (2)), the Minnesota Chamber Foundation indicates that our state has not experienced the investments in businesses that other states have seen in this decade. The report says: "One component of this underperformance may relate to permitting delays for new expansions," and points to "lengthy and uncertain permitting timelines." The Foundation suggests that improvements to the permitting process may help boost economic development in the state.

To level-set against what other organizations have seen and what governmental agencies have considered or implemented, Barr reviewed more than 60 reports to pinpoint potential improvements for

the environmental permitting process, with a focus on opportunities that would help attract and retain businesses in Minnesota.

Due to growing interest in infrastructure improvements, many of the previous studies focused on ways to assist businesses and governments in streamlining the environmental permitting process related to infrastructure projects. However, the same changes can be considered for all environmental permitting projects to aid in economic development. Summaries of each report or journal article on this subject can be found in Appendix 1. Common themes among these reports include:

- Transparency
    - Provide a means for permittees to understand the status of a permit in the application process, the anticipated timeframe until issuance, and the name of the permit writer.
- Accountability
    - Ensure the agencies are appropriately staffed
    - Set maximum permit timelines for agencies to review applications
    - Provide an incentive to the permit writers to complete their application review within a certain timeframe
    - Require agencies to report their progress on processing permit applications annually
- Collaboration
    - Engage with stakeholders, including local governments, associations, community-based groups, and project developers, early in the process to identify potential challenges
    - Require community engagement as part of the project development and permit-review process
    - Evaluate opportunities for interagency coordination and improved coordination between state and federal agencies

Along with many journal articles, Barr reviewed recently proposed and implemented legislation. Many of the legislative changes were not limited to infrastructure projects. Several states recognized that there are fundamental issues with all aspects of environmental review and permitting that are slowing economic growth but becoming more common throughout the U.S. Some changes described in the legislation reviewed by the team include:

- Creating a database that allows permittees to see their permit's status in the queue
- Incentivizing agencies to complete permit reviews in a timely manner, such as refunding application fees to permittees if review is not completed in a certain time or giving monetary bonuses to regulators who complete reviews in a reasonable amount of time

- Submitting annual reports to a state's governor about the status of the permitting process
- Accelerating review of permit applications directly tied to business and job growth
- Standardizing permitting reviews for specific projects
- Hiring additional permit reviewers

As a result of these and many other journal articles, states have taken steps to enact legislative reforms to improve the environmental permitting review process. Some notable legislative actions are:

- On September 3, 2023, Michigan Governor Gretchen Whitmer signed Executive Directive 2023-04, which aims to make state permitting processes more predictable, transparent, and efficient and require state government to reimburse applicants for missed deadlines, where possible. It also streamlines the state permitting process for infrastructure projects of $50 million or more. The state estimated that for every week a permit is delayed, the cost of a project increases by at least 1%. The bill directs state departments and agencies to assess the permits and licenses they issue and the statutory authorities governing application fees and response times. Those parties will then report the information to the Governor, who will establish recommended times for the efficient processing of each type of permit or license. When state departments or agencies exceed the recommended time, they must waive or refund the full application fee to the extent permitted by law. The agencies are also required to identify which permits can be eliminated. Governor Whitmer has proposed $6.6 million to add resources to reduce permit issuance wait times and improve the overall permitting process.
- On August 15, 2023, the Illinois Chamber of Commerce and the Illinois Environmental Group supported the signing of HB 3017. This bill consolidated status updates from state agencies in an accessible online portal. Now, businesses seeking certain new and existing environmental permits for industrial projects can visit a website to track the timeline and process for agency approval. By increasing transparency, permit applicants and the public can gain greater clarity on cases.
- The SPUR Act (Spur Permitting of Underdeveloped Resources Act) was introduced in the U.S. Senate as bill S.1456 on May 4, 2023. This bill modifies various laws pertaining to energy and mineral development, establishes requirements related to the supply and delivery of electricity and natural gas, and includes requirements related to other natural resources. In addition, the bill sets forth provisions to expedite the environmental review of certain federal actions that involve energy and mineral development, energy supply, or natural resources.
- On January 27, 2023, Illinois Governor J.B. Pritzker signed a new law, Public Act 102-112, which refines county government's ability to regulate new and commercial wind- and solar-energy facilities. Although specific to renewable energy, this law sets forth conditions standardizing procedures for county reviews of permits.
- In January 2023, North Carolina's Department of Environmental Quality (NCDEQ) launched its Permitting Transformation Program to streamline the department's various permitting processes

while improving public access to permit information. This program is funded with a state appropriation of $5.5 million each year for the next two years to support the program's development and implementation, as well as hiring one full-time-employee position. The program's goal is to develop a robust online system for applying, tracking, and paying for NCDEQ permits, licenses, and certificates. The program seeks to streamline the process, modernize tracking and access to permitting actions, and improve transparency.

- On June 1, 2022, Michigan Governor Gretchen Whitmer signed Executive Directive 2022-6, which takes a holistic, project-based approach to permitting to help create a transparent system that allows permittees to understand the true timeline for environmental review of their projects. While this directive applies to infrastructure projects in Michigan with a total estimated cost of at least $50 million, it helps set the pathway for improving interdepartmental and interagency coordination, streamlining the permitting process, allowing for transparency, and protecting the environment.

- On April 5, 2019, the Wyoming Legislature prepared a document titled *Recommendations for Streamlining Wyoming Oil and Gas Conservation Commission Permit and Spacing Review* for Governor Mark Gordon. In this document, the Legislature recommended what it called common-sense solutions to address the regulatory backlog within the existing framework, including increasing permit filing fees, expediting review times by hiring additional staff, and limiting permit extensions to a single two-year extension with an increased extension fee. The changes were limited to permits for drilling oil and gas wells but could be considered for other areas of backlog.

- On January 24, 2017, President Trump signed a Presidential Memorandum on *Streamlining Permitting and Reducing Regulatory Burdens for Domestic Manufacturing,* which required the Secretary of Commerce and other agencies to conduct outreach to stakeholders to document the impact that federal regulations and permitting requirements are having on domestic manufacturing (reference (3)). The report also described possibilities for streamlining federal permitting processes and how to reduce the regulatory burdens that affect domestic manufacturing (reference (4)). The report documented the top three cited regulatory barriers: a provision of the CWA and two CAA provisions (New Source Pollution Standards and NSR).

4 Economic Analysis

The PNG, a company that provides cleanup solutions, federal funds tracking, economic analysis, and consulting services, conducted a quantitative comparison of the air quality permit review times for new facility construction or modification projects for Minnesota and for other selected states. The analysis had two objectives:

- Explore differences between Minnesota's air permitting review times and those of other selected states
- Estimate the economic gains and economic impacts if Minnesota reduces permitting times to those of other selected states

This section is only a summary of their findings; the entire report can be found in Appendix 2.

A state agency's average permit issuance time is a likely proxy for a firm's total permitting cost. Shorter issuance times could allow the installed equipment to operate sooner. Longer permitting issuance times also are associated with greater application modifications, public meetings, stakeholder interest and opposition, and risk of project failure. This analysis compares the average permit issuance time in Minnesota and in other states as a measure of the differences in these states' total permitting costs.

Another metric of permitting costs is the size of the variance in permit-issuance times. Firms may tolerate extended permit review times since other project tasks may be the limiting constraint to placing a project in operation. For example, if the firms must wait a year to receive new processing equipment due to demand or supply shortages, an extra 20 days of permit review time may not delay the project start date. Firms, therefore, may care more about the uncertainty and the variation in the expected permit issuance time than the average time. If issuance times in one state have a large variance, then firms have more uncertainty as to whether their projects will generate net income on a predictable schedule. This uncertain schedule can affect a company's financial performance and its attractiveness to investors.

However, permit-issuance time may be a biased surrogate for total permitting costs. Permit-issuance times could be distorted by the experience of a few, very large projects. Larger, more complex projects may have longer permit-review times and have a greater permitting cost. Permits reaching the "major" emission threshold require NSR and PSD permits, with the associated modeling, control device technology analysis, and potential emission offsets. Larger projects may also garner more public interest and opposition. For these reasons, the analysis examines the effect of permitting times of large projects on state review periods.

Since environmental permitting costs are just one of the many production costs a business considers in its investment decision, the effect of relatively high permitting costs should be greater in sectors where the state has a natural competitive advantage. If a state with a natural competitive advantage consistently loses investments in this sector to other states and has higher expected permitting costs than the other states, environmental permitting costs are more likely to be a cause of a lower rate of investments in the

state. This analysis examines the average permit-review times for sectors for which Minnesota has a competitive advantage.

The states included in the analysis are grouped into four categories outlined in Table 4-1. These states allow different comparisons to Minnesota's permitting system. North Carolina and Tennessee have manufacturing cost indices lower than Minnesota and have a manufacturing sector similar in size to Minnesota (reference (5)). Wisconsin, North Dakota, and Iowa sit close to Minnesota and thus have similar labor and raw material costs, climate, and access to trade routes. Two other states, Illinois, and Colorado, have governments and populations that place comparable importance on environmental considerations in public policy.

The analysis found that Minnesota's permitting review times are longer than those of other states in this study. Table 4-1 shows Minnesota's review times are 1.5 to 6 times longer than other states. Minnesota's review times are longer across different business sectors, including sector group 1 where Minnesota has a competitive economic advantage; sector group 2 that are key industries for Minnesota's competitiveness; and sector group 3 that includes all manufacturing.

Table 4-1 Mean Permit Review Duration by State and State Group (days)

State Group	State	Permit review duration: Mean (days)			
		Sector Group 1	Sector Group 2	Sector Group 3	All Sector Groups
Main State	MN	855	570	406	656
Low-Cost States	NC	255	528	186	405
	TN	318	160	ND	244
	Low-Cost State Group	308	356	186	319
Neighboring States	WI	112	129	112	121
	IA	164	89	79	109
	ND	183	398	253	261
	Neighboring State Group	149	112	92	117
MN-Like States	CO	688	320	354	441
	IL	112	121	97	110
	MN-Like State Group	314	197	196	233

Note: all calculations are rounded to two significant figures

Table 4-2 shows the p-values calculated for a test to determine the likelihood that the means between Minnesota's average review period and other states' are the same (one-tailed test). The p-test is a measure of the probability that the mean of the two distributions are the same. Table 4-2 shows that the

probability that North Carolina has the same mean permitting time is 3.7 percent. Using a standard threshold of significance of five percent, the analysis concludes that the Minnesota permitting review time distribution is significantly different than North Carolina's distribution. It is clear that Minnesota's permitting review period is not the same as other states at the 95th confidence interval and thus is a result of Minnesota-specific conditions. Minnesota's mean permit review times are substantially longer than other states in all three state categories.

Table 4-2 Marginal Statistical Significance of Differences in Mean Permit Times

Combined	p-Score
MN vs NC	3.72E-02
MN vs TN	7.84E-04
MN vs WI	6.05E-08
MN vs IA	3.21E-08
MN vs ND	4.83E-04
MN vs CO	2.22E-02
MN vs IL	3.35E-08

Comparing the average permit review times among the states for projects in the sectors where Minnesota has a competitive advantage, Minnesota shows a different pattern in permitting costs for different industry sectors. In Group 1, the sectors, for which Minnesota has an apparent competitive advantage, the state takes up to seven times longer to approve significant air permits than other states. The variance in its review is substantial, creating uncertainty for firms seeking to expand their Minnesota operations.

Further, Minnesota's permit review times are longer in these sectors than for other industry sectors. While regulators would presumably be more familiar with the sectors for which Minnesota has a competitive advantage, the permitting process actually takes longer than for the key sectors and for other manufacturing. While Minnesota may have natural advantages in skilled labor, in transportation, and in other factors, its environment permitting costs clearly appear to be substantially higher than other states.

Considering the key industries for Minnesota's future growth, other states approve permits up to four times faster than Minnesota. While other states have longer average review times than for sectors for which Minnesota has a natural competitive advantage, their reviews conclude more rapidly than a Minnesota permit review.

4.1 Economic Impacts

Minnesota's economy and its residents would gain if Minnesota's permit-review time matched the review times of other states. Based on the 2017-2022 study period, Table 4-3 gives the additional estimated business income, household earnings, and jobs that would have occurred if Minnesota had permitting times equal to the other states in this analysis.

Table 4-3 Economic Impact of Reduced Permit Review Times During Study Period

	Using Sector Median Gains		
State Comparison	Output ($M/yr.)	Household Income ($M/yr.)	Full-Time Jobs
Gains if MN similar to NC	630	140	2,330
Gains if MN similar to TN	540	120	2,010
Gains if MN similar to WI	910	200	3,400
Gains if MN similar to IA	800	170	3,000
Gains if MN similar to ND	760	160	2,800
Gains if MN similar to IL	910	200	3,400
Gains if MN similar to CO	260	60	960

$M/yr. = million U.S. dollars per year

The results show that Minnesota could have enjoyed an additional $260 million to $910 million annually in economic activity and between $60 million and $200 million per year in household income if the state's permitting review times matched those of these selected states. This additional output and household income would have induced between 960 and 3,400 additional full-time jobs in the state.

The table below gives the economic gains from increased production if Minnesota's average review time equaled those of the other selected states. For example, if Minnesota achieved North Carolina's average review time, economic output in Minnesota would have been $550 million higher during the six-year study period.

Table 4-4 Economic Gains from Increased Production

State Comparison	Gains ($ M)
Gains if MN similar to NC	550
Gains if MN similar to IL	1,200
Gains if MN similar to TN	900
Gains if MN similar to WI	1,100
Gains if MN similar to IA	1,100
Gains if MN similar to ND	830
Gains if MN similar to CO	450

$ M = million U.S. dollars

Permitting reforms would of course benefit all Minnesota firms seeking significant permits. The analysis extrapolates from the set of Minnesota projects with known investment levels to all Minnesota projects

that applied for significant permits during the six-year period. The analysis takes two approaches to estimate the gains. First, facilities without project cost data are assumed to gain the median value of output taken from the Minnesota projects with project cost data. Second, the Minnesota projects without cost data are assumed to gain the median value of output in their sector group from projects across all states. Specifically, the median value of daily output across all states is calculated for the three sector groups. These values are then assigned to Minnesota projects in the corresponding sector group.

For the first approach, the median daily economic gain from the Minnesota projects with investments data is $0.06 million per day. This amount is applied to all other Minnesota projects that had permitting durations longer than the comparison state. For example, if reforms had reduced Minnesota's average permitting time to the average duration in North Carolina, all Minnesota projects that had longer review times would have gained $0.06 million/day for each day the review lasted longer than North Carolina's average. The table below provides the total economic gains over the six-year period and the average annual gains.

For the second approach, the median values for sector groups ranged from $0.07 million/day for sector group 1 to 0.13 million/day for sector groups 2 and 3. Table 4-5 provides the estimated gains for Minnesota using this approach. Whereas table 4-4 provides a conservative estimate of economic gains by measuring increased production only in projects for which quantitative cost data was found, Table 4-5 expands this to all Minnesota projects.

Table 4-5 Estimated Economic Gains for All Significant Permits

	Using MN Median Gain		Using Sector Median Gains	
State Comparison	Total ($ M)	Annual ($ M)	Total ($ M)	Annual ($ M)
Gains if MN similar to NC	1,000	170	1,800	290
Gains if MN similar to TN	1,300	220	1,500	250
Gains if MN similar to WI	1,700	280	2,500	420
Gains if MN similar to IA	1,700	280	2,200	370
Gains if MN similar to ND	1,100	180	2,100	350
Gains if MN similar to IL	1,800	300	2,500	420
Gains if MN similar to CO	600	100	710	120

$M = million dollars

Minnesota facilities without project cost data are assumed to gain the median value of output taken from the projects with cost data. The Minnesota projects without cost data are assumed to gain the median value of output in their respective sector group from projects across all states included in the study.

In Table 4-3, state-wide economic gains were measured by applying multipliers to the gains calculated through the sector-specific approach in Table 4-5. Multipliers consider three factors:

(1) owners of the facilities benefiting from reduced permitting review times will purchase more inputs from other Minnesota businesses;

(2) these owners will employ more workers; and

(3) the additional economic activity raises household incomes across Minnesota.

To provide an example, for every additional dollar in output from facilities in the institutional furniture manufacturing sector, an estimated 2.1 dollars of additional output is seen from other businesses in Minnesota.

From this projection, Minnesota would have gained at least $600 million in additional economic output from manufacturers during the study period if its permitting duration matched those of the selected states. If Minnesota achieved Wisconsin's permitting review times, Minnesota could gain over $420 million in additional output per year. These economic gains would have occurred as increased production, lower operating costs, or a combination of both.

The analysis has important limitations that affect these estimates. These limitations are listed in the complete report, which can be found in Appendix 2.

5 Environmental Review and Permitting

The sections below detail the following for each program:

- Minnesota
    - Current statutes, rules, and regulations
    - Process
    - Coordination with other agencies and stakeholders
    - Timeliness
- Information collected from benchmark states
- Narrative comparison of Minnesota's processes to the benchmark states
- Considerations for improvement

5.1 Air Permitting

Depending on several factors, air permitting can be a complex process at the federal and state levels. Key factors that influence air permitting include the potential emissions from a facility, the number of emission units (i.e., discrete pieces of equipment generating emissions), applicable federal and state air-quality regulations, and the industrial category of the facility. In some states, facilities may be required to obtain preconstruction authorization (construction permits) and then also receive a permit for operation of the facilities via a separate operating-permit program. In contrast, other states have joint construction-and-operating air permitting programs.

Broadly speaking, air permit applications require several common components:

- Calculation of potential maximum emissions from the facility
- Summary of applicable state and federal air quality regulatory programs
- Application package involving state-specific forms for documenting facility- and emission-unit-specific information

Additional analyses may be required, depending on the complexity of the air permit program to which a facility is subject; they can include:

- Air dispersion modeling
- Health risk assessment
- Cost evaluations for pollution control equipment

- Public and USEPA comment periods

Depending on the type of facility and total emissions, air permitting authorizations can be accomplished by standardized "general" permits for a simple facility (e.g., a small manufacturer with limited emissions) or could require detailed analysis, evaluation, and design considerations to ensure that a facility can comply with all standards and programs applicable in the location where it is sited (e.g., chemical manufacturing, petroleum refining, or power generation).

The analysis presented in this report focuses on Minnesota's state-level air permitting requirements and compares them to those of the identified benchmark states where applicable.

5.1.1 Minnesota

The MPCA is authorized by USEPA to implement air permitting in Minnesota (except on tribal lands). Minnesota's current air permitting programs include a variety of permit types authorized under either federal regulations or state rules.

The MPCA issues both individual and general air permits. Individual air permits are site-specific and issued to a single permittee. General permits are developed to cover multiple permittees with similar operations, but each site must apply for coverage under the general permit individually. The MPCA has a "combined" program, meaning one permit authorizes both construction and operation of new or modified sources of air emissions, which is different from some states that issue separate permits to authorize construction or operation.

The following sections discuss:

- Minnesota's air quality statutes, rules, and regulations (Section 5.1.1.1)
- an overview of Minnesota's air permitting process (Section 5.1.1.2)
- the MPCA's coordination with other agencies and stakeholders as part of the air permitting process (Section 5.1.1.3)
- the timeliness of air permitting in Minnesota (Section 5.1.1.4).

5.1.1.1 Current Statute, Rules, and Regulations

Minnesota's current air permitting programs include a variety of permit types authorized under either federal regulations or state rules.

Minnesota is Authorized to Implement Federal Air-Quality Construction and Operating Permitting Programs for Major Sources

Air permitting programs established under the CAA can be implemented by either the USEPA or states. Permitting under the CAA considers authorization to construct a stationary source separately from authorization to operate a stationary source. NSR permitting may be required to construct a new facility or modify an existing facility. The requirements for NSR permitting differ depending on the jurisdiction's

attainment status with NAAQS. New "major sources" or existing sources making a "major modification" in attainment areas must obtain a PSD permit prior to construction; new or modified sources located in nonattainment areas must instead obtain a Nonattainment New Source Review (NNSR) permit prior to construction. Major sources must also obtain an operating permit (often called Title V or Part 70 permits). States that wish to implement these air permitting programs develop plans that the USEPA must approve. The MPCA is authorized by the USEPA to implement federal construction and operating air permitting programs (except on tribal lands). The USEPA has approved MPCA rules for PSD (Minn. R. 7007.3000) and Part 70 (Minn. R. 7007.0200) permitting, shown in Table 5-1.

Table 5-1 Minnesota Rules Implementing Federal Air Permitting Programs

Permit Type	Minnesota Administrative Rules
Prevention of Significant Deterioration	7007.3000 Preventing Significant Deterioration of Air Quality *Incorporates federal PSD program (40 CFR 52.21) by reference.*
Part 70 Permit	7007.0200 Sources Required or Allowed to Obtain Part 70 Permit

The USEPA defines requirements for PSD permit programs in 40 CFR 52.21 and for Part 70 permit programs in 40 CFR Part 70. Therefore, the air permitting programs or requirements for major sources (larger or complex facilities with higher emissions) should be similar from state to state, but there can still be differences in how an agency carries out seemingly similar requirements, leading to differences in permit applicant experiences and permit issuance timelines.

The MPCA's air permitting rules (Minn. R., Ch 7007) combine preconstruction and operating permit programs into a single permitting program This can present a significant issue for facilities based on the MPCA's timeliness in processing air permit applications. Specifically, since permits authorizing modifications (e.g., construction of new equipment at an existing site, or an increase in capacity) and overall facility operation are combined, this creates a two-fold impact on the MPCA when a facility is proposing a modification. These situations require the MPCA to both assess the new project and update the operating permit as part of the permitting action. This is an issue in Minnesota because, as shown in Section 5.1.1.4 and Section 5.1.3, the MPCA has struggled to update and revise operating permits within permit issuance goals. If the agency receives an application for the modification of a facility while it has not yet acted on an operating permit renewal, then both components need to be enacted at the time of the new project review. This can require additional time to process both the modification and renewal at the same time, before the modification can be authorized.

Minnesota Minor Source Air Quality Permitting Programs

As in many states, the MPCA organizes its state air permitting programs into different tiers of complexity depending on the type of facility, total air emissions impact, and applicable regulations. Minnesota's current minor source air permitting programs includes four main categories: registration permits, general permits, capped permits, and state permits, shown in Table 5-2.

Table 5-2 Minnesota Rules for Minor Source Permitting

Permit Type	Minnesota Administrative Rules	
Registration Permits	7007.1110	Registration Permit; General Requirements
	7007.1115	Registration Permit Option A
	7007.1120	Registration Permit Option B.
	7007.1125	Registration Permit Option C.
	7007.1130	Registration Permit Option D.
General Permits	7007.1100	General Permits
Capped Permit	7007.1140	Capped Permit; Eligibility Requirements
	7007.1141	Capped Permit; Emission Thresholds
	7007.1142	Capped Permit; Issuing and Changing Permit Status
	7007.1143	Capped Permit; General Requirements
	7007.1144	Capped Permit; Public Participation
	7007.1145	Capped Permit; Application
	7007.1146	Capped Permit; Compliance Requirements
	7007.1147	Capped Permit; Calculating Actual Emissions
State Permit	7007.0250	Sources Required to Obtain State Permit

Minnesota Ambient Air Quality Standards, Mercury Reduction Rule, and Control Equipment Rule

As described earlier, states can tailor air quality programs to suit their unique circumstances. Minnesota has done this, in part, by developing state-specific air quality standards, a rule to address mercury emissions, and a rule regarding how to account for control equipment when calculating emission rates used to determine permitting applicability.

Minnesota Ambient Air Quality Standards

While the NAAQS have been promulgated in all states by the USEPA, Minnesota has adopted its own standards: Minnesota Ambient Air Quality Standards (MAAQS), found in Minn. R. 7009.0080. Like the federal NAAQS, MAAQS include primary and secondary standards designated to protect public health and welfare.

Table 5-3 provides a summary of the MAAQS and their consistency with the federal NAAQS. Of note, Minnesota includes standards for certain pollutants beyond NAAQS, specifically:

- Hydrogen sulfide (all MAAQS)
- Sulfur dioxide (30 parts per billion by volume annual average MAAQS)
- Total suspended particulate (all MAAQS)

Table 5-3 Minnesota Ambient Air Quality Standards Summary[7]

Air Pollutant	Level of Primary Standard	Level of Secondary Standard	Averaging Time	Form of the Standard	Conformance with NAAQS?
Hydrogen Sulfide	0.05 ppmv (70.0 µg/m^3)	None listed	30-minute	30-minute average not to be exceeded more than two times in a year	No corresponding NAAQS
	0.03 ppmv (42.0 µg/m^3)	None listed	30-minute	30-minute average not to be exceeded more than two times in 5 consecutive days	No corresponding NAAQS
Ozone	70 ppbv (137 µg/m^3)	Same as primary standard	8-hour	3-year average of the annual fourth high daily maximum 8-hour concentration does not exceed standard	Consistent with federal 8-hr Ozone NAAQS; though federal is listed as 0.070 ppm and 140 µg/m^3.
Carbon Monoxide	9 ppmv (10 mg/m^3)	None listed	8-hour	Annual second-high 8-hour concentration does not exceed standard	Consistent with federal 8-hour NAAQS.
	35 ppmv (40 mg/m^3)	None listed	1-hour	Annual second-high 1-hour concentration does not exceed standard	Consistent with federal 1-hour NAAQS.
Sulfur Dioxide	30 ppbv (79 µg/m^3)	None listed	Annual average	Annual average concentration does not exceed standard	No corresponding NAAQS.
	None listed	500 ppbv (1,310 µg/m^3)	3-hour	Annual second-high 3-hour concentration does not exceed the standard	0.5 ppmv is consistent with the secondary 3-hour NAAQS value
	75 ppbv (197 µg/m^3)	None listed	1-hour	3-year average of the annual 99th-percentile of daily maximum 1-hour concentrations does not exceed standard	75 ppbv consistent with primary 1-hour NAAQS value, however the form is different.
Total Suspended Particulate	75 µg/m^3	60 µg/m^3	Annual average	Annual geometric mean concentration does not exceed standard	No corresponding NAAQS.
	260 µg/m^3	150 µg/m^3	24-hour	Annual second-high 24-hour concentration does not exceed standard	No corresponding NAAQS.
Nitrogen Dioxide	53 ppbv (100 µg/m^3)	Same as primary	Annual Average	Annual average concentration does not exceed standard	Consistent with annual NAAQS.

[7] Minn. R. 7009.0080 – Minnesota Ambient Air Quality Standards

Air Pollutant	Level of Primary Standard	Level of Secondary Standard	Averaging Time	Form of the Standard	Conformance with NAAQS?
	100 ppbv (188 µg/m^3)	None listed	1-hour	3-year average of the annual 98th-percentile of daily maximum 1-hour concentrations does not exceed standard	Consistent with 1-hour NAAQS.
Lead	0.15 µg/m^3	Same as primary	Rolling 3-month average	Maximum 3-month rolling average from 3 consecutive years does not exceed the standard	Consistent with rolling 3-month NAAQS.
PM10	150 µg/m^3	Same as primary	24-hour	3-year average of the annual estimated exceedance days is less than or equal to one	Consistent with 24-hour NAAQS.
PM2.5	35 µg/m^3	Same as primary	24-hour	3-year average of the annual 98th-percentile of 24-hour concentrations does not exceed the standard	Consistent with 24-hour NAAQS.
	12.0 µg/m^3	15.0 µg/m^3	Annual average	3-year average of the annual seasonally weighted average does not exceed the standard	Consistent with annual NAAQS.

ppmy = parts per million per year; ppby = parts per billion per year; mg/m^3 = milligrams per meter cubed; µg/m^3 = micrograms per meter cubed

A summary of NAAQS nonattainment areas across Minnesota and the benchmark states can be found in Table 5-15 in Section 5.1.2.

Mercury Reduction Rule

Minnesota plans to limit mercury air emissions to 789 pounds per year by December 31, 2025 per Minn. R. 7007.0502. This rulemaking represents another unique initiative Minnesota has established to limit emissions from facilities with air permits that emit mercury emissions. To accomplish this, the MPCA has established an oversight committee for stakeholder engagement and, through regulation, required the following:

- Mercury reduction plans for affected facilities to reduce emissions in line with state targets;
- Performance standards for certain facilities that emit significant quantities of mercury; and
- Emission inventory for mercury from the largest emitters.

This represents broad and far-reaching rulemaking enacted by the MPCA that drove significant projects at large mercury-emitting facilities (e.g., coal-fired boilers, ferrous mining and processing facilities), separate from traditional economic drivers for facilities to undertake new projects.

Control Equipment Rule

Minnesota has a control equipment rule that allows facilities to reduce their potential to emit (i.e., emission rates used for permitting evaluations) without taking other restrictions. The rules as provided in Minn. R. 7011.0060 to 7011.0080 allow facilities to limit emissions that would otherwise not have been able to account for certain emission controls. Claiming control efficiencies under this rule also requires facilities to take on corresponding maintenance, monitoring, and recordkeeping requirements aligned with the respective control equipment. This can help a project qualify for lower tiers of air permits; for example, this rule could allow a facility to show eligibility for, and subsequently apply for, a Registration Option D permit instead of a State or Part 70 permit.

While this rule provides an avenue for facilities to reduce their emissions, it does create additional requirements for facilities to claim certain collection and control-equipment efficiencies. The rule allows facilities to claim control (i.e., lower emissions) when there is not an otherwise applicable federal or state rule. However, facilities are restricted in what control efficiencies they can formally claim. The prescribed control equipment and corresponding efficiencies are limited to what is listed in the rule. This means that certain technologies or control equipment configurations exist that are better performing than what the MPCA lists, but facilities cannot claim them unless the facilities elect to take on other restrictive limits, which in turn could require applying for a different air permit program and increase the processing timeline.

If a facility elects to use this rule, there is additional prescriptive testing, monitoring, and recordkeeping that is required based on the control-equipment configuration. While this rule does provide an option for facilities to claim reductions to their potential emissions, it is a highly prescriptive rule that may not be effective in all scenarios, especially compared to facilities proposing their own more restrictive limits to demonstrate lower emissions. However, because this rule can be claimed for many different permit types, it can help support facilities in meeting applicability for less-restrictive permit types.

Environmental Justice

Environmental justice is defined by the USEPA as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies," and is considered an extension of the civil rights movement of the 1960s. Fundamentally, this means that with all aspects of environmental permitting for facilities in areas that are demonstrated as being socioeconomically disadvantaged, agencies should have direct engagement within the communities and also consider this issue in any permitting evaluations. Historically, this included the cleanup and management of hazardous waste sites, but more commonly now, facility owners are directly engaging with communities through environmental-justice programs relating to air emissions and air permitting.

Beyond the development of environmental justice initiatives at the federal level, Minnesota has developed a state-specific environmental justice program. The following excerpt provides perspective on the MPCA's implementation of environmental justice:

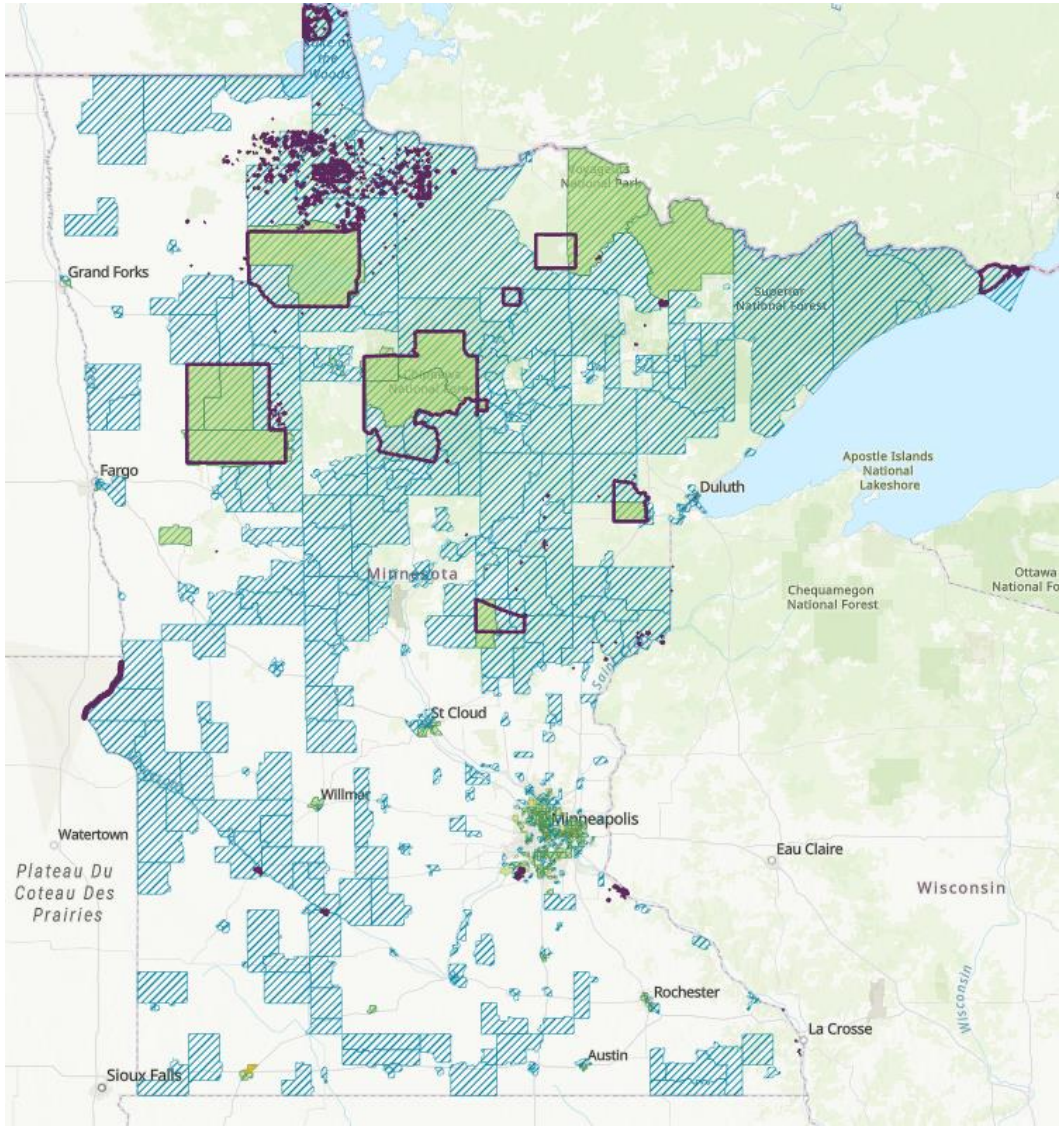
> *The MPCA is committed to environmental justice, the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, concerning the development, implementation, and enforcement of environmental laws, regulations, and policies. We're committed to making decisions that do not place disproportionate pollution burdens on these communities.*
>
> *We use environmental justice principles when reviewing and issuing grants to reduce pollution and improve air quality. Environmental justice is part of our decision-making process when writing new or renewal permits for facilities. In some cases we increase air quality monitoring and provide additional scrutiny of emission sources. These principles are the foundation when developing new regulations and conducting enforcement actions.*

Based on the discussion above, environmental justice engagement often presents itself first to companies as a result of air permitting projects. This establishes the potential for additional Minnesota agency and public engagement in the air permitting process if a project is sited in an environmental justice area.

An excerpt of the MPCA's Environmental Justice tool, "Understanding environmental justice in Minnesota," is provided in Figure 5-1. This image shows environmental justice areas across Minnesota; they are identified as significant areas of poverty, communities of color, tribal lands, areas with residents whose English-language proficiency is limited, or some combination of those characteristics. The four categories specifically include:

- At least 35% of people reported income 200% below the federal poverty level
- 40% or more of people of color
- Federally recognized Indian Tribes
- At least 40% of people have limited English language proficiency

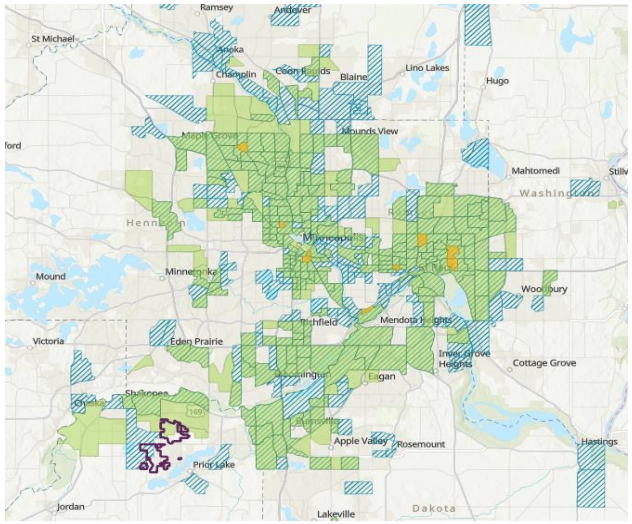
As described above, environmental justice provides an additional avenue of engagement during the permitting process, not just for the MPCA but for communities and facility owners. Although this program is still in development, it provides companies with in-state resources to help navigate engagement with communities and stakeholder agencies such, as NGOs, early in the process and avoid potential ambiguity at the federal level.



The MPCA considers tribal areas and census tracts with higher concentrations of low income residents, people of color, or limited English proficiency as areas of increased concern for environmental justice. This screening tool allows users to identify census tracts where additional consideration or effort is warranted to ensure meaningful community engagement and to evaluate the potential for disproportionate adverse impacts using four criteria:

- At least 35% of people reported income less than 200% of the federal poverty level
- 40% or more people of color
- Federally recognized Indian Tribes
- At least 40% of people have limited English proficiency

Twin Cities Metro Area ▼



Source: reference (6)

Figure 5-1 Minnesota Environmental Areas of Concern

5.1.1.2 Air Permitting Process

The implementation of the air permitting regulations summarized in Section 5.1.1.1 occurs through the various air permitting programs administered by the MPCA. These permit programs, or air permit types, correspond to varying levels of emissions and regulatory program applicability. They range from large and complex (i.e., Part 70 permits or Title V permits) to simple registration permits. Each permitting program requires generally consistent elements associated with a permit application submittal, which typically include:

- Project- and facility-wide emissions calculations (commonly referred to as the potential to emit),
- Narrative description of the project, facility, and regulatory applicability, and
- Permit program-specific application forms.

As a project increases in complexity (e.g., PSD review), additional components of that application package are required. These additional elements can include:

- Air dispersion modeling for:
    - NAAQS compliance or,
    - Air toxics or health risk assessments,
- Best available control technology evaluations, and
- Additional Impacts Analysis regarding the impacts of air, ground, and water pollution on soils, vegetation, and visibility as part of the project.

For various permit programs in Minnesota, public and USEPA comment periods are required as well. If projects are occurring in an environmental justice area, that may result in further comment or community engagement beyond the initial air permitting program requirements. Environmental justice impacts to air permitting have been discussed in Section 5.1.1.1.

Generally, as permit applications increase in size and complexity, the time the MPCA takes to review and act on them increases as well. Permit approval timelines are critical for companies because the planned construction or modification being requested cannot commence until the permit is issued.

A summary of regulatory deadlines for permit processing milestones is presented in Table 5-4.

Table 5-4 Minnesota Pollution Control Agency Air Permitting Regulatory Deadlines for Prevention of Significant Deterioration, Part 70, and State Permits

Action Type	Notify Applicant Application Received within	Review Completeness within	Complete Public Notice for Comment Period within	Final Action within
Initial Permit or Major Amendment	1 week of RA	60 days of RA	12 months of RCA	60 days of end of public comment period; or 18 months of RCA
Moderate Amendment	1 week of RA	60 days of RA	6 months of RCA when required (MPCA discretion) (1)	60 days of end of public comment period; or 9 months of RCA (with public notice); or 6 months of RCA (without public notice)
Minor Amendment	N/A	N/A	N/A (MPCA discretion*)	90 days of receiving a complete application
Administrative Amendment	N/A	N/A	N/A	60 days of receiving a complete application

MPCA = Minnesota Pollution Control Agency; N/A = not applicable; RA = receipt of application; RCA = receiving complete application

(1) Public comment periods may be required by the MPCA, at its discretion for applications involving issues that generate or are likely to generate significant material adverse comment from the public.

The MPCA has published typical issuance times for several permit types in a document available online,[8] as presented in Table 5-5.

[8] Comparison of air permit flexibility options (https://www.pca.state.mn.us/sites/default/files/aq2-29.pdf) (accessed on 11/30/2023).

Table 5-5 Minnesota Pollution Control Agency Air Permit Program Summary and Processing Time

Permit Program	Eligibility	Permit Duration	Timeline	Public Participation
Registration Permit Option D	Based on actual emissions (~50% of state permit thresholds).	Non-expiring.	<60 days after receiving complete application	No public notice
Capped Air Permit	Based on actual emissions (~80-90% of state permit thresholds).	Non-expiring, with some exceptions.	60-90 days after receiving complete application	No public notice
Individual State Permit	< 100 tpy of most criteria pollutants < 10 tpy of a single HAP < 25 tpy of all HAP combined	Non-expiring, with some exceptions.	6-12 months after starting technical review	30-day public notice
Individual Part 70 Permit	< 100 or 250 tpy of most criteria pollutants	Five-year term.	6-12 months after starting technical review	30-day public notice and 45-day U.S. Environmental Protection Agency review

tpy = tons per year
Note: See page 4 of 5 in "Comparison of air permit flexibility options" Comparison of Air Permit Flexibility Options (state.mn.us), Rows labeled "Thresholds/Applicability Limits", "Duration", "Issuance Time (Generally)", and "Public Participation."

The MPCA has certain permitting timelines established for air permit application processing, with the goal being issuance within 150 days for Tier 2 applications from the date they are received, which is any permit that requires a public comment period, and 90 days for all other permit types are referred to as Tier 1 permits. Additional details regarding how the MPCA has handled processing Tier 1 and 2 permit applications is provided in Section 5.1.1.4.

5.1.1.3 Coordination with other agencies and stakeholders

MPCA coordination with other agencies or stakeholders varies by permit type. Public notice and opportunity for public comment is required for most air permit types, except for registration permits and applications for coverage under an existing general permit.

Only the largest or most complex permit types require significant coordination with other agencies. The following list summarizes common engagement areas with the MPCA and community stakeholders when processing different air quality permits.

- After completing a 30-day public notice to establish the initial general permit, owners and operators can apply for coverage under the general permit and the MPCA can issue general permits to stationary sources without additional public notices.

- Capped and state permits are subject to a 30-day public comment period.
- Part 70 permits require notice to "affected states" (those within 50 miles of a source or contiguous to Minnesota and whose air quality may be affected), a 30-day public comment period, and a 45-day USEPA review period.
- Projects needing a PSD permit often trigger additional analyses (like Class I air dispersion modeling) that require coordination with additional stakeholders like tribal communities, or federal land managers from agencies such as the US Forest Service, US Fish and Wildlife Service, and National Park Service.

MPCA air quality permit application forms ask whether the facility or project is subject to environmental review to facilitate coordination with relevant stakeholders.

The MPCA has also posted a document online called "Voluntary environmental improvement and community engagement ideas and resources for facilities" that provides examples of community engagement activities that go beyond what is required by regulations. Barr's experience is that this document is not significantly used. Large companies are already beginning or have a history of community engagement, and smaller companies may not be actively engaging in related community engagement because there is not a direct requirement for it if they are not located in significantly disadvantaged areas. In the "cumulative impacts" rulemaking that is likely to be completed by Minnesota in 2026, it will likely have expanded requirements for community engagement driven by both environmental justice and air permitting. In addition to the likely establishment of requirements for community engagement by industry, the MPCA should consider also providing community resources and education for the public to help explain the complex elements of environmental permitting.

5.1.1.4 Air Permitting Timeliness

This report considers air permitting timeliness in Minnesota using two main resources: 2023 Annual Permitting Efficiency Report (Appendix 7) and data from MPCA's "Air Permit Applications Received" web-based resource.[9] The MPCA permitting efficiency reports focus on timeliness compared to permit "issuance goals" established under state law. Data from the "Air Permit Applications Received" web-based resource was analyzed to provide an independent assessment of permitting timeliness.

In addition, there are separate regulatory deadlines (which vary by permit type and permit action) for air permit issuance that states implementing air permitting programs established under the CAA must meet. Additional information about Minnesota's and benchmark states' Title V permit backlogs is provided in Section 5.1.3. A quantitative assessment of permitting timeliness against these federal CAA regulatory deadlines was not completed but could be undertaken in the future using data from the "Air Permit Applications Received" web-based resource.

[9] "Air Permit Applications Received" web-based resource, data retrieved November 6, 2023. https://public.tableau.com/app/profile/mpca.data.services/viz/AirPermitApplicationsReceived/SimpleDash

The following sections provide observations and recommendations regarding the 2023 Annual Permitting Efficiency Report (Appendix 7), and describe the quantitative analysis completed using data from the "Air Permit Applications Received" web-based resource.

MPCA Annual Permitting Efficiency Report

The MPCA produces an annual report to the Minnesota legislature on environmental permitting efficiency, to fulfill a requirement under the Permitting Efficiency Law (codified in Minn. Stat., Section 116.03). The MPCA permitting efficiency reports are available online and provide information regarding air, land, and water permitting timeliness.

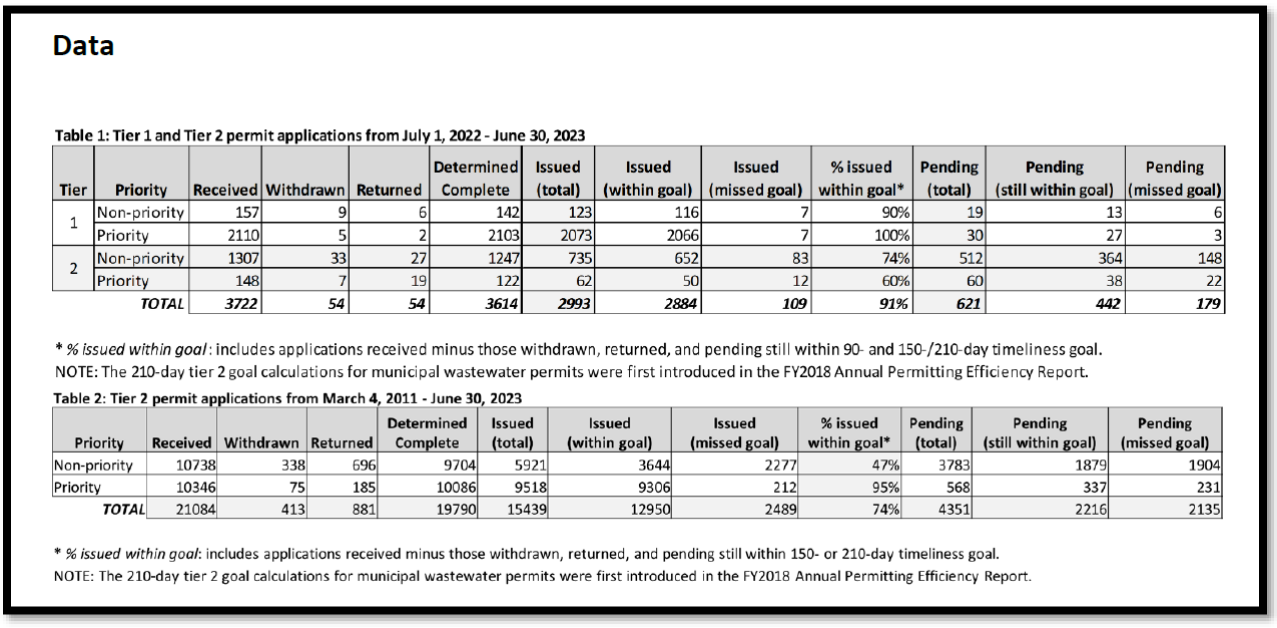
The Permitting Efficiency Law established a 150-day issuance goal for "Tier 2" permits that require individualized actions or public comment periods, and a 90-day issuance goal for "Tier 1" permits that do not require individualized actions or public comment periods. Under this law, the time to issuance begins when the application is received (as opposed to when an application is deemed complete). The law also requires the MPCA to determine whether an application is substantially complete within 30 days of receipt, and to inform the applicant of deficiencies if the application is incomplete. The MPCA also classifies permit applications as "priority" applications if they involve construction, and "non-priority" if they do not involve construction.

If the application is complete and a priority Tier 2 permit (i.e., a permit that requires individualized actions or public comment periods) is needed, but the MPCA believes the permit cannot be issued within the 150-day goal, the MPCA is required to notify the applicant and, upon request, provide a schedule estimating when the MPCA will begin drafting the permit and issue the public notice of the draft permit (Minnesota Statutes [Minn. Stat.], Section 116.03, Subdivision [Subd.] 2b(d)). The MPCA does not publish data that allows for a quantitative assessment of how consistently the 30 business-day completeness notification is provided or how consistently the MPCA provides notice that a permit cannot be issued within the 150-day goal. Applicants and air permitting consultants would like MPCA to provide these items consistently and to make the data needed to track performance against these requirements available to the public. If the MPCA were to publish completeness determination dates or other information regarding the MPCA's ability to meet the 150-day goal, it would add transparency to the permitting process and associated schedule.

Observations

Table 1 and Table 2 in the "Data" section of the 2023 Annual Permitting Efficiency Report (Appendix 7) present information about all air, land, and water permits collectively, as shown in Figure 5-2. The report could provide greater transparency by presenting the same categories of information for each medium (air, land, and water) separately. In fiscal year 2023, the MPCA received 190 air permit applications, 70 land permit applications, and 3,450 water permit applications. Presenting information about air, land, and water permits collectively, without also presenting similar information for each medium separately, does not adequately reflect permitting efficiency of each program because the vast majority of applications are

for water permits[10], and permit applications for each medium are processed by different programs within the MPCA.



Data

Table 1: Tier 1 and Tier 2 permit applications from July 1, 2022 - June 30, 2023

Tier	Priority	Received	Withdrawn	Returned	Determined Complete	Issued (total)	Issued (within goal)	Issued (missed goal)	% issued within goal*	Pending (total)	Pending (still within goal)	Pending (missed goal)
1	Non-priority	157	9	6	142	123	116	7	90%	19	13	6
	Priority	2110	5	2	2103	2073	2066	7	100%	30	27	3
2	Non-priority	1307	33	27	1247	735	652	83	74%	512	364	148
	Priority	148	7	19	122	62	50	12	60%	60	38	22
	TOTAL	***3722***	***54***	***54***	***3614***	***2993***	***2884***	***109***	***91%***	***621***	***442***	***179***

* *% issued within goal*: includes applications received minus those withdrawn, returned, and pending still within 90- and 150-/210-day timeliness goal.
NOTE: The 210-day tier 2 goal calculations for municipal wastewater permits were first introduced in the FY2018 Annual Permitting Efficiency Report.

Table 2: Tier 2 permit applications from March 4, 2011 - June 30, 2023

Priority	Received	Withdrawn	Returned	Determined Complete	Issued (total)	Issued (within goal)	Issued (missed goal)	% issued within goal*	Pending (total)	Pending (still within goal)	Pending (missed goal)
Non-priority	10738	338	696	9704	5921	3644	2277	47%	3783	1879	1904
Priority	10346	75	185	10086	9518	9306	212	95%	568	337	231
TOTAL	21084	413	881	19790	15439	12950	2489	74%	4351	2216	2135

* *% issued within goal*: includes applications received minus those withdrawn, returned, and pending still within 150- or 210-day timeliness goal.
NOTE: The 210-day tier 2 goal calculations for municipal wastewater permits were first introduced in the FY2018 Annual Permitting Efficiency Report.

Source: Appendix 7

Figure 5-2 Tables 1 and 2 from Minnesota Pollution Control Agency 2023 Permitting Efficiency Report

Table 5-6 and Table 5-7 provide examples of similar tables, specific to air permitting, populated using data from the "Air Permit Applications Received" web-based resource.

[10] Specifically, water general permits (especially in the priority Tier 1 and non-priority Tier 2 categories).

Table 5-6 Example Air permit applications received July 1, 2022, to June 30, 2023

Tier Group	Tier 1 (90-day)	Tier 2 (150-day)	Tier 1 (90-day)	Tier 2 (150-day)	Tier 1 (90-day)	Tier 2 (150-day)
Priority	ALL[1]	ALL[1]	Priority (involves construction)	Priority (involves construction)	Non-priority (no construction)	Non-priority (no construction)
Received	54	121	N/A[2]	N/A[2]	N/A[2]	N/A[2]
Withdrawn	N/A[2]	N/A[2]	N/A[2]	N/A[2]	N/A[2]	N/A[2]
Returned	N/A[2]	N/A[2]	N/A[2]	N/A[2]	N/A[2]	N/A[2]
Determined Complete	N/A[2]	N/A[2]	N/A[2]	N/A[2]	N/A[2]	N/A[2]
Issued (total)	51	19	N/A[2]	N/A[2]	N/A[2]	N/A[2]
Issued (within goal)	47	3	N/A[2]	N/A[2]	N/A[2]	N/A[2]
Percent issued within goal[3]	92%	16%	N/A[2]	N/A[2]	N/A[2]	N/A[2]
Pending (total)	3	102	N/A[2]	N/A[2]	N/A[2]	N/A[2]
Pending (still within goal)	0	8	N/A[2]	N/A[2]	N/A[2]	N/A[2]
Pending (missed goal)	3	94	N/A[2]	N/A[2]	N/A[2]	N/A[2]

(1) Based on data from the "Air Permit Applications Received" web-based resource accessed on November 6, 2023.
(2) Unable to determine using data from "Air Permit Applications Received" web-based resource; does not include a field identifying priority versus non-priority applications, or information about applications withdrawn, returned, or determined complete.
(3) "Issued (within goal)" divided by "Issued (total)"

Table 5-7 Example Air permit applications March 4, 2011 to June 30, 2023

Tier Group	Tier 1 (90-day)	Tier 2 (150-day)	Tier 1 (90-day)	Tier 2 (150-day)	Tier 1 (90-day)	Tier 2 (150-day)
Priority	ALL[1]	ALL[1]	Priority (involves construction)	Priority (involves construction)	Non-priority (no construction)	Non-priority (no construction)
Received	807	1096	N/A[2]	N/A[2]	N/A[2]	N/A[2]
Withdrawn	N/A[2]	N/A[2]	N/A[2]	N/A[2]	N/A[2]	N/A[2]
Returned	N/A[2]	N/A[2]	N/A[2]	N/A[2]	N/A[2]	N/A[2]
Determined Complete	N/A[2]	N/A[2]	N/A[2]	N/A[2]	N/A[2]	N/A[2]
Issued (total)	804	700	N/A[2]	N/A[2]	N/A[2]	N/A[2]
Issued (within goal)	688	75	N/A[2]	N/A[2]	N/A[2]	N/A[2]
Percent issued within goal[3]	86%	11%	N/A[2]	N/A[2]	N/A[2]	N/A[2]
Pending (total)	3	396	N/A[2]	N/A[2]	N/A[2]	N/A[2]
Pending (still within goal)	0	8	N/A[2]	N/A[2]	N/A[2]	N/A[2]
Pending (missed goal)	3	388	N/A[2]	N/A[2]	N/A[2]	N/A[2]

(1) Based on data from the "Air Permit Applications Received" web-based resource accessed on November 6, 2023.
(2) Unable to determine using data from "Air Permit Applications Received" dashboard; does not include a field identifying priority versus non-priority applications, or information about applications withdrawn, returned, or determined complete.
(3) "Issued (within goal)" divided by "Issued (total)"

The 2023 Annual Permitting Efficiency Report (Appendix 7) indicates the MPCA received 190 air permit applications during FY 2023; 32 of these were "priority" and 158 were "non-priority."[11]

The "Tier 1 timeliness" and "Tier 2 timeliness" tables of the 2023 Annual Permitting Efficiency Report (Appendix 7) indicate:

- MPCA issued no "priority" Tier 1 permits.
- MPCA issued 37 "non-priority" Tier 1 permits within 90 days, and three more beyond the issuance goal (37/40 total = 93% on time).

[11] "Applications received" table on Page 7 of Annual Permitting Efficiency Report (https://www.lrl.mn.gov/docs/2023/mandated/231341.pdf)

- MPCA issued one "priority" Tier 2 permit within 150 days, and another five beyond the issuance goal (1/6 total = 17% on time).
- MPCA issued two "non-priority" Tier 2 permits within 150 days, and five more beyond the issuance goal (2/7 total = 29% on time).

Tier 1 air permitting performance (93% issued on time) aligns with the statement made in the 2023 Annual Permitting Efficiency Report (Appendix 7) "overall permitting efficiency continues to be very good." However, it is important to note that the timeliness tables only reflect permits issued from applications that were **received** during fiscal year 2023. These tables do not include permits issued within fiscal year 2023 if the application was received before fiscal year 2023, or if the application was terminated as returned, denied, or withdrawn.

Data from the MPCA's permitting web-based resource indicate that air permits were issued in fiscal year 2023 that were received prior to FY2023. Another way of assessing permitting timeliness would be to look at all permits issued in a given timeframe and assess what percentage of permits issued met the applicable issuance goal (see Minnesota Pollution Control Agency Air Permit Web-based resource Data Analysis section below).

Appendix B of the 2023 Annual Permitting Efficiency Report (Appendix 7) lists Tier 1 permit applications over 90 days, and Tier 2 permit applications over 150 days and reasons for delay. However, Appendix B does not show permits older than issuance goals that were received in an earlier fiscal year. Appendix B lists 50 "overdue" air permit applications (13 issued late and 37 pending) that were received in fiscal year 2023. However, based on data from the "Air Permit Applications Received" web-based resource,[12] there are **~349 additional "overdue" and still pending** air permit applications that were received between March 4, 2011 and July 1, 2022 that do not appear on this list or elsewhere in the report.

Minnesota Pollution Control Agency Air Permit Web-based resource Data Analysis

As part of a parallel effort to this report, Barr has summarized the timelines of major air permits issued in Minnesota between **January 1, 2018, and September 28, 2023**. The results of the analysis are summarized in Figure 5-3 and Figure 5-4.

[12] "Air Permit Applications Received" web-based resource, data retrieved November 6, 2023. https://public.tableau.com/app/profile/mpca.data.services/viz/AirPermitApplicationsReceived/SimpleDash

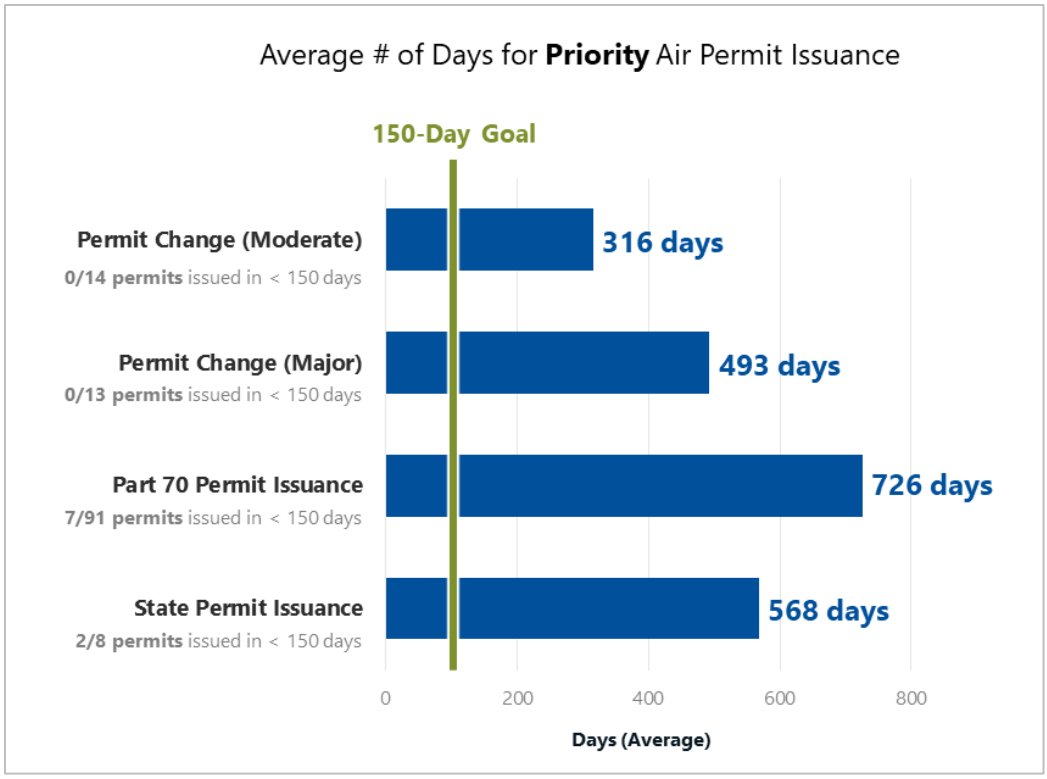


Figure 5-3 Minnesota Pollution Control Agency Priority Air Permit Issuance Analysis

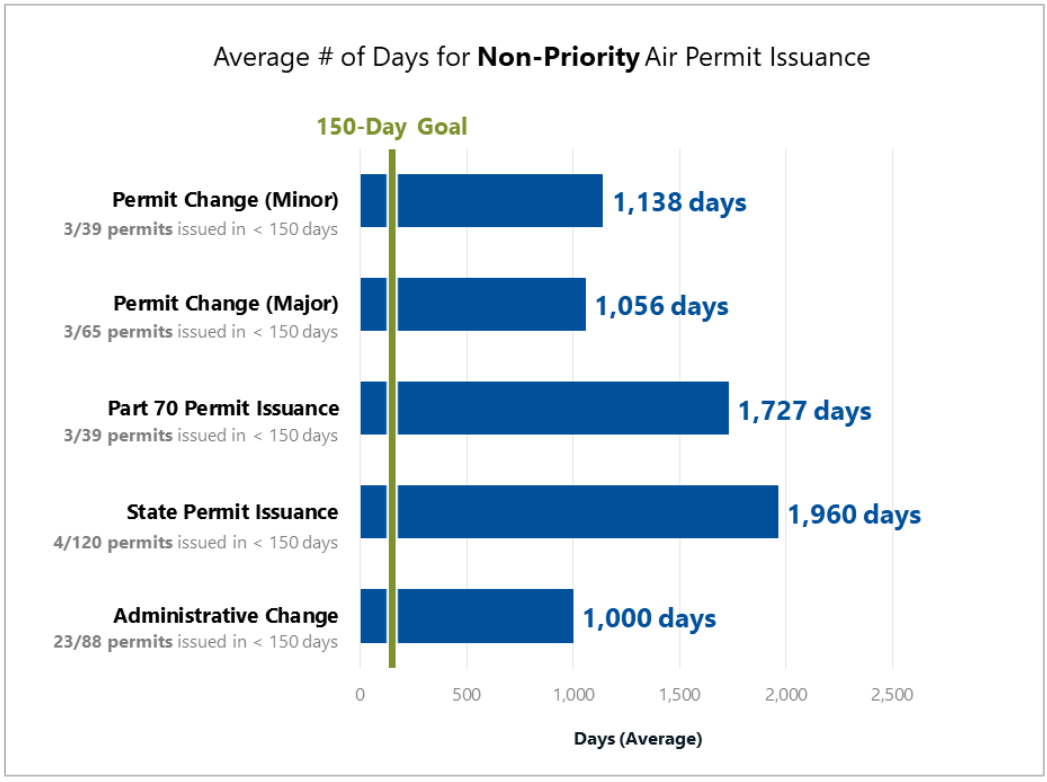


Figure 5-4 Minnesota Pollution Control Agency Non-Priority Air Permit Issuance Analysis

The analyses provided in Figure 5-3 and Figure 5-4 do not include air permits issued under the MPCA's Capped Air Permit or Registration Permit Programs.

In addition to reviewing the bulk of air permits issued as provided above, data was collected from the MPCA's "Air Permit Applications Received" web-based resource, which provide additional insights for a smaller subset of applications currently in the MPCA's air permitting queue. In addition to permit application receipt and issuance dates, a smaller set of permit applications that are still being processed by the MPCA include the date when the agency began the technical review of the application. This provides the ability to determine the duration between when an application has been received and how long it sits in the permitting queue before being assigned to an engineer.

Barr's analysis of data from the "Air Permit Applications Received" web-based resource found that the MPCA is consistently adding to its permit queue backlog; as shown in Table 5-8. At the highest level, across all air permit programs, the MPCA received more applications than they issued in four of the last six years. Note that the summary provided in Table 5-8 is a point-in-time summary of data available in the MPCA permitting web-based resource.

Table 5-8 Minnesota Pollution Control Agency Annual Air Permit Applications

Year	Count of Completed Applications Received[1]	Count of Permits Issued	Net Permit Inventory
2023[2]	147	112	35
2022	158	113	45
2021	159	114	45
2020	138	140	-2
2019	168	128	40
2018	149	151	-2

1) Completed application count includes both Tier 1 and Tier 2 applications.
2) Application data as published through November 6, 2023.

Further, if this web-based resource data set is broken down into Tier 1 and Tier 2 classified permit applications, additional context can be observed regarding permit issuance timelines. A comparison of all permits, and by Tier 1 and 2 classification, is provided in Table 5-9.

Table 5-9 Minnesota Pollution Control Agency Air Permit Issuance Comparison

Permit Category	Year[1]	Count of Applications Received in Year	Count of Permits Issued in Year	Net Annual Queue	Minimum Days to Issuance	Maximum Days to Issuance	Average Days to Issuance	Median Days to Issuance
All Air Permits	2023	147	112	35	6	6,139	691	283
	2022	158	113	45	3	5,671	595	106
	2021	159	114	45	5	4,729	527	148
	2020	138	140	-2	8	6,500	792	308
	2019	168	128	40	2	4,892	493	71
	2018	149	151	-2	5	3,865	523	119
Tier 1 Air Permits (90-day MPCA Target)	2023	46	40	6	6	195	41	23
	2022	57	59	-2	3	166	31	18
	2021	60	57	3	5	630	62	36
	2020	43	60	-17	8	4,016	265	37
	2019	86	73	13	2	276	33	20
	2018	72	78	-6	5	342	47	30
Tier 2 Air Permits (150-day MPCA Target)	2023	101	72	29	119	6,139	1,053	569
	2022	101	54	47	69	5,671	1,211	683
	2021	99	57	42	29	4,729	992	419
	2020	95	80	15	29	6,500	1,187	483
	2019	82	55	27	150	4,892	1,104	654
	2018	77	73	4	37	3,865	1,031	771

MPCA = Minnesota Pollution Control Agency
(1) Application data as published through November 6, 2023.

Finally, the MPCA web-based resource data has dates listed for when a permit writer has begun work on an application for 104 Tier 2 applications that were received by the agency between 1995 and November 6, 2023. This enables assessing the time between when a complete application is received by the agency and when the technical review begins. The results are summarized in Table 5-10 for permit applications work on between 2018 and 2023 (capturing 91 of the observed 104 noted applications).

Table 5-10 Minnesota Pollution Control Agency Tier 2 Application Days to Assignment

Year Work Began on Application	Count of Tier 2 Applications Received[1]	Count of Tier 2 Applications Started[1]	Minimum Days to Assignment[1]	Maximum Days to Assignment[1]	Average Days Waiting for Assignment[1]	Median Days Waiting for Assignment[1]
2023	101	47	4	5,455	879	387
2022	101	20	-	7,321	1,823	176
2021	99	8	1	4,130	1,065	122
2020	95	9	10	3,949	992	69
2019	82	5	2	4,383	1,331	313
2018	77	2	78	3,305	1,692	1,692

1) Application counts and ages are based on date the application was received compared to the day the Minnesota Pollution Control Agency permitting web-based resource data was downloaded (November 6, 2023) and corresponding intermediate date milestones.

In addition to summarizing the intermediate time between when an application is submitted and when it is assigned to a permit engineer, for all pending applications, Table 5-11 provides a summary of the age of pending applications based on the year the application was issued.

Table 5-11 Tier 2 Age of Applications

Year Application Received	Total Applications Received in the Year[1]	Count of Pending Applications Received in the Year[1]	Current Average Age of Application If Not Complete[1]	Current Median Age of Application If Not Complete[1]
2023	101	97	168	172
2022	101	68	482	493
2021	99	62	857	859
2020	95	44	1,225	1,233
2019	82	25	1,580	1,560
2018	77	28	1,938	1,929

1) Application counts and ages are based on date the application was received compared to the day the Minnesota Pollution Control Agency permitting web-based resource data was downloaded (November 6, 2023) and corresponding intermediate date milestones

The MPCA has stated 150 days is their goal to process Tier 2 air permit applications[13]. At this time, as shown in Table 5-10 and Table 5-11 Tier 2 permit applications are on average both waiting for assignment and not being completed within 150 days.

[13] https://www.lrl.mn.gov/docs/2023/mandated/231341.pdf

In addition to the actual permit processing time that begins once the MPCA has begun working on an application, the administrative completeness review process has consistently posed significant challenges to applicants as identified by consultants and facilities engaging with the MPCA through air permitting. This stage of the permitting process involves a thorough examination of permit applications to determine if they contain all necessary elements for the MPCA's technical review. While administrative completeness reviews are a common feature of any state's air permitting program, the agency's process has often been considered burdensome, primarily due to limited opportunity for companies to engage with the agency in the event an issue is identified regarding the completeness of an application.

Issues with application completeness often do not result in the MPCA engaging with the applicant to resolve issues efficiently to keep the review process going, but rather end up with applications being deemed incomplete. If an application is deemed incomplete, it effectively places the project at the end of the queue for administrative review and ultimately technical review as well.

Regarding both the administrative and technical reviews for air permitting applications, the MPCA has struggled to assign permit engineers to projects in a timely fashion. This difficulty contributes to the significant processing timelines noted in Table 5-10 and Table 5-11. In addition, it creates challenges for applicants seeking to understand the current stage of their application or estimate timelines for processing and approval.

The MPCA has developed the Air Permit Applications Received web-based resource, which allows industry and the public to review and identify air permitting applications that have been submitted and see if they have been assigned to a permit engineer. The Air Permit Applications Received web-based resource provides the following elements for all applications received by the MPCA:

- Facility identification information
- Environmental justice area proximity
- Permit type, public notice requirements, and MPCA contact
- Application date and status, specifically:
- Date application received, and
- Status, representations including "Awaiting assignment", "In process", "On public notice", "In process and public notice has ended"; none of these categories have dates or schedules associated with them.

While this provides a helpful snapshot, it does not provide context or insights regarding when or how long it will take for the MPCA to process a given application.

The MPCA also has an expedited permitting program that is intended to reduce the time required to process an air permit. While this expedited option exists, it is a voluntary overtime-based process within the agency, so it requires permit engineers to commit to projects above their existing workload. Because

of this structure, the expedited permitting program is not a guaranteed mechanism to truly improve permitting process timelines. Qualitatively, experience has shown that even if an application is approved for expedited processing, it may begin being processed sooner, but not ultimately have a faster overall processing time.

5.1.2 Benchmark States

A state or local agency may receive authorization from the USEPA to implement federal construction and operating air permitting programs (CAA permitting). Like Minnesota, all 10 benchmark states are authorized to implement CAA permitting programs (except on tribal lands, where the USEPA regional office is the permitting authority). Three of the 10 benchmark states (Iowa, North Carolina, and Tennessee) have more than one agency that issues air quality permits. Table 5-12 summarizes each state's air permitting authority, agencies, and agency subunits that implement air quality permitting programs.

Table 5-12 Clean Air Act Permitting Authority and Agency Framework Summary by State

State	Approved by USEPA to implement Clean Air Act (CAA) permitting	Agency that implements CAA permitting	Agency subunit that implements air permitting
Minnesota	Yes	Minnesota Pollution Control Agency	Industrial Division
Colorado	Yes	Colorado Department of Public Health and Environment	Air Pollution Control Division
Illinois	Yes	Illinois Environmental Protection Agency	Bureau of Air
Indiana	Yes	Indiana Department of Environmental Management	Office of Air Quality
Iowa	Yes	Iowa Department of Natural Resources	Air Quality Bureau
	Yes	Polk County Public Works	Air Quality Division
	Yes	Linn County Public Health Department	Air and Water Quality Branch
Michigan	Yes	Michigan Department of Environment, Great Lakes, and Energy	Air Quality Division
North Carolina	Yes	North Carolina Department of Environmental Quality)	Division of Air Quality
	Yes	Forsyth County Department of Environmental Assistance and Protection	Not applicable
	Yes	Mecklenburg County Land Use and Environmental Services Agency	Air Quality Division
	Yes	Western North Carolina Regional Air Quality Agency	Asheville-Buncombe Air Quality Agency
North Dakota	Yes	North Dakota Department of Environmental Quality	Division of Air Quality
South Dakota	Yes	South Dakota Department of Agriculture & Natural Resources	Air Quality Program
Tennessee	Yes	Tennessee Department of Environment and Conservation	Division of Air Pollution Control
	Yes	Chattanooga-Hamilton County	Air Pollution Control Bureau
	Yes	Knox County	Department of Air Quality Management
	Yes	Memphis-Shelby County Health Department	Pollution Control Section
	Yes	Nashville-Davidson County Metro Public Health Department	Division of Pollution Control
Wisconsin	Yes	Wisconsin Department of Natural Resources	Bureau of Air Management

Air permitting programs, while ostensibly similar, can be administered differently between states. Most commonly, there are two pathways a state may take to organizing its air permitting programs at the highest level. Typically, agencies regulate new projects or modifications though "construction" permits, to authorize physical construction, modification, or operational changes at a facility that would result in air

emissions above applicable permitting thresholds. Once construction is complete, facilities would then need to transfer their construction permits to "operating" permits that then authorize the ongoing operation of the facility. To that end, certain states have elected to have "joint" construction and operating permit programs, whereas other states have separate construction and operating permitting programs. Table 5-13 provides a summary of how each benchmark state implements its permitting programs.

Table 5-13 Approach to Construction and Operating Air Permits

State	Agency	Combined or Separate Permits
Minnesota	Minnesota Pollution Control Agency	Combined
Colorado	Colorado Department of Public Health and Environment	Separate
Illinois	Illinois Environmental Protection Agency	Separate
Indiana	Indiana Department of Environmental Management	Combined
Iowa	Iowa Department of Natural Resources	Separate
	Polk County Public Works	Separate
	Linn County Public Health Department	Separate
Michigan	Michigan Department of Environment, Great Lakes, and Energy	Separate
North Carolina	North Carolina Department of Environmental Quality	Combined
	Forsyth County Department of Environmental Assistance and Protection	Combined
	Mecklenburg County Land Use and Environmental Services Agency	Combined
	Western North Carolina Regional Air Quality Agency	Combined
North Dakota	North Dakota Department of Environmental Quality	Separate
South Dakota	South Dakota Department of Agriculture & Natural Resources	Separate
Tennessee	Tennessee Department of Environment and Conservation	Separate
	Chattanooga-Hamilton County	Separate
	Knox County	Separate
	Memphis-Shelby County Health Department	Separate
	Nashville-Davidson County Metro Public Health Department	Separate
Wisconsin	Wisconsin Department of Natural Resources	Separate

Barr also prepared a general air permitting process flow diagram for a PSD construction permit in Minnesota and certain other benchmark states, as provided in Figure 5-5. While the PSD air permitting program is initially defined at the federal level, it is administered at the state level, meaning that the basic components and requirements of an application are generally uniform across states; however, differences may be observable in how each state processes an application. Barr has utilized air permitting experience

in the corresponding states to highlight similarities and differences across the states included in the process flow diagram.

In addition to the air permitting program summaries in Table 5-13, various agency- and state-specific data were gathered regarding agencies and factors that contribute to air quality and permitting complexities. Two tables have been compiled; the first, Table 5-14, specifically includes information around agency environmental and air permitting staff, state population representations, and normalization factors. The second, Table 5-15, includes a summary of factors that impact air quality and permitting complications, normalized to Minnesota.

In Table 5-14 and Table 5-15, certain characteristics have been normalized to Minnesota. This normalization effort means that Minnesota's values are represented as "1," and all other state data is represented as a factor greater or less than Minnesota.

In Table 5-15, specific data is presented for each state regarding air emissions and overall national ambient air quality standards status (i.e., NAAQS). This data shows that each state has a different emissions profile and varying levels NAAQS attainment and non-attainment areas. In addition to this data, the average air permitting timelines as determined from the PNG economic analysis report have also been included. Including the average permit issuance time alongside these other factors demonstrates that a state's overall emissions and ambient air quality status do not directly impact permit processing. Air permitting regulations, while often having certain state-to-state nuances, require fundamentally the same elements, and in areas with poor ambient air quality (i.e., non-attainment areas), the more stringent air permitting programs are universally complex. The context provided in Table 5-15 supports an observation that agency air permitting efficiency is not directly correlated to air quality status or total emissions.

= Permittee = Regulator = Third-parties/Public/NGO

Air permitting process

	Engagement	Minnesota	North Dakota	Wisconsin	Iowa	Michigan	Illinois
Complete application package submitted		PSD construction permits typically require the same components and include significant detail regarding a specific project. Applications differ from state-to-state based on forms and administrative items, but technical content and requirements are consistent.					
Administrative completeness review		Administrative completeness review presents significant challenges with MPCA rejecting applications for minor issues that could be promptly resolved, resulting in applications requiring resubmittal and further delaying the start of their technical review, or even initial assignment.	No formal administrative review, timely assignment of application to permit engineer.	Permit writers are typically assigned within 1-2 weeks of submittal. Completeness determination with 21 days.	General completeness review period, and within 30 days application assigned to engineer.	Admin review is completed by non-technical staff to ensure basic requirements are met, and then assigned to permit writer in a timely manner.	No complications or outstanding issues or differences with other states.
Agency technical review (Regulatory applicability, emission calculations, additional impacts analysis, BACT evaluation)		Challenges exist regarding the timely assignment of permit engineers and overall processing of applications. Additionally, work on processing the permit application doesn't begin until the modeling protocol is completed, which can increase overall timelines if there are revisions required.	Permit engineer begins work and directly engages with applicant. Less process based, more so led by permit engineer and complexity of project.	Technical review process is typically handled through the permit engineer, and the duration is dependent on application complexity and familiarity of the industry.	Technical review process is typically handled through the permit engineer, and the duration is dependent on application complexity and familiarity of the industry.	Technical review process is handled through the permit engineering. Formal letters sent when missing or deficient information is identified to establish timelines.	Technical review process is typically handled through the permit engineer, and the duration is dependent on application complexity and familiarity of the industry.
NAAQS modeling		Modeling has historically not significantly impacted project timelines; however, some turnover has been occurring.	Modeling has historically not significantly impacted project timelines, and agency staff are supportive when addressing issues.	Modeling has historically not significantly impacted project timelines, and agency staff are supportive when addressing issues. IA can work on application concurrently to modeling protocol. Not required to have protocol complete prior to beginning application.	Modeling has historically not significantly impacted project timelines, and challenges are typically related to applicant's thoroughness prior to submittal.	Modeling has historically not significantly impacted project timelines, and challenges are typically related to applicant's thoroughness prior to submittal. Modeling evaluations can run parallel to overall air permitting process.
State-specific air toxics review		MN's AERA process has some defined triggers, but the MPCA has the discretion to require this after an application is submitted, which leads to additional processing time due to modeling requirements.	ND has a state air toxics policy with clear guidelines and is not otherwise disruptive to air application processing.	WI has a state air toxics policy with clear guidelines and is not otherwise disruptive to air application processing.	IA does not have a state air toxics policy.	MI has a state air toxics policy that is generally applicable to projects, with existing guidelines, however, if data isn't established for a toxic pollutant, it can complicate the process.	IL does not have a state air toxics policy. City of Chicago has a specific zoning regulation for assessing air quality impacts outside of traditional air regulations. *[Section 17-9-0117-G of the Municipal Code of Chicago]*
Draft permit prepared		MN commonly provides a draft permit to review before public comment.	ND commonly provides a draft permit to review before public comment.	WI commonly provides a draft permit to review before public comment.	IA commonly provides a draft permit to review before public comment.	MI commonly provides a draft permit to review before public comment.	IL commonly provides a draft permit to review before public comment.
Public Engagement (Public and EPA comment periods, environmental justice [EJ] community outreach)		Public engagement represents an area where projects can receive significant comments that impact permit issuance, however in MN, delays are more commonly driven by delays in the MPCA beginning work on the permit or in the technical review.	Public engagement represents an area where projects can receive significant comments that impact permit issuance, however in general, ND issues air permits in a timely manner.	Public engagement represents an area where projects can receive significant comments that impact permit issuance, however in general, WI issues air permits in a timely manner.	Public engagement represents an area where projects can receive significant comments that impact permit issuance, however in general, IA issues air permits in a timely manner due to state-based statutory timelines.	Public engagement represents an area where projects can receive significant comments that impact permit issuance, however in general, MI issues air permits in a timely manner due to state-based statutory timelines.	Public engagement represents an area where projects can receive significant comments that impact permit issuance, however in general, IL issues air permits in a timely manner.
Address Public Comments (and environmental justice items as applicable)		Cross-agency engagement is uncommon for air permit applications alone.	Cross-agency engagement is uncommon for air permit applications alone.	Cross-agency engagement is uncommon for air permit applications alone.	Cross-agency engagement is uncommon for air permit applications alone. Increasing environmental justice awareness is adding time to application processing, however final permits are still issued within statutory limits.	Cross-agency engagement is uncommon for air permit applications alone. Increasing environmental justice awareness is adding time to application processing, however final permits are still issued within statutory limits.	Environmental justice is a growing area of concern across IL. Cross-agency engagement is uncommon for air permit applications alone.
Issue final permit							

Figure 5-5 Air Permitting Flow Diagram

Table 5-14 Air Permitting Agencies and State Data

Item	CO	IL	IN	IA	MI	MN	NC	ND	SD	TN	WI
Overall Agency Size[1]	1,746	784	816	323	1,300	858	1,636	166	288	2,729	3,000[2]
Air Permitting Staff[1]	85	N/A	N/A	24	31	54	N/A	8	14[3]	N/A	20
State Population (mil) (2020 Census)	5.77	12.81	6.79	3.19	10.08	5.71	10.44	0.78	0.89	6.91	5.89
Tribal Population per 1,000[4]	3	N/A	N/A	> 1	3	7	1	25	68	N/A	7
Environmental Agency Normalization Ratio[5]	2.01	0.41	0.78	1.87	0.86	1	1.04	1.42	2.16	2.63	3.39

(1) Each state organizes environmental agencies differently, and within each agency, a subset supports air permitting review. Primary agency sizes have been assessed based on publicly available documentation. Specific air permitting staff counts have been tabulated based on publicly available organization charts and directory information. Air permitting staff counts include vacancies, if listed in organization charts. While numeric data is provided for air permitting staff, this should be considered as an element of an agency's ability to process air permit applications, not a direct determinant.
(2) Wisconsin's Department of Natural Resources includes corresponding environmental protection agencies, and those individual staffing levels are not easily broken out. Therefore, Wisconsin's overall agency size is significantly larger, and may not be a representative comparison to other states.
(3) South Dakota department data did not differentiate between air permitting and compliance staff.
(4) Tribal population per 1,000 = (Self-reported tribal land census population / 2020 census population data) / 1,000; tribal land population per 1,000 from 2020 census.
(5) Environmental Agency Normalization Ratio = (Env. Agency / Population) / Minnesota Normalization Ratio

Table 5-15 Air Quality Influencers

Item	CO	IL	IN	IA	MI	MN	NC	ND	SD	TN	WI
Total National Emissions Inventory Emissions (tons)[1] (2020)	143,557	248,055	393,728	113,843	205,381	129,451	167,568	131,916	15,966	146,719	103,361
National Emissions Inventory Emissions-to-Population Ratio[1]	1.10	0.85	2.56	1.57	0.90	1	0.71	7.46	0.79	0.94	0.77
National Air Ambient Quality Standards Nonattainment Population Ratio[2]	366	443	54	6	41	1	N/A	N/A	N/A	1	198
Environmental Agency Normalization Ratio[3]	2.01	0.41	0.78	1.87	0.86	1	1.04	1.42	2.16	2.63	3.39
Average Days to Issue Air Permits[4]	441	77	N/A	93	N/A	673	271	261	N/A	284	119

(1) USEPA 2020 National Emission Inventory total point source criteria pollutant totals in tons by state. Total emissions then scaled to Minnesota by population.
(2) Population in any nonattainment area for any National Ambient Air Quality Standard, normalized; (Nonattainment County Pop. / State Pop.) / MN Ratio.
(3) Env. agency normalization ratio = (Env. Agency / Population) / Minnesota Normalization Ratio; same as Table 5 15.
(4) Average days to issue certain types of air permits as defined and collected by Policy Navigation Group (PNG) for the economic analysis. PNG air permit data is further discussed in Section 5.1.3, and the overall PNG economic analysis report.

5.1.3 Comparing Minnesota to Benchmark States

Air Permit Issuance Comparisons

Using the data collected by PNG[14] as part of the economic analysis associated with this report, a general analysis was completed by looking at all permits issued in certain industrial sectors by state and year. The list of air permits obtained is thoroughly discussed in the PNG report (Appendix 2). While not all industries or benchmark states were captured in the PNG dataset, it does provide a consistent cross-section of industries present in each state. It is therefore supportive of assessing similarities and differences between how each state handles air permitting for the same industrial categories. This analysis also includes all permit types captured by PNG's data collection, as opposed to the smaller set used for the economic analysis. The following tables summarize all types of air permit applications issued by state, regardless of program, to provide an average representation of overall agency timeliness in issuing air permits. Table 5-16 and Table 5-17 include the average number of days taken to process an application and a summary of total air permits issued in a given year.

Table 5-16 Average Days to Issue Air Permits, Policy Navigation Group Dataset

State	Average Days from Agency Receipt to Issuance						
	2022	2021	2020	2019	2018	2017	Average
MN	681	532	684	887	721	375	673
CO	465	818	390	321	298	332	441
IA	99	89	89	104	72	105	93
IL	100	70	81	73	74	65	77
NC	104	475	554	515	65	174	271
ND	94	231	257	640	120	117	261
TN	257	270	302	326	299	267	284
WI	83	75	85	119	116	229	119

[14] All permit data as collected by PNG with application submittal and issuance dates for the three sector groups identified in their research scope.

Table 5-17 Total Air Permits issued by year, Policy Navigation Group Dataset

State	Count of Air Permits Issued by Year						
	2022	2021	2020	2019	2018	2017	Average
MN	11	15	32	17	15	9	17
CO	27	16	19	21	12	14	18
IA	132	148	124	133	155	173	144
IL	56	52	46	63	67	60	57
NC	8	6	6	4	5	16	8
ND	3	5	3	4	5	1	4
TN	20	15	15	11	14	10	14
WI	43	61	54	48	60	59	54

Table 5-18 and Table 5-19 further compare the results of the preceding two tables to highlight two factors when compared to Minnesota. The first is the timeliness ratio—that is, the average of the reference state compared to Minnesota (i.e., a lower number indicates permits are issued faster, on average). The second factor is the volume ratio (i.e., a higher value indicates more permits are issued per year compared to Minnesota). As shown in the tables below, Illinois has the lowest ratio of average permitting time, while issuing between 1.44 to 6.67 times more applications than Minnesota across the same years. Additionally, Iowa can be observed as having the ability to process a significantly higher volume of air permit applications, generally faster.

Table 5-18 Ratio of Average Permit Processing Times to Minnesota

State	2022	2021	2020	2019	2018	2017
MN	1.00	1.00	1.00	1.00	1.00	1.00
CO	0.68	1.54	0.57	0.36	0.41	0.89
IA	0.15	0.17	0.13	0.12	0.10	0.28
IL	0.15	0.13	0.12	0.08	0.10	0.17
NC	0.15	0.89	0.81	0.58	0.09	0.46
ND	0.14	0.43	0.38	0.72	0.17	0.31
TN	0.38	0.51	0.44	0.37	0.41	0.71
WI	0.12	0.14	0.12	0.13	0.16	0.61

Note that there was only one year for one state (Colorado, 2021) where average permit processing time exceeded Minnesota's. Additionally, compared to Minnesota, Illinois issued air permits at a fraction of the average time it takes Minnesota to issue air permits.

Table 5-19 Ratio of Air Permits Issued per Year to Minnesota

State	2022	2021	2020	2019	2018	2017
MN	1.00	1.00	1.00	1.00	1.00	1.00
CO	2.45	1.07	0.59	1.24	0.80	1.56
IA	12.00	9.87	3.88	7.82	10.33	19.22
IL	5.09	3.47	1.44	3.71	4.47	6.67
NC	0.73	0.40	0.19	0.24	0.33	1.78
ND	0.27	0.33	0.09	0.24	0.33	0.11
TN	1.82	1.00	0.47	0.65	0.93	1.11
WI	3.91	4.07	1.69	2.82	4.00	6.56

Certain trends can be noted from the ratioed permit issuance data. Each state's permitting system and economic drivers are somewhat different, and states may process different volumes of applications (i.e., Iowa was significantly higher across all years, while North Dakota was significantly lower across all years). However, all states universally process permits at an average rate faster than Minnesota's, regardless of the volume of permits issued in a given year. Both Iowa and Illinois issue a significantly higher number of permits compared to Minnesota, while having the two lowest average permitting times compared to Minnesota.

Note that the PNG report includes additional analysis on timeliness by state and industry group, and corresponding insights. The analysis included in this section was completed to investigate potential trends across time. As shown in Table 5-16 and Table 5-17, there has not been an appreciable decrease in permitting timelines compared to Minnesota's most efficient year (2017, average of 375 days to issue any type of permit).

Major Source Permit Issuance Timeliness

Major source permitting programs (PSD, NNSR, Part 70) in Minnesota and all 10 benchmark states have similar requirements because they were all developed according to the same federal regulations. However, even with the same general requirements, there are differences in permit issuance timeliness.

Regarding the PSD construction permitting flow chart in Figure 5-5, several timeliness observations can be inferred. Beyond the already identified process time differences when comparing states to Minnesota, the MPCA's administrative review process has been highlighted as an area of concern. It is a source of potential delays for both PSD construction applications and any air permit application that is submitted. In addition to the initial administrative and completeness review differences, the other states investigated as part of the PSD permitting process showed that the assignment of a permit engineer occurs in a timely manner. In Minnesota it has been observed that there may be a significant lag from applications being deemed complete and a specific permit writer being assigned.

Summary of Title V Permit Backlogs from USEPA Program Evaluations

The majority of Title V permits have a five-year permit term. Conceptually, each permit should be reissued once every five years; however, many facilities with Title V permits are allowed to keep operating beyond this five-year term in accordance with Minn. R. 7007.0450 "Applications to Reissue Permit: Continuation of Expiring Permits" – which states "If the owner or operator of a stationary source has submitted a timely and complete application for reissuance of a permit, the permit shall not expire until the permit has been reissued or the reissuance has been denied[…]" (i.e., past the expiration date, but still in effect). USEPA regional offices conduct periodic reviews of state and local agencies implementing CAA permitting programs. One element USEPA considers in these periodic reviews is whether agencies are issuing Part 70 (or Title V) permits within the timeframes required in the CAA. See Appendix 1 for statements about permit backlogs from USEPA program evaluation reports.

USEPA found that air quality agencies in Minnesota, Colorado, Illinois, Michigan, and North Dakota (MPCA, Colorado Department of Public Health and Environment (CDPHE), Illinois Environmental Protection Agency (IEPA), Michigan Department of Environment, Great Lakes, and Energy [EGLE], North Dakota Division of Air Quality [NDAQ]) do **not** meet USEPA's target Title V permit backlogs. USEPA also found that air quality agencies in Indiana, Iowa, North Carolina, South Dakota, Tennessee, and Wisconsin meet USEPA's target for Title V permit backlogs.

Approach to Federal Construction and Operating Permits (Combined vs. Separate)

As noted above in Table 5-13, air quality agencies differ in how they authorize construction and operation of stationary sources. The MPCA and agencies in Indiana and North Carolina issue combined construction and operating permits, while air quality agencies in the remaining benchmark states issue permits authorizing construction, followed later by permits authorizing operation. In theory, issuing a combined construction and operation permit could be more efficient than issuing separate permits.

Based on USEPA reports documenting Title V program reviews, agencies with combined permitting programs do not universally meet USEPA's target for Part 70 (or Title V) permitting backlogs. Of the three air quality agencies with combined permitting programs, the North Carolina Department of Air Quality (NCDAQ) and Indiana Department of Environmental Management (IDEM) meet the target, but the MPCA does not.

Out of the eight states with agencies that issue separate construction and operating permits, four agencies (CDPHE, IEPA, EGLE, and NDAQ) do not meet the USEPA target for Title V permitting backlogs, but four do (Iowa Department of Natural Resources [IDNR), South Dakota Department of Agriculture & Natural Resources [SDDANR], Tennessee Department of Environment and Conservation [TDEC], and Wisconsin Department of Natural Resources [WDNR]).

Title V Permit Format

Title V operating permits are intended to contain and summarize all applicable state and federal air quality requirements (e.g., limitations, monitoring, testing, recordkeeping, reporting) for a facility's operations. These permits are often large documents with differences in organization and formatting

depending on the state permitting agency. An example of two similar facilities with Title V permits in two states are the Marathon Petroleum Corporation's Mandan, North Dakota and St. Paul Park, Minnesota petroleum refineries. They have been selected for comparison given the same types of emission units, applicable regulatory programs, and comparable design capacities (105,000 barrels per day [bpd] and 70,000 bpd, respectively).[15] These refineries are both major sources of hazardous air pollutants, subject to comprehensive industrial regulations (40 CFR Part 63 Subparts CC and UUU, among others), and incorporate consent decree requirements in addition to other programs. Based on those items, these two facilities represent highly regulated sources regarding air permitting and compliance programs. Copies of the complete permits are included in Appendix 4.

- Permit size, by page count:
    - Mandan: 148 total pages
    - St. Paul Park: 1401 total pages (1950 pages if counting corresponding Tempo facility detail pages)
- Permit organization:
    - Mandan: combination of equipment unit summary tables, individual sections with numbered narrative-specific conditions, and supporting attachments for refinery-specific emission unit (flare)
    - St. Paul Park: large tables presenting equipment relationships to emission points, and large primary sections in two-column tabular format for all conditions and requirements.

The North Dakota format has clearly defined sections (e.g., Emission Unit Operating Limits/Process Restrictions, Alternative Operating Scenarios, Monitoring Requirements and Conditions, etc.), which provide a more straightforward way to identify actionable items for the facility to better understand compliance obligations. By comparison, the Minnesota format's uniform presentation of requirements creates overly homogeneous sections that introduce undue complexity and difficulty in efficiently extracting relevant information and compliance actions from the permit.

In other words, from the perspective of the permittee, there are significant challenges in usability based on Minnesota's format. The list of equipment / component group presented in the above-referenced permit, and essentially any large permit, are assigned such that it is nearly impossible to use the permit in any meaningful way to identify the limits, monitoring, testing, etc., for the plant without spending significant effort to map out and decipher the permit organization. Conversely, the North Dakota air permit provides a generally clear list of equipment and emission points and a straightforward listing of applicable requirements and conditions. This allows permittees to efficiently and clearly understand applicable requirements and conditions.

[15] https://www.marathonpetroleum.com/Operations/Refining/

All states have individualized air permit formats, along with permits that generally have clearly delineated and defined sections. General perspectives from air permit holders indicate that permits with clearly defined sections are perceived as easier to understand and demonstrate compliance with, compared to Minnesota's.

Streamlined Minor Source Permitting Options

Minnesota has established a registration permitting program that offers beneficial flexibility to industry, coupled with generally timely issuances. The corresponding registration permitting programs include:

- Option A – New source performance standards only
- Option B – Volatile organic compounds
- Option C – Boiler/internal combustion engine/VOCs
- Option D – Actual emissions below 50% of federal thresholds

Registration permits are standardized and are typically issued in a timely manner for facilities that can meet the necessary corresponding eligibility criteria. These are commonly utilized by smaller, less complex facilities.

Further, Minnesota has also established a Capped Permit Program, which is eligible for facilities that:

> *… comply with requirements and have emissions no greater than 90% of federal permitting thresholds to make physical and operational changes without getting advance approval or a permit amendment. Capped permit holders can be subject to any of the 14 federal new source performance standards listed for registration permits.*

This permit program has several additional eligibility requirements including demonstrating compliance with a simple dispersion modeling screening exercise, only having limited federal regulatory applicability, and completing a public comment period as prior to permit issuance., However, once the permit is issued companies can modify their facilities without MPCA approval, so long as capped permit program eligibility is maintained. The capped permit program expands on the flexibility of the registration permit program with broader eligibility, allowing larger facilities to utilize this mechanism for air permitting approval in a timely manner.

Additionally, Minnesota has established the following general state permits for common and standardized industrial facilities:

- Part 70 (Title V) general manufacturing permit
- Non-metallic mineral processing general permit

Table 5-20 summarizes general permit and permit by rule programs currently established in the benchmark states.

Table 5-20 Streamlined Air Permitting Options Summary

State	Summary
Colorado	This state had developed a facility-wide general permits for upstream oil and gas operations. There are 11 upstream oil and gas general permits
Illinois	This state has established general permits for the following industries: • Non-portable concrete batch plants • Portable concrete batch plants • Portable crushing plants • Certain remediation systems ROSS program: the Registration of Smaller Sources Program which replaces traditional air permitting with a streamlined registration process, with limited compliance requirements as long as additional eligibility criteria are met.
Indiana	This state does not have industry-specific general permits or permit by rule (PBR) options.
Iowa	This state does not have industry-specific general permits or PBR options.
Michigan	This state has established general permits for the following industries: • Anhydrous ammonia storage and handling • Coating lines emitting up to 10 tons per year of VOC • Diesel fuel-fired engine generators with a maximum capacity of five megawatts • Ethylene oxide sterilizers • Natural gas-fired burn-off ovens • Nonmetallic mineral crushing plants • Propane or natural gas-fired boilers • Remediation processes for gasoline and petroleum-based contaminants
North Carolina	This state does not have industry-specific general permits or PBR options.
North Dakota	This state does not have specific PBRs or general permits for small facilities. Instead, it has a relatively streamlined construction and operating permit program, which includes certain exemptions for minor sources.
South Dakota	This state has established general permits for the following industries: • Asphalt plants • Rock crushers • Concrete plants Grain elevators
Tennessee	This state has both industry-specific general permits and PBRs, including the following. General permits for: • Perchloroethylene dry cleaners • Petroleum solvent dry cleaners PBRs for: • Gasoline dispensing facilities • Stationary emergency engines or generators • Auto body shops

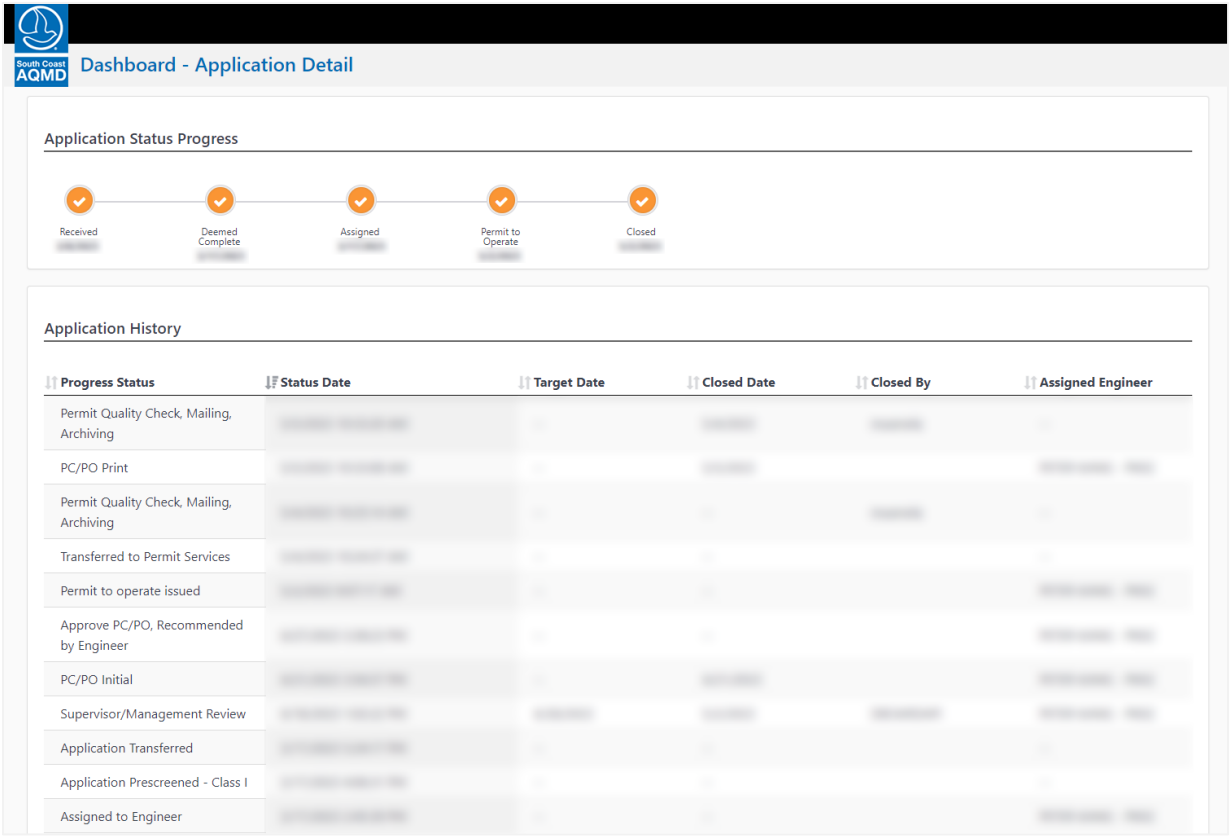
State	Summary
Wisconsin	This state has both registration and general permit programs. Registration permit categories are similar to Minnesota, but all registration permits require modeling demonstration. General permits exist for the following industries: • Rock crushing plants • Hot mix asphalt plants Similar to Minnesota, Wisconsin has four types of registration permits: • A – emissions less than 25% of major source thresholds, other eligibility requirements exist (e.g., cannot have Maximum Achievable Control Technology/National Emission Standards for Hazardous Air Pollutants applicability). • B – emissions less than 50% of major source thresholds • C – specific registration permit for printers • G – emissions less than 80% of major source thresholds and part of WI's Green Tier program.

In addition to the general permits and permit by rules summarized in Table 5-20, most states have minimum thresholds for air permitting and criteria that exempt very small sources of air emissions with limited federal and state regulatory applicability to operate without an air permit. Exemptions from requiring an air permit are narrow and vary by state and industry category. Therefore, exemptions are assumed to impact a small band of facilities, and as such were not further investigated.

Transparency

States have taken different approaches regarding how to provide transparency with companies and the public. An identified issue in Minnesota has been the inability to understand where an application is in the overall process once submitted to the MPCA. Active air permits can be identified and viewed via the MPCA's What's in My Neighborhood tool, but this resource does not include the original application or other supporting files. As of February 2019, the MPCA published a separate web-based resource for monitoring air permit application status after the application has been submitted. As described in Section 5.1.1.4, the Air Permit Applications Received web-based resource provides some important and useful information related to permitting timelines, other states have developed tools that better convey application status and progress.

A specific example of agency transparency was observed in the state of California. While California was not included in the formal benchmarking, the state was identified during the evaluation of existing resources that could inform this research. Figure 5-6 provides an example of California's system that shows internal agency deadlines, status updates, and permitting staff associated with the project, beyond the initial assignment of a permit engineer to a project.



Source: reference (7)

Figure 5-5 California Air Permitting Transparency Example

Additionally, all other benchmark states have developed web-based resources for aiding in transparency and accountability. While these resources have differing levels of detail and features, at a minimum they provide access to current air permits, and they also present access to applications and other supporting information in differing ways. The examples presented below constitute approaches to publishing these documents and data that aid in transparency in the air permitting process.

These resources can include interactive map-based searches like the MPCA tools, but also include more detailed files and documents for a given facility.

North Dakota – Combined Environmental Regulatory Information System (CERIS-ND)

The open records search tool of CERIS-ND[16] features a searchable map, like the MPCA's tools, but also includes all facility information and details, air permit applications, issued permits, and other associated environmental communications and compliance documentation. Accessing all these files through one tool is beneficial. Notably absent from CERIS-ND, however, are the intermediate steps for active air permit applications in process by the state.

[16] https://www.deq.nd.gov/ceris-ND/

Tennessee – Air Pollution Control Permits & Inspections Data Viewer

The data viewer provided by Tennessee presents information common to Minnesota's and other state resources in a novel manner. Note that it does not feature a searchable map. [17]

An example facility record is provided in Figure 5-6, highlighting the streamlined layout for accessing relevant files and summarizing information in a succinct manner.

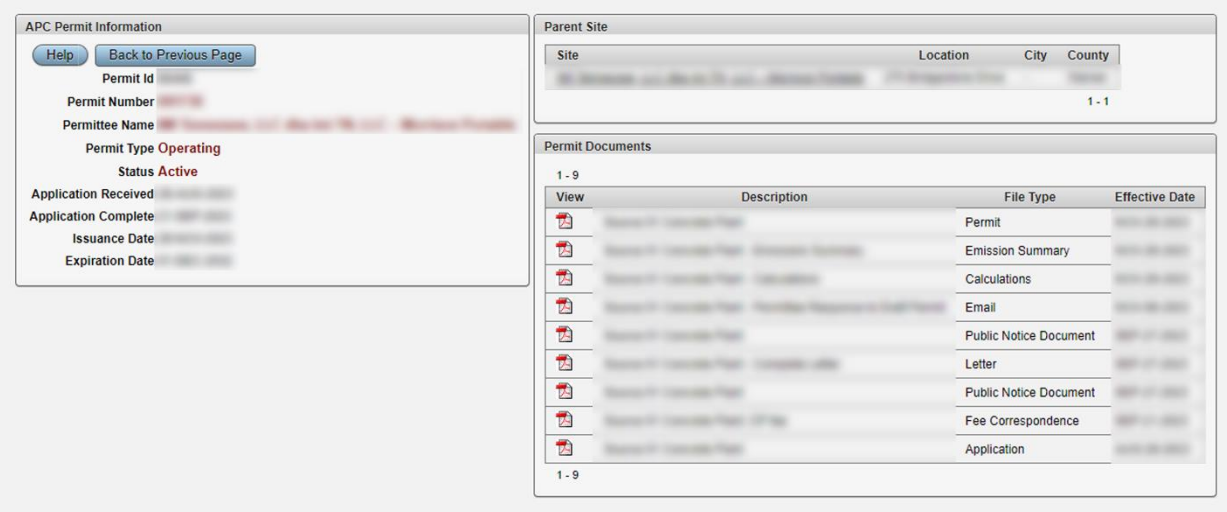


Figure 5-6 Air Pollution Control Permits & Inspections Data View Example

While the MPCA What's in My Neighborhood tool provides information regarding multimedia environmental programs, it does not include any additional or supporting information like the example here. Additionally, this data viewer includes basic permit application processing dates.

Wisconsin – Air Permit Search Tool

While Wisconsin's Air Permit Search Tool does not include a searchable map, it does have a detailed search function. [18] Additionally, each facility record includes detailed facility and contact information, along with emission inventory files, permit applications, and permits.

The permit application details include the date the application was submitted, the date the application was complete, public notice dates, and the final decision date, along with status and permit writer. An example of this detailed information presentation is included in Figure 5-7.

As part of a Title V Program Evaluation Report (Appendix 1), USEPA highlighted how the WDNR now has "tools for permit writers to be able to track the time spent on permits and identify where delays may be occurring in the process." Sharing this kind of information with the public further enhances transparency.

[17] https://www.tn.gov/environment/about-tdec/tdec-dataviewers.html
[18] https://dnr.wisconsin.gov/topic/AirPermits/Search.html

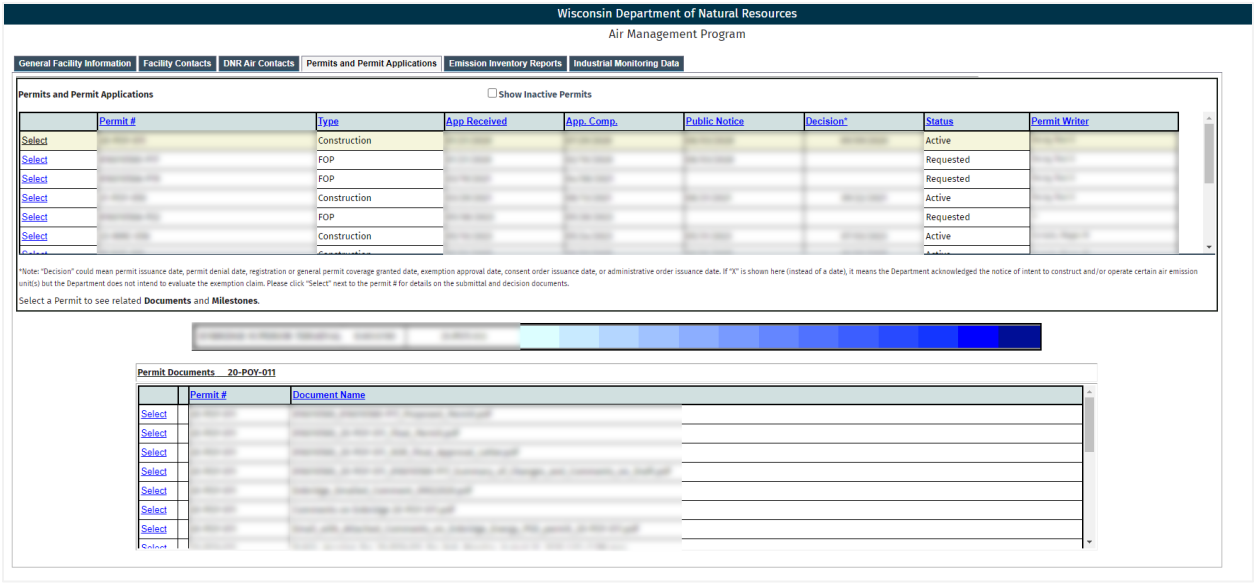


Figure 5-7 Wisconsin Department of Natural Resources Air Permit Search Tool Example

Number of Air Quality Agencies

As shown in Table 5-12, three of the 10 benchmark states have more than one agency responsible for air quality permitting. States with multiple air quality agencies can have programs or rules more closely aligned with localized air quality issues or priorities, but this also increases complexity. It can be challenging for the regulated community to be aware of and comply with different rules or standards within the same state. One extreme example of this is California that has more than 30 different local air quality agencies which presents compliance challenges to businesses who operate throughout the state and must understand the rules and procedures in many different jurisdictions. While California was not a chosen benchmark state, this example was provided for additional context.

Agency Funding

One item initially proposed in the data collection process was to gather and compare agency budget data. Initial investigation into individual agency air permitting programs yielded inconclusive results. Each agency is organized differently, received different levels of federal funding, may be designed to be self-funded through permitting fees and emissions fees, or simply have its budgets nested within a state's overall environmental agency budget. Due to these factors, and after additional analysis, further investigation into budget alone was not pursued.

Additional Analyses

While air permitting programs contain generally similar requirements, certain unique modeling assessments and Environmental Justice impacts have been identified across Minnesota and the benchmark states. These factors can increase the complexity and processing time of an air permitting project. Compared with other states, the Air Emissions Risk Analysis is more complex and can require multiple rounds of updates to be accepted and approved by MPCA. Excluding or exempting sources that are already subject to federal regulations for hazardous air pollutants authorized under CAA Section 112,

from the need to complete an Air Emissions Risk Analysis may help reduce the complexity and length of the air permitting process while still maintaining environmental protections.

Additional analyses are summarized in Table 5-21.

Table 5-21 Additional Air Permitting Factors for States

State	Toxics or Health Risk Assessment, or Other Modeling Requirements		Environmental Justice Program		
		Additional Modeling Context	State Entity	State Mapping	Permit Specific Requirements?
Minnesota	Yes – Air Emissions Risk Analysis (AERA); required for projects that are in ENVIRONMENTAL JUSTICE areas or require environmental review. Discretionary AERAs can be requested for projects with high public interest or that have significant air quality impacts.	Cumulative total impacts from all pollutants.	Environmental Justice Advisory Group	Yes	Pending rulemaking
Colorado	Yes – a modeling assessment is required for certain criteria pollutants for minor and major projects or modifications.	Based on assessments of individual pollutants.	Environmental Justice Advisory Board	Yes – Colorado EnviroScreen	Yes – Regulation 3
Illinois	No additional screenings identified	N/A	Commission on Environmental Justice	Yes – Illinois Environmental Protection Agency Environmental Justice Start	Yes – case-by-case
Indiana	No additional screenings identified	N/A	No	No	No
Iowa	Minor sources are required to model criterial pollutants if the project exceeds hourly equivalents of Prevention of Significant Deterioration significant emission rates	N/A	No	No	No
Michigan	Yes – Air Toxics Program; required for new or modified sources	Based on individual toxic pollutant thresholds	Office of the Environmental Justice Public Advocate	Yes – MiEnvironmental JusticeScreen	Yes – case-by-case

State	Toxics or Health Risk Assessment, or Other Modeling Requirements		Environmental Justice Program		
		Additional Modeling Context	State Entity	State Mapping	Permit Specific Requirements?
North Carolina	Yes – Toxics modeling policy per 15A NCAC 02Q	Based on individual toxic pollutant thresholds	Environmental Justice and Equity Board	Yes – Community Mapping System	Yes – Environmental Justice Report for permits
North Dakota	Yes – Air Toxics Policy	Based on individual toxic pollutant thresholds	Environmental Justice Coordinator	No	Yes – case-by-case
South Dakota	No additional screenings identified	N/A	No	Yes(1)	No
Tennessee	Yes – hydrogen fluoride and hydrogen chloride additional standards for modeling	Specific standards only for hydrogen fluoride and chloride.	No	No	No
Wisconsin	Yes – NR 445 may require toxics modeling depending on emission rates	Based on individual toxic pollutants	In development	In development	No

(1) Unlike other states that have developed environmental justice mapping tools, South Dakota has only published static maps in the Department of Agriculture & Natural Resources' Nondiscrimination Policy, dated April 18, 2023.

5.1.4 Considerations for Improvement

Considerations for improvement related to the air permitting process, 2023 Annual Permitting Efficiency Report (Appendix 7), and MPCA's Air Permit Applications Received web-based resource were developed based on information in Sections 5.1.1 to 5.1.3.

As described in the "Background" section of 2023 Annual Permitting Efficiency Report (Appendix 7), the length and uncertainty of environmental review and permitting contribute negatively to the perceived business climate in Minnesota. Many of the considerations for improvement offered in this section for air permitting aim to obtain a more detailed understanding of processing timeframes, provide greater transparency, or improve efficiency.

Appendix 1 contains further considerations for improvement that were developed in 2019 by the Minnesota Chamber Foundation.

Considerations for Improvement - Air Permitting Process

The following are considerations for improvement of the air permitting process in Minnesota:

Table 5-22 Consideration for Improvement - Separate Construction and Operating Permits

Consideration for Improvement	Amending permitting rules to issue separate construction and operating permits.
Supporting Analysis in Report	See Sections 5.1.1.4 and 5.1.3. Illinois has one of the shortest average permitting issuance durations, and used to have a combined permitting program like Minnesota, but now issues separate construction and operating permits. Many other states reviewed for this assessment were also identified as having separate construction and operating permit approvals. Permitting issuance durations could be shorter if the MPCA issued separate construction and operating permits. A standalone construction permit could focus only on the new or modified equipment and could be a streamlined document compared to the combined (construction and operating) permits the MPCA currently issues. A shorter, more focused document may provide benefits to the general public, applicants, and the MPCA. This approach could improve the general public's understanding of air permits and enable more meaningful public engagement, allow permit holders to review and understand permit requirements more readily, and support more timely permit processing by the MPCA.
Improvement Goal	This could help reduce the time it takes the MPCA to review and act on projects associated with construction or modification at a facility.

Table 5-23 Consideration for Improvement - Reorganize and Reformat Air Permit Structure

Consideration for Improvement	Reviewing the format and organization of air permits.
Supporting Analysis in Report	See Section 5.1.3. Many air permitting professionals and regulated community members think MPCA air permits, especially for major sources, are longer and more complex since the introduction of Tempo (MPCA's database system). There is a perception that the format of air permits is driven by Tempo structures or capabilities, as opposed to consideration of what would be easiest for the public or permit holder to utilize. Comparisons of permit organization (table of contents) for similar operations in MN versus other states show there is room for improvement in permit organization to enhance the ease of navigating and utilizing air permits. Even without modifying the format and organization of air permits, MPCA should utilize redline comparisons to aid applicant review of draft permits.
Improvement Goal	Improved organization or format of air permits could reduce the time and effort necessary for the MPCA to prepare permits and would help permit holders more clearly understand their permits.

Table 5-24 Revise Approach to Determine Completeness of Applications

Consideration for Improvement	Reviewing and revising approach to completeness evaluations.
Supporting Analysis in Report	See Section 5.1.3. A common perception among permitting consultants and applicants is that the MPCA staff conducting completeness reviews are exceedingly strict; and frequently the 'deficiencies' identified are minor issues that could easily be resolved with a brief conversation. The MPCA could encourage these staff to contact applicants before deeming an application incomplete, and potentially reduce re-work for both the applicant and MPCA staff. Permitting consultants and applicants theorize that there is more incentive for these MPCA staff to deem an application incomplete than to reach out and clarify potential misunderstandings. It is not clear whether this is intentional, but we recommend the MPCA investigate this further. The MPCA could also relax the criteria that trigger an incomplete application.
Improvement Goal	This could help reduce the overall perceived duration of the air permitting approval process and help get air permits assigned to MPCA staff in a time-efficient manner.

Table 5-25 Consideration for Improvement - Revise Expedited Permitting

Consideration for Improvement	Reviewing and revising expedited permitting options.
Supporting Analysis in Report	See Section 5.1.1.4. MPCA could review how well their expedited permitting program is working by tracking data and analyzing it along with other data in the 2023 Annual Permitting Efficiency Report (Appendix 7). The perception among permitting consultants and applicants is that the expedited permitting option is typically not available, and there is uncertainty regarding how quickly the application might be processed. A possible revision may include the MPCA utilizing qualified 3rd party consultants to support the review and evaluation of permit applications, prepare drafts, and other supporting steps, while the MPCA retains the responsibility to approve and issue final permits. This could result in an expediting mechanism that is both consistently available to applicants, and ultimately reduces the application review time.
Improvement Goal	This would help improve permitting timeliness for time sensitive projects that may have a positive economic impact on Minnesota.

Table 5-26 Consideration for Improvement - Publish Detailed Air Permit Processing Timeline Data

Consideration for Improvement	Collecting and publishing more detailed data on air permit processing timelines that could benefit the MPCA, the public, and applicants.
Supporting Analysis in Report	See Section 5.1.1.4. In addition to the basic permit received and issuance dates, detailed data could include intermediate permit processing steps and completion dates, publicly facing records of permit processing milestones – not just for active permits. While the air permits received web-based resource does note when an active air permit is under review, these timelines are not readily available for completed permits. Tracking information related to expedited permitting requests, including number of requests, how many applications are expedited, and whether they are processed more quickly than non-expedited permits also helps provide transparency into the overall permitting process. Enhanced permit processing data collection and reporting could: • improve transparency for the public and applicants, • provide a greater understanding of timeliness for different permit types, • support identification of opportunities to improve permit processing, • aid MPCA staffing or training decisions.
Improvement Goal	Transparency can help drive overall process improvements. This would improve the transparency in the air permitting process for groups directly affected by air permits.

Table 5-27 Consideration for Improvement - Encourage Use of Tier 1 Permitting Options

Consideration for Improvement	Encouraging applicants to utilize Tier 1 permitting options when possible (registration permits, capped emission permits, general permits), or consider expanding the existing registration and capped permitting programs.
Supporting Analysis in Report	See Section 5.1.1.4. Over the past 10 years, the MPCA has issued ~70-90% of Tier 1 applications within the 90-day goal, based on data from the MPCA's "Air Permit Applications Received" web-based resource[19]. However, over the past 10 years, the MPCA has only issued ~2-18% of Tier 2 applications within the 150-day goal, based on data from the MPCA's "Air Permit Applications Received" web-based resource[20]. MPCA could consider developing a streamlined permitting option to allow changes that are environmentally beneficial to proceed more quickly. Replacing an older control device with a state-of-the-art new device often requires a major permit amendment. In addition to the existing registration and capped permit programs, the MPCA could also evaluate implementing a permit by rule process for small, uniform sources to provide an efficient authorization mechanism as observed in other states.
Improvement Goal	The MPCA processes Tier 1 air permit applications in a timely and efficient manner. While not all facilities or projects can meet the eligibility requirements of this Tier 1 programs, expanded use of the permitting mechanisms could improve the efficiency of air permit issuances.

Table 5-28 Consideration for Improvement - Expand Online Air Permitting Services

Consideration for Improvement	Continuing to expand online air permitting services, while also soliciting and acting upon user feedback to improve user experience/reliability.
Supporting Analysis in Report	See Section 5.1.3. Electronic permit application submittals could help with streamlining administrative and completeness reviews. However, expansion of electronic application submittals should be investigated in partnership with industry to ensure that any new processes do not increase undue complexity of application preparation. Applicants and permitting consultants assisting with online applications for Title V renewals have experienced technical challenges, particularly for 'larger' facilities with many emission units or control equipment.
Improvement Goal	Electronic permit application submittals have the potential to increase efficiency in the submittal process if developed and executed in a way that provides the necessary flexibility to applicants while ensuring the MPCA gets the necessary information required to review an application.

[19] "Air Permit Applications Received" web-based resource, data retrieved November 6, 2023. https://public.tableau.com/app/profile/mpca.data.services/viz/AirPermitApplicationsReceived/SimpleDash
[20] "Air Permit Applications Received" web-based resource, data retrieved November 6, 2023. https://public.tableau.com/app/profile/mpca.data.services/viz/AirPermitApplicationsReceived/SimpleDash

Table 5-29 Consideration for Improvement - Review "Old" Air Permit Applications in Queue

Consideration for Improvement	Reviewing and potentially addressing permitting queue of "old" air permit applications (applications that have not been assigned but were received more than 365 days ago).
Supporting Analysis in Report	See Section 5.1.1.4. According to the MPCA permitting web-based resource21 as of November 6, 2023: • MPCA had approximately 371 applications awaiting assignment. • Approximately 25% (91 of 371) were received less than 365 days ago. • The remainder (280 of 371) have been awaiting assignment for anywhere from 1-30 years. Approximately 134 applications are 1-5 years old, 87 are 5-10 years old, and 59 are greater than 10 years old. MPCA could take a screening approach and attempt to contact the applicants to determine whether any of the applications are no longer needed or relevant.
Improvement Goal	Clearing the backlog of pending permits could then help the MPCA prioritize handling current and future applications in a timely and efficient manner.

Table 5-30 Consideration for Improvement - Align Minn. Stat., Section 116 with Federal Law

Consideration for Improvement	Reviewing and amending Minn. Stat., Section 116 to ensure toxics regulations align with federal law.
Supporting Analysis in Report	See Section 5.1.3. Amending Minn. Stat., Section 116 to preclude establishing state toxics regulations for sources that are already subject to federal requirements under Clean Air Act Section 112 could reduce the number of applications that must include an Air Emissions Risk Analysis.
Improvement Goal	Maintaining adequate environmental protections without unduly increasing the complexity of the air permitting process, and potentially contributing to improved permitting efficiency.

[21] "Air Permit Applications Received" web-based resource, data retrieved November 6, 2023. https://public.tableau.com/app/profile/mpca.data.services/viz/AirPermitApplicationsReceived/SimpleDash

Table 5-31 Consideration for Improvement - Additional Support for Permit Applicants

Consideration for Improvement	Providing more support for regulated community and permit applicants by expanding the scope of existing small business ombudsman (supports businesses with less than 100 employees) or establishing a separate permitting ombudsman to support permit applicants from businesses of all sizes.[22]
Supporting Analysis in Report	Enhancing the small business ombudsman was identified as a consideration for improvement while collaborating with the Chamber of Commerce Foundation.
Improvement Goal	This could provide support and additional transparency to businesses and industries with questions regarding air permitting in Minnesota. It could also help support further transparency and accountability in the air permitting process for the MPCA.

Considerations for Improvement – Minnesota Pollution Control Agency Annual Permitting Efficiency Report

The following are considerations for improvement of the MPCA Annual Permitting Efficiency Report.

Table 5-32 Consideration for Improvement - Provide Permit Application Outcome Breakdown by Program

Consideration for Improvement	Providing breakdowns of the outcomes for permit applications for each medium (air, land, water) separately, similar to what is presented for all mediums collectively in Table 1 and Table 2 of the "Data" section of the 2023 Annual Permitting Efficiency Report (Appendix 7).
Supporting Analysis in Report	See Section 5.1.1.4 While this report provides initial insight into the MPCA's self-reported permitting efficiency, it is not granular enough to provide details on individual program permitting outcomes. Additionally, because the air permitting program is not individually reported, the long permit issuance times are not directly identifiable.
Improvement Goal	This would improve transparency and efficiency insights for all included environmental permitting programs.

[22] The Small Business Ombudsman is an independent entity responsible for reviewing environmental regulatory activities to ensure that they are fair, reasonable, and appropriate for Minnesota's small businesses that have to comply with environmental regulations — independently owned and operated businesses with less than 100 employees. https://www.pca.state.mn.us/business-with-us/small-business-ombudsman

Table 5-33 Consideration for Improvement - Assess Timeliness of All Permits Issued in Fiscal Year

Consideration for Improvement	Assessing the timeliness of all permits issued in the fiscal year, not just those with applications received in the fiscal year.
Supporting Analysis in Report	See Section 5.1.1.4. At this time air permit timeliness can be in excess of a year, e.g., an application is submitted in a prior fiscal year to the year the application was issued, so complete details about permitting timelines are otherwise incomplete. Permit timelines should be assessed based on the date they were issued, not just on the date the application was received.
Improvement Goal	This would improve transparency for all programs, especially air permitting.

Table 5-34 Consideration for Improvement - List All Pending Permit Applications Past Issuance Goal

Consideration for Improvement	Listing all pending permit applications that are past issuance goal, not just applications received in the fiscal year.
Supporting Analysis in Report	See Section 5.1.1.4. Appendix B of the 2023 Annual Permitting Efficiency Report (Appendix 7) lists Tier 1 permit applications over 90 days, Tier 2 permit applications over 150 days, and reasons for delay, but only includes applications received in the current fiscal year. Appendix B lists 50 "overdue" air permit applications (13 issued late and 37 pending) that were received in FY2023, but there are ~349 additional "overdue" and still pending air permit applications that were received before July 1, 2022 that do not appear on this list or elsewhere in the 2023 Annual Permitting Efficiency Report (Appendix 7).[23]
Improvement Goal	This would improve transparency in reporting on the efficiency of the air permitting program. It would also provide a complete picture of the active and pending work ahead of the air permitting staff.

[23] "Air Permit Applications Received" web-based resource, data retrieved November 6, 2023. https://public.tableau.com/app/profile/mpca.data.services/viz/AirPermitApplicationsReceived/SimpleDash

Table 5-35 Consideration for Improvement - Assess Permit Wait Queue

Consideration for Improvement	Assessing time spent waiting in queue for each permit, in addition to assessing the time spent between beginning work on an application and the permit being issued.
Supporting Analysis in Report	See Section 5.1.1.4 Concerns regarding timeliness have been identified across the application approval process, and specifically based on data observed in the Air Permitting Web-based resource it is apparent that applications deemed completed can otherwise sit without having MPCA staff assigned to the application for an extended period of time.
Improvement Goal	By tracking and reporting on the time between completeness and the start of the MPCA's review would help provide additional transparency into the MPCA's overall process and efficiency.

Table 5-36 Consideration for Improvement - Provide Additional Minnesota Pollution Control Agency Prioritization and Assignment Information

Consideration for Improvement	Providing more information on how the MPCA prioritizes and assigns permit applications to permitting staff.
Supporting Analysis in Report	See Sections 5.1.2 and 5.1.3. While permitting staff size may not directly impact approval timeliness, internal agency process could be assumed to contribute to this. Other benchmarking states appear to be processing the same types of air permits as in Minnesota at higher volumes of applications and with varying staff sizes.
Improvement Goal	Additional insights into the MPCA's process for assigning application to permitting staff could be supportive of enhancing transparency between the MPCA and applicants.

Considerations for Improvement - MPCA Air Permit Applications Received web-based resource

The following are considerations for improvement of the MPCA Air Permit Applications Received web-based resource, which includes documenting and publishing enhanced details and statistics associated with air permit application processing and issuance.

Table 5-37 Consideration for Improvement - Publish Additional Details for Applications Received and Permits Issued

Consideration for Improvement	Publish additional details and statistics on received applications and issued permits, including:
	• summary statistics of pending applications (total pending, number pending aged less than applicable issuance goal, number pending older than applicable issuance goal),
	• summary statistics of issued permits (total issued in current year, percent meeting applicable issuance goal, percent issued within regulatory deadline),
	• the applicable issuance goal for each application (90-days for Tier 1, and 150-days for Tier 2 permit applications),
	• the applicable regulatory deadline for each application (i.e., final action within 18 months of receipt of complete application for initial Part 70 permit or Major Amendment),
	• which applications are "priority" (require construction) versus "non-priority" (non-construction-related),
	• the "age ratio" of an application relative to applicable issuance goal (e.g., 0.8 for a pending Tier 2 application received 120 days ago. 120/150=0.8),
	• the current "place in line" for applications with "awaiting assignment" status,
	• cumulative staff time spent processing each application,
	• context for current place in overall process (e.g., Step 3 of 8 – technical review in progress)
	• milestones in permitting process, such as:
	  ○ date application is deemed complete (or incomplete),
	  ○ date application is assigned to permitting staff,
	  ○ date public notice begins and ends,
	information about expedited permit requests,
	information about whether applications are deemed complete, returned, or withdrawn.

Supporting Analysis in Report	See Section 5.1.1.4. The information currently published on the web-based resource provides certain insights into the air permitting process and timelines, however as seen in other states, additional data and information could be published here to better inform air permit applicants. Increasing the information published on the web-based resource could allow for all interested parties to investigate, assess, and be more informed on the current status of air permitting in Minnesota. Even with the information currently published on the web-based resource, there exists a perception of uncertainty for permit applicants because limited information and contact details are available to understand where a permit may be in the overall process.
Improvement Goal	Publishing additional details and statistics could help improve transparency between the MPCA and applicants for individual projects. Additionally, by collectively publishing this information, better insights would be available regarding the overall air permitting process and associated timelines.

5.2 Water Permitting

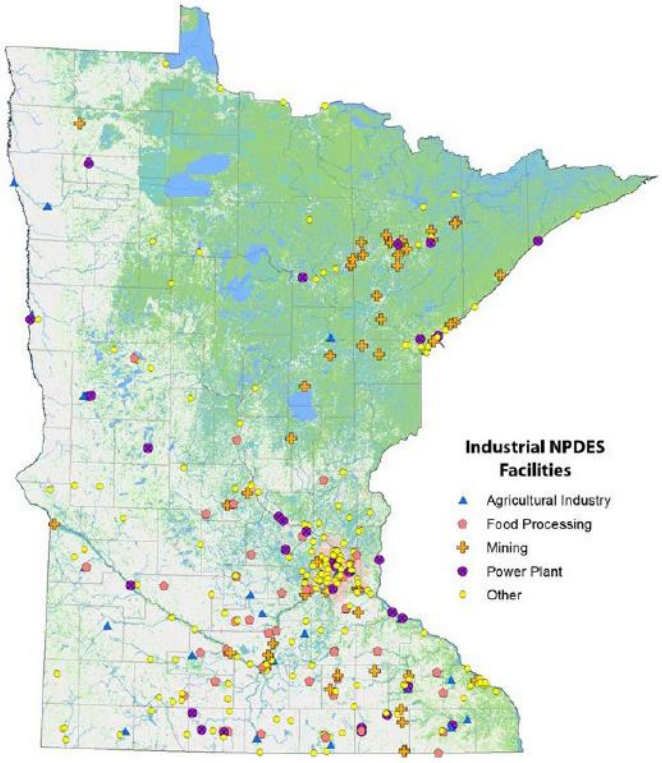
The following sections discuss key aspects of Minnesota's NPDES permitting process and associated execution (Section 5.2.1), summarize key aspects of the permitting processes in the benchmark states (Section 5.2.2), present comparisons between Minnesota and the benchmark states (Section 5.2.3), and summarize considerations for improvement of Minnesota's NPDES permitting process (Section 5.2.4).

This section focuses on NPDES permits, which are required for discharges of pollutants from point sources into waters of the United States (40 CFR 122.1 (b)(1)). Types of discharges requiring NPDES permits include discharges of wastewater and industrial, construction, and municipal stormwater to surface waters. Facilities that discharge to a municipal sanitary sewer system do not need an NPDES permit but may need a permit or authorization from the municipality. Facilities that discharge to a municipal storm sewer system may or may not need an NPDES permit depending on type of discharge.

5.2.1 Minnesota

The MPCA is authorized by the USEPA to implement the NPDES regulatory program (except on tribal lands). The agency also oversees the Minnesota-specific State Disposal System (SDS) program, which regulates discharges to groundwater from disposal systems. The MPCA issues permits as either NPDES/SDS or SDS permits depending on whether both regulatory programs apply. An NPDES/SDS permit is required for any industrial, municipal, or private entity with a point-source discharge of wastewater to a surface water of the state.

Consistent with the USEPA and other states, the MPCA issues both individual permits, which are site-specific and issued to a single permittee, and general permits, which are issued to cover multiple permittees with similar operations and types of discharges. The MPCA reported in January 2021 that its NPDES program was administering 1,585 individual NPDES/SDS permits (municipal and non-municipal) (reference (8)). Based on review of records exported from the MPCA's *What's in My Neighborhood* database (reference (9)), there are approximately 225 individual NPDES/SDS permits for industrial facilities in Minnesota (as of the end of the third quarter of 2023) (Appendix 5). Figure 5-8 depicts the general spatial distribution of industrial wastewater dischargers per industry type as of April 2022.



reference (10 p. 23)

Figure 5-8 Distribution of Industrial Wastewater Dischargers by Type

The following sections discuss:

- Minnesota's related statutes, rules, and regulations, including a specific summary of NPDES/SDS general permits, water quality standards, and impaired waters (Section 5.2.1.1)
- an overview of Minnesota's NPDES permitting process (Section 5.2.1.2)
- the MPCA's coordination with other agencies and stakeholders as part of the NPDES permitting process (Section 5.2.1.3)
- the timeliness of NPDES permitting in Minnesota (Section 5.2.1.4)

5.2.1.1 Current Statute, Rules, and Regulations

Minnesota Statutes grant administration of the NPDES program (Minn. Stat., Section 115.03, Subd. 5) and Minnesota-specific SDS program (Minn. Stat. 115.03, Subd. 1(e)(4) and 115.07, Subd. 1) to the MPCA. Associated regulations include:

- NPDES permitting regulations in Minn. R. 7001.1000 through 7001.1150
- Water quality standards in Minn. R. Chapter (Ch.) 7050 (state-wide) and 7052 (Lake Superior Basin)
- Additional discharge restrictions in Minn. R. Ch. 7053

- Groundwater protection requirements in Minn. R. Ch. 7060
- Stormwater permitting regulations in Minn. R. Ch. 7090

Further details are provided below specific to Minnesota's NPDES/SDS general permits, water quality standards, and impaired waters.

General Permits

General permits are issued to cover multiple permittees with similar operations and types of discharges. These types of permits are generally more efficient both for the agency and permittees compared to individual permits. The MPCA administers NPDES/SDS general permits covering:

- Discharge of non-contact cooling water (untreated or treated)
- Discharge of contaminated groundwater
- Operation of and discharge from controlled discharge stabilization and wastewater pond facilities
- Operation of and discharge from water treatment plants
- Operation of and discharge from nonmetallic mining operations and associated activities
- Operation of concentrated animal feeding operations
- Operation of metal finishing pretreatment facilities
- Land application of industrial by-products from food, beverage, and agricultural operations
- Transit through and discharge of ballast water to Lake Superior
- Use of pesticides in and around lakes, rivers, streams, and wetlands
- Discharge of phosphorus in the Minnesota River Basin
- Discharge of stormwater associated with industrial activities
- Discharge of stormwater associated with small municipal separate storm sewer systems
- Discharge of stormwater associated with construction activities

Water Quality Standards

Water quality standards are the core of the CWA and are important for permittees because they are used to derive effluent limits (water quality discharge limits) included in NPDES/SDS permits. Water quality standards consist of three components: designated uses, criteria to protect those uses, and policies to prevent degradation of water quality ("antidegradation"). Minnesota's water quality standards are specified in Minn. R. Ch. 7050 (state-wide) and 7052 (Lake Superior Basin).

When a new or expanded project is proposed, the quality of the wastewater discharge from the proposed activity is compared to the locally applicable water quality standards, and those standards are used to develop an NPDES permit, as shown in Figure 5-9. This process applies to parties proposing to discharge pollutants to a water body, whether it is public or private.

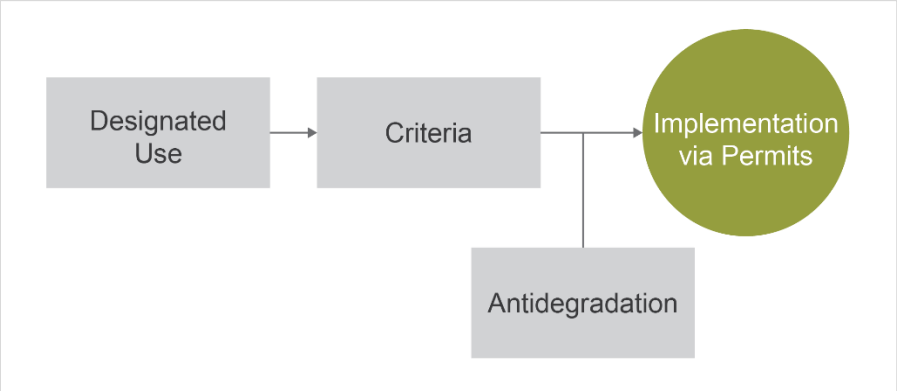


Figure 5-9 Use of Water Quality Standards in Developing National Pollutant Discharge Elimination System Permits

Designated uses are assigned to water bodies (or water body segments) to specify the goals for how each water body may be used. Minnesota has designated seven use classifications, which the state refers to as "beneficial uses":

- Domestic consumption (Class 1 waters)
- Aquatic life and recreation (Class 2 waters)
- Industrial consumption (Class 3 waters)
- Agriculture and wildlife (Class 4 waters)
- Aesthetic enjoyment and navigation (Class 5 waters)
- Other uses and protection of border waters (Class 6 waters)
- Limited resource value waters (Class 7 waters)

Water quality criteria are applicable to water bodies based on the bodies' designated uses. The USEPA develops recommended water quality criteria in accordance with CWA Section 304(a)(1); states may adopt the USEPA's recommended water quality criteria or use them as guidance in developing state-specific criteria. Minnesota currently has 1,355 individual numeric water quality criteria associated with 137 pollutants (Table 5-49) (the subset of pollutants and associated water quality criteria applicable to any specific water body is dependent on its designated uses).

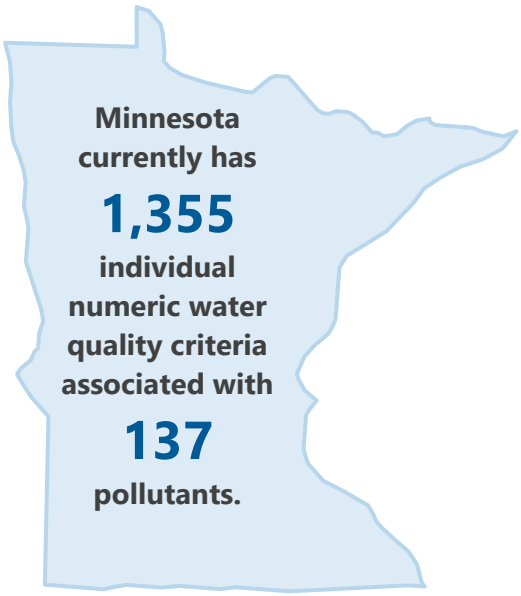


Figure 5-10 Minnesota Water Quality Summary

Minnesota's water quality criteria applicable statewide (Minn. R. 7050) correspond with its seven designated beneficial use classifications:

- Class 1 (domestic consumption) water quality criteria consist of the USEPA's primary (maximum contaminant levels) and secondary drinking water standards (40 CFR 141 and 143)
- Class 2 (aquatic life and recreation) water quality criteria incorporate some USEPA recommended criteria and also include state-specific numeric and narrative criteria; specifically:
    - 5 pollutants with minimum water quality criteria consistent with the minimum USEPA recommended criteria
    - 26 pollutants with state-specific water quality criteria for which there is not a corresponding USEPA recommended criteria (Table 5-38)
    - 18 pollutants with minimum water quality criteria more stringent (less) than the minimum USEPA recommended criteria (Table 5-39)
    - 26 pollutants with minimum water quality criteria less stringent (greater) than the minimum USEPA recommended criteria
- Class 3 (industrial consumption) and Class 6 (other uses and protection of border waters) water quality criteria consist of narrative criteria that the MPCA may translate into numeric criteria
- Class 4 (agriculture and wildlife), Class 5 (aesthetic enjoyment and navigation), and Class 7 (limited resource value waters) water quality criteria consist of state-specific numeric criteria (Table 5-40) and narrative criteria that the MPCA may translate into numeric criteria

In addition to the statewide water quality criteria, Minnesota also has aquatic life, human health, and wildlife water quality criteria for 29 pollutants that are specifically applicable to surface waters in the Lake Superior basin (Minn. R. Ch. 7052). These criteria are based on the federal water quality guidance for the Great Lakes system (40 CFR 132), which is applicable to waters within the Great Lakes drainage basin in Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin.

Table 5-38 Pollutants with Minnesota Class 2 Water Quality Criteria but No U.S. Environmental Protection Agency Recommended Water Quality Criteria

Name of Pollutant	Units	Minimum Minnesota Aquatic Life Criterion(1)
1,1,2-trichloroethylene	µg/l	25
acetochlor	µg/l	3.6
alachlor	µg/l	3.8
atrazine	µg/l	3.4
biochemical oxygen demand (bod)	µg/l	1,500
chlorobenzene (monochlorobenzene)	µg/l	20
chlorophyll a	µg/l	3
chlorpyrifos	µg/l	0.041
cobalt	µg/l	2.8
ddt	µg/l	0.00011
di-2-ethylhexyl phthalate	µg/l	1.9
diel dissolved oxygen flux	µg/l	3,000
di-n-octyl phthalate	µg/l	30
e. coli	organisms/100 ml	126
endosulfan	µg/l	0.0076
gamma-hch (gamma-bhc, lindane)	µg/l	0.0087
metolachlor	µg/l	23
naphthalene	µg/l	65
oil	µg/l	500
phenanthrene	µg/l	3.6
phosphorus	µg/l	30
polychlorinated biphenyls, total	µg/l	0.000014
secchi depth	meters	0.7
total phosphorus	µg/l	12
total suspended solids	mg/l	10
xylene	µg/l	166

µg/l = micrograms per liter; mg/L = milligrams per liter

(1) List of U.S. Environmental Protection Agency (USEPA) and Minnesota numeric water quality criteria downloaded October 24, 2023 from USEPA's "State-Specific Water Quality Standards Effective under the Clean Water Act (CWA)" site (reference (11) (Appendix 5)

Table 5-39 Minnesota Class 2 Water Quality Criteria More Stringent than U.S. Environmental Protection Agency Recommended Criteria

U.S. Environmental Protection (USEPA) Aquatic Life (AL), Human Health (HH), or Organoleptic (O) Criterion?	Pollutant Name	Units	Minimum EPA Recommended Water Quality Criterion[(1)]	Minimum Minnesota Water Quality Criterion [(1)]	% Minnesota More Stringent than EPA Water Quality Criterion
HH	1,1,1-trichloroethane	µg/l	10,000	329	187%
HH	1,2-dichloroethane	µg/l	9.9	3.5	96%
HH	anthracene	µg/l	300	0.035	200%
HH	antimony	µg/l	5.6	5.5	2%
HH	chlordane	µg/l	0.00031	0.000073	124%
HH	chloroform	µg/l	60	53	12%
HH	fluoranthene	µg/l	20	1.9	165%
HH	hexachlorobenzene	µg/l	0.000079	0.000061	26%
HH	mercury, total in edible fish tissue	mg/kg	0.3	0.2	40%
AL	mercury, total in water	µg/L	0.77	0.0013	199%
O	phenol	µg/l	300	123	84%
HH	polychlorinated biphenyls (pcbs)	µg/l	0.000064	0.000029	75%
AL	selenium	µg/l	71	5	174%
AL	silver	µg/l	1.9	0.12	176%
HH	tetrachloroethylene	µg/l	10	3.8	90%
AL	aluminum	µg/l	Water Chemistry Dependent	87	N/A
AL	ammonia	µg/l	Water Chemistry Dependent	16	N/A
O	color	platinum cobalt units	Narrative Dependent	30	N/A
AL	temperature	°F	Species Dependent	86	N/A

µg/l = micrograms per liter; mg/kg = milligram per kilogram; °F = degrees Fahrenheit

(1) List of U.S. Environmental Protection (USEPA) and Minnesota numeric water quality criteria downloaded October 24, 2023 from USEPA's "State-Specific Water Quality Standards Effective under the Clean Water Act (CWA)" site (reference (11) (Appendix 5)

Table 5-40 Minnesota Classes 4, 5, and 7 Numeric Water Quality Criteria

Designated Use Classification	Name of Pollutant	Units	Minnesota Numeric Water Quality Criterion
Class 4A	Boron	mg/L	0.5
	Sulfates	mg/L	10 (applicable to water used for production of wild rice during periods when the rice may be susceptible to damage by high sulfate levels)
	Radioactive materials	N/A	Not to exceed the lowest concentrations permitted to be discharged to an uncontrolled environment as prescribed by the appropriate authority having control over their use
Class 4B	pH	SU	6.0 to 9.0
	Total dissolved solids	mg/L	3,000
	Nitrate + nitrite	mg/L	100
	Sulfate	mg/L	600
	Radioactive materials	N/A	Not to exceed the lowest concentrations permitted to be discharged to an uncontrolled environment as prescribed by the appropriate authority having control over their use
	Toxic substances	N/A	None at levels harmful either directly or indirectly
Class 5	pH	SU	6.0 to 9.0
	Hydrogen sulfide	mg/L	0.02
Class 7	Escherichia (E.) coli	organisms/100 mL	630 (as a geometric mean of not less than five samples representative of conditions within any calendar month, nor shall more than 10 percent of all samples taken during any calendar month individually exceed 1,260 organisms per 100 milliliters; applies only between May 1 and October 31)
	Oxygen, dissolved	mg/L	Maintained at concentrations: - that will avoid odors or putrid conditions in the receiving water; - at not less than 1 mg/L (daily average); and - above 0 mg/L at all times
	pH	SU	6.0 to 9.0
	Toxic pollutants	N/A	Toxic pollutants shall not be allowed in such quantities or concentrations that will impair the specified uses.

mg/L = milligram per liter; N/A = not applicable; SU = standard units; mL = milliliters

Impaired Waters

An impaired water is a water body (or segment of a water body) that is identified as not fully achieving one of its designated uses based on pollutant concentrations higher than an applicable water quality criterion. CWA Section 303(d) requires states to develop lists of impaired waters and then develop total maximum daily loads (TMDLs) based on the maximum amount of a pollutant that can be present in a water body for it to meet water quality standards. Minnesota has 3,870 impaired waters out of approximately 24,852 total waters (16%) and 2,078 of the impaired waters are classified as needing a TMDL restoration plan (reference (12)).

5.2.1.2 Process

If an entity proposes to construct a new facility or engage in a new activity for which an individual NPDES/SDS permit is required, it must submit a permit application at least 180 days before the planned start date of facility construction or of the activity, whichever occurs first (Minn. R. 7001.1040, Subpart [Subp.] A). For permittees with existing individual NPDES/SDS permits, an application for permit reissuance must be submitted to the MPCA at least 180 days before the expiration date of the existing permit if continued permit coverage is desired (Minn. R. 7001.0040, Subp. 3). If a timely permit reissuance application is submitted but the MPCA does not reissue the permit prior to the expiration date, the permit may be "administratively continued" and the permittee may continue to conduct the permitted activity in accordance with the terms and conditions of the expired permit until the MPCA takes final action on the application (Minn. R. 7001.0160). A permittee requesting a new permit must wait for their permit to be issued before commencing the proposed activity.

For individual NPDES/SDS permits, the MPCA recommends but does not require pre-application meetings, particularly for facilities and projects involving new or expanding discharges. Early considerations include determination of whether an antidegradation assessment is required for new or expanded discharges, as specified in Minn. R. 7050.0250 to 7050.0335 (statewide) and 7052.0300 to 7052.0380 (Lake Superior Basin). A step-by-step overview of the permitting process for reissuance or issuance of an individual NPDES permit in Minnesota is provided in Figure 5-11.

The MPCA assigns a permit writer to each individual NPDES/SDS permit as the main point of contact for issuance, modification, and reissuance. Recently, the agency's industrial group has been assigning both an administrative permit writer and a permit engineer to each permit. Municipal permit writers are assigned based on geography, while industrial permit writers specialize in certain sectors and areas of expertise. As of October 2023, the agency's website lists 14 industrial wastewater permit staff (assigned by industry or permit areas) and 11 municipal wastewater permit staff (assigned by county).

Minn. Stat., Section 116.03, Subd. 2b(d) requires that the MPCA notify the permit applicant whether their permit application is complete or incomplete within 30 business days from receipt of application. If the application is complete and a priority Tier 2 permit (i.e., a permit that requires individualized actions or public comment periods) is needed, but the MPCA believes the permit cannot be issued within the 150-day goal, the MPCA is required to notify the applicant and, upon request, provide a schedule estimating when the MPCA will begin drafting the permit and issue the public notice of the draft permit (Minn. Stat.,

Section 116.03, Subd. 2b(d)). In practice, the MPCA does not always provide notification that permit applications are complete or incomplete within 30 business days or provide specific notice that a permit cannot be issued within the 150-day goal. If the MPCA completed these steps more consistently, it would add transparency to the permitting process and associated schedule.

Minnesota adopted new antidegradation rules in 2016: Minn. R. 7050.0250 to 7050.0335 (state-wide) and Minn. R. 7052.0300 to 7052.0380 (Lake Superior Basin). Minnesota's antidegradation rules and guidance (reference (13)) often require substantial time and effort (e.g., water quality monitoring, water quality modeling and/or calculations, analysis of alternatives, and economic analysis) for permittees and the MPCA to navigate a new or expanded discharge. Barr's understanding from discussion with MPCA staff is that few permittees have navigated these antidegradation procedures successfully; this is corroborated by review of permit records, which indicate that only approximately five new individual industrial NPDES/SDS permits have been issued in the last five years (NewRange Copper Nickel LLC's NorthMet Project, the Minnesota Sports Facilities Authority's U.S. Bank Stadium, Minnesota Department of Natural Resources' (MDNR) Interstate Island Wildlife Management Area, Enbridge Energy LP's Line 3 Replacement Project, and the City of Woodbury's Wilmes Lake alum treatment facility).

5.2.1.3 Coordination with Other Agencies and Stakeholders

As discussed, the authority to implement the NPDES regulatory program is delegated to the MPCA by the USEPA. Overall, the USEPA retains oversight of the MPCA's implementation of the program and authority to review NPDES permits. USEPA Region 5 reviews select draft Minnesota NPDES permits. A memorandum of agreement between the USEPA and MPCA (reference (14)) provides the terms and conditions for approval of Minnesota's NPDES permit program, including required coordination between the two agencies.

Draft NPDES/SDS permits are placed on public notice for interested parties to review and submit comments to the MPCA. Public notice comment periods are typically 60 days for publicly owned treatment works (Minn. Stat., Section 115.542, Subd. 4) and 30 days for non- publicly owned treatment works (e.g., industrial facilities) (Minn. R. 7001.0100, Subp. 4(G)). During that time, interested parties can submit comments on the draft permit (Minn. R. 7001.0110, Subps. 1 and 2), request a public informational meeting (Minn. R. 7001.0110, Subp. 3, and 7001.0120), and/or request a contested-case hearing on the draft permit (Minn. R. 7001.0110, Subp. 1, and 7001.0130). The MPCA responds in writing to all comments received during a public comment period and may make changes to the draft permit based on comments. If substantial changes are made in response to comments received, a second notice period may be necessary. After the agency issues the final NPDES/SDS permit, there is a period of 30 days for any party to appeal the MPCA's final decision to the Minnesota Court of Appeals (Minn. Stat., Section 115.05, Subd. 11).

Minnesota Statute 10.65 requires state agencies to implement consultation policies with the 11 federally recognized tribal nations within Minnesota's border. Over the last few years, the MPCA has been noticeably increasing its consultation with tribes related to water quality considerations. This has included consultation related to impaired waters, Minnesota's sulfate water-quality standard applicable to waters used for the production of wild rice, and permitting of mining facilities. This trend toward increased tribal

consultation is anticipated to continue as it is emphasized at both the state and federal levels. Additionally, four federally recognized tribal entities in Minnesota (Fond du Lac Band, Grand Portage Band, Leech Lake Band, and Red Lake Band) have received authorization to administer water quality standards programs under the CWA (reference (15)). For discharges upstream of these tribes, the MPCA is required to consider the tribal water quality standards in a way that is consistent with how it considers the water quality standards of other downstream states.

5.2.1.4 Timeliness

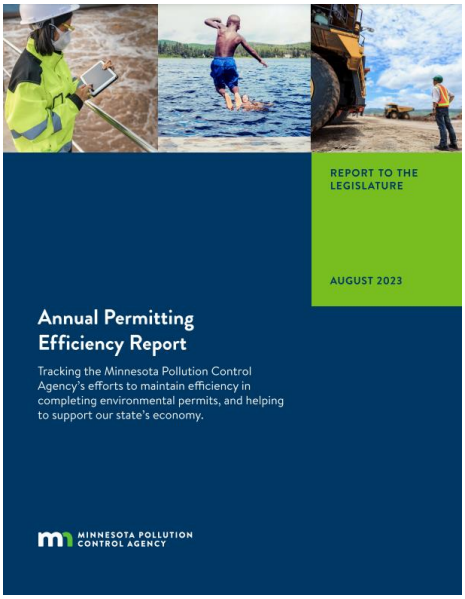
As discussed in Section 5.1.1.4, Minnesota's Permitting Efficiency Law (Minn. Stat. Section116.03, Subd. 2b(a)) establishes a 90-day goal for issuing or denying Tier 1 permits and a 150-day goal for issuing or denying Tier 2 permits following submission of a permit application.

- Tier 1 permits are permits that do not require individualized actions or public comment periods (e.g., construction stormwater general permit coverage, industrial stormwater general permit coverage, sewer extension).
- Tier 2 permits are permits that require individualized actions or public comment periods (e.g., individual industrial wastewater and stormwater permits, MS4 general and individual stormwater permits, individual municipal wastewater permits).

It is also MPCA policy to prioritize permits for new or expanding projects (Appendix 7):

- "Priority" permits are defined as being needed for construction that requires a new permit or significant modification of an existing permit.
- The remaining permits are considered "non-priority" and are generally routine permit reissuances that do not require substantive changes or involve construction and, therefore, are typically less time-sensitive to permittees.

The Permitting Efficiency Law (Minn. Stat., Section 116.03, Subd. 2b(b)) also requires the MPCA to prepare an annual permitting efficiency report that includes statistics on meeting the goal timelines for issuing or denying permits. Refer to Section 5.1.1.4 for discussion of some overall limitations of the information presented in the annual permitting efficiency reports, including limitations due to presenting some data for air, land, and water permits collectively and limitations related to only including data for permit applications received in a single fiscal year.



In their 2023 Annual Permitting Efficiency Report, the MPCA states that "overall permitting efficiency continues to be very good especially regarding the MPCA's priority permits, which represent economic growth and new job opportunities for the state" (Appendix 7). However, these statistics are dominated by

the priority Tier 1 water permits, which include construction stormwater general permit coverages that are typically effective upon application and payment. In 2023, priority Tier 1 water permits represented approximately 57% of the total permit applications received for air, land, and water permits (2,098 of 3,710) (Appendix 7). The annual permitting efficiency report data and statistics for air, land, and water permits overall and water permits specifically are dominated by water general permits (especially in the priority Tier 1 and non-priority Tier 2 categories).

Individual industrial NPDES/SDS permits are included in the Tier 2 water permit category. The MPCA indicated that 19 of 91 priority Tier 2 water permit applications (21%) and 187 of 1,145 non-priority Tier 2 applications (16%) received during fiscal year 2023 were issued or pending beyond the goal timeframes (with an additional 28 priority Tier 2 applications and 109 non-priority Tier 2 applications not yet issued but not yet exceeding the goal timeframes) (Appendix 7). For the Tier 2 water permit applications that were not issued within the goal timeframe, the MPCA cited "lack of staff" as the top reason for delay (43% of applications), followed by "no significant external reasons for delay" (38% of applications) and "waiting for information from applicant" (13% of applications). The agency's report does not include permit applications received prior to fiscal year 2023 that are still pending and does not break out individual industrial NPDES/SDS permits from other Tier 2 permits.

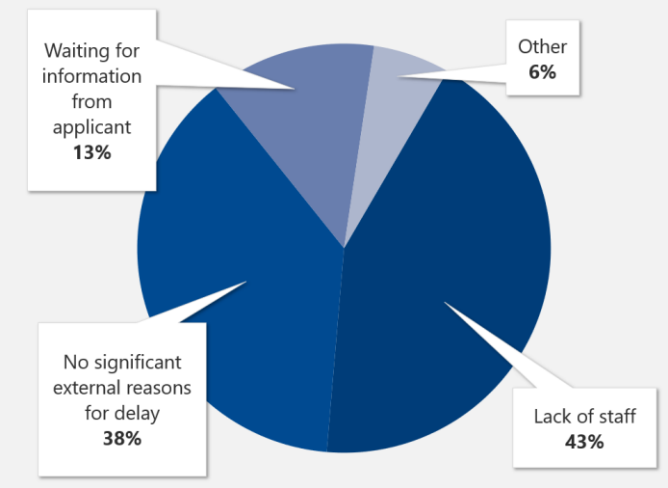


Figure 5-2 Reasons for delay of Tier 2 Water Permit Applications (FY 2023)

To obtain a better understanding of the timeliness of issuance of priority individual industrial NPDES/SDS permits, the priority Tier 2 water permit data was requested and received from the MPCA for fiscal years 2018 through 2023 (Appendix 5). Based on this data, the MPCA received 417 priority Tier 2 water permit applications during fiscal years 2018 through 2023. Of these permit applications, 123 were associated with individual permits (29%), 292 were associated with general permits (70%), and 2 were manure management plan modification requests (0.5%). Of the 123 priority Tier 2 individual water permit applications, only 15 were associated with individual industrial NPDES/SDS permits (12% of priority Tier 2 individual water permit applications and 4% of all priority Tier 2 water permit applications). Further breakdown of the priority Tier 2 water permit applications received during fiscal years 2018 through 2023 by permitting activity and by permit type are presented in Table 5-41 and Table 5-42.

Table 5-41 Priority Tier 2 Water Permit Applications Received During Fiscal Years 2018 through 2023 by Permitting Activity Type

Permitting Activity Type	# Priority Tier 2 Permit Applications
Individual Permit Issuance	44
Individual Permit Reissuance	22
Individual Permit Change - Major	41
Individual Permit Change - Minor	16
General Permit Coverage Issuance	205
General Permit Coverage Change - Major	64
General Permit Coverage Change - Minor	23
Manure Management Plan Modification	2
Total:	417

Note: Source: Priority Tier 2 water permit applications received during fiscal years 2018 through 2023 as received from the Minnesota Pollution Control Agency on December 5, 2023 (Appendix 5).

Table 5-42 Priority Tier 2 Water Permit Applications Received During Fiscal Years 2018 through 2023 by Permit Type

Permit Type		# Priority Tier 2 Permit Applications	
Industrial	NPDES/SDS	15	20
	SDS	4	
	Unknown [2]	1	
Municipal	NPDES/SDS	43	72
	SDS	28	
	Unknown [2]	1	
Feedlot	Permit	30	32
	Plan	2	
		Unknown [1]	1
		General	292
		Total:	417

NPDES = National Pollutant Discharge Elimination System; SDS = State Disposal System

Note: Source: Priority Tier 2 water permit applications received during fiscal years 2018 through 2023 as received from the Minnesota Pollution Control Agency (MPCA) on December 5, 2023 (Appendix 5).

1) Permit type unknown based on information received from MPCA and information available on MPCA's What's in My Neighborhood website.

Specific to priority Tier 2 individual NPDES/SDS water permit applications received during fiscal years 2018 through 2023, Table 5-43 presents a summary of the number of applications and permitting timeframes for each permitting activity type (i.e., issuance, reissuance, major modification, or minor modification). The review of this data finds that 12 of the 15 permitting activities requested during fiscal years 2018 through 2023 have been completed (as of the end of the third quarter of 2023), but that only the three requests for minor permit modifications were completed during the MPCA's 150-day goal timeframe. Permitting timeframes for completed priority permit issuances, reissuances, and major modifications were an average of 476, 667, and 377 days, respectively. Two reissuance applications and one minor modification request are still pending and are also over the 150-day goal.

Table 5-43 Priority Tier 2 Individual National Pollutant Discharge Elimination System/State Disposal System Water Permit Applications Received during Fiscal Years 2018 through 2023 by Permitting Activity Type

Permitting Activity Type	# Total	# Issued	Days from Application Received to Issuance		# Issued		# Pending	Days Pending (as of end of Q3 2023)		# Pending (as of end of Q3 2023)	
			Average	Maximum	<150 days	>150 days		Average	Maximum	<150 days	>150 days
Individual Permit Issuance	3	3	476	744	0	3	0	--	--	--	--
Individual Permit Reissuance	4	2	667	688	0	2	2	749	1,380	1	1
Individual Permit Change - Major	5	4	377	492	0	4	1	150	150	0	1
Individual Permit Change - Minor	3	3	47	65	3	0	0	--	--	--	--
Total:	15	12	--	--	3	9	3	--	--	1	2
Average:	--	--	391	--	--	--	--	449	--	--	--

Note: Source: Priority Tier 2 water permit applications received during fiscal years 2018 through 2023 as received from the Minnesota Pollution Control Agency (MPCA) on December 5, 2023 (Appendix 5).

Considering both priority and non-priority individual NPDES/SDS permits: In 2021, the MPCA reported to the USEPA that staff drafted an average of 49 individual municipal permits and 23 individual industrial permits per year between 2018 and 2020 (reference (8)). Review of records of currently active individual industrial NPDES/SDS permits exported from the MPCA's *What's in My Neighborhood* database (reference (9)) indicates that, in the last five years (from the fourth quarter of 2018 through the third quarter of 2023), approximately three new individual industrial NPDES/SDS permits have been issued[24] and approximately 72 existing individual industrial NPDES/SDS permits have been reissued (Appendix 5); this is an average of approximately 15 individual industrial permits issued or reissued per year.

Of the approximately 225 individual industrial NPDES/SDS permits noted previously, about 74 are current (i.e., within the five-year term) and approximately 152 are administratively continued (i.e., past the expiration date, but still in effect) as of the end of the third quarter of 2023. The average amount of time that these permits have been administratively continued is approximately 6.5 years, with the longest timeframe being over 23 years. The MPCA reported to the USEPA in 2021 that the backlog of administratively continued permits is a challenge for Minnesota's NPDES program (reference (8)).

5.2.2 Benchmark States

A state may receive authorization from the USEPA to implement one or more components of the NPDES regulatory program. As with Minnesota, all 10 benchmark states are authorized to implement the NPDES program and issue individual NPDES permits (except on tribal lands, where the USEPA regional office is the permitting authority). States that are "fully authorized" are also authorized to regulate federal facilities within their boundaries and to implement pretreatment and general permit programs. Table 5-44 summarizes each benchmark state's NPDES permitting authority and the state agency and agency subunit that implements the program.

[24] This is the number of new individual industrial NPDES/SDS permits issued in the last five years that were still listed in MPCA's *What's in My Neighborhood* database as active as of the end of the third quarter of 2023; from review of the priority Tier 2 water permit applications received during fiscal years 2018 through 2023, two additional new individual industrial NPDES/SDS permits issued in the last five years were identified that were issued but are no longer active.

Table 5-44 National Pollutant Discharge Elimination System Permitting Authority and Agency Framework Summary by State

State	NPDES Permitting Authority from U.S. Environmental Protection Agency? (1,2)	State agency that implements NPDES permitting	State agency subunit that implements individual industrial NPDES permitting
Minnesota	Yes; fully authorized	Minnesota Pollution Control Agency	Industrial Division
Colorado	Yes; partially authorized	Colorado Department of Public Health and Environment	Water Quality Control Division, Permits Section
Illinois	Yes; partially authorized	Illinois Environmental Protection Agency	Bureau of Water, Division of Water Pollution Control, Permit Section
Indiana	Yes; partially authorized	Indiana Department of Environmental Management	Office of Water Quality, Water Permitting Branch, Industrial Permits Section
Iowa	Yes; fully authorized	Iowa Department of Natural Resources	National Pollutant Discharge Elimination System (NPDES) Section
Michigan	Yes; fully authorized (+biosolids)	Michigan Department of Environment, Great Lakes, and Energy	Water Resources Division
North Carolina	Yes; fully authorized	North Carolina Department of Environmental Quality	Division of Water Resources, Water Quality Permitting Section, Industrial Permitting Branch
North Dakota	Yes; fully authorized	North Dakota Department of Environmental Quality)	Division of Water Quality, NDPDES Permits Program
South Dakota	Yes; fully authorized (+biosolids)	South Dakota Department of Agriculture & Natural Resources	Surface Water Quality Program
Tennessee	Yes; fully authorized	Tennessee Department of Environment and Conservation	Division of Water Resources, Water Based Systems
Wisconsin	Yes; fully authorized (+biosolids)	Wisconsin Department of Natural Resources	Environmental Management, Water Quality, Wastewater Section

(1) Source: reference (16)
(2) "Fully authorized" includes authorization for the following programs: NPDES permit, regulation of federal facilities, pretreatment, and general permits. Some "fully authorized" states also have biosolids program authorization. "Partially authorized" states all have authorization for an NPDES permit program, but do not have all other authorizations.

NPDES Permits

Consistent with the USEPA and Minnesota, all 10 benchmark states issue both individual and general permits. Table 5-45 presents the number of individual NPDES permits (industrial and municipal), individual industrial NPDES permits, and NPDES general permits administered by each state, along with comparisons

by state population and land area. The number of individual NPDES permits (industrial and municipal) and NPDES general permits were primarily obtained from the USEPA's PQR reports based on information provided by the state agencies at a single point in time between 2017 and 2021; the number of individual NPDES permits (industrial and municipal) for Michigan and the number of individual industrial NPDES permits for all states were estimated based on review of permit lists exported from state and USEPA databases or otherwise obtained from state websites in October 2023.

Table 5-45 National Pollutant Discharge Elimination System Permits by State

	MN	CO	IL	IN	IA	MI	NC	ND	SD	TN	WI	Average[1]
# individual National Pollutant Discharge Elimination System (NPDES) permits (industrial and municipal) (approx.)	1,585[2]	713[3]	1,476[4]	1,356[5]	1,578[6]	795[7]	1,266[8]	95[9]	229[10]	1,082[11]	1,257[12]	985
Comparison: # individual NPDES permits per population (million)	278	123	117	199	493	79	118	119	254	152	213	187
Comparison: # individual NPDES permits per square mile	0.020	0.007	0.027	0.038	0.028	0.014	0.026	0.001	0.003	0.026	0.023	0.019
# individual industrial NPDES permits (approx.)	226[13]	118[14]	848[15]	305[16]	444[17]	240[18]	194[19]	57[20]	49[21]	335[22]	172[23]	276
Comparison: # individual industrial NPDES permits per population (million)	40	20	67	45	139	24	18	71	54	47	29	52
Comparison: # individual industrial NPDES permits per square mile	0.0028	0.0011	0.0153	0.0085	0.0079	0.0042	0.0040	0.0008	0.0006	0.0081	0.0032	0.0054
# NPDES general permits	11[2]	22[3]	12[4]	11[5]	9[6]	27[24]	11[8]	11[9]	N/A[25]	9 [11]	36[12]	16
Population (million) (2022 estimate)[26]	5.7	5.8	12.6	6.8	3.2	10.0	10.7	0.8	0.9	7.1	5.9	6.3
Land area (square miles)[26]	79,627	103,637	55,513	35,826	55,853	56,608	48,623	68,996	75,810	41,232	54,167	61,445

(1) Benchmark state average for comparison (does not include Minnesota)
(2) As of January 2021. Source: reference (8)
(3) As of August 2017. Source: reference (17)
(4) As of June 2018. Source: (reference (18)
(5) As of June 2019. Source: reference (19)
(6) As of December 2018. Source: reference (20)
(7) As of July 5, 2022. (Appendix 5)
(8) As of July 2019. Source: reference (21)
(9) As of July 2019. Source: reference (22)
(10) As of July 2018. Source: reference (23)
(11) As of April 2020. Source: reference (24))
(12) As of March 2020. Source: reference (25)
(13) As of end of Q3 2023. Appendix 5.
(14) As of end of Q3 2023. Appendix 5.
(15) As of end of Q3 2023. Appendix 5.
(16) As of end of Q3 2023. Appendix 5.
(17) As of September 1, 2023. Appendix 5.
(18) As of July 5, 2022. Appendix 5.
(19) As of end of Q3 2023. Appendix 5.
(20) As of end of Q3 2023. Appendix 5.
(21) As of end of Q3 2023. Appendix 5.
(22) As of end of Q3 2023. Appendix 5.
(23) As of end of Q3 2023. Appendix 5.
(24) Source: Michigan Department of Environment, Great Lakes, and Energy "NPDES – General Permits" webpage (reference (26))
(25) Not available; consolidated list not found.
(26) Source: U.S. Census Bureau QuickFacts (reference (27))

Permitting Process and Timeliness

Because NPDES is a federal regulatory program implemented by state agencies based on state programs approved by the USEPA, the permitting process steps are relatively similar across states. However, the details of how steps are conducted, who is involved, timelines, and prioritization may vary from state to state. A step-by-step comparison of the permitting process for reissuance or issuance of an individual industrial NPDES permit in Minnesota and four of the benchmark states (Indiana, Iowa, Michigan, and North Dakota) is provided in Figure 5-11; these permitting-process flow diagrams compare the permitting process and any administrative or programmatic differences based on Barr's experience.

Agencies assign NPDES permit writers to each individual NPDES permit as the main point of contact for issuance, modification, and reissuance. Permit writers may be assigned by geography, industry, other area of expertise, workload, etc. Table 5-46 presents a comparison of the number of individual NPDES permits (industrial and municipal) and individual industrial NPDES permits in each state, with the approximate number of permit writers tasked with working on them. Further related details are provided in Appendix 5.

Table 5-46 Comparison of the Number of Permit Writers and Individual National Pollutant Discharge Elimination System Permits by State

	MN	CO	IL	IN	IA	MI	NC	ND	SD	TN	WI	Avg.[1]
# individual NPDES permits (industrial and municipal) (approx.)[2]	1,585	713	1,476	1,356	1,578	795	1,266	95	229	1,082	1,257	985
# individual NPDES permit writers (industrial and municipal) (approx.)	25	14.4	13	13	9	<26	17	<11	<8	12	13.5	14
Comparison: # individual NPDES permits per # permit writers	63	50	114	104	175	>31	74	>9	>29	90	93	77
# individual industrial NPDES permits (approx.) [2]	226	118	848	305	444	240	194	57	49	335	172	276
# individual industrial NPDES permit writers (approx.)	14	5	4	<13	4	<26	6	<11	<8	<12	<14	10
Comparison: # individual industrial NPDES permits per # permit writers	16	24	212	>23	111	>9	32	>5	>6	>28	>12	46

(1) Benchmark state average for comparison (does not include Minnesota).
(2) Refer to associated footnotes on Table 5-45.

= Permittee = Regulator = Third-parties/ Public/NGO

Renewal and New or Expanded Discharge Authorization

Applicable To Individual Industrial Permits

Engagement	Minnesota	Indiana	Iowa	Michigan	North Dakota
Permit application submitted	It is common practice for permits to be added to the queue and administratively extended indefinitely. As such, modifications are often incorporated in renewals.	It is common practice for permits to be added to the queue and administratively extended indefinitely; however, the percentage of permits administratively continued is much lower than Minnesota, Iowa, and Michigan.	It is common practice for permits to be added to the queue and administratively extended indefinitely; however, the percentage of permits administratively continued is lower than Minnesota.	It is common practice for permits to be added to the queue and administratively extended indefinitely; however, the percentage of permits administratively continued is lower than Minnesota.	Processes renewals immediately. Administrative extension is not common.
Completeness review	It is common for permittees not to receive this notification.	It is common for permittees not to receive this notification.		EGLE notifies permittee via email.	
Effluent limits review (TBELs, WQBELs, antidegradation, anti-backsliding, and TMDL compliance)	Antidegradation is a substantial procedural hurdle. Limits are calculated and assessed by a separate department at MPCA. Permittees receive a notification of draft effluent limits for comment.	Antidegradation is a substantial hurdle. IDEM has 270 days to review a new major individual application and 180 days to review a new minor individual application. Effluent limits reviews are typically completed by one staff member (may be permit writer) and reviewed with department manager.	Antidegradation has well-established procedures. Wasteload allocations are performed by a dedicated staff member responsible only for that portion of the permit.	Antidegradation has well-established procedures. Limits are calculated and assessed by staff in the Water Resources Division. Recommendations for effluent limits are provided to the permit writer via a WQBEL Recommendations Memo, which is also posted to MIEnviroPortal.	Antidegradation has well-established procedures. This component of the process is typically completed by one staff member and reviewed with department manager.
Permit draft development (limits, monitoring, conditions, etc.)	A minimum of four staff from four departments are involved in drafting a permit (writer, engineer, groundwater specialist, and limits specialist). Other technical staff and managers are consulted on an as-needed basis. It is common for the MPCA's 180-day permit draft period to extend beyond 180 days.	Other technical staff that contribute to a permit will depend on the request (e.g., toxicology review for water treatment additives).	Aside from wasteload allocations, the permit draft is typically completed by one staff member and reviewed with the department manager and associated field office contact (if applicable).	Applications are assigned a permit writer, who will consult other EGLE technical staff on an as-needed basis. EGLE permit team size will vary depending on size or sensitivity of request. It is common for the EGLE's 180-day permit draft period to extend beyond 180 days.	
Agency permit review					
Permittee and stakeholder review	Permittees are commonly offered the opportunity to review multiple pre-public notice drafts. Intent is to iron out issues before public notice. Permittees typically see the final pre-public notice version ahead of publication.	Permittee provided one courtesy pre-notice draft. Intent is for additional discussion during public notice and during challenge period. IDEM provides justification for draft permit conditions with a fact sheet for major permits, and a briefing memo for minor permits. IDEM interprets CWA that correspondence should happen publicly.	Permittee provided one courtesy pre-notice draft. Intent is to iron out issues before public notice and to facilitate additional discussion during public notice and during challenge period. IDNR provides justification for draft permit conditions with a permit rationale. IDNR interprets CWA that correspondence should happen publicly.	Permittee provided a pre-public notice draft. Intent is for additional discussion during public notice and during challenge period. EGLE provides justification for draft permit conditions in a fact sheet and for draft permit limits in a basis of decision memo. Permittees typically see the final pre-public notice version ahead of publication.	Permittee provided one courtesy pre-notice draft. Intent is for additional discussion during public notice and during challenge period. NDDEQ provides justification for draft permit conditions with a fact sheet. NDDEQ interprets that CWA correspondence should happen publicly.
Final revisions					
Public notice	Hearings may be requested or required in addition to the public notice. If substantial comments or challenges emerge, this process can be lengthy.	Hearings may be requested or required in addition to the public notice. If substantial comments or challenges emerge, an additional 30-day public notice period may be initiated (with opportunity for public hearing). This process can be lengthy.	Hearings may be requested or required in addition to the public notice. If substantial comments or challenges emerge, this process can be lengthy.	Hearings may be requested or required in addition to the public notice. If substantial comments or challenges emerge, this process can be lengthy.	Hearings may be requested or required in addition to the public notice. If substantial comments or challenges emerge, this process can be lengthy.
Address comments					
Finalize permit	Permits issued according to staff availability and prioritization.	Renewed permits issued prior to expiration date. Modifications processed based on project urgency and staff availability.	Renewed permits issued prior to expiration date. Modifications processed based on project urgency and staff availability.	Permits issued according to staff availability and prioritization.	Renewed permits issued prior to expiration date. Modifications processed based on project urgency and staff availability.
Challenge period after final action (issuance or denial)	For 30 days after issuance or denial of a permit, any party may file a petition for a contested case hearing.	For 18 days after issuance or denial of a permit, any party may file a petition for a contested case hearing and request a stay of the issued permit, to be approved or denied by an administrative law judge.	For 60 days after issuance or denial of a permit, any party may file a petition for a contested case hearing.	For 60 days after issuance or denial of a permit, any party may file a petition for a contested case hearing. If a permit is contested by a third party, the approved permit will remain effective deemed otherwise by an administrative law judge. If a permit is contested by the permittee/ applicant, then the permit is stayed, and they will typically operate under the prior permit until a decision has been made by an administrative law judge.	For 30 days after issuance or denial of a permit, any party may file a petition for a contested case hearing.

Figure 5-11 Permitting Process Comparison for Individual Industrial National Pollutant Discharge Elimination System Permit Reissuance or Issuance in Minnesota and Four of the Benchmark States (Indiana, Iowa, Michigan, and North Dakota)

The majority of individual industrial NPDES permits have a five-year permit term. Conceptually, each permit should be reissued once every five years; however, many are administratively continued beyond their expiration dates (i.e., past the expiration date, but still in effect). Table 5-47 presents the number of individual industrial NPDES permits issued or reissued in the last five years by each state and the average number of permits issued or reissued per year. Table 5-48 summarizes the number of administratively continued individual industrial NPDES permits by state as of the end of the third quarter of 2023, along with the average and maximum amounts of time that permits in each state are currently administratively continued. Further related details are provided in Appendix 5.

Table 5-47 Individual Industrial National Pollutant Discharge Elimination System Permits Issued in Last Five Years by State

	MN	CO	IL	IN	IA	MI	NC	ND	SD	TN	WI	Avg. (1)
# individual industrial NPDES permits issued in last five years? (Q4 2018 through Q3 2023) (approx.) (2)	75	24	652	291	315	140	122	56	19	303	N/A (3)	214
Average #individual industrial NPDES permits issued per year over the last five years (new or reissuance) (approx.)	15	5	130	58	63	28	24	11	4	61	N/A (3)	43
# individual industrial NPDES permit writers (approx.)	14	5	4	<13	4	<26	6	<11	<8	<12	<14	10
Comparison: # individual industrial NPDES permits issued per year per # permit writers	1.1	1.0	32.6	>4.5	15.8	>1.1	4.0	>1.0	>0.5	>5.1	N/A (3)	7.3
# individual industrial NPDES permits (approx.)(4)	226	118	848	305	444	240	194	57	49	335	172	276
Comparison: % of total individual industrial NPDES permits issued per year	6.6%	4.2%	15%	19%	14%	12%	12%	19%	8.2%	18%	N/A (3)	14%

(1) Benchmark state average for comparison (does not include Minnesota)
(2) Based on same NPDES permit lists referenced for "# individual industrial NPDES permits" in Table 5-45.
(3) N/A = not available
(4) Refer to associated footnotes on Table 5-45.

Table 5-48 Current versus Administratively Continued Individual Industrial National Pollutant Discharge Elimination System Permits by State

	MN	CO	IL	IN	IA	MI	NC	ND	SD	TN	WI	Avg. [1]
# individual industrial NPDES permits (approx.)[2]	226	118	848	305	444	240	194	57	49	335	172	276
# current individual industrial NPDES permits (i.e., within the permit term) (approx.) (as of end of Q3 2023)[3]	74	24	679	291	295	128	117	57	19	323	N/A[4]	215
# administratively continued individual industrial NPDES permits (i.e., extended beyond the permit term) (approx.) (as of end of Q3 2023) [3]	152	94	169	14	149	112	77	0	30	12	N/A[4]	73
% individual industrial NPDES permits administratively continued (as of end of Q3 2023)	67%	80%	20%	5%	34%	47%	40%	0%	61%	4%	N/A[4]	32%
For administratively continued: average # years since the permit expiration date (approx.) (as of end of Q3 2023)[3]	6.6	5.1	2.6	0.7	5.5	5.0	2.4	0.0	6.1	2.9	N/A[4]	3.4
For administratively continued: longest # years since the permit expiration date (approx.) (as of end of Q3 2023)[3]	23.4	16.7	22.4	1.3	20.9	21.0	10.6	0.0	14.0	13.2	N/A[4]	13.3

(1) Benchmark state average for comparison (does not include Minnesota)
(2) Refer to associated footnotes on Table 5-45.
(3) Based on same NPDES permit lists referenced for "# individual industrial NPDES permits" in Table 5-45.
(4) N/A = not available

Water Quality Standards and Impaired Waters

As noted in Section 5.2.1.1, water quality standards are important for permittees because they are used to derive effluent limits (water quality discharge limits) that are included in NPDES permits. The USEPA and individual states develop pollutant-specific water quality criteria, which are applicable to water bodies

based on their designated uses. The USEPA's criteria are national recommendations in accordance with CWA Section 304(a)(1), which may be adopted by states into their water quality standards regulations or used as guidance in developing their own criteria. Table 5-49 summarizes the number of numeric water quality criteria included in each state's regulations, the number of individual pollutants each state regulates, and how each state's water quality criteria compare with the USEPA's recommended criteria.

Table 5-49 Water Quality Criteria Summary by State

	MN	CO	IL	IN	IA	MI	NC	ND	SD	TN	WI	Avg. (1)
# numeric water quality criteria in state regulations (total across all designated uses)	1,355	942	278	346	565	100	252	318	385	367	573	413
# individual pollutants with numeric water quality criteria (across all designated uses)	137	224	71	107	110	35	65	153	150	160	101	118
# pollutants for which U.S. Environmental Protection Agency (USEPA) has numeric water quality criteria but state does not [2]	96	58	124	95	99	137	127	59	57	54	88	90
# pollutants for which state has numeric water quality criteria but USEPA does not [2]	67	116	29	36	43	6	26	46	41	48	23	41
# pollutants for which both the USEPA and states have numeric water quality criteria [2]	70	108	42	71	67	29	39	107	109	112	78	76

Note: List of USEPA and state numeric water quality criteria downloaded October 24, 2023, from USEPA's "State-Specific Water Quality Standards Effective under the Clean Water Act (CWA)" site (reference (11) (Appendix 5)

(1) Benchmark state average for comparison (does not include Minnesota)

(2) Comparing across all designated uses

As described in Section 5.2.1.1, an impaired water is a water body (or segment of a water body) that is identified as not fully achieving one of its designated uses due to pollutant concentrations higher than an applicable water quality criterion. CWA Section 303(d) requires states to develop lists of impaired waters and then develop TMDLs based on the maximum amount of a pollutant that can be present in a water body for it to meet water quality standards. Table 5-50 summarizes the number of impaired waters in each state.

Table 5-50 Impaired Waters Summary by State

	MN	CO	IL	IN	IA	MI	NC	ND	SD	TN	WI	Avg.(1)
All Waters Assessed by the State(2)	24,852	1,583	3,770	16,290	1,635	7,982	4,012	1,697	376	5,829	34,039	9,279
303(d) Listed Impaired Waters (Category 5) (3)	2,078	623	1,189	4,319	597	909	1,290	235	179	1,402	1,300	1,284
Comparison: % All Waters that are Category 5 Impaired Waters	8%	39%	32%	27%	37%	11%	32%	14%	48%	24%	4%	14%
Impaired Waters (Category 4 and 5) (4)	3,870	680	1,385	6,209	751	3,052	1,463	310	251	1,813	1,677	1,951
Comparison: % All Waters that are Category 4 or 5 Impaired Waters	16%	43%	37%	38%	46%	38%	36%	18%	67%	31%	5%	21%

Note: Data accessed from U.S. Environmental Protection Agency's (USEPA) "How's My Waterway" website (reference (12)) on November 15th, 2023, (Appendix 5)

(1) Benchmark state average for comparison (does not include Minnesota)

(2) A "water" or "waterbody" is defined as "a river, stream, lake or other type of water that has been assessed by the state" where "the assessed area may be an entire waterbody or just a segment of an individual river, stream, lake, pond, or wetland" (in the "Glossary" of USEPA's "How's My Waterway" website (reference (12))).

(3) "303(d) Listed Impaired Waters (Category 5)" is defined as "a waterbody that is impaired or threatened and needs a TMDL restoration plan" (in the "Glossary" of USEPA's "How's My Waterway" website (reference (12))).

(4) "Impaired (Category 4 and 5)" is defined as "a waterbody that is impaired and on the CWA Section 303(d) list of impaired waters needing a TMDL (Category 5) or is impaired but does not need a TMDL (Category 4) because a TMDL or other pollution control requirement is already in place, or the impairment is not caused by a pollutant" (in the "Glossary" of USEPA's "How's My Waterway" website (reference (12))).

Tribal Consultation and Water Quality Standards

Tribes may apply for and receive USEPA authorization to administer water quality standards programs under the CWA. Federally recognized tribal entities within Colorado (Southern Ute Indian Tribe and Ute Mountain Ute Tribe), Iowa (Sac and Fox Tribe), Michigan (Keweenaw Bay Indian Community), North

Carolina (Eastern Band of Cherokee), and Wisconsin (Bad River Band, Lac du Flambeau Band, and Sokaogon Chippewa Community) have received this authorization as of November 2023 (reference (15)); the number of tribes in each state that have received authorization is summarized in Table 5-51. For discharges upstream of these tribes, the state agencies are required to consider the tribal water quality standards in a way that is consistent with how they consider the water quality standards of other downstream states.

Table 5-51 Tribes with U.S. Environmental Protection Agency-Authorized Water Quality Standards Programs Summary

	MN	CO	IL	IN	IA	MI	NC	ND	SD	TN	WI
# Tribes with U.S. Environmental Protection Agency-Authorized Water Quality Standards Programs [1]	4	2	0	0	1	1	1	0	0	0	3

1) As of November 2023. Source: "Tribes Approved for Treatment as a State (TAS)" webpage (reference (15)).

5.2.3 Comparing Minnesota to Benchmark States

NPDES Permits

Minnesota and all 10 benchmark states are authorized to implement the NPDES program and issue both individual and general permits.

General permits are typically a more streamlined and standardized permitting option than individual permits. Minnesota has 11 wastewater and stormwater general permits available for permittees to apply for coverage under if their operations and types of discharges meet the specified criteria (reference (8)). Comparatively, the benchmark states have an average of 16 wastewater and stormwater general permits available with a range of 9 to 36 (Table 5-45). The MPCA could consider if additional general permits can be developed and issued to offer additional appropriately streamlined and standardized permitting options for similar operations and types of discharges.

Compared to the benchmark state agencies, the MPCA:

- Administers fewer individual industrial NPDES permits than average (226 compared to 276) (Table 5-45)
- Has more individual industrial NPDES permit writers than average (14 compared to 10) (Table 5-46)
- Has a more favorable ratio of permit writers to individual industrial NPDES permits than average (1:16 compared to 1:46) (Table 5-46)

Timeliness

Despite these advantages, the MPCA:

- Has more administratively continued (i.e., extended beyond the permit term) individual industrial NPDES permits than average (152 compared to 73; 67% compared to 32%) (Table 5-48)
- Has a longer average time that individual industrial NPDES permits have been administratively continued (6.6 years compared to 3.4 years) and has the longest administratively continued permit (23.4 years) (Table 5-48)
- Has issued fewer individual industrial NPDES permits in the last five years than average (75 compared to 214; 15 per year compared to 43 per year) (Table 5-47)
- Issues a lower percentage of its total individual industrial NPDES permits each year on average (6.6% compared to 14%) (Table 5-47)
- Has a less favorable ratio of permit writers to individual industrial NPDES permits issued per year (1:1.1 compared to 1:7.3) (Table 5-47)

Minnesota issues (new or reissuance) approximately 6.6% of its total individual industrial NPDES permits each year. At least eight of the benchmark states issue higher percentages of their total individual industrial NPDES permits each year (numbers were not available for Wisconsin). Of the benchmark states, only Colorado issues a lower percentage of its total individual industrial NPDES permits each year.

The MPCA cited "lack of staff" as the top reason for not meeting the goal timeframe for issuance of Tier 2 water permits (which include both individual industrial and municipal NPDES permits) (Appendix 7). It may be accurate that "lack of staff" is a factor; however, comparison with the benchmark states indicates that staffing (indicated by number of permit writers) may not be the primary constraint.

Three of the benchmark states have very low rates of administratively continued individual industrial NPDES permits and the highest percentages of total individual industrial NPDES permits issued each year (Table 5-48): North Dakota, Indiana, and Tennessee. Compared to these states' agencies, the MPCA:

- Administers fewer individual industrial NPDES permits than average (226 compared to 232) (Table 5-45)
- Has more individual industrial NPDES permit writers than average (14 compared to 12) (Table 5-46)
- Has a more favorable ratio of permit writers to individual industrial NPDES permits than average (1:16 compared to 1:19) (Table 5-46)
- Has a longer average time that individual industrial NPDES permits have been administratively continued (6.6 years compared to 1.2 years) (Table 5-48)

- Has issued fewer individual industrial NPDES permits in the last five years than average (75 compared to 217; 15 per year compared to 43 per year) (Table 5-47)
- Has a less favorable ratio of permit writers to individual industrial NPDES permits issued per year (1:1.1 compared to 1:3.5) (Table 5-47)

The North Dakota Department of Environmental Quality (NDDEQ), IDEM, and TDEC all prioritize timely reissuance of NPDES permits.

- NDDEQ has a strong emphasis on not administratively continuing NPDES permits unless absolutely necessary. During the USEPA's 2019 NPDES PQR for North Dakota, the US noted that "the PQR team observed that NDDEQ staff had an efficient proactive process for reaching out to permittees regarding their applications" and that, combined with permit records including the appropriate application forms and timely permit application submittals, "this helped to ensure that NDDEQ maintained no permits that were administratively continued or expired" (reference (22)). In addition to being proactive at the beginning of a permit reissuance process, NDDEQ staff also maintain a strong focus on schedule throughout the process. This can be beneficial to permittees interested in obtaining NPDES permits quickly but can also be frustrating for permittees who desire more time to negotiate or otherwise work through a concern with the NDDEQ.
- Indiana Code Section 13-15-1 requires approval or denial of an application for a major new NPDES permit within 270 days and a minor new NPDES permit within 180 days; Indiana Code Section 13-15-4-4 requires that "an application for a permit renewal that includes a modification shall be reviewed within the period applicable to the modification". Permitting time periods may be extended if the commissioner and applicant agree in writing (Indiana Code Section 13-15-4-8). The USEPA's 2019 PQR for Indiana noted that "timely permit issuance is a priority for IDEM" (reference (19)). The IDEM also noted to the USEPA that because "timely permit issuance is a high priority," it has needed to set aside certain rulemakings "because permit writers are the same staff that support permit rulemaking efforts" (reference (19)). IDEM increases the likelihood of receiving timely and complete application submittals by issuing application reminders to permittees and by what the USEPA characterized as conducting "aggressive" follow-up with applicants (reference (19)).
- The USEPA's 2020 NPDES PQR for Tennessee noted that "TDEC has maintained a low backlog rate and has consistently issued permits in a timely manner" and that "most of the delays to proceeding with permit drafting involve coordinating and receiving all application data to make permit applications complete" (reference (24)).

The MPCA cited "waiting for information from applicant" as the third-highest reason for not meeting the goal timeframe for issuance of Tier 2 water permits (which include both individual industrial and municipal NPDES permits) (Appendix 7). It is possible that the MPCA could improve timeliness of permit reissuance through more proactive, regimented, and persistent outreach to permittees to obtain complete applications and supplemental information throughout the permitting process.

As discussed in Section 5.2.1.4, Minnesota Statutes include a 150-day goal for reaching a permit decision on individual industrial NPDES permits following submission of a permit application (Minn. Stat., Section 116.03, Subd. 2b). The MPCA could identify and act upon opportunities to further prioritize meeting this goal timeline and further emphasize the importance of this goal within the culture of the agency. Additionally, the Minnesota Legislature could decide to replace this goal with a required timeline (similar to Indiana's approach).

While increasing the efficiency and timeliness of NPDES permitting in Minnesota would be beneficial, it will also be important to preserve the ability for the MPCA to modify the schedule as appropriate to engage with permittees to work through complicated issues. Some states, such as North Dakota, are so rigid about meeting permitting timeframes that it limits the ability of agency staff and permittees to work together toward an appropriate and well-thought-out permit.

Permitting Process

The NPDES permitting process steps are relatively similar across states; however, the details of how steps are conducted, who is involved, timelines, and prioritization may vary from state to state. A step-by-step comparison of the permitting process for reissuance or issuance of an individual NPDES permit in Minnesota, Indiana, Iowa, Michigan, and North Dakota (Figure 5-11) indicates:

- The most noticeable process differences are associated with antidegradation procedures. Antidegradation is often a substantial procedural hurdle for permittees and agencies to navigate in Minnesota and Indiana, but has well-established procedures in Iowa, Michigan, and North Dakota.
- Minnesota generally allows more opportunities for permittees to negotiate with the agency and review pre-public notice draft permits prior to the public notice. This is generally positive as it allows for more permittee input but may slow the permitting process.

Minnesota adopted new antidegradation rules in 2016. As discussed in Section 5.2.1.2, there is indication that few permittees have navigated these antidegradation procedures successfully. It would be beneficial for the MPCA to consider opportunities to clarify and streamline antidegradation procedures such that the process can be less of a hurdle. Further review of the well-established procedures in Iowa, Michigan, North Dakota, and other similar states may help the MPCA identify more opportunities to clarify and streamline its antidegradation procedures.

There is perception, based on experience, that the MPCA involves more internal parties in the development of individual industrial NPDES permits than other states. Research conducted for this report did not find comparable information related to this; however, it may be beneficial for the MPCA to consider efficiency related to the number of individuals involved in the issuance or reissuance of a single individual industrial NPDES permit.

Transparency

The MPCA's *What's in My Neighborhood* database (reference (9)) includes information on individual NPDES permits but does not consistently include copies of the permits. Conversely, the database more consistently includes copies of other permits (e.g., air permits) and several of the benchmark states also have databases from which NPDES permits can be downloaded (Colorado, Indiana, Iowa, South Dakota, Tennessee, and Wisconsin). Consistently posting permits, associated fact sheets, and other permitting files in the MPCA's *What's in My Neighborhood* database or another online database would add beneficial transparency for both permittees and the public.

As discussed in Section 5.1, the MPCA has a web-based resource for monitoring air permit application status after the application has been submitted. Additionally, several benchmark states have online resources for tracking the status of NPDES permit applications within the permitting process (Iowa, Michigan, North Carolina, Tennessee, and Wisconsin). The MPCA does not have a similar resource for NPDES permits. To add beneficial transparency to Minnesota's NPDES permitting process, the MPCA could consider developing an online resource for tracking the status of NPDES permit applications within the permitting process.

Water Quality Standards and Impaired Waters

The complexity of NPDES permitting is often directly affected by the water quality criteria applicable to the receiving water and is compounded when the receiving water is listed as impaired for a pollutant that is or may be contained in the permittee's discharge. Compared to the benchmark states, Minnesota:

- Has the most individual numeric water quality criteria (1,355 compared to 413 average) (Table 5-49)
- Has numeric water quality criteria associated with more pollutants (137 compared to 118 average) (Table 5-49)
- Has more pollutants with numeric water quality criteria for which the USEPA does not have recommended criteria (67 compared to 41 average) (Table 5-49)
- Has more impaired waters (3,870 compared to 1,951 average) but less impaired waters as a percentage of total waters (16% to 21% average) (Table 5-50)

These comparisons indicate there are generally more water quality considerations to be navigated by permittees and the agency in Minnesota than there are in other states. This may be unsurprising due to Minnesota's water-rich environment and general emphasis on environmental protection. However, within the constraints of protecting Minnesota's waters and their designated uses, further emphasis by the MPCA on prioritizing timely NPDES permitting (as discussed above) would have the potential to benefit both permittees and the environment.

Tribal Consultation and Water Quality Standards

Four tribal entities in Minnesota have received USEPA authorization to administer water quality standards programs under the CWA (Table 5-51); this is more than any of the benchmark states. Five of the benchmark states have at least one tribe with this authorization (Wisconsin, Colorado, Iowa, Michigan, and North Carolina) and five do not (Illinois, Indiana, North Dakota, South Dakota, and Tennessee) (Table 5-51). For discharges upstream of these tribes, the state agencies are required to consider the tribal water quality standards in a way that is consistent with how they consider the water quality standards of other downstream states.

Overall, there is a trend at both state and federal levels toward increased tribal consultation, which is anticipated to continue. The USEPA has also recently proposed two rules related to tribal water quality standards and consideration of tribal rights in federal and state water quality standards:

- In April 2023, the USEPA Administrator signed a proposed rule to promulgate federal baseline water quality standards for waters on over 250 Indian reservations that do not currently have water quality standards in effect under the CWA (reference (28)); this rule has not been finalized as of November 2023.
- In November 2022, the USEPA Administrator signed a proposed rule to revise the water quality standards regulation at 40 CFR Part 131 to clarify and prescribe how state and federal water quality standards must protect aquatic and aquatic-dependent resources reserved to tribes through treaties, statutes, executive orders, or other sources of federal law, in waters where those rights exist (reference (29)); this rule has not been finalized as of November 2023.

5.2.4 Considerations for Improvement

Based on the evaluation of the information presented in Sections 5.2.1 through 5.2.3, the following are considerations for improvement of the NPDES permitting process in Minnesota:

Table 5-52 Consideration for Improvement - Minnesota Pollution Control Agency to Prioritize Permit Issuance Timelines

Consideration for Improvement	Opportunities for the Minnesota Pollution Control Agency (MPCA) to further prioritize commitment to permit issuance timelines, such as: • Encouraging and providing leadership support for timely issuance and reissuance of permits, while also preserving the ability to modify schedules as appropriate to work through complicated issues with permittees • Requiring permit writers to consistently provide regulatory-required notifications to permittees (e.g., notification within 30 business days of application related to application completeness and whether a permit can be issued within the 150-day goal) • Developing a plan to work through the significant backlog of administratively continued permits • Focusing additional agency staff on timely permitting through hiring of additional individuals and/or reprioritizing existing staffs' time
Supporting Analysis	See Sections 5.2.1.4 and 5.2.3 Of the 15 priority individual industrial National Pollutant Discharge Elimination System/ State Disposal System (NPDES/SDS) permit applications received by the MPCA in fiscal years 2018 through 2023, only the requests for minor permit modifications were completed during the MPCA's 150-day goal timeframe. Permitting timeframes for completed priority permit issuances, reissuances, and major modifications were an average of 476, 667, and 377 days, respectively. Two reissuance applications and one minor modification request are still pending and are also over the 150-day goal. The MPCA has only issued ~5 new individual industrial NPDES/SDS permits in last 5-years. ~67% of the individual industrial NPDES/SDS permits currently administered by the MPCA are administratively continued (i.e., past the expiration date, but still in effect). Average time administratively continued is ~6.5 years and longest time administratively continued >23 years. Compared to the benchmark state agencies, the MPCA: • Has more administratively continued (i.e., extended beyond the permit term) individual industrial NPDES permits than average • Has a longer average time that individual industrial NPDES permits have been administratively continued and has the longest administratively continued permit • Issues and reissues a lower percentage of individual industrial NPDES permits annually than average Benchmark states with the lowest rates of administratively continued permits have a strong focus on schedule throughout the permitting process and a strong emphasis on not administratively continuing permits. The 2023 Annual Permitting Efficiency Report (Appendix 7) cited "lack of staff" as the top reason for not meeting the goal timeframe for issuance of Tier 2 water permits.
Improvement Goal	More timely permitting (shorter permitting timelines) with benefits including: • Permittees able to start projects or new activities sooner • Increased schedule certainty for permittees • Current permits with up-to-date requirements that are more straightforward to modify for future projects

Table 5-53 Consideration for Improvement - Improve Minnesota Pollution Control Agency Process Efficiency

Consideration for Improvement	Opportunities for the Minnesota Pollution Control Agency (MPCA) to improve process efficiency, such as: • Evaluating the number of agency staff involved in the permitting process for an individual permit based on the complexity of the permit • Aligning department leadership and staff involved in the permitting process to clarify oversight and decision rights
Supporting Analysis	See Sections 5.2.1.2, 5.2.1.4, 5.2.2, and 5.2.3 (refer to timeliness details discussed in preceding consideration for improvement) Experience indicates that the MPCA may involve more internal parties in the development of individual industrial NPDES permits than other states.
Improvement Goal	More timely permitting (shorter permitting timelines) with benefits as discussed in preceding consideration for improvement

Table 5-54 Consideration for Improvement - Reduce Minnesota Pollution Control Agency Regulatory Complexity

Consideration for Improvement	Opportunities for the Minnesota Pollution Control Agency to reduce regulatory complexity, such as: • Developing additional general permits for similar operations and types of discharges • Clarifying and streamlining antidegradation procedures to remove barriers for potential and existing permittees (review well-established procedures in states such as Iowa, Michigan, and North Dakota to identify potential opportunities) • Developing guidance and tools to assist both agency staff and permittees with ways to efficiently and effectively navigate Minnesota's permitting process, complex water quality criteria, and significant number of impaired waters
Supporting Analysis	See Sections 5.2.1.1, 5.2.1.2, and 5.2.3 General permits are typically a more streamlined and standardized permitting option than individual permits. Minnesota has 11 general permits available for permittees to apply for coverage under compared to the benchmark state average of 16 general permits. The NPDES permitting process steps are relatively similar across states; however, the details of how steps are conducted, who is involved, timelines, and prioritization may vary from state to state. The most noticeable process differences are associated with antidegradation procedures, which are a more substantial procedural hurdle to navigate in Minnesota than in states with well-established procedures. There are generally more water quality considerations (e.g., water quality criteria, impaired waters) to be navigated by permittees and the agency in Minnesota than there are in other states.
Improvement Goal	• Increased options for streamlined and efficient permitting • Increased ease of navigating permitting process

Table 5-55 Consideration for Improvement - Increase Minnesota Pollution Control Agency Transparency

Consideration for Improvement	Opportunities for the Minnesota Pollution Control Agency (MPCA) to increase transparency for new and existing permittees, such as: • Developing an online resource for tracking the status of NPDES permit applications within the permitting process • Consistently posting permits, associated fact sheets, and other permitting files in the MPCA's What's in My Neighborhood database or another online database • Establishing an ombudsman that permittees can contact for assistance related to permitting (similar to the current MPCA Small Business Ombudsman, but for businesses of any size)
Supporting Analysis	See Section 5.2.3 The MPCA has a web-based resource for tracking air permit application statuses and several benchmark states have online resources for tracking NPDES permit application statuses. Several of the benchmark states have databases from which NPDES permits and related permitting files can be downloaded.
Improvement Goal	Increased transparency for permittees and the public related to permitting progress, timelines, and process

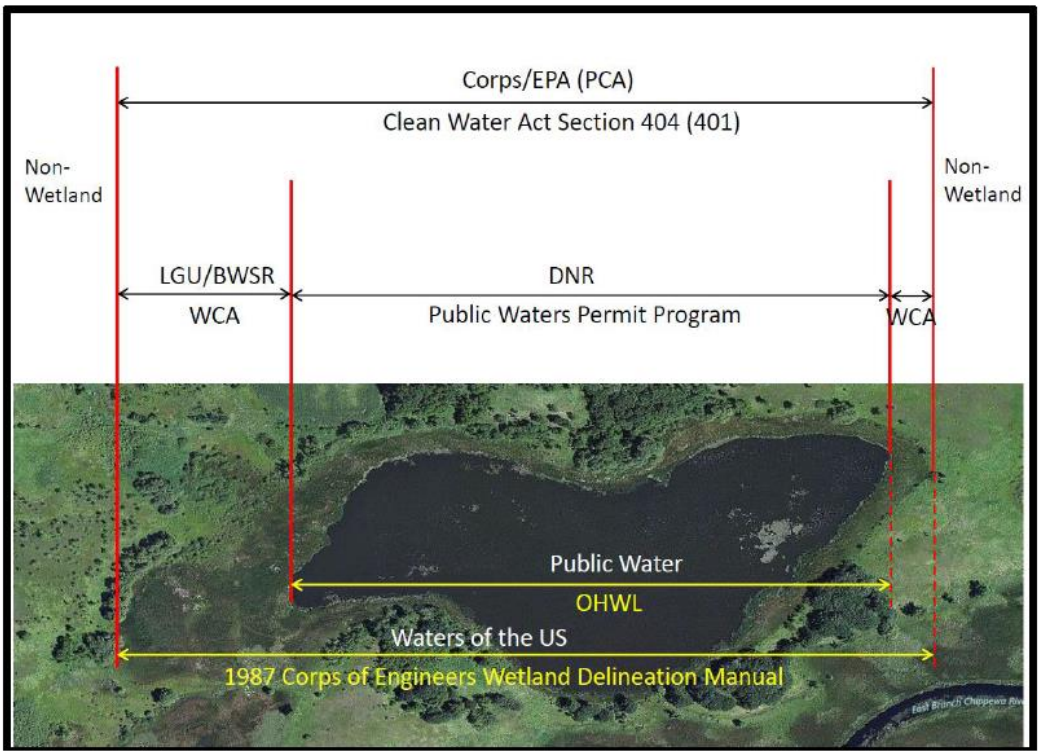
Refer to Section 5.1 for additional considerations for improvement related to the MPCA's annual permitting efficiency reports that apply to air, land, and water permits.

5.3 Wetland Permitting

5.3.1 Minnesota

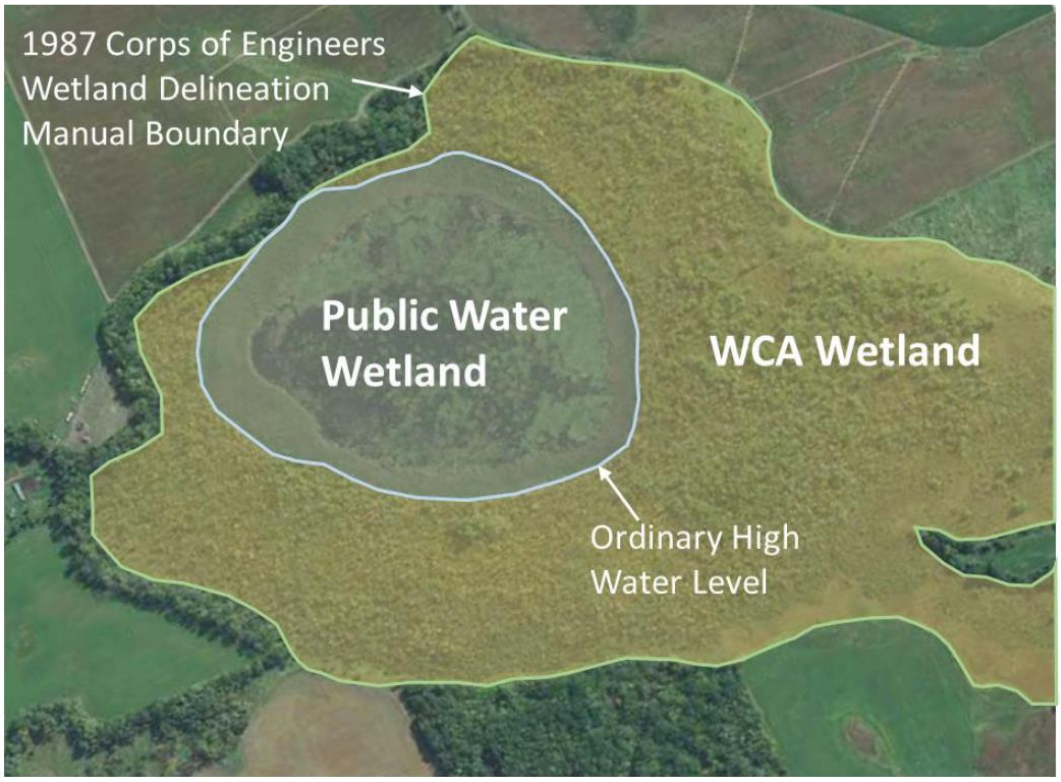
5.3.1.1 Current Statute, Rules, Regulations, and Process

In addition to administration of Section 401 WQC by the state and some tribal nations, Minnesota regulates wetlands via two programs: the Public Waters Permit Program and the Wetland Conservation Act (WCA). Figure 5-12 and Figure 5-13 provide illustrations of how the USACE and state programs can apply to a hypothetical wetland complex, and how they can overlap based on the characteristics, location, and size of the wetland complex. The following sections describe the Public Waters Permit Program and WCA.



reference (30 p. 5)

Figure 5-12 Jurisdiction of Wetland Regulatory Programs in Minnesota



reference (31 p. 7)

Figure 5-13 Public Water Wetland and Adjacent Wetland Conservation Act-Regulated Wetlands

Public Waters Work Permit Program

The MDNR requires a permit for projects that "change or diminish the course, current, or cross-section of public waters, entirely or partially within the state" (Minn. Stat., Section 103G.245, Subd. 1(2)). Wetlands can be classified as "Public Water Wetlands" according to Minn. Stat., Section 103G.005, Subd. 15a:

"Public waters wetlands" means all types 3, 4, and 5 wetlands[25], as defined in United States Fish and Wildlife Service Circular No. 39 (1971 edition), not included within the definition of public waters, that are 10 or more acres in size in unincorporated areas or 2.5 or more acres in incorporated areas.

The MDNR maintains an inventory and maps of Public Water Wetlands for the state and can reclassify them under certain conditions specified in Minn. Stat., Section 103G.20. Furthermore, the MDNR has specific criteria for approval of fill, excavation, and placement of structures within Public Water Wetlands specified in Minn. R. 6115.0190 through .0211.

Wetland Conservation Act

WCA was enacted in 1991 to protect wetlands not protected under the MDNR's Public Waters Permit program and to provide no net loss of Minnesota's remaining wetlands (reference (30)). WCA regulates the draining or filling of wetlands, wholly or partially, and excavation in the permanently and semi-permanently flooded areas of type 3, 4, or 5 wetlands, and in all wetland types if the excavation results in filling, draining, or conversion to non-wetlands (Minn. R. 8420.0105). Public Water Wetlands are not subject to WCA unless the MDNR waives its authority (Minn. R. 8420.0105, Subp. 2E).

Administration of WCA is the responsibility of local government units (LGUs) with oversight from the Board of Water and Soil Resources (BWSR) (Minn. R. 8420.0100, Subp. 3). LGUs are typically cities or counties; however, if a project requires a Permit to Mine, the MDNR is the approving authority responsible for administration of WCA (Minn. R. 8420.0200, Subp. 1D).

Projects impacting wetlands do not receive "permits" but rather one of the following WCA decisions:

- No loss (no permanent loss of, or impact to, wetlands from a specific list of activities meeting the criteria specified in Minn. R. 8420.0315, .0410, and .0415)
- Exemption (meets one of the eight listed activity types specified in Minn. R. 8420.0320 and .0420)
- Sequencing (Minn R. 8420.0325)
- Replacement plan (Minn. R. 8420.0330, .0520, and .0522)
- Boundary or type (Minn. R. 8420.0310 and .0405)

[25] Minnesota Statutes 103G.005, Subdivision 17b defines type 3, 4, and 5 wetlands as: "Type 3 wetlands" are inland shallow fresh marshes in which soil is usually waterlogged early during a growing season and often covered with as much as six inches or more of water. "Type 4 wetlands" are inland deep fresh marshes in which soil is usually covered with six inches to three feet or more of water during the growing season. "Type 5 wetlands" are inland open fresh water, shallow ponds, and reservoirs in which water is usually less than 10 feet deep and is fringed by a border of emergent vegetation similar to open areas of type 4 wetland.

In accordance with Minn. Stat., Section 15.99, LGUs must decide on the determination request within 60 days of receipt of an application (Minn. R. 8420.0255. Subp. 1). If the LGU notifies the project proponent that the application is incomplete within 15 business days of receipt, the 60-day timeframe starts over when all required information is received. If the LGU does not notify the project proponent within 15 business days of receipt that the application is incomplete, it must approve or deny the request within 60 days of the original receipt date. Furthermore, failure of the LGU to act within the 60-day timeframe is automatic approval of the request. The LGU may extend the time limit by written notice prior to the end of the initial 60-day period. The written notice must state the reasons for the extension and its anticipated length; however, it cannot exceed 60 days unless approved by the applicant (Minn. Stat., Section 15.99, Subd. 3(f). The statute does not appear to limit the number of extensions an LGU can request.

Section 404 Assumption

Minnesota has been exploring the potential to submit a request to the USEPA to assume administration of Section 404 authorizations. Overall, this would reduce the number of overlapping authorizations required for wetlands except where the USACE retains jurisdiction. Only state agencies can be permitting authorities for an assumed Section 404 program; therefore, changes to state statutes and rules are necessary to gain approval from the USEPA (reference (32)).

5.3.1.2 Timeliness

Public Waters Work Permit Program

The MDNR has goals to act on Public Waters Work Permit applications within 90 days for activities qualifying for general permits (Tier 1) and 150 days for all others (Tier 2). The most recent report covering 7/1/2020 to 6/30/2021 does not break down data specifically for Public Water Wetlands; however, the MDNR indicates (reference (33)):

- Of the 194 decisions made for Tier 1 Public Waters Work Permits, 154 were within 90 days of receiving the initial application, 27 were within 90 days of complete application, and 13 exceeded 90 days from complete application. Nine of the 13 decisions that exceeded 90 days from complete application were due to lack of staff.
- Of the 550 decisions made for Tier 2 Public Waters Work Permits, 454 were within 90 days of receiving the initial application, 77 were within 90 days of complete application, and 19 exceeded 90 days from complete application. Nine of the 19 decisions that exceeded 90 days from complete application were due to lack of staff.

Wetland Conservation Act

Minn. R. 8420.0200, Subp. 2.I. requires LGUs to submit an annual report of its implementation of WCA to BWSR. Based on the 2021 summary report, BWSR requires LGUs to provide the following data (reference (31)):

- application numbers (type, total number, total approved, total denied, and total withdrawn)
- acres of wetland impacted via approved exemption (separated by the 9 exemption categories)

- number of replacement plans approved using wetland banking, project-specific banking, or a combination of the two
- acres of wetland impacts via an approved replacement plan
- numbers of the following for project-specific replacement wetlands:
    - construction sites inspected
    - corrective actions ordered
    - monitoring reports received
    - findings of satisfactory replacement
- number of potential WCA violation sites investigated
- number of enforcement actions that didn't result in cease and desist, restoration, or replacement order
- number of local appeals heard

The summary report does not include data on timeframes to process decisions or issuance of extensions. Therefore, publicly available statistics that provide transparency regarding the actual timelines to obtain a WCA decision do not appear to be accessible.

5.3.1.3 Coordination with other agencies and stakeholders

Minn. R. 8420.0255, Subp. 3, requires that the LGU send a copy of WCA applications and a notice of application to the technical evaluation panel (TEP); the watershed management organization, if there is one; the MDNR; and individual members of the public who request a copy. The TEP is comprised of a technical professional employee of BWSR, a technical professional employee of the soil and water conservation district of the county in which the activity is occurring, and a technical professional with expertise in water resource management appointed by the LGU.

The notice of application must identify the date when the comment period ends and where to submit comments. When requested by the LGU, the TEP must make technical findings and recommendations regarding applications, the scope of WCA, the applicability of exemption and no-loss standards, wetland functions and resulting public value, and direct and indirect impacts. Minn. R. 8420.0515, Subp. 2 through 5, require consideration of other environmental factors that can lead to coordination with the MDNR and State Historic Preservation Office for WCA determination applications. Furthermore, when the MDNR is the approving authority via a Permit to Mine or other state agency based on land management responsibilities, consultation with the 11 federally recognized tribal nations that share geography with Minnesota, as detailed in Section 5.4.1.3, may be necessary.

5.3.2 Benchmark States

Table 5-56 summarizes the data collected for the benchmark states specific to wetland permitting requirements at the state level beyond administration of Section 401 WQCs. Of the benchmark states identified, five (Indiana, Michigan, North Carolina, Tennessee, and Wisconsin) have state-level wetland permitting requirements.

Table 5-56 Wetland Permitting Requirements Summary by State

State	Does the state regulate dredge or fill of wetlands?	What agency administers the program?	Does the scope extend beyond waters of the U.S. (i.e., wetlands that are not waters of the U.S.)?	Does the application require additional details beyond what is necessary for a Clean Water Act Section 404 permit and 401 Water Quality Certification?	What is the estimated timeframe to receive authorization after application submittal?	Are there requirements for compensatory mitigation?
CO	No	N/A	N/A	N/A	N/A	N/A
IA	No	N/A	N/A	N/A	N/A	N/A
IL	No	N/A	N/A	N/A	N/A	N/A
IN	Yes - Indiana requires permits for dredge or fill of state regulated wetlands. The rules specify general permits for minimal impacts to certain classifications of wetlands. If an activity does not qualify for the general permits, an individual permit is required.	Indiana Department of Environmental Management (IDEM)	Yes - IDEM requires permits for dredge or fill of state-regulated wetlands (wetlands that are not waters of the U.S. and not exempt under IC 13-18-22-1).	Yes - IDEM requires receipt of an approved jurisdictional determination from the U.S. Army Corps of Engineers (USACE) and description of compensatory mitigation prior to processing an application.	Individual permits – no later than 120 days from receipt of a complete application. IDEM has 15 days to make a completeness determination General permits – 30 days from submittal of notice of intent	Yes - IC 13-18-22-6 (State Regulated Wetlands Law) has specific compensatory wetland mitigation ratios based on the class of the wetland impacted and the proposed mitigation (in lieu fee, on site, or off-site replacement wetlands).
MI	Yes - Michigan has an assumed Clean Water Act Section 404 and 401 program (U.S. Army Corps of Engineers retains jurisdiction for wetlands adjacent to Section 10 waters). The program regulates dredge or fill of the wetlands specified under Part 303 of the Natural Resources and Environmental Protection Act. There are general and minor permit categories. If an activity does not qualify for a general or minor permit, an individual permit is required.	Michigan Department of Environment, Great Lakes, and Energy (EGLE)	Yes - EGLE regulates the following wetlands: • Connected to one of the Great Lakes or Lake St. Clair • Located within 1,000 feet of one of the Great Lakes or Lake St. Clair • Connected to an inland lake, pond, river, or stream • Located within 500 feet of an inland lake, pond, river or stream • Not connected to one of the Great Lakes or Lake St. Clair, or an inland lake, pond, stream, or river, but are more than 5 acres in size • Not connected to one of the Great Lakes or Lake St. Clair, or an inland lake, pond, stream, or river, and less than 5 acres in size, but EGLE has determined that these wetlands are essential to the preservation of the state's natural resources and has notified the property owner	No - the application requirements are commensurate with what is necessary for a Clean Water Act Section 404 permit and 401 Water Quality Certification.	2 - 6 months, depending on the category of permit required (general, minor, or individual permit) and whether a hearing is held.	Yes - compensatory wetland mitigation may be required for minor or individual permits. Rule 281.925 has specific ratios based on proposed compensatory mitigation.

State	Does the state regulate dredge or fill of wetlands?	What agency administers the program?	Does the scope extend beyond waters of the U.S. (i.e., wetlands that are not waters of the U.S.)?	Does the application require additional details beyond what is necessary for a Clean Water Act Section 404 permit and 401 Water Quality Certification?	What is the estimated timeframe to receive authorization after application submittal?	Are there requirements for compensatory mitigation?
MN	Yes - Minnesota regulates filling of wetlands and excavation of wetlands in some circumstances under the Wetland Conservation Act (WCA) and impacts to Public Water Wetlands. The Public Waters Work Permit program has general permit categories. If an activity does not qualify for a general permit, an individual permit is required.	WCA is administered by local government units or the Minnesota Department of Natural Resources (MDNR) (for mining projects subject to its jurisdiction). The MDNR administers the program for Public Water Wetlands.	Yes - WCA protects all wetlands that are not "incidental;" not created by mine pits, stockpiles, or tailings basins; and not listed Public Water Wetlands. "Public waters wetlands" means all types 3, 4, and 5 wetlands, as defined in United States Fish and Wildlife Service Circular No. 39 (1971 edition), not included within the definition of public waters, that are 10 or more acres in size in unincorporated areas or 2-1/2 or more acres in incorporated areas.	Yes - the application requirements are generally commensurate with what is necessary for a Clean Water Act Section 404 permit and 401 Water Quality Certification, but additional information is required to evaluate potential adverse effects on State rare natural communities, groundwater quality, education or research use, waste disposal sites, and consistency with local plans and zoning.	WCA: 60 days from a complete application - the LGU has 15 days from application receipt to determine if it is complete. If the LGU gives written notice that a request is incomplete within 15 business days of receipt, then the 60-day period starts over when all required information is received. If such notice is not given, the LGU must approve or deny the request within 60 days of the original receipt date. The LGU may extend the time limit by written notice prior to the end of the initial 60-day period. The written notice must state the reasons for the extension and its anticipated length. The extension may not exceed 60 days unless approved by the applicant. Public Waters Wetlands: Estimated 90 to 120 days based on MDNR stated goals. The rules do not have a specific timeframe for application processing; however, they do include provisions for a contested-case hearing.	WCA: Yes - If an activity is not exempt or does not fall under a "no-loss" category, the impacted wetlands must be replaced under a replacement plan approved by the LGU that may require compensatory mitigation. Public Water Wetlands: Yes - the MDNR may require compensatory mitigation for a "major change" but does not define that term.
NC	Yes - North Carolina requires permits for dredge or fill of state regulated wetlands. The rules specify minor and major permits based on the scope of impact to wetlands.	North Carolina Department of Environmental Quality (NCDEQ)	Yes - the NCDEQ regulates dredge and fill of wetlands that are not waters of the U.S.	No - the application requirements are commensurate with what is necessary for a Clean Water Act Section 404 permit and 401 Water Quality Certification.	Based on the NCDEQ's website (https://www.deq.nc.gov/permits-rules/express-permitting), the average timeframe for review is approximately 81 days or 24 days under the express program (available for an increased fee)	Yes - compensatory wetland mitigation may be required for minor or individual permits. 15A-NCAC-02H.-1300 has specific ratios based on proposed compensatory mitigation.
ND	No	N/A	N/A	N/A	N/A	N/A
SD	No	N/A	N/A	N/A	N/A	N/A
TN	Yes - Tennessee requires an Aquatic Resource Alteration permit for activities impacting wetlands (Rule 0400-40-07). The rules specify general permits for minimal impacts to certain classifications of wetlands. If an activity does not qualify for the general permits, an individual permit is required.	Tennessee Department of Environment & Conservation (TDEC)	Yes - the TDEC regulates dredge and fill of wetlands that are not waters of the U.S.	No - the application requirements are commensurate with what is necessary for a Clean Water Act Section 404 permit and 401 Water Quality Certification.	General permits: 1 month Individual permits: Once TDEC deems the application complete, it has 90 days to make a decision. The process also requires completion of a 30-day public notice.	Yes - compensatory wetland mitigation may be required. Rule 0400-40-07 has specific ratios based on proposed compensatory mitigation.
WI	Yes - Wisconsin requires permits for dredge or fill of state regulated wetlands. The rules allow for general and individual permits based on the scope of impact to wetlands.	Wisconsin Department of Natural Resources	Yes - the WDNR regulates dredge and fill of wetlands that are not waters of the U.S.	No - the application requirements are commensurate with what is necessary for a Clean Water Act Section 404 permit and 401 Water Quality Certification.	General permits: 30 days from complete application Individual permits: Minimum of 105 days (typically 4 to 6 months)	Yes - compensatory wetland mitigation may be required. The WDNR sets the credit ratio based on impacts and proposed mitigation.

5.3.2.1 Indiana

As detailed in Table 5-56, Indiana regulates impacts to wetlands that are not waters of the U.S. and not exempt under 327 IAC 17-1-3 (7). Therefore, the IDEM requires documentation of an approved jurisdictional determination from USACE to confirm which wetlands are waters of the U.S. and which are subject to state requirements. At a high level, the requirements and process for obtaining a permit to impact state-regulated wetlands in Indiana is similar to the USACE, as noted in Section 1.2.3.

5.3.2.2 Michigan

As detailed in Table 5-56, Michigan assumed authority to implement Section 404 of the CWA. Therefore, separate authorization from USACE is not required for wetland impacts unless they are adjacent to Section 10 waters (the Great Lakes and typically larger rivers discharging to the Great Lakes). Michigan does extend jurisdiction over wetlands that may not be waters of the U.S. based on specific distances relative to other waters and/or the size of the wetland.

5.3.2.3 North Carolina

As detailed in Table 5-56, North Carolina regulates impacts to wetlands that are not waters of the U.S. At a high level, the requirements and process for obtaining a permit to impact state-regulated wetlands in North Carolina are similar to the USACE. In addition, North Carolina offers an express review program for permit applications for an additional fee.

5.3.2.4 Tennessee

As detailed in Table 5-56, Tennessee regulates impacts to wetlands that are not waters of the U.S. At a high level, the requirements and process for obtaining a permit to impact state-regulated wetlands in Tennessee are similar to the USACE.

5.3.2.5 Wisconsin

As detailed in Table 5-56, Wisconsin regulates impacts to most wetlands, including those that are waters of the U.S. At a high level, the requirements and process for obtaining a permit to impact state-regulated wetlands in Wisconsin is similar to the USACE.

5.3.3 Comparing Minnesota to Benchmark States

Of the benchmark states, Indiana, Michigan, North Carolina, Tennessee, and Wisconsin have programs that regulate wetlands above and beyond Section 404/401 of the CWA. Therefore, the following summarizes the primary comparison of Indiana, Michigan, North Carolina, Tennessee, and Wisconsin's requirements to Minnesota:

- Minnesota is the only state of the states benchmarked that has local administration of state wetland regulations. Furthermore, Minnesota is the only state that separates out regulation of specific wetlands via different regulations (WCA and Public Waters).
- Minnesota and the five benchmark states all have requirements for compensatory mitigation.

- The five benchmark states have general and individual permits available while Minnesota does not under WCA.
- Minnesota's timeframes under WCA general do account for timely processing; however, there is a simple, commonly used procedure available to LGUs for extending the decision timeframe.
- North Carolina's express review program allows for the fastest approval timeframe, especially for general permit authorizations.
- Michigan and Wisconsin regulate wetlands that are and are not waters of the U.S., like Minnesota; however, based on Michigan's Section 404/401 assumption, multiple applications are not necessary unless the wetlands are also subject to USACE jurisdiction (Section 10 waters).

5.3.4 Considerations for Improvement

Based on the evaluation of the information presented in Sections 5.3.1 through 5.3.3, the following are considerations for improvement of the state-level wetland permitting requirements in Minnesota:

Table 5-57 Consideration for Improvement - Complete 404 Assumption Process

Consideration for Improvement	Complete the 404 assumption process.
Supporting analysis	See Section 5.3.2.2 Michigan assumed authority to implement Section 404 of the Clean Water Act. Therefore, separate authorization from U.S. Army Corps of Engineers (USACE) is not required for wetland impacts unless they are adjacent to Section 10 waters (the Great Lakes and typically larger rivers discharging to the Great Lakes).
Improvement goal	Reduce duplication between WCA and the USACE.

Table 5-58 Consideration for Improvement - Expand BWSR Annual LGU Report

Consideration for Improvement	Expand the BWSR annual LGU report to include timing of completeness review and decisions.
Supporting analysis	See Section 5.3.1.2 The BWSR annual report does not currently specify timing of completeness review or decisions.
Improvement goal	This would allow for further evaluation of effectiveness of specifically administering WCA to understand the actual decision timeframes and to help identify areas for improvement.

Table 5-59 Revise Minnesota Statute 15.99 Subdivision 3(f)

Consideration for Improvement	Revise Minn. Stat., Section 15.99, Subd.,3(f) to be clear about the maximum number of times a Responsible Governmental Unit (RGU) can extend the initial 60-day decision timeframe for WCA determinations.
Supporting analysis	See Section 5.3.1.1 Minn. Stat., Section 15.99, Subd. 3(f) does not specify how many times an RGU can extend their decision timeframe.
Improvement goal	Improve timeliness for WCA determinations and provide project proponents more certainty regarding the time it takes to complete the process

5.4 Environmental Review

5.4.1 Minnesota

5.4.1.1 Current Statute, Rules, Regulations, and Process

Minnesota Rules (Minn. R.), Ch. 4410, Environmental Review, provides the implementation procedures for the MEPA (Minnesota Statutes [Minn. Stat.], Ch. 116D). The administrative rules specify certain definitions; describe the scope, purpose, and objectives of the rules; and outline the roles and responsibilities of public authorities. The rules describe the types of proposed projects that automatically trigger development of an Environmental Assessment Worksheet (EAW) or preparation of an EIS. The rules also provide exemptions on certain actions for which neither an EAW nor EIS is required. The EAW or EIS process may be discretionary, based on the determination by a responsible governmental unit (RGU) that a proposed project has the potential for a significant environmental effect. If an EAW and/or EIS are required for a proposed project, local and state approvals cannot be issued until environmental review is complete; however, applications for permits and approvals can be submitted beforehand and processed concurrently (Minn. R. 4410.3100).

Responsible Governmental Unit Selection

The selection of the RGU is dependent on the following situations, as detailed in Minn. R. 4410.0500:

- Mandatory EAW or EIS: If a project meets the threshold(s) for a mandatory EAW or EIS, Minn. R. 4410.4300 and 4410.4400 specify who will be the RGU (local authority or state agency).
- Discretionary EAW: If a local authority or state agency requires a discretionary EAW, it is the RGU. If the EQB requires an EAW for a project, based on the potential for significant environmental effects due to its location or nature, that agency will designate the RGU.
- EAW by petition: When it receives a petition request for an EAW, the EQB determines the RGU based on project type and if there is a mandatory category.
- If two or more local and/or state agencies have jurisdiction over a project, they can submit a request to the EQB to designate the RGU. In addition, the EQB can designate another RGU that has greater expertise to analyze the potential impacts of the project.

Environmental Assessment Worksheet

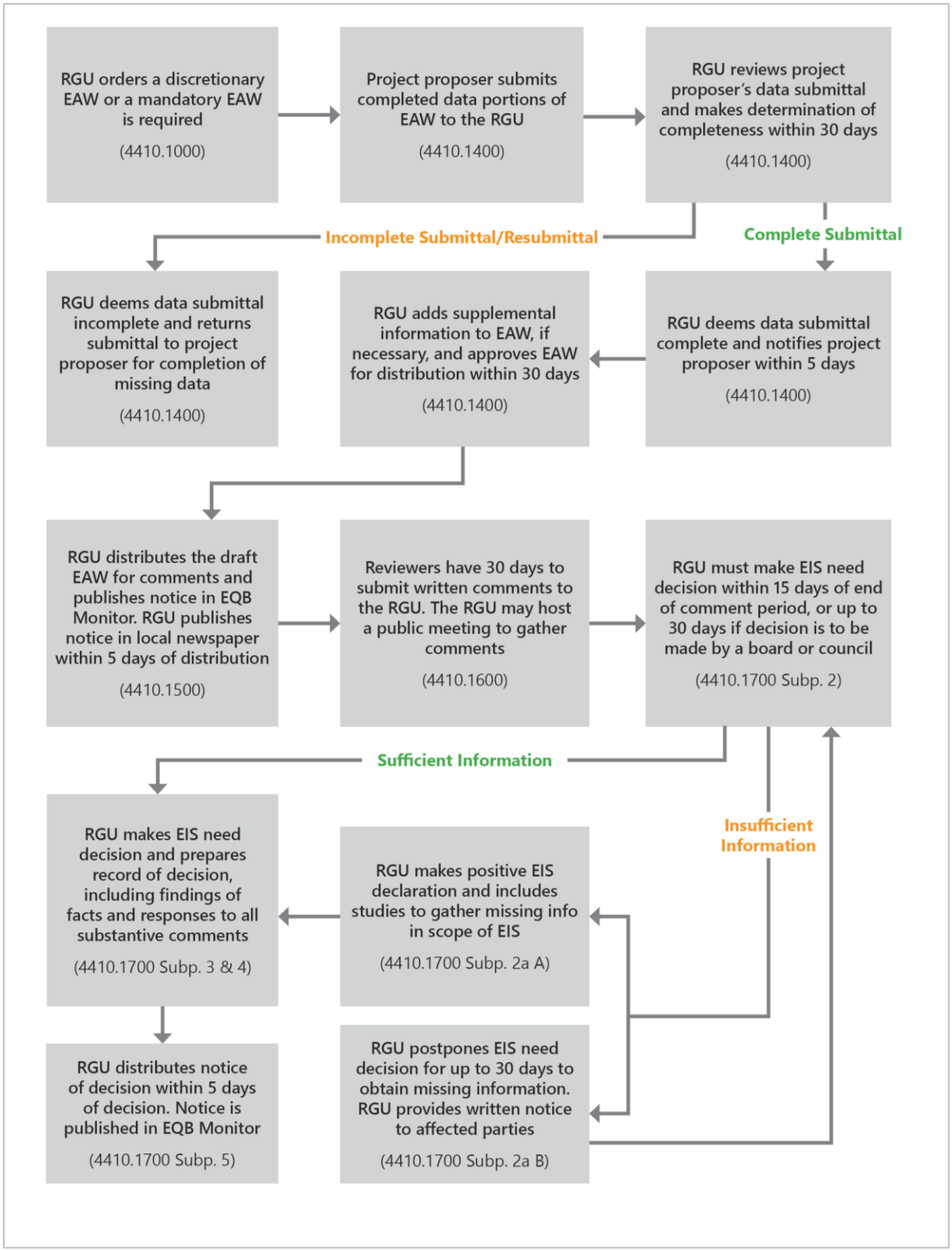
An EAW is intended to be a brief document that sets out the basic facts necessary to (1) determine whether an EIS is required for a proposed project or (2) initiate the scoping process for an EIS (Minn. R. 4410.0200, Subp. 24). The current primary EAW template consists of a series of 22 questions that establish the baseline environmental conditions and potential effects of a project (reference (34)). It does not require analysis of alternatives to the proposed project or socioeconomic, environmental justice, or health impacts. There is currently an alternative EAW template specific to animal feedlots (reference (35)) and a federal Environmental Assessment can be used in lieu of an EAW so long as it includes the same content (Minn. R. 4410.1300, Subp. C).

An EAW must be prepared for projects that meet or exceed the threshold stated for any of 36 categories listed in Minn. R. 4410.4300. Each category indicates which RGU is responsible for preparation of the EAW, either a local or state governmental agency. In addition, if a project is an expansion or an additional stage of an existing project, and if construction of the first stage began no more than three years before the date of applying for RGU approval of the project, the cumulative total of the action must be considered when determining whether a threshold is met or exceeded (Minn. R. 4410.4300, Subp. 1).

Furthermore, Minn. R. 4410.1100 establishes the process for submitting a petition to request preparation of an EAW for a project if it does not fall into one of the 36 mandatory categories. Petitions must have the signatures and addresses of at least 100 individual Minnesota residents and provide evidence that the project might have significant environmental effects. The RGU must review the evidence and consider the following factors when deciding to approve or deny the petition:

- The type, extent, and reversibility of the potential environmental effects
- The potential for cumulative effects, considering:
    - Significance of cumulative effects
    - Significance of the project's contribution when viewed in connection with other contributions to the potential cumulative effect
    - Approved mitigation measures that could address potential cumulative effect
    - Measures proposed to minimize project contributions
- If the environmental effects will be subject to mitigation from a public authority (e.g., permits)
- The extent to which other available environmental studies undertaken by public agencies or the project proposer, including other EISs, can help anticipate and control environmental effects

Figure 5-14 illustrates the steps of the EAW process.



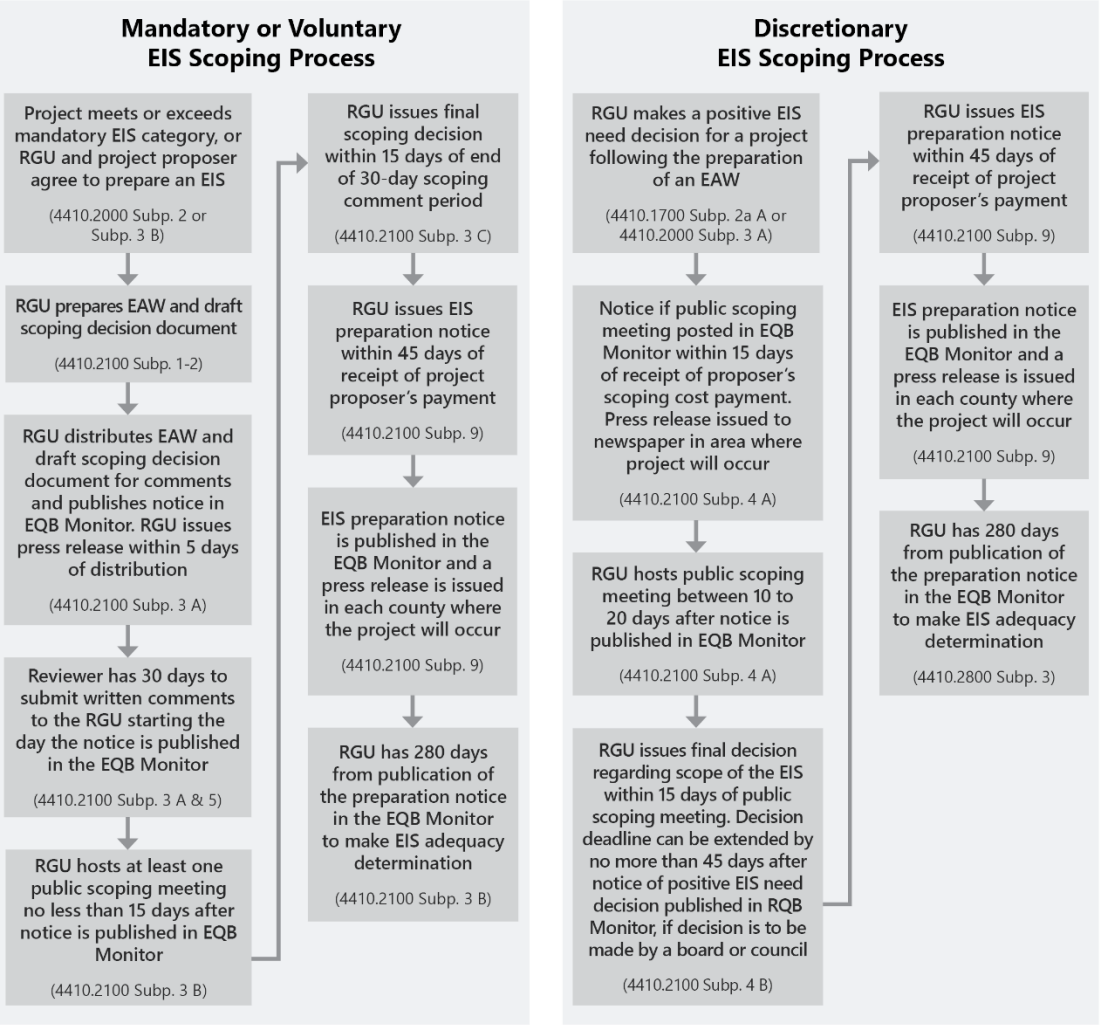
Source: reference (36)

Figure 5-14 EAW Process

Environmental Impact Statement

An EIS must be prepared for projects that meet or exceed the threshold stated for any of 28 categories listed in Minn. R. 4410.4400 (mandatory), if the RGU determines it is necessary as an outcome of an EAW (discretionary), or if the RGU and project proponent agree to prepare an EIS (voluntary). Like the EAW mandatory categories, each EIS category indicates the RGU responsible for preparing the EIS (local or state governmental agency). Figure 5-15 illustrates the scoping process steps for mandatory, voluntary, and discretionary EIS. The RGU has 280 days from publication of the preparation notice to make an adequacy determination on the final EIS unless the project proponent agrees to an extension, or the governor allows for more time (Minn. R. 4410.2800, Subp. 3). In practice, the EIS process takes far longer than the 280-day limit would suggest, commonly taking multiple years to complete.

Minn. R. Part 4410.2900 requires state agencies and local authorities to make final decisions on permits within 30 days of the adequacy decision if the permits were identified in the scoping process and processed concurrently with the preparation of the EIS. The 30-day period may be extended with the consent of the permit applicant, where a longer period is required by federal law or state statute, or where a longer period is permitted by Minn. Stat., Section 15.99.



Source: reference (37)

Figure 5-15 Mandatory or Voluntary and Discretionary EIS Scoping Processes

Unlike an EAW, an EIS requires analysis of potential socioeconomic impacts (Minn. R. 4410.2300, Subp. H). In addition, an EIS requires analysis of reasonable alternatives to the proposed project (Minn. R. 4410.2300, Subp. G). This includes the no-build alternative and at least one alternative of each of the following types, or a concise explanation of why no alternative is included:

- Alternative sites
- Alternative technologies
- Modified designs or layouts
- Modified scale or magnitude
- Alternatives incorporating reasonable mitigation measures identified through comments received during the comment periods for scoping or on the draft EIS

The RGU can exclude an alternative from further analysis if it will not meet the purpose and need of the project, will likely not have significant environmental benefits compared to the proposed project, or will likely have similar environmental benefits but fewer adverse socioeconomic impacts. The intent is to require the RGU to consider whether significant environmental impacts can be avoided or minimized by carrying out the project in another way (reference (38)).

Alternative Urban Areawide Review

Alternative urban areawide review (AUAR) is available to RGUs as a hybrid of the EAW and EIS process. It can be used as a planning tool to understand how different development scenarios might affect the environment of the community before they occur (reference (37)). A local government can follow the AUAR process to review anticipated residential, commercial, warehousing, and light industrial development within a geographic area if it has adopted a comprehensive plan that includes the elements detailed in Minn. R. 4410.3610, Subp. 1. The AUAR process uses the EAW form, but its level of analysis is comparable to that of an EIS (Minn. R. 4410.3610, Subp. 4).

Environmental Quality Board

In addition to the RGUs, Minnesota has the EQB, which comprises the heads of the following nine state agencies and one appointed citizen member for each of Minnesota's eight U.S. congressional districts:

- Board of Water and Soil Resources
- Department of Administration
- Department of Agriculture
- Department of Commerce
- Department of Employment and Economic Development
- Department of Health
- Department of Natural Resources
- Department of Transportation
- Pollution Control Agency

The EQB's role specific to environmental review is to:

- Monitor the effectiveness of Minn. R. Ch. 4410 and modify the rules if necessary
- Provide technical assistance to RGUs and the public
- Maintain the EAW form template and approve alternative EAW forms
- Determine if petitions comply with the rules, and if they do, designate an RGU
- Designate an RGU if two or more local or state agencies have jurisdiction over a project
- Publish public notices in the EQB Monitor (weekly publication)

- Maintain an interactive webmap and database that provides information on projects going through environmental review[26]

5.4.1.2 Timeliness

In May 2023, the EQB launched its Environmental Review Projects Database,[4] which allows users to obtain environmental review documents for projects. There is no central, publicly available repository for environmental review documents dated prior to May 2023. The database provides:

- Project name
- Location
- RGU
- Mandatory category (if applicable)
- Brief project description
- Environmental review documents where publication occurs in the EQB Monitor (EAW, EIS need decision, scoping EAW, scoping decision document, EIS preparation notice, draft and final EIS, EIS adequacy determination, and AUAR)
- Public meeting information (date, time, location, and virtual meeting link)

While this is a helpful step forward, the database does not provide summary statistics regarding timelines for projects to complete environmental review. Such summary statistics could be generated by manually extracting the information from each individual project listed when there is a more sizable dataset available. In addition, it does not appear that the EQB or other RGUs maintain publicly available data that summarizes the timeline for the RGU to deem an EAW complete, which is an important step in the process and can vary. Therefore, there is not a readily available public data set that provides the entire timeframe for projects starting and completing environmental review.

MPCA notes on their website that EAWs can take four to six months to complete and an EIS can take one to two years; however, they do not have data available to demonstrate this.[27] Furthermore, the 2011 Legislative Auditors report included a recommendation specific to the MPCA and MDNR to improve the value of their data by routinely compiling complete and accurate timeliness information on environmental reviews and priority permits (reference (39)). While the MPCA and MDNR are reporting data regarding permits (Sections 5.1.1 and 5.2.1.1, and 5.3.1.1, respectively), neither agency has a specific database or report available on their website that provides timeline statistics for completion of EAWs and/or EIS. That said, the 2011 Legislative Auditor's report found in a review of data from eight local government, MPCA, and MDNR EAWs between 2007 and 2011 that the number of calendar days between an agency's receipt

[26] https://www.eqb.state.mn.us/content/environmental-review-projects-database
[27] Environmental review | Minnesota Pollution Control Agency (state.mn.us) Accessed 12/11/2023

of data for an EAW to the agency's decision on the need for an EIS ranged from 39 days to nearly 800 days (reference (39)).

5.4.1.3 Coordination with Other Agencies and Stakeholders

Minn. R. 4410.1200 and 1300 do not specifically require that an RGU coordinate with other agencies and stakeholders to prepare an EAW. However, questions 14b and 15 of the EAW form require consultation with the MDNR and State Historic Preservation Office, respectively. Furthermore, Minn. R. 4410.2200 requires that the RGU prepare an EIS by using an interdisciplinary approach to safeguard the integrated use of the natural, environmental, and social sciences. Therefore, the RGU may request that another governmental unit help complete the EIS.

Minn. Stat., Section 10.65 requires state agencies to implement consultation policies with the 11 federally recognized tribal nations that share geography with Minnesota. This includes designating tribal liaisons and requiring agency leaders to attend tribal-state relations training. The statute defines consultation as:

> *"The direct and interactive involvement of the Minnesota Tribal governments in the development of policy on matters that have Tribal implications. Consultation is the proactive, affirmative process of identifying and seeking input from appropriate Tribal governments and considering their interest as a necessary and integral part of the decision-making process. This definition adds to statutorily mandated notification procedures. During a consultation, the burden is on the agency to show that it has made a good faith effort to elicit feedback. Consultation is a formal engagement between agency officials and the governing body or bodies of an individual Minnesota Tribal government that the agency or an individual Tribal government may initiate. Formal meetings or communication between top agency officials and the governing body of a Minnesota Tribal government is a necessary element of consultation."*

This statute does not extend to local authorities that may serve as an RGU for preparation of an EAW and/or EIS. Because each state agency may have different policies and procedures, and local authorities are not subject to the statute, project proponents should discuss with the RGU how and when tribal consultation will occur in the process.

5.4.2 Benchmark States

Table 5-60 summarizes the data collected for the benchmark states specific to environmental review requirements at the state level. Of the benchmark states identified, only four (Indiana, North Carolina, South Dakota, and Wisconsin) have state-level environmental policy acts.

Table 5-60 Data Collected for Benchmarking

Item	CO	IL	IN	IA	MI	MN	NC	ND	SD	TN	WI
Does the state have state-specific environmental review requirements, like NEPA or Minnesota Environmental Policy Act, that are overarching and separate from individual permitting programs?	No	No	Yes	No	No	Yes	Yes	No	Yes	No	Yes
Governing statute and/or rule/regulation	N/A	N/A	Indiana Code (IC) Title 13-12-4	N/A	N/A	Minn. R. Ch. 4410	General Statutes Chapter 113A, 1 North Carolina Administrative Code Chapter 25	N/A	South Dakota Codified Law Chapter 34A-9	N/A	Wisconsin Statute 1.11/ primarily Wisconsin Department of Natural Resources (WDNR) Chapter NR 150 and Public Service Commission (PSC) Chapter PSC 4
Do the requirements apply only to state agency decisions/actions or do they also extend to local entities?	N/A	N/A	Only applicable to state agency actions (excluding issuance of permits)	N/A	N/A	Applicable to state actions and can extend to local actions	Applicable to state agencies. Local entities can require environmental review for projects not otherwise subject to state requirements	N/A	Only applicable to state agencies	N/A	Only applicable to state agencies
If NEPA compliance is required, is the state process also necessary?	N/A	N/A	No - IC 13-12-4-10 states that a state-level EIS is not necessary if a federal EIS is necessary	N/A	N/A	Yes	No – if an action is subject to NEPA, separate review at the state level is not required	N/A	No – if an action is subject to NEPA, separate review at the state level is not required	N/A	Yes
Are there thresholds or specific types of projects that are required to conduct an environmental review?	N/A	N/A	No - IC 13-12-4-8 states that an EIS is not required for a state agency to issue a license or permit. Legislation or other major state actions that significantly affect the quality of the human environment (IC 13-12-4-5)	N/A	N/A	Yes – Minn. R. Ch. 4410 specifies mandatory triggers for EAWs and EIS depending on project type and magnitude	Yes – applies to projects meeting all the following: (1) the project will have public funds over a certain threshold and/or uses state land, (2) a project requires a state approval action (i.e., permits), and (3) a project has the potential for an environmental impact. Does not apply to private projects unless they meet the criteria above. Each agency establishes the specific minimum criteria designating minimum levels of environmental impact. Once these criteria have been approved, no filing of environmental documents can be required for projects whose impacts do not exceed the criteria thresholds	N/A	Applies to: (1) New and continuing projects or activities directly undertaken by any public agency, or supported in whole or part through contracts, grants, subsidies, loans, or other forms of funding assistance from one or more public agencies; (2) Policy, regulations, and procedure-making; or (3) The issuance by one or more public agencies of a lease, permit, license, certificate, or other public entitlement to an applicant. All agencies may prepare an EIS on any major action they propose or approve that may have a significant effect on the environment.	N/A	PSC has Type I, II, and III actions specifying if an EA or EIS is required. WDNR may require an EIS for a project if: 1. The project involves multiple department actions. 2. The project may be in conflict with local, state or federal environmental policies. 3. The project may set precedent for reducing or limiting environmental protection. 4. The project may result in deleterious effects over large geographic areas. 5. The project may result in long-term deleterious effects that are prohibitively difficult or expensive to reverse. 6. The project may result in deleterious effects on especially important, critical, or sensitive environmental resources. 7. The project involves broad public controversy. 8. The project may result in substantial risk to human life, health, or safety.

Item	CO	IL	IN	IA	MI	MN	NC	ND	SD	TN	WI
What type of environmental review document(s) are necessary?	N/A	N/A	EIS	N/A	N/A	EAW and/or EIS	EA or EIS (an EA is not necessary if a mandatory EIS is required)	N/A	EIS	N/A	WDNR: EIS PSC: EA or EIS
Do the rules specify a maximum timeframe to complete environmental review?	N/A	N/A	No	N/A	N/A	Yes – The responsible governmental unit (RGU) has 280 days from the publication of the preparation notice to make an adequacy determination on the final EIS unless the project proponent agrees to an extension, or if the governor allows for more time	No	N/A	No	N/A	No
Are there opportunities under the rules for third-party intervention in the process?	N/A	N/A	No	N/A	N/A	Yes – Decisions on the adequacy of an alternative urban areawide review may be reviewed by a declaratory judgment action initiated within 30 days of the RGU's decision in district court. Further, the public can submit a petition to request an EAW for projects	Yes – Administrative and judicial review of an environmental document is incidental to, and may only be undertaken in connection with, review of the agency action. No other review of an environmental document is allowed	N/A	No	N/A	No
Does the state have a counterpart to Minnesota's Environmental Quality Board (EQB)?	N/A	N/A	No	N/A	N/A	N/A	Yes – State Clearinghouse within the Department of Administration has similar functions to the EQB specific to publishing documents	N/A	No	N/A	No
Is there a website available that shows the status of projects in the process?	N/A	N/A	No	N/A	N/A	Yes - EQB projects (state.mn.us)	Yes – the State Clearinghouse has a tracking database available (https://ncadmin.nc.gov/media/15653/open); however, it has not been updated since 2018	N/A	No	N/A	WDNR maintains a website for its EIS actions: current EIA projects and topics | Environmental Impact Analysis | Wisconsin DNR

5.4.2.1 Indiana

Indiana's environmental review requirements under IC Title 13-12-4 are only applicable to state agency actions and legislation that "significantly affect the quality of the human environment." State agency actions do not include issuance of permits or authorizations for projects; therefore, private development projects do not require environmental review. Furthermore, IC 13-12-4-10 states that a state-level EIS is not necessary if a federal EIS is required.

5.4.2.2 North Carolina

North Carolina's environmental review requirements under General Statutes Chapter 113A apply to projects that:

- Will have public funds over a certain threshold and/or use state land
- Require a state approval action (e.g., permits)
- Have the potential for an environmental impact

Private development projects that do not meet those three criteria do not require state-level environmental review. However, General Statutes Chapter 113A allows local authorities to require environmental review for projects within their jurisdiction that are not otherwise subject to state requirements. Each state agency establishes actions that require an EA or EIS and is responsible as the lead. Furthermore, 01 NCAC 25 .0402 states that if an environmental document is prepared under the provisions of NEPA for a specific activity, and if that document is reviewed through the State Clearinghouse process, a separate review is not necessary. If a specific activity has been designated as categorically excluded from the provisions of NEPA, it also satisfies state requirements.

5.4.2.3 South Dakota

South Dakota's environmental review requirements under Codified Law Chapter 34A-9 apply to major state-agency actions that may have a significant effect on the environment. Codified Law Chapter 34A-9-11 specifies that a state-level EIS is not necessary if a federal EIS is required. If an action requires environmental review, an EIS will be prepared; therefore, the requirements could extend to private development projects. Barr was unable to find examples demonstrating that South Dakota state agencies are implementing Codified Law Chapter 34A-9.

5.4.2.4 Wisconsin

Wisconsin's environmental review requirements under Statute 1.11 apply to major state-agency actions that "significantly affect the quality of the human environment," which can include issuance of permits or approvals. Therefore, each state agency has implemented regulations to comply with Statute 1.11. Private development projects are most often subject to the WDNR authority based on the need for various permits, or the Public Service Commission. The WDNR and Public Service Commission have implemented regulations specifying the types of actions that require environmental review. Furthermore, Statute 1.11 applies even if a project is also subject to NEPA compliance and thus separate state and federal environmental review can be required.

As noted in Table 4-1, the WDNR has eight broad categories for projects that can require preparation of an EIS. Notably, an EIS can be required if the project "involves broad public controversy," which is subjective. While it's not specifically listed in NR 150, the WDNR's website states that permitting of metallic mines and the licensing of certain new hazardous-waste facilities automatically require the preparation of an EIS (reference (40)).

5.4.3 Comparing Minnesota to Benchmark States

Of the benchmark states, North Carolina and Wisconsin are the only ones that may require completion of state-level environmental review for private development projects prior to issuance of permits or authorizations. Indiana's requirements do not extend to issuance of permits and South Dakota does not appear to be implementing its requirements in practice. The following list summarizes the primary comparison of North Carolina's and Wisconsin's environmental review requirements with Minnesota's:

- Unlike Minnesota's, North Carolina's and Wisconsin's requirements do not extend to local authorities.
- Like Minnesota, each state agency in North Carolina and Wisconsin is responsible for compliance and implementation.
- Based on the primary trigger of state funding and/or land impacts, private development projects in North Carolina require state-level environmental review less frequently than in Minnesota.
- The WDNR has subjective criteria to consider when deciding whether to require an EIS for a project, while Minnesota has specific triggers. This means the WDNR might need additional time to determine if it will require an EIS, whereas in Minnesota the determination for a mandatory EIS can typically be made relatively swiftly because of the defined triggers.
- North Carolina and Wisconsin do not have provisions like Minnesota that allow the public to petition an agency to conduct an environmental review.
- North Carolina's State Clearinghouse provides functions like the EQB's for posting public notices and supporting agency implementation of the state's requirements. Wisconsin does not have a centralized agency providing those functions.

5.4.4 Considerations for Improvement

Based on the evaluation of the information presented in Sections 5.4.1 through 5.4.3, the following summarizes the considerations for improvement of the environmental review process in Minnesota.

Table 5-61 Consideration for Improvement: Database Modifications

Consideration for Improvement	Update the Environmental Quality Board's (EQB) Environmental Review Projects Database to include additional statistics that would provide greater transparency regarding the actual timelines to complete environmental review. The statistics should include each step of the process for an EAW or EIS, following the flow charts presented in Section 5.4.1.1. At a minimum: • date when a responsible governmental unit (RGU) first receives an EAW or alternative urban areawide review (AUAR) from a project proponent • date when an RGU deems the EAW or AUAR complete for publication • date of EIS need determination • date of EIS preparation notice • date of EIS adequacy decision The database should include the ability to export and summarize the data by project type and RGU. Furthermore, Minnesota could consider development of a program like FAST-41[28] administered by the EQB for complex projects. The EQB could coordinate with local, state, and federal entities/agencies to identify authorizations required, establish a timetable for environmental review/permitting, and track progress via a publicly available website. This would provide greater transparency for the public and project proponents regarding the processes and timeframes. EQB could incorporate this concept within its database in addition to the items noted above.
Supporting analysis	See Section 5.4.1.2 The EQB database does not provide summary statistics regarding timelines for projects to complete environmental review. Such summary statistics could be generated by manually extracting the information from each individual project listed when there is a more sizable dataset available. In addition, it does not appear that the EQB or other RGUs maintain publicly available data that summarizes the timeline for the RGU to deem an EAW complete, which is an important step in the process and can vary. Therefore, there is not a readily available public data set that provides the entire timeframe for projects starting and completing environmental review.
Improvement goal	This greater transparency could allow for more detailed evaluation of potential opportunities for improvements to the process, better understanding of timelines for specific project types, as well as improved ability to measure the performance of RGUs. The 2011 Legislative Auditor's report supports this recommendation and notes such data are critical to an objective assessment of the amount of time these processes take and identification of systemic issues that may need improvement (reference (39)). The EQB should be responsible for compiling this data rather than relying on each individual local and state agency RGU to publish its own information.

[28] https://www.permits.performance.gov/sites/permits.dot.gov/files/2022-09/FPISC_090922.pdf

Table 5-62 Consideration for Improvement: Narrow Focus on the Required EAW Content

Consideration for Improvement	Narrow the required EAW content to only those questions where the impacts would not require permits (i.e., subject to the mitigation of an ongoing authority, or the impacts are subject to permits that do not have public comment/engagement as part of the process)
Supporting analysis	Permit applications often require more detailed information and analysis than an EAW for specific resource areas such as air (Section 5.1.1) and water (Section 5.2.1).
Improvement goal	Reduce duplication between environmental review and permitting that could improve timeliness.

Table 5-63 Consideration for Improvement: Align Mandatory EIS Process with NEPA

Consideration for Improvement	If a mandatory EIS is necessary, eliminate the scoping EAW, and instead, align the scoping process with NEPA (40 CFR 1501.9 currently, 1502.4 in the pending regulations) where an EA is not a necessary precursor to an EIS. In addition, amend Minn. R. 4410.2100 to set a maximum time limit for the responsible governmental unit (RGU) to complete the scoping process like the requirement for determination of a final EIS within 280 days of the publication of the preparation notice.
Supporting analysis	See Section 5.4.1.1 The RGU has 280 days from publication of the preparation notice to make an adequacy determination on the final EIS unless the project proponent agrees to an extension, or the governor allows for more time (Minn. R. 4410.2800, Subp. 3); however, there is no maximum time limit to complete the scoping process.
Improvement goal	Provide project proponents more certainty regarding the time it takes to complete the environmental review process.

6 Litigation

Legal challenges are a common source of delays in the permitting process, and therefore contribute to delays in, or ultimately halt, an economic development project. The scope of this research does not allow us to conduct a state-by-state analysis or deep research on litigation impacts. However, SPB, a global law firm with broad experience in litigation and relative experience related to permitting, was consulted on this issue at a high level.

The firm evaluated the basic structure of Minnesota's relevant laws compared to those of other states, to determine if there were issues unique to Minnesota that give rise to an inordinate or unusual amount of litigation. While there are some unique differences in Minnesota law (such as the Minnesota Environmental Rights Act[29] and the MEPA, discussed in Section 5.4), SPB concluded that litigation is no more or no less likely to occur in Minnesota than in other states. Large, controversial projects may be challenged legally wherever they are proposed.

A more difficult question is whether the mere risk of litigation leads to longer permit processing times and more delays. The issues related to the Environmental Review Program are a good example. Without question, and as discussed more comprehensively in Section 5.4, Minnesota's Environmental Review program creates an additional opportunity to litigate that does not exist in other states. Whether or not that litigation occurs, the agencies responsible for completing environmental reviews are cognizant of that risk. Regardless of any perceived litigation risk, the Environmental Review program requirements simply cause delay in permit issuance because they require additional processing time.

SPB also noted that Minnesota has recently adopted legislation likely to create additional permit processing time (and, potentially, additional litigation risk). Although it is too early to point to specifics, it is worth highlighting that, relatively soon, the State will have additional Cumulative Impact Analysis requirements for environmental justice areas and, potentially, air toxics rules in Minnesota's large urban areas. See Minn. Stat., Section 116.065 and 2023 Minn. Session Laws, Chapter 60, Article 8. SPB suggests that these developments are likely to add time and increase financial burdens for applicants.

Litigation, or simply the risk of litigation, has an impact on the timeliness and efficiency of Minnesota's permitting process. Both sides of a potential dispute want to keep their legal rights intact. Recommendations to help deter litigation and gain support of impacted stakeholders (including state and federal government, business, environmental organizations) would require a separate analysis outside the scope of this report.

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[29] The Minnesota Environmental Rights Act (MERA), found at Minn. Stat. 116B, is a powerful tool, but has not, to our knowledge, been used to support a permit challenge independent of other claims. 116B.09 and 116B.10 provide a right to intervene in permit actions and a right to sue the state to challenge permit decisions. However, we found no instances where MERA was used alone to challenge a permit action and only three instances of Minnesota Court of Appeals or Supreme Court cases over the last 25 years where MERA was modestly used as an additional basis to support a challenge to a MPCA permit decision.