401 Guidance document for applicants

Section 1: How to apply

Pre-filing meeting

At least 30 days before submitting a Water Quality Certification (WQC) request, applicants must email 401Certification.pca@state.mn.us to request a pre-filing meeting for the proposed project. This meeting is typically 30-45 minutes long. Prefiling meetings are not required, but a request must be made and MPCA and the applicant can determine if a meeting should be held.

While not required, this meeting is strongly recommended to allow MPCA staff to have a project summary and provide feedback on the project prior to submittal and can help highlight any red flags. This additional familiarity with the proposed work also increases efficiency of the 401 WQC decision process. The 30-day pre-filing period is in effect regardless of if the applicant determines they would like a pre-filing meeting or not.

Note: the USACE notification email that may go out to applicants signifying a potential requirement for an individual 401 WQC is NOT the same as requesting a pre-filing meeting, and it is the applicant's responsibility to reach out and request the meeting to start the pre-filing period.

What is helpful to prepare for a pre-filing meeting:

1. A summary of the proposed project and proposed timeline.
2. A list of all permits required for the project.
3. Any clarifying questions on the Antidegradation Assessment – the antidegradation assessment form is available on the MPCA website[1] and will also be sent to applicants with the confirmation of the meeting time.

MPCA staff will cover how the 401 process works, timelines, and give feedback on your specific project, as well answering any questions applicants have. In general applicants should plan for their project to take 150 days from pre-filing to issuance. Project specific timelines and constraints can be discussed at the pre-filing meeting. Certain complex project types like metallic mining have a baseline RPOT of 6 months.

Requesting a 401 water quality certification decision

Applicants are eligible to submit a Water Quality Certification decision[2] request on or after 30 days from requesting a pre-filing meeting. There is no time limit on how long after the pre-filing meeting a request may be submitted, but if it is greater than one year, it is recommended the applicant reach back out to MPCA about the project before submitting.

All submittals should be sent to the 401 Certification Inbox; the applicant can also copy the 401 Project Manager's direct email.

[1] *https://www.pca.state.mn.us/business-with-us/clean-water-act-section-401-water-quality-certifications*

[2] *Applicants are requesting MPCA to make a 401 WQC decision, not requesting a specific outcome such as a waiver, certification, etc. It is important to use this specific language. If an applicant requests a waiver, certification, or other potential outcome MPCA will require the applicant to submit a new request.*

What to include in a complete submittal:

Required

1. Antidegradation Assessment Form.
2. Section 401 Water Quality Certification Required Information Form.
3. Construction plans and staging information.
4. Environmental review or no needsdetermination, record of decision (ROD)/ finding of fact (FOF) if applicable (i.e. project required environmental review).
5. Copy of MPARS DNR public waters permit application if the project requires a DNR public waters permit.

Suggested

1. Copy of U.S. Army Corps of Engineers (USACE) Joint Application.
2. Hydraulic information and calculations – especially if the project is proposing a significant upsizing from an existing structure.
3. Pollution reduction numbers if available – these can also be included in the antidegradation assessment under question 10.
4. Additional maps, photos, or supporting information.
5. Cultural resource, Endangered Species, Historical Resource Assessments.
6. Hydrographs, soil borings, or other supporting studies.

The MPCA must have a complete Water Quality Certification Request to request a Reasonable Period of Time (RPOT) from the federal permitting authority. The USACE then sets a RPOT during which MPCA must respond with a decision. The three potential decision outcomes are a 1. Certification with conditions, 2. Waiver, or 3. Denial. If MPCA does not act on the decision request within the RPOT, the project is considered waived. The RPOT baseline is 120 days, but MPCA may request an extension of up to one year from the date of complete WQC decision request.

It is acceptable to cite other documents in the antidegradation assessment form, but you must include those documents and a page number or where to locate the information.

When submitting large PDFs with combined documents, please bookmark them and separate out the antidegradation assessment, supplemental information form, DNR permit application if applicable, and construction plans for ease of determining completeness.

An FTP site is available for use if needed for transferring large files – just let the MPCA project manager know, and they will send a link. 401 Inbox does not always bounce back if the file size is too large.

Section 2: How to fill out the antidegradation assessment form

Filling out the antidegradation assessment clearly and completely will reduce the processing time for a WQC decision request by providing MPCA staff with the information needed to make a determination. Submittals that do not contain enough information can result in a denial without prejudice of the certification request.

Question 1: Environmental review documents

If a Categorical Exclusion (Catex), Environmental Assessment (EA), Environmental Assessment Worksheet (EAW), Environmental Impact Statement (EIS). Or AUAR was required, please include the ROD/FOF/determination with the WQC submittal. If ROD/FOF was required for a specific project, MPCA will require a signed record of decision (ROD) / finding of fact (FOF). A 401 WQC decision cannot be issued[3] until a completed ROD/FOF is received and MPCA will not accept a decision request if there is still outstanding environmental review.

[3] https://www.revisor.mn.gov/rules/4410.3100/ - *no permit or decision may be issued if there is outstanding environmental review or an outstanding needs determination for environmental review*

Question 2: Analysis of alternatives

Provide two alternatives that were considered for the project. This can include not doing the project, but an explanation should be included as to the negative environmental or economic impacts that would incur. Alternatives can also include an earlier design that was eventually modified to reduce the environmental impacts. Ex: 1) condensing the footprint of a project, 2) changing the orientation or location of a portion of the project to avoid additional wetland, stream or lake impacts.

There is no maximum limit of alternatives that can be included.

Off-site alternatives are not required but are encouraged if they were considered or potentially feasible.

All alternatives must include a detailed explanation and why they are not feasible. If an alternative has a smaller impact on the resource(s) then an explanation of why that alternative was not chosen is required.

Question 3: Preferred alternative design

This is the design that was ultimately chosen to move forward. Include a complete analysis of how this alternative causes the least amount of degradation to water resources out of all the potential designs. If the preferred alternative is not the least impactful alternative for some reason, the applicant must provide a detailed explanation of the constraints on the project that made the other alternatives infeasible. If the project is proposing a significant upsizing from an existing design, the applicant should include hydraulics and other supporting studies to demonstrate the necessity.

Indirect impact avoidance should also be discussed. For example, design features that consolidate wetland impacts or avoid reduced wetland or stream functions. Stormwater infrastructure and other preventative design features should be included as well. A SWPPP is not required as part of the submittal but is helpful to include with the construction plans.

Question 4: Water quality parameters of concern

Water quality parameters of concern will be dependent on project type and location. Include any water quality parameters that nearby waterbodies are listed as impaired for as well as parameters of potential concern known to be associated with the type of project that is proposed. For example, upsizing a culvert may result in temporary TSS loading during the installation and permanent changes to the volume and velocity of the water moving through the structure.

Even though there may be surface waters that are determined to be exempt or non-jurisdictional for other authorities, e.g 404 or WCA, all waters of the state are regulated by the MPCA, and all surface water impacts need to be described in the application and may require mitigation.

Question 5: Existing uses and level of water quality necessary to protect uses

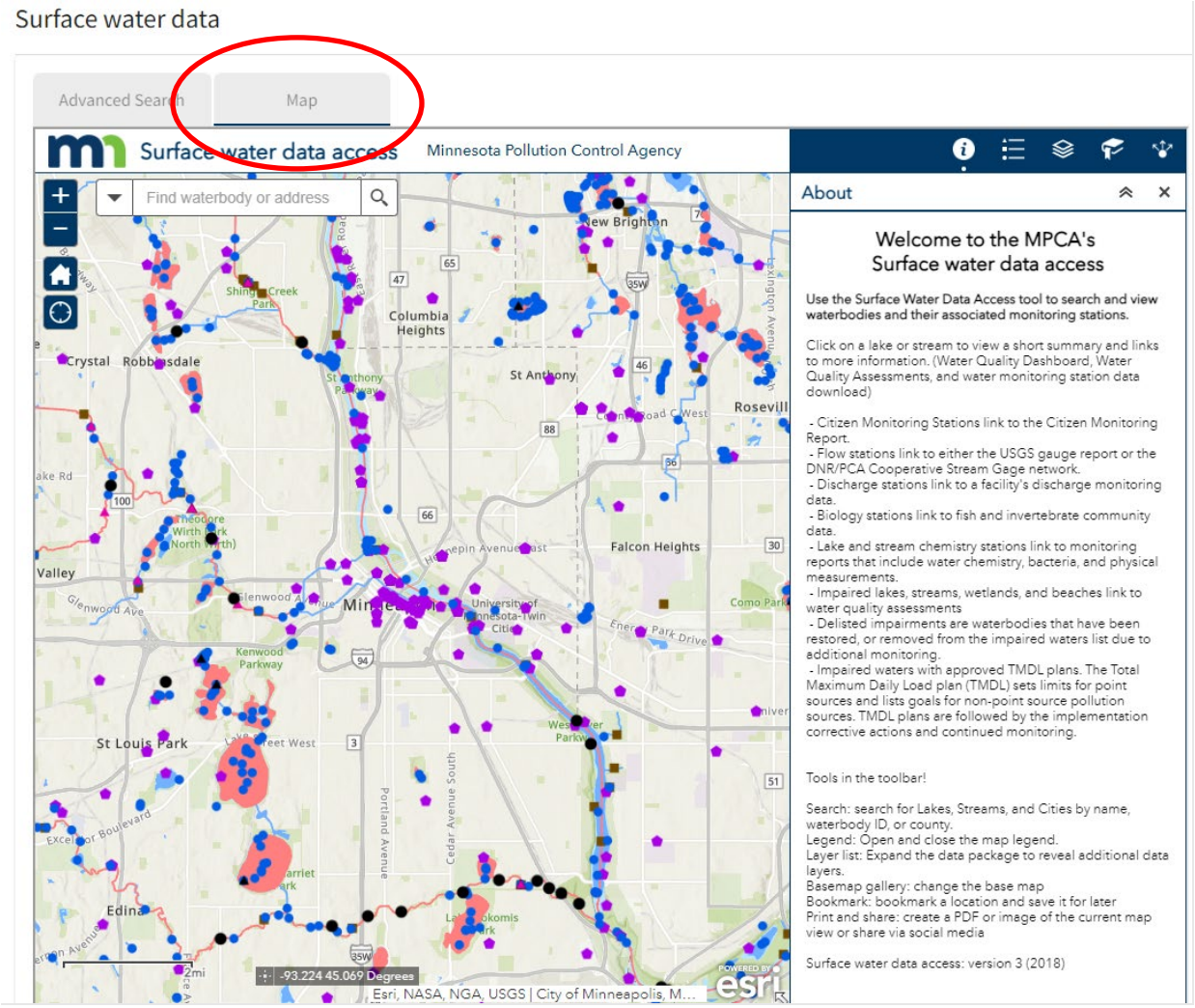
Add all waters within a one-mile radius of the proposed project including waters that the project area does not directly drain to or impact. Receiving waters that may be directly impacted outside of the 1-mile radius should also be included. Use the surface waters tool to find information about TMDLs, 303(d) listed impairments, and use class[4]. See section below for instructions how to use this tool.

Existing use is defined by the Environmental Protection Agency (EPA) as “those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards” (40 CFR 131.3(e)[5]) and MPCA is required to ensure that the highest degree of use that has been achieved since 1975 is maintained and protected under the antidegradation policy (40 CFR 131.12[6] and M.R.7050.0250-0335[7]).

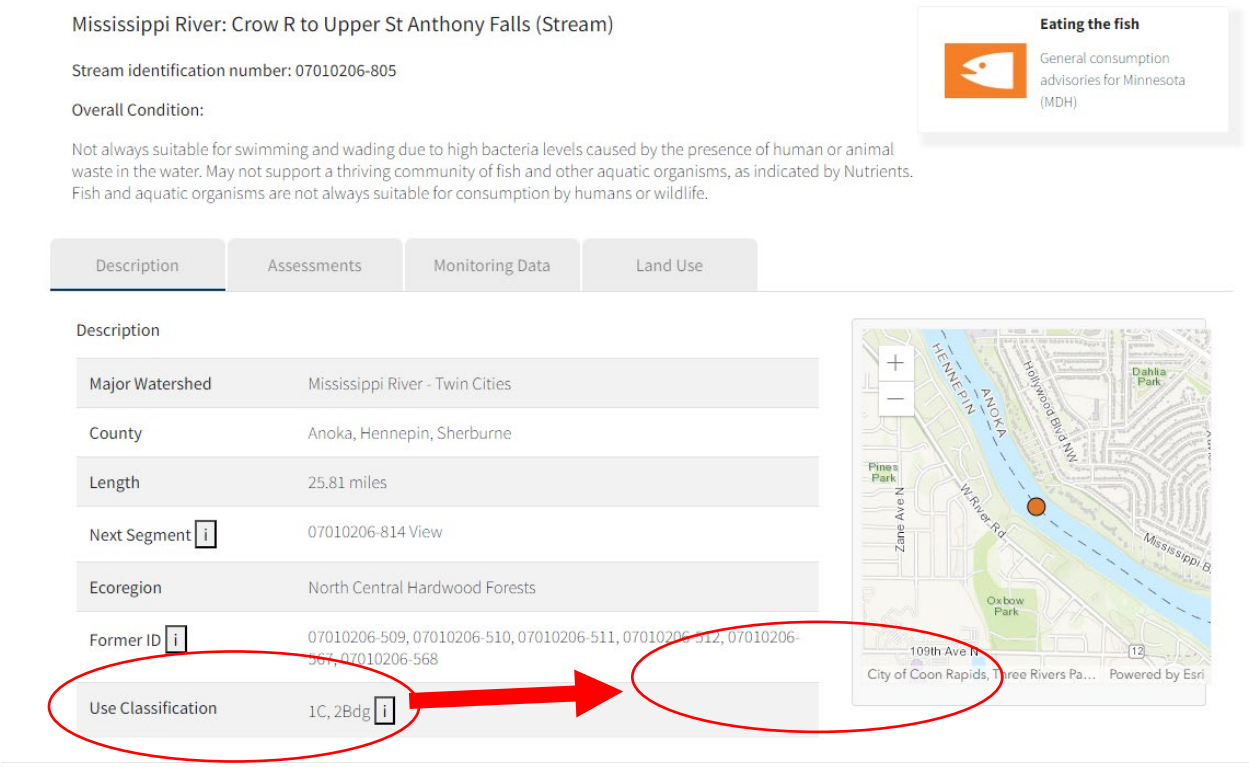
[4] https://webapp.pca.state.mn.us/surface-water/search
[5] https://www.ecfr.gov/current/title-40/part-131#p-131.3(e)
[6] https://www.ecfr.gov/current/title-40/section-131.12
[7] https://www.revisor.mn.gov/rules/7050/

How to use the surface waters tool

Generally, it is easiest to use the map tab and zoom in to the approximate area of the project location.



Once the project area is in view, click on the water resource that the project will be located on or adjacent to – this will pull up a pop-up box with impaired/not impaired status, any approved TMDLs, additional impairments, and the WID.



Click on the "Water Quality Assessment" link in the pop-up tab which will take you to another page that gives more information about the use class and assessments. Running the mouse over the [i] symbol will provide more information about what the numbers mean.

Question 6: Water quality comparison before and after project

Each water listed in question 5 needs to be added to the table in this question and resulting water quality after the project must be described. These impacts can be improvements if the project will improve the water quality. Loss of function or other permanent impacts must be described here. If there are not expected to be any permanent changes to any water quality parameter that can also be listed here.

If water quality improvements are anticipated, please include calculations or detailed reasoning. It is not sufficient to only utilize the Clean Water Fund tools – MPCA has a broader list of pollutants than TSS and nutrients. Hydraulic reports should be included if there will be a new structure or changes to an existing in stream structure. This includes rip rap and other hard armoring – the applicant must demonstrate adding hard armoring will not cause adverse localized or downstream impacts.

Question 7: Impaired waters and Total Maximum Daily Loads (TMDLs)

Include each water listed in questions 5 and 6 and their impairments if any. The surface waters tool or Impaired Waters list[8] will have information about impairments and any applicable TMDLs.

[8] https://www.pca.state.mn.us/air-water-land-climate/minnesotas-impaired-waters-list

Question 8: Physical alteration of surface waters

Include each water listed in questions 5-7 and what type of alterations (ex: filling, dredging) will be occurring. Include area for wetlands/lakes or linear feet for streams and waterways and if the impact will be temporary (less than 12 months) or permanent. Temporary impacts longer than 12 months are considered permanent under the Antidegradation rules and should be listed as permanent. If the project proposes to install any infrastructure or other physical alteration that will be in place longer than 1-year should be treated as a permanent impact. For example, installing a pipe to convey to products, wastewaters or other liquids that will remain in-place longer than 1-year even though the construction activity is less than 1-year would be a permanent alteration.

Question 9: Indirect impacts

Include all potential indirect impacts to the waters that are being either partially (ie: partially filling a wetland or working on one bank of a stream) altered as well as waters nearby within the one-mile radius described in question 5. The antidegradation form provides a number of examples of potential indirect impacts.

Question 10: Loading and degradation to surface waters

This means all waters within the project area being directly impacted, several examples are provided on the antidegradation assessment. Volume is a pollutant; additional examples might include increased flow velocity from an upsized culvert or work in a public ditch that increases the drainage volume flowing downstream to receiving waters. This also includes increase in impervious surfaces and other types of landscape alterations that may increase pollutant loading to nearby surface waters.

Question 11: Comparison of existing and expected economic conditions and social services

This is where to include why it is economically or socially important this project be implemented.

Question 12: Description of compensatory mitigation plan

This section generally applies only to wetlands. Include the required WCA/USACE mitigation ratio and mitigation purchase plan. There is no formal mitigation process for streams at this time but anything that is being done to mitigate for stream impacts can be included here if applicable. After project completion the functional lift of the creek, stream, river, etc. must be maintained or improve its pre-construction water quality standard. USACE is beginning to require the use of the Stream Qualification Tool (SQT)[9] to determine lift/loss of stream function. There is also additional guidance available from USACE regarding stream mitigation procedures – see pages 6-7 for the impact tiers[10]. Both the SQT and USACE guidance may be found on the MPCA 401 webpage or in the footnotes.

It is helpful to include a table of all wetlands impacts and mitigation ratios as well as a map showing all of the proposed impacts clearly labeled.

Section 3: Regional and nationwide general permit general certification

Projects that meet the conditions of the General Certification do not require an individual 401 Water Quality Certification. This certification can be found on the 401 Program webpage[11] under the 401 Certifications for Section 404 Regional General and Nationwide Permits header. The applicant is responsible for reading the certification and ensuring that their project will comply. The USACE project manager will determine if a project requires an individual Section 404/401 WQC and notify the applicant that they must obtain a WQC. MPCA is copied on this email, but it is the responsibility of the applicant to reach out and initiate the process.

Projects seeking coverage under a Nationwide Permit (NWP) or Regional General Permit (RGP) that meet all of the general conditions may use the 401 NWP or RGP General Certification but should note that 300+ linear feet

[9] https://bwsr.state.mn.us/minnesota-stream-quantification-tool-and-debit-calculator

[10] https://www.mvp.usace.army.mil/Portals/57/docs/regulatory/Mitigation/MVP_Stream_Mitigation_Procedures_version_1.pdf?ver=mV5VYSnslcFh2RvRNq50Ew%3d%3d

[11] https://www.pca.state.mn.us/business-with-us/clean-water-act-section-401-water-quality-certifications

of impacts exclusion applies even if there is functional lift or an existing structure. For RGPs, all projects in Class 2A waters are excluded and must apply for an individual 401 WQC.

Changes to surface water even if they provide functional lift may still have impact. Examples of this include upsizing and embedding a culvert for fish passage, stabilizing eroding banks, adding riffles or in stream structures.

For example: rip rap and other forms of hard armoring might meet some goals of a project but can alter habitat and downstream hydraulics.

Another example: upsizing a culvert to meet the drainage needs of a road or increase fish passage increases volume which could have impacts downstream.

Section 4: How to fill out the supplemental information form

The supplemental information form replaces the 9 Questions to include word document.

Please provide a brief description of the project and the federal project number in the applicable federal license or permit box if known.

A map should be attached to this form that shows the location of the project, receiving waters, and a landmark of some type so that staff can find the project location.

Please type your name in BOTH boxes on the second page to acknowledge both statements.

Section 5: Clarifications to new requirements in the 2023 regional general permit 401 general certification

Class 2A waters

In addition to Outstanding Resource Value Waters (ORVW), any project requiring work in Class 2A waters is required to obtain an individual WQC. ORVWs are listed in M.R.7050.0335[12] and Class 2A waters may be located using the Surface Waters Tool. These water resources are very sensitive and high quality and MPCA requires additional review to ensure that the water quality standards will be met. Class 2A standards and definition may be found in M.R.7050.0222[13].

Difference between Class 2A waters vs trout streams

These terms both have specific definitions and while Class 2A waters and Trout Streams often overlap, this is not always the case. Class 2A waters are a use designation (cold water habitat) assigned to streams, lakes, and wetlands by the MPCA and have associated water quality standards. Trout Streams and Lakes are designated and managed by DNR[14] as a fishery habitat class with additional regulations and fisheries restrictions[15]. MPCA routinely evaluates and reviews water use class assignments to ensure that waters are assigned the most protective use classes attainable in accordance with the Clean Water Act (CWA). DNR also evaluates the Trout Streams list and may make changes. It is recommended that applicants check the respective mapping tools (MPCA Surface Waters, DNR Trout Map) to ensure the most current information.

Physical alteration of 300 or more linear feet of a stream

A stream for this purpose is a natural watercourse of any size containing flowing water, at least part of the year. This condition applies to all natural waterways including natural waterways that have been channelized or altered for use as drainage conveyances. Channels that are constructed in upland areas explicitly for stormwater conveyance or other uses are excluded.

Existing culverts are not excluded, if a culvert is being replaced, the length of the culvert is included in the 300 linear feet (LF).

[12] https://www.revisor.mn.gov/rules/7050.0335/
[13] https://www.revisor.mn.gov/rules/7050.0222/
[14] https://www.dnr.state.mn.us/fishing/trout/map.html
[15] https://www.revisor.mn.gov/rules/6264.0050/

This condition applies to multiple impacts that are part of the same project and apply if they collectively impact more than 300LF of a single stream or ditched wetland. This condition may apply to multiple tributaries if their confluence is less than 0.5 mile from the project location.

Multiple pipes at a crossing
If there are multiple pipes adjacent to each other horizontally at a crossing such as a double box culvert or floodplain culverts for high water events, that will count as a single impact of however many linear feet the culvert is. For example, a 150-foot-long double box culvert with 50 feet of additional impact (ie: energy dispersion, aprons, etc) on either end would have a total of 250 feet of impact. 150 for the culverts and 100 for the additional stream work.

Flowline vs centerline
For non-Class 2A waters, the 300 linear feet is counted against the flowline of the stream, not the centerline of the road. If a road crosses a stream at a perpendicular angle, then the impact length would typically be the ROW on either side of the center line unless there is an easement to work outside of the ROW. Generally, this will not exceed 200 feet, but if there are divided lanes of travel and each has a stream crossing with impacts, then it could exceed 300 feet cumulatively and require an individual certification.

Equalizer pipes
If there are culverts in a wetland functioning solely as equalizers on either side of the road being replaced exactly in kind, they will not trigger an individual 401 WQC provided the wetlands are not ditched and functioning as a drainage conveyance system.

Culvert liners
Lining of culverts in non-Class 2A waters over 300 linear feet is acceptable provided MN DOT spec 2503 and 2507 for CIPP liners is used. If a different method of culvert lining is proposed such as hard liners that will be over 300 linear feet cumulatively, then the project may require an individual 401 WQC and the road authority should check with MPCA staff. Proposed lining projects should meet the DNR's standards for evaluation of whether total replacement would be required. Additionally, the road authority must ensure no waste material or by products are allowed to be discharged into the stream.

Section 6: Additional resources

This is not a comprehensive list – it is intended only to give resources for applicants while designing and managing projects.

Federal agency resources

NRCS Field Office Technical Guide (Minnesota)

https://efotg.sc.egov.usda.gov/#/state/MN/documents

USFS Best Management Practices
https://www.fs.usda.gov/naturalresources/watershed/pubs/FS_National_Core_BMPs_April2012.pdf
US EPA NPDES Menu of Best Management Practices
https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater

USACE Stream Mitigation Procedures Guidance Document
https://www.mvp.usace.army.mil/Portals/57/docs/regulatory/Mitigation/MVP_Stream_Mitigation_Procedures_version_1.pdf?ver=mV5VYSnslcFh2RvRNq50Ew%3d%3d

MPCA resources

MPCA Construction Stormwater BMPs, Guidance, SWPPP
https://www.pca.state.mn.us/business-with-us/guidance-for-construction-stormwater

MPCA Aquatic Biota Stressor and Best Management Practice Selection Guide
Aquatic Biota Stressor and Best Management Practice Selection Guide (state.mn.us)

Minnesota Stormwater Manual
https://stormwater.pca.state.mn.us/index.php?title=Main_Page

DNR resources

DNR Public Waters Permits Best Practices Manual
https://www.dnr.state.mn.us/waters/watermgmt_section/pwpermits/gp_2004_0001_manual.html

DNR Public Waters Permits
https://www.dnr.state.mn.us/waters/watermgmt_section/pwpermits/index.html

Other resources

Bridge Stormwater Runoff Analysis and Treatment Options – National Academy of Science, Engineering, and Medicine
https://nap.nationalacademies.org/catalog/22395/bridge-stormwater-runoff-analysis-and-treatment-options

Stream Quantification Tool and Debit Calculator
https://bwsr.state.mn.us/minnesota-stream-quantification-tool-and-debit-calculator