

16. Water Quality

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Chapter Abbreviations/Acronyms

APDES – Alaska Pollutant Discharge Elimination System	NOI – Notice of Intent
CE – Categorical Exclusion	NPDES – National Pollutant Discharge Elimination System
CGP – Construction General Permit	ONRW – Outstanding National Resource Waters
CWA – Clean Water Act	SDWA – Safe Drinking Water Act
CFR – Code of Federal Regulations	SWAP – Source Water Assessment and Protection Program
DOT&PF – Department of Transportation & Public Facilities	SWPPP – Storm Water Pollution Prevention Plan
DEC – Department of Environmental Conservation	TMDL – Total Maximum Daily Load
eNOI – Electronic Notice of Intent	USACE – U. S. Army Corps of Engineers
EPA – Environmental Protection Agency	U.S.C. – United States Code
ESCP – Erosion and Sediment Control Plan	WHP – Wellhead Protection Program
MS4 – Municipal Separate Storm Sewer System	WLA – Waste Load Allocation
MSGP – Multi-Sector General Permit	
NEPA – National Environmental Policy Act	

16.1. Overview

Water quality is defined as the biological, chemical and physical conditions of a waterbody and is a measure of a waterbody's ability to support beneficial uses. The two major Federal statutes governing water quality are the *Federal Water Pollution Control Act of 1948*, and the *Public Health Service Act*, commonly known as the *Safe Drinking Water Act (SDWA)*.

The Federal Water Pollution Control Act was the first major U.S. law to address water pollution. It became known as the *Clean Water Act* following significant amendments to the law in 1972. The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the U.S. and regulating quality standards for surface waters. The CWA is intended to restore and maintain the chemical, physical and biological integrity of the Nation's waters.

The most relevant sections of the CWA include Section 401, which authorizes states to comment on federal permits that have the potential to affect water quality; Section 402, which authorizes the National Pollutant Discharge Elimination System (NPDES) permit program that regulates pollutant discharges into waters of the U.S.; and Section 404, which authorizes a permitting program for the discharge of fill or dredge materials into waters of the U.S. Section 401 and Section 402 are covered in more detail later in this chapter, Section 404 is detailed in Chapter 11, and will not be covered here.

Section 303 of the CWA is also relevant, because it requires states to adopt water quality standards to protect marine and fresh surface waters and groundwater within the state's jurisdiction. Section 303 also requires states to identify waters that do not meet applicable water quality standards to support their designated uses (i.e., impaired waters) and establish a pollution reduction goal to improve an impaired water body. The Alaska Water Quality Standards published in [18 AAC 70](#), are DEC-set standards based on the designated use of the waterbody.

The state's water quality standards and impaired waters list play an important role in implementing programs authorized under CWA Sections 401, 402, and 404. For example, the Construction General Permit (CGP) requires that erosion, sediment and pollution control measures are selected so that pollutant discharges are minimized as necessary to meet the applicable water quality standards, and places further conditions on projects discharging into impaired waters.

The Safe Drinking Water Act (SDWA) was originally enacted in 1974 to regulate public drinking water supplies. The Wellhead Protection Program (WHP) was created by the 1986 amendments. This required states to develop and implement a comprehensive program to protect public water supply wells. Amendments in 1996 created the Source Water Assessment and Protection Program (SWAP), which extended protection to surface water systems. States can apply for primacy to implement SDWA within their jurisdiction. Drinking water in Alaska is regulated by the DEC's Division of Environmental Health, Drinking Water Program. DEC's Drinking Water Program has integrated the requirements of the two national programs, WHP and SWAP, rather than keeping them separate. The Alaska Drinking Water regulations are published in [18 AAC 80](#).

The purpose of the water quality impact analysis in a NEPA document is to describe a transportation project's potential effects on water quality and document compliance with these federal and state laws and regulations. It is important to also consider post-construction conditions when assessing the impact a project may have on adjacent waters, not just the impacts that occur during construction. The construction, operation, and maintenance of transportation facilities all have the potential to impact water quality. To assist with this analysis, this chapter will provide guidance on identifying waterbodies, identifying and obtaining applicable permits and authorizations, analyzing and documenting the project's potential impacts to water quality.

16.2. General Process

The general process for ensuring compliance with the laws and regulations applicable to protecting water quality includes:

- Identifying and characterizing water resources
- Identifying applicable permits/authorizations
- Quantifying and qualifying impacts, including avoidance, minimization and mitigation
- Documentation in the Environmental Document.

Each of these steps will be discussed in more detail in the following sections.

16.3. Water Resource Identification and Characterization

Identify surface waterbodies, including wetlands, that are within or adjacent to the project area. Also, identify whether the project is located within a Municipal Separate Storm Sewer System, also known as an MS4 (see [16.4.2](#) for more information on identifying these).

Identify groundwater, only if it provides a public or private drinking water source.

Note the characteristics or special classifications of waterbodies such as:

- drinking water sources;
- waters of the U.S.;
- 303(d) listed waterbodies and, if listed, whether there is a Total Maximum Daily Load, or TMDL;
- waterbodies within a state or federal park or refuge or within a mile upstream of a park or refuge

These particular types of waterbodies might lead to specific APDES regulatory requirements (see [16.4.2](#) for more details).

The following sections provide additional information for identifying these specific waterbodies and what information to provide in the Environmental Document.

16.3.1. Drinking Water Sources

Use the DEC's Drinking Water Protection Map to identify drinking water sources. This map identifies surface and groundwater drinking systems as well as drinking water protection zones. Document whether the project involves

a drinking water source, including groundwater sources and drinking water protection zones, in the Environmental Document and include further information as described in [Section 16.5.1](#).

16.3.2. Waters of the U.S.

Most surface waters meet the regulatory definition of waters of the U.S. The definition of Waters of the U.S. provided in the EPA and U.S. Army Corps of Engineers (USACE) regulations ([40 CFR 230.3\[s\]](#) and [33 CFR 328.3\[a\]](#), respectively) use the exact same language since both sets of regulations implement the Clean Water Act. This is an important point to make, particularly for CEs since two separate sections of the CE Form, Section III.G *Water Body Involvement* and Section III.O. *Water Quality Impacts*, requires acknowledging whether the project may affect waters of the U.S., but each section references a different definition. If it is not understood that these two regulations use the same definition for waters of the U.S., there may be inconsistency in the documentation.

If a water of the U.S. is located within or adjacent to the project site, consider whether the project will discharge storm water to this waterbody and, if so, determine whether any permits or authorizations are needed for the discharge (see [Section 16.4.2](#).) and include further information as described in [Section 16.5.2](#). If unsure whether storm water discharges will occur, Section 16.5.2. also provides information to help make this determination.

16.3.3. Impaired Waterbodies

The current [Integrated Water Quality Monitoring and Assessment Report](#) (Integrated Report), which is published bi-annually by DEC, identifies impaired waterbodies. Impaired waters are identified in the report as Category 4 (impaired waters with waterbody recovery plan) and Category 5 [impaired waters on the State's Section 303(d) list], and both Categories 4 and 5 must be checked to determine whether a project involves an impaired waterbody. A waterbody recovery plan may consist of an approved Total Maximum Daily Load (TMDL), which requires specific actions for pollution control.

Indicate whether an impaired waterbody is located within or adjacent to the project site in the Environmental Document. Identify the impaired waterbody by name and location, and list the pollutant(s) causing impairment (all of this information is included in the Integrated Report). If the waterbody has a recovery plan or an approved TMDL, note this as well.

If storm water will flow from the project site and discharge into an impaired waterbody, determine if a permit is required (see [Section 16.4.2](#).) and then conduct further analysis of the project's potential impacts to the impaired waterbody as described in [Section 16.5.3](#). If unsure whether storm water discharges will occur, [Section 16.5.2](#). provides information to help make this determination.

16.3.4. Waterbodies within a State or Federal Park or Refuge

State parks can be identified using the Department of Natural Resources website. Federal parks can be identified using the National Park Service website.

State refuges can be identified using the Department of Fish and Game's online Protected Areas mapper. Federal refuges can be identified using the U.S. Fish and Wildlife's National Wildlife Refuge System online map.

Use this information to determine if a project will discharge storm water to a waterbody within a national or state park, or a national or state wildlife refuge, even if that discharge occurs within a mile upstream from the park or refuge boundaries. Document this determination in the Environmental Document.

If storm water will flow from the project site and discharge into a waterbody of a state or federal park or refuge, see [Section 16.4.2](#) to determine if permitting is required and, if so, determine whether additional analyses are required as described in [Section 16.5.4](#). If unsure whether storm water discharges will occur, [Section 16.5.2](#) provides information to help make this determination.

16.4. Permits and Authorizations

It is important to identify the necessary permits and authorizations required for a project early in the environmental process, as these may have implications on project timelines and NEPA analysis. Depending on the permit or authorization, specific public scoping requirements, additional analysis, and specific environmental commitments may be involved.

The permits or other authorizations most often required of DOT&PF projects are described below. Identify all required permits and authorizations in the Environmental Document.

Section 404 (wetland) permits are covered separately under a different chapter and, therefore, are not discussed here.

16.4.1. Section 401 (Water Quality Certification)

Section 401 of the CWA authorizes states to comment on any federal permit when it has the potential to affect water quality. DEC can add conditions through the state certification process that become part of the federal permit. These conditions are in the Certificate of Reasonable Assurance (also called the “401 Certification”).

DOT&PF typically receives this certificate in conjunction with USACE permits for dredge and fill in waters of the U.S. Therefore, if a USACE permit is required, the Environmental Document should also indicate that a 401 Certification is also required.

The 401 Certification does not need a separate application. DEC will use the USACE application as a trigger to review the project under Section 401. Information about this process can be found on [DEC's Wetlands website](#). However, make sure the permit conditions for both the USACE permit and the 401 Certification are included in the project's environmental commitments. These commitments can be described in the Environmental Document.

16.4.2. Section 402 (Point Source Permits)

Section 402 of the CWA authorizes the National Pollutant Discharge Elimination System (NPDES) permitting program, which regulates point-source discharges of pollutants in waters of the U.S.

EPA granted DEC primacy for the NPDES program in Alaska. It is now known as the Alaska Pollutant Discharge Elimination System (APDES). Applicable statutes can be found at [AS 46.03](#). State regulations are found at [18 AAC 83](#).

However the EPA retains NPDES authority within the Indian Reservation of Metlakatla and the Denali National Park and Preserve.

APDES establishes two categories of permits; individual and general. Individual permits are issued to individual dischargers and are tailored to a specific facility to regulate pollution discharges. General permits provide broad coverage to entities that have the same types of discharges and sets requirements applicable to the entire range of covered discharges.

The types of APDES authorizations most relevant to DOT&PF are the general permits for storm water discharges from construction projects and industry (airports and material sites), which are described below. Disclose the type of permit required in the Environmental Document.

Construction General Permit

The Construction General Permit, or CGP, is a general permit that authorizes storm water discharges to waters of the U.S. from constructions activities that:

- Disturb 1 or more acres of land, or
- Disturb less than 1 acre but are part of a common plan of development (see the CGP Appendix A for definitions of Construction Activities and Common Plan of Development), and
- Discharge storm water into a water of the U.S. or a MS4

If the CGP is required, information in the Environmental Document must confirm these conditions exists by acknowledging that the project will discharge storm water into a water of the U.S. and that the project will disturb an acre or more. If unsure whether storm water discharges will occur, Section 16.5.2 provides information to help make this determination.

If the receiving water is an impaired waterbody or a waterbody located within a state or federal park or refuge, the CGP requires that additional conditions be met prior to obtaining permit coverage (see Sections [16.5.3](#) and [16.5.4](#),

respectively). Determine if these CGP requirements are applicable early in the environmental process to allow adequate time to complete the additional analysis and environmental commitments.

Confirm in the Environmental Document whether the project will discharge storm water into an impaired waterbody (Question 3) or a waterbody located within a state or federal park or refuge, and that the specified permit conditions have been met, if applicable.

To obtain coverage under the CGP, a Notice of Intent (NOI) can be submitted to DEC using the APDES Electronic NOI (eNOI) System. If the project is in the Indian Reservation of Metlakatla or the Denali National Park and Preserve the NOI must be submitted to EPA through their eNOI system.

Do not submit a NOI to either agency until after DOT&PF has approved the Storm Water Pollution Prevention Plan (SWPPP). Instructions for completing the NOI form can be obtained from the Statewide Environmental Office website.

Multi-Sector General Permit (MSGP)

This is a general permit that authorizes stormwater discharges to waters of the U.S. from industrial activities. Operators of any facility meeting the 11 industrial categories that discharge stormwater to an MS4 (see below) or to a water of the U.S. must be permitted under the MSGP. For DOT&PF, the applicable industrial categories are air transportation (airports that use de-icers) and mining (material sites).

In most cases, an Analyst will not need to apply for coverage under the MSGP. However, it is important to know whether a project is occurring within or incorporates an area covered by an MSGP SWPPP to ensure that the project is consistent with the conditions of the permit and SWPPP. If a project occurs within or incorporates a permitted industrial facility, state this in the Environmental Document and include the permit number.

Municipal Separate Storm Sewer System (MS4)

Operators of a municipal separate storm sewer system located in “urbanized areas” must have coverage under a MS4 permit. “Urbanized areas” are delineated by the Bureau of the Census. DOT&PF currently holds MS4 permits for Anchorage and Fairbanks. MS4 permit operators are required to address post-construction stormwater run-off from new development and re-development that disturb one or more acres.

Projects located within a MS4 must meet additional requirements under the MS4’s Storm Water Program. This may include meeting the local storm water treatment design standards, preparing a SWPPP for project thresholds less than one acre or submitting a copy of the SWPPP to DEC or local MS4 operators for review or documenting that DOT&PF has reviewed it for MS4 compliance. Document whether the project is within a MS4 and, if a MS4 is involved, include the permit number.

16.4.3. Excavation Dewatering General Permit

Wastewater discharges from excavations are permitted under the DEC [Excavation Dewatering General Permit](#). Activities that may require coverage under the Excavation Dewatering General Permit include culvert placement, gravel extraction, pipeline installation, or other similar projects.

Those projects eligible for coverage are either located:

- less than 1 mile from a contaminated site, or
- more than 1 mile from a contaminated site and not eligible under the CGP (see [Section 16.4.2.](#))

Excavation dewatering may be covered under the CGP for many projects located more than 1 mile from a contaminated site. Only eligible projects that will discharge 250,000 gallons or more from excavation dewatering activities are required to submit a Notice of Intent (NOI) to DEC and obtain written authorization in order to discharge. Even if written authorization is not required, the dewatering must comply with the conditions of the Excavation Dewatering General Permit.

However, projects are not eligible for the Excavation Dewatering General Permit if:

- they discharge into an impaired water where the impairment is wholly or partially caused by a pollutant contained within the proposed discharge, or

- their discharge is approved by the DEC as part of the clean-up at a contaminated site

16.4.4. Wastewater Discharge Authorization and Plan Review

Projects that include permanent storm water management controls must submit engineering plans to DEC for review and approval ([18 AAC 72.600](#)). If DEC does not object to the engineering plans, they will issue a letter of non-objection. If the project requires a Construction General Permit (CGP), this letter must be obtained prior to developing the SWPPP and filing a CGP NOI.

Examples of controls that require a letter of non-objection include: dry extended detention ponds, constructed wetlands, wet ponds, sand filters, oil/grit separators, rotational flow separators, and other similar treatment controls.

The types of projects that typically do not require a letter of non-objection, unless they use one of the controls listed above, include: utility lines, road maintenance that maintains the original line and grade of ditches and running surfaces, bike and pedestrian trails, boardwalks, weigh stations, and sewage lagoons.

If all the required documents and information is submitted, the DEC letter of non-objection usually takes about two weeks. The DEC website contains a Permanent Storm Water Management Control Plan Review Checklist to assist applicants in the plan review process. The project's Design Engineer is responsible for ensuring the plans and appropriate information is submitted to DEC per the *Alaska Highway Preconstruction Manual* [Section 450.9.5\(d\)](#).

Construction must begin within two years after the letter of non-objection is issued, otherwise the letter is voided and the plans must be re-submitted to DEC. If construction has begun within that time, the letter of non-objection remains valid until construction has been completed.

Waivers for the plan review process may be obtained for projects that would cause no significant impact on water quality. Waivers can be requested by emailing DEC a description of the project with an explanation as to why it would not significantly impact water quality. If the reviewer agrees with the applicant's assessment, the waiver will be granted.

16.5. Water Quality Impact Analysis and Documentation

The water quality impact analysis is intended to ensure compliance with applicable federal and state laws and regulations regarding water quality and water pollution.

Water quality impacts are dependent upon many factors. Things to consider include, but are not limited to, the following:

- The project's proximity to waterbodies
- Project activities
- Waterbody type, characteristics, and designated uses
- Post-construction conditions and storm water treatment requirements
- Measures to avoid, minimize, and mitigate impacts
- Required permits and authorizations

Water quality impacts may be temporary or permanent, direct or indirect, and may range from beneficial to detrimental. Coordinate with appropriate federal, state, and local agencies to identify and evaluate potential water quality impacts.

All potential impacts must be considered and documented.

If the project does not involve ground disturbance, there may be little to no impact to adjacent waterbodies.

Examples of temporary impacts might include those associated with construction storm water, in-water work (e.g. replacing a culvert) or certain maintenance activities. In most cases where permits are required, temporary impacts can be minimized by implementing BMPs necessary for complying with permit conditions.

Permanent impacts may result from post-construction hydrologic impacts, or changes in surface or groundwater flows resulting from water body modification (e.g., impoundment, relocation, channel deepening, filling, etc.) or from the installation of permanent storm water infrastructure (e.g. detention ponds).

The water quality impacts analysis is described in the Environmental Document. Environmental commitments and any applicable permits should be included in the discussion.

Since water quality is often interrelated to other resource topics (e.g. fish and wildlife), be consistent with describing the project activities and potential impacts to waterbodies throughout the Environmental Document.

The following sections provide guidance for analyzing water quality impacts for specific circumstances.

16.5.1. Considerations for Drinking Water Sources

When a drinking water source has been identified within or adjacent to a project site (see [Section 16.3.1.](#)), review the source water assessment and/or drinking water protection plans to determine any potential effects.

A source water assessment provides information regarding the water source's susceptibility and contaminant risks, and includes a delineation of the area that contributes to the drinking water supply and source water protection areas. The [DEC Drinking Water Program website](#) includes source water assessments for drinking water systems in Alaska. You could also contact the local public water system.

In most cases, transportation projects located downstream of water supply intakes or outside of a delineated protection area will have minimal to no effect on a drinking water source.

Transportation projects occurring upstream or within a delineated protection area must consider the vulnerability of the drinking water source, the project's proximity to the water supply and location in the protection area, location of other potential contaminant sources relative to the project and the water supply, and the project's construction activities and the post-construction conditions.

Storm water runoff from transportation projects is a common source of pollutants to receiving waters and should be considered in relation to drinking water sources as discussed in [Section 16.5.2.](#) However, this is not the only means by which transportation facilities can impact a drinking water source.

16.5.2. Considerations for Storm Water Discharges

Storm water discharges will occur on most projects in close proximity to surface waters, wetlands, or municipal separate storm sewer systems unless site topography or other features prevent storm water from leaving the site entirely.

In the Environmental Document, indicate whether the project will discharge to a water of the U.S., an impaired waterbody, or a waterbody within a State or federal park or refuge. If no discharges occur due to site topography or other features, provide documentation confirming this is the case.

If storm water will flow from the project site and discharge into these waterbodies, determine and document whether a permit or additional requirements are necessary (see [Section 16.4.2.](#)).

If applicable, special considerations (e.g. those for discharging into impaired waters) must be included in the overall water quality analysis. However, regardless of permit or additional requirements, there are common considerations in any analysis of water quality impacts resulting from storm water discharges.

You must consider the impacts to water quality that result from both construction and post construction storm water runoff. Water quality impacts must be described in the context of how they affect the use of a waterbody (e.g.; recreation, drinking water or other designated waterbody uses)

Construction storm water runoff temporarily decreases water quality by conveying pollutants such as sediment and hydrocarbons associated with an active construction site. During construction, projects may require coverage

under the CGP (see [Section 16.4.2.](#)). In general, complying with the terms of the CGP is considered a measure for minimizing these temporary impacts.

If a project doesn't require CGP coverage, project specifications may require a water quality control plan or similar measure. These can be considered environmental commitments to minimize water quality impacts from construction storm water runoff. If the specifications don't require a water quality control plan, describe other aspects of the project that helps minimize the potential for pollutants to be conveyed by storm water.

Projects may permanently affect water quality by influencing post-construction storm water runoff. For example, projects increasing the amount of impervious surface will increase the volume of storm water, which could indirectly increase pollutants. However, projects may also provide post-construction storm water treatment measures (e.g. detention ponds) that mitigate these effects. Projects with permanent storm water treatment measures are required to undergo a plan review and obtain a letter of non-objection from DEC (see [Section 16.4.4.](#)). Such considerations should be taken into account in the water quality impact analysis.

Projects occurring in a location where a MS4 permit is in effect (see [Section 16.4.2.](#)) may be required to meet additional requirements under the MS4 stormwater program. In this case, compliance with the MS4 storm water program is considered a measure for minimizing post-construction impacts.

Summarize the project's water quality impacts resulting from storm water discharges in the Environmental Document. Any permits or other authorizations and any commitments should also be noted.

16.5.3. Considerations for Impaired Waterbodies

If an impaired waterbody is found within or adjacent to the project (see [Section 16.3.3.](#)), first consider whether the project could contribute to the pollutants of concern causing the impairment. This consideration is a logical start for any impaired water, regardless of the waterbody's status, because if the project does not have the potential to contribute to the pollutants of concern, this can be documented and the analysis is complete.

If the project can potentially contribute to the pollutant causing water quality impairment, consider construction and post-construction impacts (see [Section 16.5.2.](#)). Focus the analysis on measures to avoid, reduce or minimize the potential for contributing to the impairment. This may require additional considerations depending on the status of the impaired waterbody and conditions outlined in required permits or authorizations, as described below. List these measures as environmental commitments in the Environmental Document to ensure their implementation.

For example, if a waterbody is impaired due to fecal coliforms, a minimization measure during construction might include locating portable toilets away from the waterbody and ensuring they are anchored to reduce the potential for the unit to tip and spill. Such a measure could be included in the project specifications or the Erosion and Sediment Control Plan (ESCP) to ensure the environmental commitment is kept. In this example if the project will not have the potential to contribute to fecal coliform discharges after construction, no post-construction measures would be necessary.

Impaired Waters with TMDLs (Category 4)

Additional analysis or documentation is required for impacts to impaired waterbodies with TMDLs to demonstrate consistency with the assumptions and requirements of the TMDL.

For example, when a Waste Load Allocation (WLA) applies to construction site discharge, document that the discharge will not exceed the WLA. Evaluate the recommendations in the Implementation Section of the TMDL and incorporate applicable measures into the project. These control measures should be added to the ESCP and thus will be incorporated into the project's Storm Water Pollution Prevention Plan (SWPPP).

For projects requiring coverage under the CGP:

If the waterbody has a TMDL for turbidity, sediment or debris, but the TMDL does not have specific requirements for construction sites, consult with the DEC. Usually it is assumed that if DOT&PF is compliant with the CGP, then the discharges will be consistent with the TMDL. However, this must be confirmed during consultation with DEC. Provide a summary of the consultation in the Environmental Document and attach

documentation (e.g. phone log or email). If the TMDL specifically precludes construction site discharges, the project is not eligible for coverage under the CGP.

For projects requiring coverage under a MSGP:

Where the Department is considered an “Existing Discharger to a water” with an approved TMDL, DEC determines whether compliance with the MSGP limits is sufficient to ensure that the discharges are consistent with the TMDL or if additional limits or controls are needed at the time the Department re-applies for coverage. “Existing Dischargers” are defined as operators applying for MSGP coverage for discharges previously authorized under an NPDES general or individual permit.

Where the Department is considered a “New Discharger to waters” with approved TMDLs, we are not eligible for MSGP coverage unless we provide DEC with the information specified in the permit that will demonstrate the discharges will not cause or contribute to an exceedance of the water quality standards.

If the Department meets MSGP requirements and any additional DEC requirements, it is assumed that discharges will be consistent with the TMDL. In either case, DEC may determine that coverage under an Individual Permit is necessary.

Impaired Waters on the Section 303(d) List (Category 5)

Impacts to impaired waterbodies on the 303(d) list may require additional analysis or documentation depending on the permits required, as described below.

For projects requiring coverage under the CGP:

Projects that discharge stormwater into a 303(d) water body impaired for sediment or turbidity and disturbing 20 or more acres within that watershed must adhere to additional requirements outlined in the CGP (2011 CGP Part 3.2.1).

If the project does not disturb 20 or more acres at one time in the impaired watershed, then the impacts to the 303(d) listed waterbody can be analyzed and documented as above. However, it must be clear the project will disturb less than 20 acres, and documentation must be provided to demonstrate this.

If the project disturbs 20 or more acres at one time in the 303(d) listed watershed, work with the Project Manager/Design Engineer to determine if the project can be phased so that less than 20 acres is disturbed at any given time. If this can be accomplished, the additional requirements outlined in the CGP will not be applicable to the project. To ensure compliance, incorporate the phasing into the specifications or Erosion and Sediment Control Plan (ESCP). Describe this phasing as an additional measure taken to reduce the potential for impact in the Environmental Document.

If phasing the project is not possible, then the Department must develop and implement a water quality monitoring plan consistent with the CGP. If monitoring is required, describe this as an environmental commitment in the Environmental Document. The Storm Water Monitoring Guide available on the Statewide Environmental Office website provides guidance on developing a monitoring plan in compliance with the CGP requirements.

For projects requiring coverage under a MSGP:

Specific requirements are set forth in the permit for discharging into a 303(d) listed waterbody. This includes implementing control measures to meet applicable water quality standards and conducting monitoring.

16.5.4. Considerations for Waterbodies within a State or Federal Park or Refuge

The additional analysis described in this section is only applicable to projects that discharge into a waterbody located within or a mile upstream of a state or federal park or refuge and require coverage under the CGP. While the CGP does not specify the distance upstream, DOT&PF has determined that if a project is within a mile upstream of a park or refuge, the construction storm water discharges may affect the downstream park or refuge.

The CGP and a Chief Engineer Directive dated December 5, 2011 require that such projects include early consultation with DEC to determine the necessity of an antidegradation analysis. Consultation early in the environmental phase allows for time to perform such an analysis if DEC requires one.

These requirements ensure permitted projects comply with Alaska's Antidegradation Policy ([18 AAC 70.15](#)), which protects the designated uses of waterbodies and maintains existing water quality. In the case of the CGP, DEC conducted the antidegradation analysis for the general permit and most construction projects are considered to be in compliance with the antidegradation policy, with one exception. If a construction project's discharges will affect a state or federal park or wildlife refuge, DEC requires these additional measures to ensure that if the waters in the park or refuge were some day designated as "Outstanding National Resource Waters (ONRWs)," that they will be protected. This is an interim measure for waters that may be candidates for ONRW designation, since DEC is in the process of developing a procedure for the state to designate ONRWs.

The Chief Engineer Directive provides the following guidance for efficient consultation:

Submit a description of the project scope and location to DEC and ask for any additional submittal requirements pursuant to the 2011 CGP Part 2.1.5. This consultation may be done by email.

DEC may require an antidegradation analysis of the construction site's storm water discharge, visual monitoring, or require that the SWPPP be submitted at least 14 calendar days prior to filing the project NOI to use the CGP. Follow-up with any of their requests.

An antidegradation analysis should follow the Tier 2 analysis structure and address the five elements outlined in [18 AAC 70.015\(a\)\(2\)\(A-E\)](#). As the project is to be covered under the CGP, the last two elements in the Tier 2 analysis can be addressed by stating that "the project will comply with the CGP requirements as outlined in the project's SWPPP per [DEC's Interim Guidance](#)."

Summarize the outcome of the consultation and the antidegradation analysis, if applicable, in the Environmental Document. If consultation is on-going, state so in the Environmental Document and provide some indication as to where the project is in the consultation process. If consultation will be addressed later, indicate this in the Environmental Document and add the consultation as an environmental commitment. Attach any relevant correspondence to the Environmental Document.

Table1. Matrix of water quality concerns, analysis and requirements.

Concerns and Minimum Analysis	Permit/Authorizations		
	CGP: construction activity disturbing 1+ acres	MSGP - industrial activity storm water discharges (material sources, airports)	Excavation Dewatering General Permit: wastewater discharge from excavations on sites located less than 1 mi. from contaminated site; or more than a mile from a contaminated site, and not eligible for CGP coverage
Summary of Additional Analysis and Requirements by Concern and Permit			
Municipal Separate Storm Sewer System (MS4): discharges into an MS4; MS4s in Alaska: the Municipality of Anchorage, Fairbanks North Star Borough, and the Cities of Fairbanks and North Pole	CGP Operators installing Permanent Storm Water Controls in any MS4: submit required information and obtain MS4 approval; Anchorage: DOT&PF must document its review of SWPPP for MS4 compliance FBNSB, City of Fairbanks and City of North Pole: Check with the MS4 for latest SWPPP submittal requirements.	MSGP Operators discharging in any MS4: submit reports required by the permit to the MS4 operator.	No MS4 specific requirements
303(d) Listed Waterbodies (Category 5): avoid and minimize discharge of pollutant(s) of concern	Disturbing 20+ acres at one time and discharging to waters listed for turbidity or sediment: turbidity monitoring required if cannot phase activities to disturb less than 20 acres at a time.	Existing Dischargers: implement control measures to meet applicable water quality standards and conduct monitoring as identified in the permit	Discharges to 303(d) listed for pollutant(s) contained in the excavation dewatering discharge: not eligible for coverage.
TMDLs: ensure discharge of pollutant(s) of concern is consistent with the TMDL assumptions and requirements	TMDL for sediment, turbidity or debris: 1. Cannot use CGP if TMDL precludes construction site discharges; 2. If the TMDL does not have construction specific requirements, consult with DEC to ensure consistency w/ TMDL.	Existing Dischargers: DEC will provide any additional limits or controls to ensure consistent with TMDL; New Dischargers: not eligible for MSGP coverage unless meet permit-specific criteria. In either case: DEC may require Individual Permit coverage instead.	Discharges to TMDL for pollutant(s) contained in the excavation dewatering discharge: not eligible for coverage.
Antidegradation: no minimum analysis; requirements are only triggered when seeking permit coverage	Discharges into waterbody located within a state or federal park or refuge: consult with DEC early in the environmental phase to allow enough time to, conduct Antidegradation Analysis if required.	New Dischargers to Tier 3 Waters: not eligible for MSGP coverage; New or Increased Discharges to Tier 2 and 2.5 Waters: DEC will notify you of additional requirements, including if an Individual Permit is necessary.	No antidegradation specific requirements
Groundwater:	No additional requirements		