DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF ENERGY, MINERAL AND LAND RESOURCES

FACT SHEET

GENERAL PERMIT NCG020000
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT TO DISCHARGE STORMWATER, MINE DEWATERING, AND PROCESS WASTEWATER

Permit No. NCG020000

Date: July 1, 2025

1. TYPES OF DISCHARGES COVERED

a. Industrial Activities Covered by this General Permit

This permit applies to all owners or operators, hereafter permittees, which are covered by this permit as evidenced by receipt of a Certificate of Coverage by the Environmental Management Commission to allow the discharge of stormwater, mine dewatering wastewater, and process wastewater to the surface waters of North Carolina or to a separate storm sewer system conveying discharges to surface waters, from active and inactive mining sites, in accordance with the terms and conditions set forth herein.
Coverage under this General Permit is applicable to:

- ***Stormwater point source discharges*** associated with mining and quarrying of non-metallic minerals (except fuels), mine excavation, processing, and vehicle maintenance;
- ***Authorized wastewater point source discharges*** from mining operations as designated in the permit;
- ***Stormwater and/or wastewater point source discharges*** from like industrial activities deemed by the Division of Energy, Mineral, and Land Resources (the Division) to be similar to these operations in the process, or the discharges, or the exposure of raw materials, intermediate products, by-products, final products, or waste products.

Coverage under this General Permit is ***not*** applicable to:

- Borrow Pits covered by the DOT statewide stormwater permit,
- Peat Mining,
- Coal or Coal Ash Mining,
- Metal Mining (other than Lithium Mines, which may be covered under this general permit),
- Oil and Gas Extraction Operations, and
- Wastewater not specifically designated in this permit.

b. Characteristics of Discharged Stormwater

The draft renewal permit maintains the requirement for analytical and qualitative monitoring of all stormwater discharges associated with industrial activity. No additional analytical monitoring is proposed for this industrial sector.

The draft renewal permit also maintains the same parameters be regularly monitored in stormwater discharges from *on-site vehicle and equipment maintenance activities*. These parameters continue to be useful as the standard stormwater pollution indicators for those activities from this industrial sector.

c. Characteristics of Discharged Wastewater

Wastewater discharges that may be authorized under this general permit are limited to the following. Any of those wastewaters commingled with stormwater shall be considered wastewater:

- Mine dewatering,
- Process wastewater,
- Process generated wastewater,
- Comingled stormwater and wastewater, and
- Discharges from recycle systems.

Mine dewatering discharges to land surfaces without the potential to discharge directly to surface waters and where no chemicals are used in the mining process may be permitted by regulation under 15A NCAC 02T .0113(a)(16) and are not subject to the provisions of this permit. Process wastewater discharges generated by any other activity shall not be authorized under this permit, except allowable non-stormwater discharges permitted by 15A NCAC 2H .0106(f).

Type of Wastewater	**Description**
Mine dewatering	All mine dewatering, including dewatering from pits for quarries, clay brick, sand and gravel, borrow pits, and refractory mining, as well as mines with similar discharges
Process wastewater	all process wastewater from mining operations which includes, but may not be limited to, the water involved in: • The slurry transport, washing, or sawing of mined material; • Air emissions control or processing exclusive of mining of sand, gravel, and stone washing operations; • Dimension stone cutting operations; and air scrubbing and dust control operations.
Commingled Stormwater and Wastewater	Occurs if authorized mine dewatering or process wastewaters commingle with stormwater prior to discharge
Discharges from Recycle Systems	Authorized process wastewater discharges (overflows) from a recycle system

d. Geographic Area(s) Covered by this General Permit

Discharges covered by this general permit are located at any place within the political boundary of the State of North Carolina. Discharges located on the Cherokee Indian

Tribal Reservation are subject to permitting by the U.S. Environmental Protection Agency and are not covered by this general permit.

e. Receiving Waters

Receiving waters include all surface waters of North Carolina or municipal separate storm sewer systems conveying stormwater to surface waters.

2. PROPOSED DISCHARGE CONTROLS AND LIMITATIONS

The renewal permit maintains benchmark concentrations for stormwater discharges from industrial site activities to provide facilities with a tool with which to assess the effectiveness of best management practices (BMPs). These benchmark concentrations are not effluent limits but provide guidelines for the facility's Stormwater Pollution Prevention Plan (SWPPP). Exceedances of benchmark values require the permittee to increase monitoring, increase management actions, increase record keeping, and/or install stormwater BMPs in a tiered program. Four (4) benchmark exceedances within the permit term trigger notification to the Regional Office and may prompt additional requirements (Tier Three).

Some parts of the **Stormwater Pollution Prevention Plan** (SWPPP) have been expanded or modified. Please refer to the proposed draft General Permit NCG020000 for those requirements.

3. MONITORING AND REPORTING REQUIREMENTS

This permit maintains the same previous monitoring and reporting requirements for both quantitative and qualitative assessments of the stormwater discharges and operational inspections of the entire facility. Specific pollutant parameters and the frequency of the sampling are based on the types of materials mined, used, stored, and transferred at these sites, and on the potential for contamination of the stormwater runoff from these facilities. Qualitative parameters are consistent with other general permits in the NPDES stormwater program.

The renewal permit keeps the same monitoring requirements as the previous General Permit NCG020000. Additionally, monitoring the amount of **new motor oil or hydraulic oil** is only required for outfalls that discharge runoff from vehicle or equipment maintenance activity areas in which more than 55 gallons of new motor oil or hydraulic oil are used per month when averaged over the calendar year. The rationale for retaining these parameters in the renewal permit is their utility as stormwater pollution indicators for such maintenance areas.

The renewal permit retains the term "**measurable storm event**." The measurable storm event is an event that results in an actual discharge, rather than an event with a rainfall measuring 0.1 inches or more. To qualify as a measurable storm event, the previous storm

event must have been at least 72 hours prior. The proposed draft also maintains the requirement to separate quarterly sampling events by a minimum of 60 days.

As before, the renewal permit specifies qualitative (visual) monitoring of each stormwater outfall for the purpose of evaluating the effectiveness of the Stormwater Pollution Prevention Plan (SWPPP) and assessing new sources of stormwater pollution. Qualitative monitoring parameters include color, odor, clarity, floating and suspended solids, foam, oil sheen, and other obvious indicators of stormwater pollution. Qualitative monitoring should be performed during any analytic sampling event.

The permit maintains specific direction to the permittee about how to respond to qualitative monitoring. If qualitative monitoring indicates that existing stormwater BMPs are ineffective, or that significant stormwater contamination is present, the permittee must investigate potential causes, evaluate the feasibility of corrective actions, and implement those corrective actions within 60 days. A written record of the permittee's investigation, evaluation, and response actions must be kept in the SWPPP. The **Qualitative Monitoring Response** establishes actions for when a permittee repeatedly fails to respond effectively to correct problems, or if the discharge causes or contributes to a water quality standard violation.

The renewal permit maintains the **turbidity** monitoring requirements. The turbidity requirements clearly state that permittees may demonstrate compliance by one of the following methods.

(a) Sample the end of pipe effluent and show that the turbidity is below the relevant water quality standard.
(b) Sample the receiving waterbody immediately downstream and show that the discharge is not causing the waterbody to exceed the relevant water quality standard.
(c) Sample the receiving waterbody immediately upstream and downstream to show that the discharge is not causing further impairment to the waterbody.

In accordance with 15A NCAC 02B .0211(21), the following values shall form the basis for the turbidity monitoring requirements in this permit:
10 NTU for freshwater streams, lakes, and reservoirs designated as trout waters.
25 NTU for all lakes, reservoirs, and salt waters.
50 NTU for all other streams and surface waters.
See F-5 and H-5 of the draft permit for more information.

The table below explains the reasoning behind the selection of the stormwater and wastewater parameters for certain types of mines. The inclusion of the parameters in the draft renewal permit is based on the recommendation of the DEMLR Mining and Geological Survey Programs.

Mine type	Additional parameters	Reason

Brick pits	Aluminum, Zinc, Fluoride, Hardness, pH, Antimony, Arsenic, Chromium III	Brick clay is composed primarily of Silica (SiO2) 55%, Alumina (AlzO3) 30%, and Iron Oxide (Fe2O3) 8%, thus the selection of Aluminum as a parameter. Fluoride often occurs naturally when water is exposed to fluoride-containing rock. Clay is able to adsorb arsenic, which can react with ions in solution, such as iron, aluminum, calcium and magnesium (the last two account for hardness). These ions can detach the arsenic depending on the solubility of the compound and the quantity of reactants present. The pH affects the solubility of these compounds. Clay is also able to adsorb Chromium, Zinc and Arsenic and it is possible for these parameters to be detached depending on pH and hardness .
Feldspar Ore	Aluminum, Zinc, Fluoride	The selection of parameters is based on monitoring data collected by feldspar mining operations over the past five-year permit cycle. This is the only mine type where current data collected under North Carolina's NPDES Industrial Stormwater Program was available.
Lithium Ore	Fluoride	Fluoride often occurs naturally when water is exposed to fluoride-containing rock.
Phosphate	Fluoride, Alpha Gross Particle Activity	Phosphate mines can produce waste such as toxic metals and radioactive elements. Apatite is the dominant mineral in phosphate ores and it is commonly very insoluble in its original state as extracted from the earth and is practically unavailable as a plant phosphorus source. By virtue of its chemical behavior, apatite can be associated with fluoride.
Industrial Sand	Fluoride, Chromium III, Alpha Gross Particle Activity	Industrial sand is a term applied to high purity silica sand products with closely controlled sizing. Fluoride often occurs naturally when water is exposed to fluoride-containing rock. Chromium and Alpha Particle Activity were added base on Mining and Geologic survey staff recommendations.

Because of the sporadic nature of rainfall, DEQ considers acute (short-term) effects when establishing stormwater benchmarks for metals. The benchmarks are derived from the US EPA published dissolved National Recommended Water Quality Criteria (NRWQC) for metals (where applicable) and translated into total recoverable metals as required by§ 40 CFR 122.45(c). *(Note that EPA and DEQ use the terms "total metal" and "total recoverable metal" synonymously to refer to the metals solubilized by digestion with strong solutions of mineral acids.)* On August 1, 2020, the DEMLR Stormwater Program published a fact sheet about Calculation of Stormwater Benchmarks that provided more detailed information.

4. COMPLIANCE SCHEDULE

The compliance schedule in Part L, Section L-1 advises that the permittee comply with Limitations and Controls specified for stormwater discharges in accordance with the following schedule:

- **Existing Facilities already operating but applying for permit coverage for the first time:** The Stormwater Pollution Prevention Plan shall be developed and implemented within 12 months of the effective date of the **Certificate of Coverage** and updated thereafter on an annual basis. Secondary containment, as specified in Part B, Section B-9 of this general permit, shall be accomplished within 12 months of the effective date of the issuance of the **Certificate of Coverage.**

- **New Facilities applying for coverage for the first time:** The Stormwater Pollution Prevention Plan shall be developed and implemented prior to the beginning of discharges from the operation of the industrial activity and be updated thereafter on an annual basis. Secondary containment, as specified in Part B, Section B-9 of this general permit, shall be accomplished prior to the beginning of discharges from the operation of the industrial activity.

- **Existing facilities previously permitted and applying for renewal under this General Permit:** All requirements, conditions, limitations, and controls contained in this permit (except new SWPPP elements in this permit renewal) shall become effective immediately upon issuance of the **Certificate of Coverage.** New elements of the Stormwater Pollution Prevention Plan for this permit renewal shall be developed and implemented within 6 months of the effective date of this general permit and updated thereafter on an annual basis. Secondary containment, as specified in Part B, Section B-9 of this general permit, shall be accomplished prior to the beginning of discharges from the operation of the industrial activity.

5. BASIS FOR CONTROLS AND LIMITATIONS

The conditions of this general permit have been designed using best professional judgment to achieve water quality protection through compliance with the technology-based standards of the Clean Water Act (Best Available Technology [BAT] and Best Conventional Pollutant Control Technology [BCT]). Where the Director determines that a water quality violation has occurred and water quality-based controls or effluent limitations are required to protect the receiving waters, coverage under the general permit shall be terminated and an individual permit will be required. Based on a consideration of the appropriate factors for BAT and BCT requirements, and a consideration of the factors discussed below in this fact sheet for controlling pollutants in stormwater discharges associated with the activities as described in Item 1 (Types of Discharge Covered), this permit retains a set of requirements for developing and implementing stormwater pollution prevention plans, and specific requirements for monitoring and reporting on stormwater discharges.

The permit conditions reflect the Environmental Protection Agency's (EPA) and North Carolina's pollution prevention approach to stormwater permitting. The quality of the stormwater discharge associated with an industrial activity will depend on the availability of pollutant sources. This renewal permit still reflects the Division's position that implementation of Best Management Practices (BMPs) and traditional stormwater management practices which control the source of pollutants meets the definition of BAT and BCT. The permit conditions are not

numeric effluent limitations but rather are designed to be flexible requirements for developing and implementing site specific plans to minimize and control pollutants in the stormwater discharges associated with the industrial activity.

Title 40 Code of Federal Regulations (CFR) Part 122.44(k)(2) authorizes the use of BMPs in lieu of numeric effluent limitations in NPDES permits when the agency finds numeric effluent limitations to be infeasible. The agency may also impose BMP requirements which are "reasonably necessary" to carry out the purposes of the Act under the authority of 40 CFR 122.44(k)(3). The conditions of the renewal permit are retained under the authority of both of these regulatory provision s. The pollution prevention requirements (BMP requirements) in this permit operate as limitations on effluent discharges that reflect the application of BAT/BCT. The basis is that the BMPs identified require the use of source control technologies which, in the context of these general permits, are the best available of the technologies economically achievable (or the equivalent BCT finding).

All facilities covered by this general permit must prepare, retain, implement, and (at a minimum of annually) update a Stormwater Pollution Prevention Plan (SWPPP). The term "pollution prevention" distinguishes this source reduction approach from traditional pollution control measures that typically rely on end-of-pipe treatment to remove pollutants in the discharges. The plan requirements are based primarily on traditional stormwater management, pollution prevention and BMP concepts, providing a flexible basis for developing site-specific measures to minimize and control the amounts of pollutants that would otherwise contaminate the stormwater runoff.

The pollution prevention approach adopted in the SWPPP in this renewal permit still focuses on two major objectives: 1) to identify sources of pollution potentially affecting the quality of stormwater discharges associated with industrial activity from the facility; and 2) to describe and ensure that practices are implemented to minimize and control pollutants in stormwater discharges associated with industrial activity from the facility and to ensure compliance with the terms and conditions of the permit.

The Division believes that it is not appropriate at this time to require a single set of effluent limitations or a single design or operational standard for all facilities which discharge stormwater associated with industrial activity. This permit instead establishes a framework for the development and implementation of a site-specific SWPPP. This framework provides the necessary flexibility to address the variable risk for pollutants in stormwater discharges associated with the industrial activities that are addressed by this permit, while ensuring procedures to prevent stormwater pollution at a given facility are appropriate given the processes employed, engineering aspects, functions, costs of controls, location, and age of facility (as discussed in 40 CFR 125.3). This approach allows flexibility to establish controls which can appropriately address different sources of pollutants at different facilities.

There has been no significant change to this rationale since the previous General Permit NCG020000.

7. REQUESTED VARIANCES OR ALTERNATIVES TO REQUIRED STANDARDS

There are no requested variances or alternatives to required standards. Facilities requesting variances to required standards will not be covered under this General Permit but will instead be required to seek coverage under an individual permit.

8. THE ADMINISTRATIVE RECORD

The administrative record, including application, draft permits, fact sheet, public notice, comments received, and additional information is available by writing to:

Stormwater Program
Division of Energy, Mineral and Land Resources (DEMLR)
1612 Mail Service Center
Raleigh, North Carolina 27699-1612

The above documents are available for review and copying at:

Archdale Building, 6th Floor
DEMLR Stormwater Program
512 N. Salisbury Street
Raleigh, North Carolina

between the hours of 8:00 AM and 5:00 PM Monday through Friday. Copies will be provided at a charge of 10 cents per page.

9. STATE CONTACT

Additional information about the draft permit may be obtained at the above address between the hours of 8:00 AM and 5:00 PM Monday through Friday by contacting: **Brittany Cook** at brittany.cook@deq.nc.gov.

10. SCHEDULE OF PERMIT ISSUANCE

Draft Permit Public Notice – **Statewide Notice to publish May 15, 2025;**
Draft available on-line by May 15, 2025;
Comment Period Ends June 16, 2025

Permit Scheduled to Issue – **No later than June 30, 2025;**
Effective July 1, 2025

11. PROCEDURE FOR THE FORMULATION OF FINAL DETERMINATIONS

a. Comment Period

The Division of Energy, Mineral and Land Resources proposes to issue an NPDES General Permit for the above described stormwater discharges subject to the outlined

effluent limitations, management practices, and special conditions. These determinations are open to comment from the public.

Interested persons are invited to submit written comments on the permit applications or on the Division of Energy, Mineral and Land Resources' proposed determinations to the following address:

Stormwater Program
Division of Energy, Mineral and Land Resources
1612 Mail Service Center
Raleigh, North Carolina 27699-1612
Attn: Brittany Cook

All comments received within thirty (30) days following the date of public notice are considered in the formulation of final determinations.

b. Public Meeting

The Director of the Division of Energy, Mineral and Land Resources may hold a public meeting if there is a significant degree of public interest in a proposed permit or group of permits. Public notice of such a meeting will be circulated in newspapers in the geographical area of the discharge and to those on the Division of Energy, Mineral and Land Resources' mailing list at least thirty (30) days prior to the meeting.

c. Appeal Hearing

An applicant whose permit is denied, or is granted subject to conditions they deem unacceptable, shall have the right to a hearing before the Commission upon making written demand to the Office of Administrative Hearing (OAH) within 30 days following issuance or denial of the permit.

d. Issuance of a Permit When no Hearing is Held

If no public meeting or appeal hearing is held, after review of the comments received, and if the Division of Energy, Mineral and Land Resources' determinations are substantially unchanged, the permit will be issued and become effective on the first day of the month following the issuance date. This will be the final action of the Division of Energy, Mineral and Land Resources.

If a public meeting or appeal hearing is not held, but there have been substantial changes, public notice of the Division of Energy, Mineral and Land Resources' revised determinations will be made. Following a 30-day comment period, the permit will be issued and will become effective on the first day of the month following the issuance date. This will be the final action of the Division of Energy, Mineral and Land Resources unless a public meeting or appeal hearing is granted.