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## **Frequently Asked Questions for the 2021 NCG530000 Permit**

The Division of Water Resources (DWR) recently renewed the NCG530000 permit, which became effective December 1, 2021. Following an extended stakeholder process which included a collaborative study that began with the 2017 permit cycle, DWR revised certain conditions of the subject permit. The current permit reflects a compromise solution that incorporates a range of input from stakeholders including farm owners and the US Environmental Protection Agency (US EPA). The purpose of this document is to provide further clarification on several of the revised permit conditions and address frequently asked questions.

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**What is the estimated additional cost of quarterly sample analyses required in the new 2021 permit compared to annual monitoring required for the former 2018 permit?** *Based on private commercial lab analytical costs DWR estimates the increased costs for quarterly monitoring is \$667 per year per farm. This estimate assumes samples are collected and transported to the lab by farm staff. Please note that quarterly monitoring is not required until the third year (2024) of the current permit; the first two years of the permit require farms to sample annually.*

**What is the basis for quarterly monitoring?** *Sampling frequency is designed to accurately capture the quality of the system's effluent at the outfall accounting for the wastewater system type and other facility variables. Trout farms are continuous wastewater discharging systems regulated under the Clean Water Act and the discharge permitting program, National Pollution Discharge Elimination System (NPDES). Quarterly monitoring is considered an appropriate monitoring frequency for continuous wastewater discharging systems including those systems that have seasonal variability based on farm activity, receiving stream flow, temperature, etc. The inclusion of quarterly monitoring also strikes a balance among various public comments received during the permitting process.*

**The permit requires 'composite' sampling; what is composite sampling and why is it being required?** *Composite sampling for the NCG530000 permit requires that four grab samples be collected manually during a 24-hour period, at least one hour apart. The four grab samples are then combined into a single sample for analysis. Composite sampling was included to ensure the water samples are representative of farm operations over the period of the monitored day. Sampling only during certain activities, such as cleaning, would not provide representative data of farm effluent. Because the total number of analyzed samples does not increase, composite sampling adds no additional analytical lab costs to monitoring.*



**What were the findings of the 2017 collaborative study?** *As part of the collaborative process, DWR issued a three-year cycled NPDES permit in 2017, instead of the usual five-year cycled permit. During the 2017 permit cycle, DWR partnered with the trout industry and other stakeholders through a process that evaluated effluent quality while reviewing best management practices (BMPs) at some farms. The data received by DWR for farms involved in the 2017 study indicate an increase in nutrient levels between the influent and effluent having a median percentage increase of 4% for nitrate nitrogen, 23% for inorganic solids, 32% for ammonium and 53% for total phosphorus.*

**Is the NCG53000 permit the only 'general' NPDES permit having quarterly sampling?** *No, quarterly monitoring is required in the NCG500000 permit for hydroelectric facilities and NCG590000 permit for water treatment plant discharges.*

**Why were pH limits added and how will DWR account for influent (i.e., upstream) pH values below the standard of 6.0 pH units?** *While monitoring for pH was added to the 2022 permit, previous versions of the permit required compliance with the same stream standard of 6.0 – 9.0 pH units (ref. 2018 permit Part I Section A. General Condition (b)). It is important to note that the 6.0 -9.0 pH unit stream standard is an in-stream standard and not an effluent limit. Additionally, the DWR is aware that some streams have ambient or natural conditions that may be below 6.0 pH units for example.*

**Why was the Best Management Practice (BMP) requirement expanded?** *Inclusion of a required BMP for all permitted facilities is included to allow spill and stream impact prevention at a minimum cost through development of good onsite facility management practices. Expansion of the BMP content in the permit attempts to include other important areas of facility operation previously not included and is again to prevent stream impacts. Expansion of the BMP language or required content was supported by the EPA. For ease of development, BMP templates are available from some non-profit, industrial organizations.*

**Why require enhanced monitoring frequency for trout farms?** *While the operation of permitted trout farms in Western NC has improved greatly over the last five years, some trout farms have historically had a documented negative impact on the receiving streams. Two recent stream assessments by DWR biologists in 2019 and 2021 offer mixed results with regard to the impact of the farm on stream quality. One stream segment below two farms exhibited a negative impact to the invertebrate community and negative nutrient enrichment while a separate stream segment below a different farm exhibited no negative impact to the stream receiving farm effluent.*

**Why did the DWR add Section E. 5. which prohibits the discharge of any "sludge, grit and accumulated solid residues"?** *This condition was added to align with suggested BMP language from a similar EPA permit and is meant to address failure to properly manage solids at a facility. Similar language was present in the 2018 and previous permit versions under Part I. Section B. 3. DWR is aware of stream bedload (e.g., sand, silt, etc.) migration into and through some facilities depending on influent structure design, stream type, etc. DWR will exercise compliance discretion when evaluating this condition, as the permit condition goal is to ensure adequate solids management at the facilities on a routine basis.*

Is a certification required to perform any field monitoring such as pH? *Because these waste systems are not classified wastewater systems per 15A NCAC 08G, a certification to run field parameters (e.g., pH) is not required at this time for this permit.*

What is the annual fee for the permit Certificate of Coverage? *For fish farms, there is no annual fee for this permit coverage.*

For additional information or questions, please contact John Hennessey at 919-707-3615.