

Summary of KDHWTP, LLC Request for Exception from “Green Area” Requirements in 15A NCAC 02H .0404(g)(7)

Background

KDHWTP, LLC owns a permitted (WQ0002829) wastewater treatment, high-rate infiltration, and non-conjunctive reclaimed water utilization system that serves the Kill Devil Hills area in Dare County. The facility was originally permitted under the now repealed 15A NCAC 02H .0200 rules for non-discharge systems, as well as the current Coastal Waste Treatment Disposal rules in 15A NCAC 02H .0400. Several permit modifications have occurred over the years, and the facility is now permitted under the 15A NCAC 02T and 02U rules.

Proposed System Improvements

KDHWTP, LLC was recently permitted to make improvements to their wastewater treatment process that were subject to current high-rate infiltration system administrative code requirements in 15A NCAC 02T .0700. The primary change was to convert their existing extended aeration plant into a denitrification facility to improve nitrogen reduction, and to add chemical addition to improve phosphorus reduction. These modifications will improve the treatment facilities operation, and will allow the facility to achieve Total Nitrogen and Total Phosphorous effluent concentrations of 7 mg/L and 3 mg/L, respectively.

In addition, the KDHWTP facility currently has a treatment capacity of 660,000 gallons per day (GPD); however, the disposal capacity is limited to 500,000 GPD. KDHWTP, LLC proposes to increase their disposal capacity to 660,000 GPD, and has provided a preliminary hydrogeologic evaluation demonstrating that the permitted wastewater treatment modifications and the proposed increase in disposal capacity are feasible, and may result in water quality improvements at the site. However, based on this increased flow, there is not enough “green area” available at the site as required in 15A NCAC 02H .0404(g)(7).

Proposed Exception

The following items show the administrative code for which an exception is being requested; the administrative code that provides the EMC authority to make the exception; and the permit conditions proposed to include in permit modification to demonstrate improved water quality and reduction of the required “green area.”

- 15A NCAC 02H .0404(g)(7) requires that “[w]aste disposal areas are to contain 1,000 square feet of open ‘green area’ for each residential unit served, or 2,500 square feet per thousand gallons per day of waste flow, whichever is less.”
- 15A NCAC 02H .0407, provides the Commission the ability to provide exceptions from the requirements by stating that “No exception from the requirements of these Regulations shall be made until such exception is approved by the Commission.”

- Exception is contingent on KDHWTP, LLC obtaining necessary modification to Permit No. WQ0002829 consistent with applicable Administrative Code requirements and the following additional requirements:
 - ❖ The wastewater treatment facility shall meet Total Nitrogen and Total Phosphorous effluent limits of 7 mg/L and 3 mg/L, respectively,
 - ❖ The facility shall specify 22.61 acres of “green area” to provide a 100% repair area based on a total treatment and disposal capacity of 660,000 GPD. Under 15A NCAC 02H .0404(g)(7) at least 37.88 acres of “green area” are required; however, KDHWTP, LLC has demonstrated that the proposed 22.61 acres is sufficient to accept a disposal capacity of 660,000 GPD.

Other Considerations - Similar Allowance in the 15A NCAC 02T Waste Not Discharged to Surface Waters Rules

15A NCAC 02T .0105(n) allows for the Director to approve alternative design criteria for non-discharge systems, provided the applicant can demonstrate the design provides the following:

1. Equal or better treatment of the waste
2. Equal or better protection of the waters of the state
3. No increased potential for nuisance conditions from noise, odor, or vermin.

While the “green area” requirements in 15A NCAC 02H .0400 are not subject to the alternative design criteria allowance in 02T, the 02T rules do establish criteria for granting a similar type of exception.

Other Considerations – Proposed Rule Enhancements as Part of Session Law 2013-413

Session Law 2013-413 (HB74) requires state agencies to review and readopt existing rules. As part of this process draft rules were shared with stakeholders in April 2015 in an effort to receive comment and prepare rules for consideration by the EMC. Draft rules include changes to 15A NCAC 02H .0400 and 15A NCAC 02T to move certain coastal facility requirements from 02H to the 02T rules. The changes include repeal of the requirements to maintain “green area” for non-discharge facilities. Stakeholders have not expressed concerns with the proposed change. Copies of the proposed language that was shared with stakeholders can be viewed at: <http://deq.nc.gov/permits-regulations/rules-regulations/proposed-main>.

Recommendation

Staff recommends that the Water Quality Commission supports the proposed exception request, and that the Commission grants the exception request.