

ATTACHMENT A

RESOLUTION RECEIVING REPORT ON COMPLIANCE WITH JORDAN LAKE NEW DEVELOPMENT
RULES RELATED TO NUTRIENT OFFSETS

WHEREAS, on June 26, 2012, the Town of Carrboro Board of Aldermen adopted regulations to comply with the Jordan Lake Rules requirements to limit nitrogen and phosphorus inputs from new development which includes provisions for nutrient offsets; and

WHEREAS, the Town of Carrboro Board of Aldermen requested information regarding the creation of a local nutrient offset program in addition to the other offset options;

NOW, THEREFORE BE IT RESOLVED that the Board of Aldermen accepts the staff report
“Report on Nutrient Offset Considerations under Jordan New Development Stormwater Rule.”

The resolution is effective upon adoption.



TOWN OF CARRBORO

NORTH CAROLINA

TRANSMITTAL PLANNING DEPARTMENT

DELIVERED VIA: ☒ HAND ☐ MAIL ☐ FAX ☐ EMAIL

To: David Andrews, Town Manager
Mayor and Board of Aldermen

From: Randy Dodd, Environmental Planner

Date: September 20, 2012

Subject: Jordan Lake Rules Nutrient Offset Program

Background and Summary

Town staff continue to be involved in implementation of state rules passed in 2009 to restore Jordan Lake. The North Carolina Environmental Management Commission (EMC) and DWQ adopted regulations in 2009 (15A NCAC 02B.0262-.0273 and Session Laws 2009-216 and 2009-484) to reduce nitrogen and phosphorus inputs to Jordan Lake. The Town has updated local regulations pertaining to stream buffers, fertilizer applications, and new development as required by these rules. At the June 26, 2012 meeting, the Board of Aldermen requested staff response related to the Town's ability to set up a local program for nutrient offsets. This memo provides a response per the Board's request.

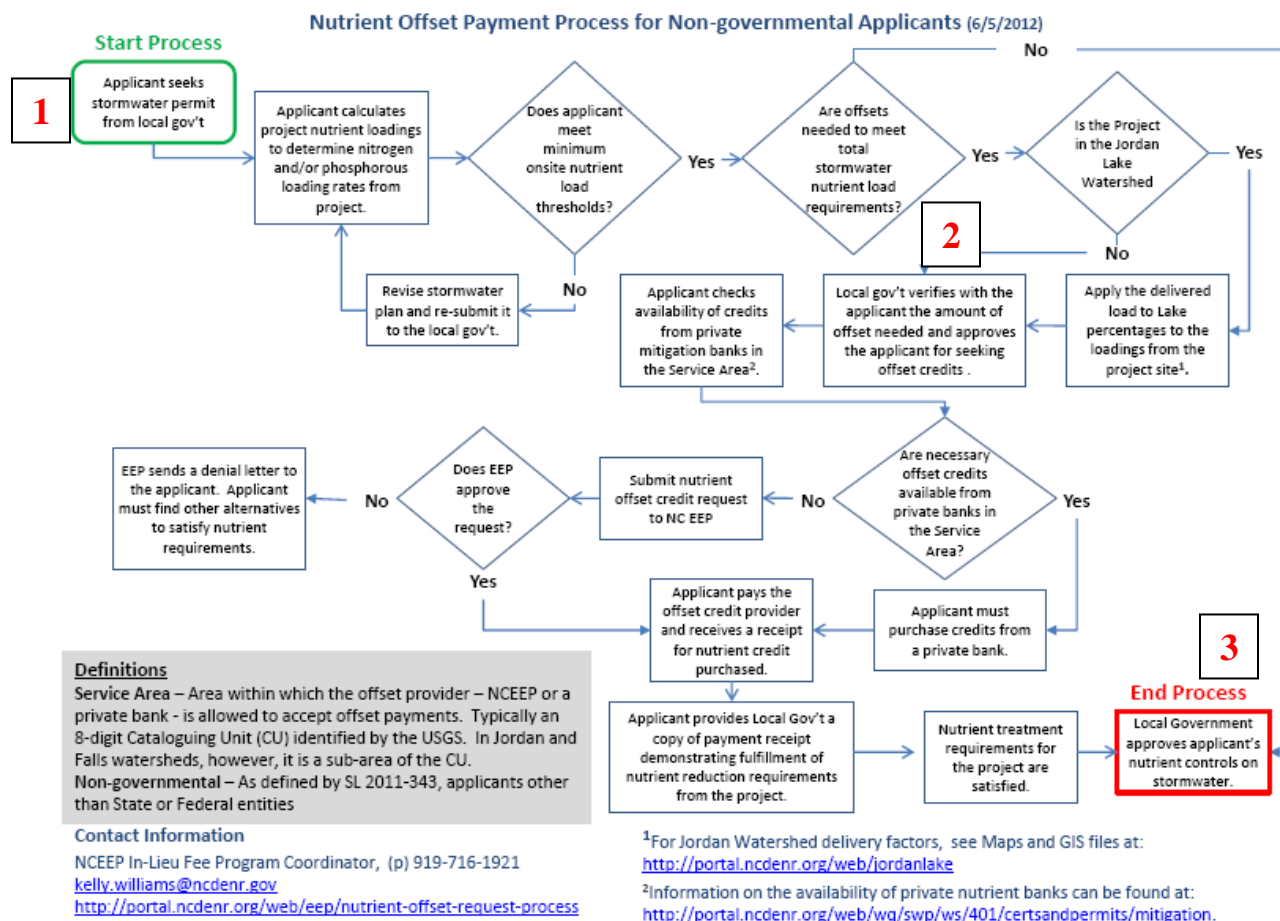
Information

Jordan Lake was impounded in 1983 by damming the Haw River near its confluence with the Deep River. It was created to provide flood control, water supply, protection of water quality downstream, fish and wildlife conservation, and recreation. The lake has had water quality issues from the beginning, with the North Carolina Environmental Management Commission declaring it as nutrient-sensitive waters (NSW) the same year it was impounded. Since that time, Jordan Lake has consistently rated as eutrophic or hyper-eutrophic, with excessive levels of nutrients present. The Jordan Lake Rules were adopted in 2009 to reduce the amount of pollution entering the lake. Preservation and protection of the lake is essential not only for aquatic life protection but because the lake serves as a water supply for several communities, and recreation area for more than one million visitors each year. The rules were developed Attachment C-2 through a process that involved extensive meetings, public hearings and negotiations between residents, environmental groups, local and state government agencies and other stakeholders in the watershed. Specific issues addressed by the rules include reducing pollution from wastewater discharges, and establishing standards for stormwater runoff from new and existing development, agriculture, fertilizer application, and for water quality buffers. Detailed information about the rules, including a history of the strategy as well as the dam construction and lake, an implementation timeline, rule-making archives, and a stakeholder project, is available at <http://www.jordanlake.org>.

Carrboro has addressed the Jordan Lake Rules by updating the LUO for water quality buffers requirements(2009) and the Town Code to address fertilizer application requirements (2008). On June 26, 2012, the Town adopted an ordinance to require new development to comply with rule requirements to

limit nitrogen and phosphorus in stormwater runoff to 2.2 lbs/ac/yr and 0.8 lbs/ac/yr respectively, or to higher levels if an offset payment is also provided. It is noteworthy that the State rules allow for developers to have the option of offsetting part of their nitrogen and phosphorus loads by implementing or funding (via either the North Carolina Ecosystem Enhancement Program, the Town should the Town choose to offer the option, or a private seller) offsite management measures. Before using offsite offset options, a development must attain a maximum nitrogen loading rate on-site of 6 lbs/ac/yr for single-family detached and duplex residential development and 10 lbs/ac/yr for other types of development. Staff experience with the method required for checking compliance with the rules (the Jordan Lake Accounting Tool [JLAT]) indicates that it is likely that many/most new development projects can reach the offset threshold without installing additional onsite stormwater management measures beyond that required to comply with other existing stormwater provisions in the LUO, although the recently added stormwater volume requirement provides an additional threshold that will likely result in additional onsite nutrient reductions for new development. Furthermore, it is likely that most if not all developers will choose to exercise the offset option given the difficulty in achieving the 2.2 lbs/acre/year nitrogen performance standard. In response to the Planning Board's recommendation "that the fee structure reflect the actual costs of replacing the ecological resource lost and the costs to the community, rather than relying merely on the state minimum fee" (NCEEP offset fee), staff have contacted the NCEEP; the NCEEP fee schedule is set by legislation and the Town does not have the ability to require different fees for offset payments made to NCEEP. If the Town were to be approved to offer an offset option/program, the Town would be able to develop its own fee schedule. Staff have also checked with NCDWQ staff who indicated that legislation requires that the Town include a private seller option in the ordinance. More information about the NCEEP offset program is available at <http://portal.ncdenr.org/web/eed/nutrient-offset-request-process>.

The State required process for a private party (e.g., developer) to pursue an offset option is shown in the figure below. The 3 numbered boxes identify where in the process the local government is involved in the review process. If the Town were to pursue establishment of a local program/public mitigation bank, steps in the flow chart between #2 and #3 would be modified to include a public/local option along with the private option. Note that staff are not aware of any existing local programs pursuing this to date; EEP and private banks are the only offset providers currently operating. It is worth noting that the only private mitigation site approved by the State to date that would qualify for the upper New Hope watershed of Jordan Lake is a buffer restoration site located in Orange County several miles west of Carrboro. As a final note, it is worth weighing the level of effort and state approval necessary to pursue setting up a new program against new development expected to occur in Town in the coming years.



The Board of Aldermen requested on June 26 that staff investigate the feasibility of the Town developing an offset program that would provide a locally run alternative to the route depicted in the figure above, with the motivation being providing offsets for projects that would be beneficial specifically in Carrboro watersheds (i.e., Bolin Creek and Morgan Creek). The Town has made preliminary inquiries with State staff as to State requirements for approving a local program. At this point, the following points can be made regarding requirements for the Town administering a local program:

- 1) To comply with State laws, the Town would essentially need to set up the equivalent of a public mitigation bank, and receive State approval to operate the bank.
 - a. The Town would need to identify and have legal control (presumably through ownership or easement) on one or more restoration sites. The planned restoration/retrofit projects on these sites would have to be State approved and have a demonstrated effectiveness in reducing nutrients in runoff.
 - b. The Town would need to have a process in place (“banking operations”) to manage both the crediting of nutrient offsets to those seeking to make payments into the bank to receive offset credits and for achieving the planned nutrient reductions in a timely way, presumably through contracting.
 - c. The above would require both (uncertain) State approval and a significant investment of staff time to pursue.

- 2) Based on staff investigation to date, it is extremely likely that it will not be possible to find a cost-competitive retrofit site within the Town's jurisdiction to consider for a "public mitigation bank". A great majority of nutrient offset banks use riparian restoration projects on larger sites. These projects, typically only viable at larger scales on rural lands, are cost effective in that they typically mostly involve planting of a considerable number of trees on cleared land adjacent to creeks.
- 3) Given that it will likely be difficult for the Town to identify cost competitive nutrient reduction projects, if the Town were to pursue the steps to set up a local public nutrient offset program/bank, the Town should be prepared for the possibility of a) a lengthy and uncertain State approval process; b) challenge from the private sector if required to pay a higher fee than required by EEP or private mitigation banks; and/or c) eventual operation of a program/bank that is either not utilized because of not being cost competitive or are not able to recover costs due to these externalities. The only scenario that can be envisioned where this is not the case would be if demand for private banks is so high and sites so limited that the private sector can't satisfy the demand.

Recommendation

Alternative 1 (recommended): Allow staff to gain some experience implementing the new ordinance provisions for nutrient reductions in stormwater and stormwater volume to determine the effectiveness of these provisions and the actual implementation considerations of the offset provisions (i.e., the degree to which out-of-jurisdiction offsets are sought to meet the new ordinance).

Alternative 2: Direct staff to collaborate with Chapel Hill and Orange County staff (and other nearby local jurisdictions as desired, perhaps TJCOG) to explore the potential for a collaborative nutrient offset program (some staff impact would result).

Alternative 3: If the Board of Aldermen is interested in further and more immediate pursuit into the possibility of a Town run nutrient offset program/bank, it is recommended that the Board refer the matter to staff to report back with more details regarding the feasibility and long term anticipated fiscal and staff impact, and with specific direction on the intended purposed of a locally run nutrient offset program. With this alternative, the Board is advised that the effort required will be significant, some realignment of staff work plans may result, and the benefit/success is uncertain.