

CLH design, p.a.

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Crabtree Creek Nature Park – Crabtree Creek Watershed Project

Date: June 9, 2023
To: Ryan Davidson - Wake County
From: Steven Miller, PE – CLH Design, PA
Re: Crabtree Creek Nature Park
151 Keybridge Drive, Morrisville, NC 27560

Dear Ryan:

In response to comments you received from the James Kjelgaard of NRCS (and our follow up meeting with James and other representatives with NRCS, Wake County and the Town of Morrisville) we offer the following responses to James' comments and a revised No Net Loss Certification associated with the Town of Morrisville's Crabtree Creek Nature Park project.

Comment: NRCS request that CLH Design revisits their calculations and revised their flood pool volume certification to only assert the nature park proposal mitigates a portion of the "1999" construction activity, but does not increase the design flood pool. NRCS requests the supporting electronic CAD files with existing and finished grade surfaces and points for verification.

Response: During our virtual meeting referenced above, all agreed that quantification of the volume lost to the unauthorized fill placed in 1999 is impossible to determine with any accuracy. The proposed park project is designed to result in a net increase of flood storage volume of the easement of approximately 137-cy. Since the volume of storage lost in 1999 is unknown, the attached No Net Loss Certification has been revised to simply state that the park project will mitigate a portion of the 1999 construction activity and that the park project will not increase the design flood pool elevation from the current conditions.

Following construction of the park project, the final grades will be surveyed and CAD files will be provided to NRCS depicting pre-construction and post-construction ground elevations to verify no net loss of flood pool volume was caused by the park project construction.

Comment: NRCS request that the developer installs a minimum of two warning signs: one at the main park entrance and one on the trail to the boardwalk. Both signs should state that the park is within the flood pool area and that visitors should take proper precautions for potential flooding with using the facilities.

Response: The recommended signs will be incorporated into the park project.

Comment: NRCS recommends that all pool areas connected by pipes have a relief "notch" or swale located along the top of bank of each pool near the pipe inlets. This provides overflows preferred flow paths in the event a pipe inlet gets clogged during storm events.

Response: The upper pools of the stormwater wetland are completely separated by paved driveways so a definitive "notch" is not feasible. However, the overflow route of stormwater (in the event of a pipe clog) has been studied to ensure such an overflow would occur in a controlled manner.

Comment: NRCS requests that Wake County inform North Carolina State Dam Safety of the proposal.

Response: The park project plans will be shared with Dam Safety.

Please forward this information to NRCS. Please call me with any questions or if additional information is needed.

Sincerely,
For CLH design, p.a.

A handwritten signature in black ink, appearing to read "SJM", with a flourish at the end.

Steven J. Miller, PE

Att: No Net Loss Certification