



Date: April 27, 2020

To: Wendell Davis, County Manager
Through: Jay Gibson, General Manager
From: Patrick O. Young, AICP, Planning Director
Subject: Teer Quarry Project and Eno River Intake

Executive Summary

Teer Quarry, owned by the City of Durham, is critical for meeting the City's emergency water supply needs. A new water supply intake, located on the Eno River, is necessary to use Teer Quarry as a water supply source. The location of the new water intake will require changes to the Eno-A (E-A) and Eno-B (E-B) watershed protection zoning overlay districts, which Planning staff will initiate later this year.

A requirement of the state permitting process is to obtain a resolution of support from each affected jurisdiction for reclassifying the new Eno River intake location as a water supply. A portion of the Eno Intake watershed is in the unincorporated portion of Durham County. The City's Department of Water Management is in the process of requesting resolutions of support from the City of Durham, Durham County, Orange County, and the Town of Hillsborough.

Recommendation

To adopt a resolution of support for reclassifying a segment of the Eno River for Water Supply in Durham County, North Carolina.

Background

The City of Durham owns Teer Quarry, located at 5090 Denfield Road in Durham County, adjacent to the Eno River. Use of Teer Quarry as a water supply requires filling it from a new intake in the Eno River.

Article 4.11 of the Unified Development Ordinance (UDO) establishes and defines the Watershed Protection Overlay zoning. The table on the following page summarizes information related to impervious surface limits, riparian buffer modification, and dimensional standards within the critical and protected areas of the Watershed Protection Overlay. Note that industrial uses, as listed in UDO 5.2.6, and fuel sales are prohibited in the E-A critical overlay.

Watershed Protection Overlay	Regulation on Uses	Impervious Surface	Riparian Buffers	Dimensional Standards for Lots
Critical (E-A)	Industrial uses and fuel sales are prohibited.	24% limit in Low Density Option. High Density Option is prohibited	Perennial Streams: 150' buffer. Intermittent Streams: 50' buffer	20,000 square foot minimum lot size
Protected (E-B)	All uses in base zoning are permitted	24% for low density option. 70% for high density option	Perennial Streams: 100' buffer. Intermittent Streams: 50' buffer	All dimensional standards for base zoning are applied

At the August 7, 2019, Joint City-County Planning Committee (JCCPC) meeting, Planning and Water Management staff discussed the water intake proposal for Teer Quarry and the issues regarding whether a 1.0-mile or 0.5-mile critical area was warranted for the new intake location. The JCCPC gave feedback that the critical area for the existing intake location should stay at 1.0 mile, as it has been since its establishment, but that the critical area for the new intake location be established at 0.5 miles.

Issues and Analysis

Establishing a new water intake location on the Eno River will require establishing an additional watershed overlay critical area. The choices are:

1. Establish a 0.5-mile critical area for the new E-A location, or
2. Establish a 1.0-mile critical area for the new E-A location

The table below summarizes the attributes of the land that are currently subject to the E-B watershed regulations and that would become subject to the E-A watershed regulations with adoption of either a 0.5 or 1.0-mile buffer around the new intake location. Attachment 1 shows a map of the areas described, with the blue cross-hatch being the 0.5-Mile Critical Area and the solid blue portion being the 1.0-Mile Critical Area. Note that, assuming the existing 1.0-mile buffer stays as is, the areas described below only reflect the additional area outside of the existing E-A area that would change from the E-B regulations to the E-A regulations.

	0.5-Mile Critical Area (cross-hatched)	1.0 Mile Critical Area (solid blue)
Total Area (acres)	101.4 acres	1015.3 acres
Number of Parcels	185	828

Zoning Districts	RS-10, RS-20	CC, CC(D), CG, CG(D), CN, I, IL, OI, PDR, RR, RS-10, RS-20, RS-M, RU-M
Impacts a potential site for a new school?	No	Yes

In August, staff received feedback from the JCCPC that a 0.5-mile critical area would be appropriate due to the established built environment, and the unnecessary impacts to existing uses and the future site of Northern High School that a 1-mile critical area (which exceeds the state minimum of ½-mile) would create. Designating a 0.5-mile critical area for the new intake would significantly reduce the extent of nonconformities created compared to designating a 1.0-mile critical area, and be consistent with the direction of the JCCPC.

Alternatives

Do not adopt Resolution of Support for Reclassifying a Segment of the Eno River for Water Supply. This alternative would prevent reclassifying the segment of the Eno River in which a new intake would be located as a water supply and prevent Teer Quarry from being used as an emergency water supply by the City.

Staff Contact

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Attachments

- A. Map of Watershed Critical Area Options
- B. Resolution of Support for Reclassifying a Segment of the Eno River for Water Supply