

New Canada Road

Lakeland, Tennessee

ENVIRONMENTAL REPORT



Prepared for:

Fisher & Arnold, Inc.
9180 Crestwyn Hills Drive
Memphis, Tennessee 38125

Prepared by:

Brophy – Heineke & Associates, Inc.
2978 Shelby Street
Bartlett, Tennessee 38134

November 19, 2010

Mr. Keith Yarrow
Fisher & Arnold, Inc.
9180 Crestwyn Hills Drive
Memphis, Tennessee 38125

RE: ENVIRONMENTAL REPORT AND SITE INVESTIGATION

Dear Keith:

This is in reference to our site investigation conducted August 23, 2010, of the proposed alignment of New Canada Road located in Lakeland, Shelby County, Tennessee. The purpose of the investigation was to determine the extent of wetlands or other “waters of the United States” (as regulated by the U.S. Army Corps of Engineers [Corps]) or “waters of the State of Tennessee” (as regulated by the Tennessee Department of Environment and Conservation, Division of Water Pollution Control [TDEC]) are present on this site. A secondary site investigation was conducted with the Corps on September 21, 2010, to determine the jurisdictional status of the stream channel and obtain their concurrence on avoidance of other jurisdictional waters.

All potential jurisdictional areas were located and inspected during the initial investigation. Each of the potential jurisdictional areas is indicated on the attached location map. The flow regime of each watercourse within the site was classified based on field observations. Wetlands were identified according to the procedures outlined in the 1987 United States Army Corps of Engineers Routine Wetland Delineation Manual and the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region. Below is a summary of the results from the field investigation.

Streams

During the initial investigation, all watercourses were examined along the alignment to determine their jurisdictional status. Due to the topography and erosive nature of the soils, several small channels were found along the alignment. However, these were considered ephemeral and non-jurisdictional by the agencies.

The only potential jurisdictional stream was located in the south-central portion of the alignment. This unnamed tributary to Oliver Creek contained no flow or ponded water and the vegetation on the channel banks was variable. The substrate was comprised of sand, silt and gravel and groundwater was observed approximately four inches below the channel bottom. The channel does not appear on the topographic map and was considered ephemeral and non-jurisdictional by TDEC (email attached). During the investigation with the Corps, it was determined the stream lacked characteristics indicative of a jurisdictional channel. Therefore, the current alignment of New Canada Road will not impact any streams considered jurisdictional by the Corps or TDEC.

Wetlands

There were no wetlands identified within the present alignment. The wetlands and ponds identified during the previous investigation have all been avoided by the present alignment. There are a few small wetlands and ponds that are adjacent to the right of way. If the present alignment is shifted or altered, it would be necessary to conduct another site investigation to determine impacts.

Listed Species

The United States Fish and Wildlife Service (FWS) lists five federally threatened or endangered species in Shelby County to include: Indiana bat (*Myotis sodalis* [E]), bald eagle (*Haliaeetus leucocephalus* [T]), wood stork (*Mycteria americana* [E]), turgid-blossom pearly mussel (*Epioblasma turgidula* [E]), and least tern (*Sterna antillarum* [E]). The Tennessee Natural Heritage Program lists three invertebrate animals, 13 vascular plants, 16 vertebrate animals, and one rookery on the rare species observations within Shelby County. However, only two vascular plants (Nodding rattlesnake-root [*Prenanthes crepidinea*] and Cedar elm [*Ulmus crassifolia*]) and one vertebrate animal (Swainson's warbler [*Limnothlypis swainsonii*]) are located with the Alrington / Eads, Tennessee, topographic quadrangles.

Several site investigations have been conducted along the alignment to determine the presence or absence of rare, threatened, or endangered species or their potentially suitable habitat in accordance with provisions of the Endangered Species Act. After a thorough investigation of the proposed alignment, no listed species or potentially suitable habitat was observed.

Stream Buffer Requirements

Following review of the proposed alignment, the stream channels were assessed for potential impacts to stream buffers. The Streamside Management Buffer Requirements of the City of Lakeland (ARTICLE XIV) were established to restrict development and limit land use adjacent to all perennial streams and rivers (as amended through 07-99). The buffer regulations restrict impacts to an overlay area of at least 50 feet from the top of bank. The buffer widths can increase dependent upon the gradient of surrounding landscape and drainage basin size.

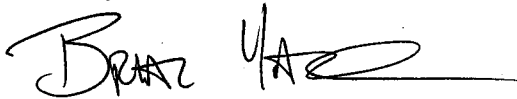
Two perennial streams are located in the vicinity of the alignment and consist of Oliver Creek and Scotts Creek. Scotts Creek flows north from Lakeland Lake and Oliver Creek flows northwest and drains property to the west of the alignment. Oliver Creek is the closest perennial stream and is approximately 1,600 feet to the west at its closest point to the alignment. Two unnamed tributaries to Oliver Creek are located in the vicinity of the new alignment but neither the streams nor the buffer zones will be impacted. Therefore, the current alignment of New Canada Road will not impact the stream buffer zone as adopted by the City of Lakeland.

Permitting

Based on our field observations and coordination with the Corps and TDEC, the present alignment of New Canada Road will not adversely impact any streams or other waters of the United States or Tennessee. The Corps of Engineers has agreed to prepare a letter documenting the lack of jurisdictional areas and a Jurisdictional Determination. This letter will be sent once the permitting of the alignment is initiated. TDEC has sent its stream determination in a previously forwarded email. The United States Fish and Wildlife Service prepared a letter stating that federally listed or proposed endangered or threatened species do not occur within the impact area. If you require any further documentation from the regulatory agencies, please let us know.

Please call me at (901) 373-3289 if you have any questions or need any clarification.
Thank you very much.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Yates", with a long horizontal flourish extending to the right.

Brian Yates
Wetland Scientist



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