



**Tennessee Department of Environment and Conservation**  
**Division of Water Pollution Control**  
**Mining Section**  
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October 2, 2009

**NOTICE OF DETERMINATION**

*Applications for ARAP/401 Certification and a new NPDES permit for stream alteration activities and discharges of treated wastewater and stormwater into Buffalo Creek in Anderson County.*

**Rogers Group, Inc.**  
**Clinton Quarry**  
**PO Box 25250**  
**Nashville, Tennessee 37202-5250**

**NPDES Permit TN0069141 (Draft)**  
**ARAP/401 Certification Application NR08MS.015**

A public hearing (ARAP and NPDES) was held on April 14, 2009, at the Anderson County High School in Clinton, Tennessee to consider comments concerning applications for a new NPDES permit and ARAP/401 Certification. The NPDES permit would cover proposed discharges of treated wastewater and stormwater. The ARAP would cover proposed stream and wetland alteration activities to facilitate the mining operation.

The company wants to permit an abandoned limestone quarry located east of the Interstate 75N interchange with Highway 61 near the Bethel community. The permit area is 70.7 acres and will consist of a limestone quarry, crusher operation, and asphalt plant. The receiving stream is Buffalo Creek.

Stream alteration activities include proposed crossings that involve Buffalo Creek and one of its unnamed tributaries. A section of a wetland would be filled for construction of an access road and internal haulroad. Buffalo Creek is not included on the state of *Tennessee's 2008 303(d) List* of impaired waters nor is the stream designated Exceptional Tennessee Waters (ETWs) or Outstanding National Resource Waters (ONRWs).

Approximately 100 people attended the hearing for these permit applications. This group included property owners, local residents, news media, local and county public officials, company officials, and other concerned citizens. Organizations represented included Citizen for Safety and Clean Air, Children's Defense Fund of the Haley Farm, and local church groups.

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Twenty-three (23) people offered testimony during the hearing. An extended question and answer session preceded the comment phase. Division personnel remained after the close of the hearing record and discussed individual concerns.

Introductory remarks by the hearing officer included a summary of the proposed projects, the hearing procedure, and decision process. During the 10-day comment period following the hearing, the Division received numerous written comments, petitions, research literature, and e-mails.

### *Comments and Responses*

*Please note that a number of comments (both written and oral) are not included in this document because: 1) they were not directly related to the proposed project, 2) stated a belief, opinion, or request that did not specifically ask for a response, 3) required a response that would be speculative and without direct relationship to the project, or 4) requested information or involved matters subject to control or regulation by other government agencies. However, all comments received are part of the hearing record and were considered by the Division in making the determination for these NPDES permit and ARAP applications.*

Subjects included in the comments or questions follow: (Several of the public comments that represent similar concerns and issues are grouped together under specific categories).

### **A. Public Participation and Administrative Items**

*If changes or revisions to the project are required and a new application submitted, will a new public notice and public hearing opportunity be announced?*

Major changes to the project requiring a new application would be subject to public notice and the opportunity for public hearing. *TDEC Rule 1200-4-5-.06.*

*How many permits has TDEC denied for quarry operations?*

We review requests for permits to determine if the applications and plans are complete and meet program requirements. We have previously denied or withdrawn incomplete applications. Most of these applications were resubmitted, revised or modified, and subsequently approved.

*The ARAP public notice failed to provide notice that the ARAP would be considered as state water quality certification for a Corps Section 404 Permit. Is the Corps of Engineers going to issue coverage?*

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The ARAP Public Notice, PN 09-01, issued on January 8, 2009, for these activities included a description of 401 Certification requirements for applicants who may need to obtain federal permits under the federal *Clean Water Act*. Rogers Group, Inc., obtained Section 404 coverage under a general Nationwide Permit from the U. S. Army Corps of Engineers for the proposed stream crossings. Issuance of a valid ARAP for this activity includes the required 401 Certification from the state.

*The 303(d) checklist in the draft NPDES permit does not list the stream miles for the discharge points as requested.*

We have included the stream miles of the discharge points in the 303(d) checklist for the final NPDES permit.

### **B. General Water Quality Concerns**

*Several commenters said the project would increase sediment and toxic chemicals in Buffalo Creek and asked how these pollutants are controlled and who would clean up after the company is gone?*

The permit does not authorize the discharge of toxic chemicals. Solids are treated in settling ponds. Discharges must meet permit limits for Total Suspended Solids and be protective of water quality.

We do not terminate monitoring requirements until a site is closed and stabilized according to approved plans and to the satisfaction of the Division that water quality standards can be met. Requests for permit termination are subject to public participation requirements.

*Treatment ponds will need to be cleaned. Where will the waste material be placed?*

The application and plans state that ponds and filter structures will be cleaned out as needed with waste materials disposed of on site, mixed with sellable product, or sold as product.

### **C. Stream Status, Antidegradation, and Permit Limitations**

*Did TDEC conduct an antidegradation study or survey for the proposed new discharge? If not, why?*

*Buffalo Creek was removed (delisted) from the 303(d) listing of impaired streams in 2006. This stream should be placed back on the list of impaired streams. Additional surveys should be conducted and consideration of recent impacts should be evaluated to provide protection for Buffalo Creek.*

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The Division conducted the required antidegradation survey and assessment of Buffalo Creek in April 2008. The stream does not meet the criteria for high quality waters. The antidegradation assessment included an analysis of reasonable alternatives to surface water discharge. Buffalo Creek is not currently impaired (*Approved 2008 303(d) List*) and is meeting its classified uses for Fish and Aquatic Life, Irrigation, Livestock Watering and Wildlife, and Recreation.

EPA must approve revisions to the 303(d) document and has identified several acceptable reasons for delisting a stream. One of these reasons is that water quality of a stream has improved and no longer violates criteria for the parameter(s) of concern.

The *2006 303(d) List's* rationale for delisting Buffalo Creek stated: "The stream was listed in 2002 due to the appearance of impacts in 1999 when a biorecon was performed. At that time, there were no obvious reasons for impacts and the stream habitat was excellent (168). The stream was resurveyed during the next watershed cycle. A RBPIII biological survey performed at mile 0.7 (Bethel Road) documented 5 EPT genera and 26 total genera. This provided an Index score of 34, which is better than the regional goal (32)."

Facility discharges must comply with effluent limitations guidelines established in the NPDES permit. Discharges in compliance with permit limitations will be protective of Tennessee's water quality standards and the stream's classified uses. If required to protect water quality in Buffalo Creek, more stringent water quality based limitations will be established.

*The "one size fits all" approach to effluent limits is not adequate to protect water quality. What is the rationale for the 40 mg/L limitation? What are the numbers? What is the basis for Best Professional Judgment determinations? TDEC is required to justify the limits and to use the most stringent standards.*

The rationale for the draft permit describes the basis for the numeric standard of 40 mg/L. The standard is based on Best Professional Judgment determinations derived from a variety of sources, including EPA development documents, state regulations, monitoring data submitted by the crushed stone industry and field inspection and sampling by Division personnel. These limitations are industry specific, technology based standards that cover facilities performing similar operations that use similar processes for treatment and drainage control.

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### D. Groundwater and Hydrogeology

*Has the impact on groundwater from leachate been considered?*

The NPDES permit requires operators to properly operate and maintain wastewater treatment structures. This would include maintenance and repair involving any breach or leakage associated with treatment structures or devices. *NPDES Permit, Part II, A (4).*

*The company used TDEC data for the survey of residential water wells. This data is incomplete and does not include wells installed before 1980. A house-to-house survey should be included to assure that all groundwater supplies are documented. Will the City of Norris water supply be affected by the proposed project?*

NPDES regulates discharges to surface waters. EPA Application Form 1 requires the applicant to identify drinking water wells within  $\frac{1}{4}$  mile of the facility. Rogers Group, Inc. has now provided survey data for water availability for properties within a  $\frac{1}{2}$ -mile radius of the project. The survey data was obtained from TDEC Water Well Records, the Tennessee Real Estate Assessment Data as provided by the Tennessee Department of Treasury and the Anderson County Water Authority.

The survey data lists wells completed from 1963 until 2007 and provides the month and year for completion. No registered wells were located on the quarry property or adjacent properties. See *Summary of Water Use Survey, July 6, 2009, and Water Well Survey, Section 10* of the NPDES permit application.

The water supply for the City of Norris comes from a natural spring located in the city's Municipal Watershed. This water supply source is located upstream of the project site and will not be impacted by the proposed discharge activity.

### E. Water Quality Impacts and Pollutants Associated with Blasting and Asphalt Plant

*An Environmental Assessment (EA) by TVA relating to a project in middle Tennessee has documented impacts from blasting activities including nitrates and other contaminants to the groundwater.*

We have not observed or documented pollutants in discharges from quarry operations relating to blasting activities. Blasting activities are regulated by the Tennessee Department of Commerce and Insurance, Fire Prevention Division, Tennessee State Fire Marshal's Office, 500 James Robertson Parkway, 3<sup>rd</sup> Floor, Davy Crockett Tower, Nashville, TN 37243-1163, Telephone (615) 741-7190. The East Regional Office is located at 531 Henley Street, Suite 719, Knoxville, TN 37902-2898, Telephone (865) 594-6165.

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The permittee must notify the Division as soon as it knows or has reason to believe that any activity has occurred or will occur which would result in the discharge, on a routine or non-routine basis or frequent or infrequent basis, of any toxic pollutant listed in *40 CFR 122, Appendix D, Table II and III* which is not limited in the permit, if that discharge exceeds established notification levels. *NPDES Permit, Part III, E. (1) (2)*.

*Have impacts from the asphalt plant been evaluated? The draft permit does not adequately regulate pollutants from the asphalt plant. The oil and grease monitoring requirement is inadequate. Asphalt plants can include volatile and semi-volatile organic compounds as well as oil, solvents, benzene, hydrocarbons, metals and other chemical additives that can impact surface and groundwater. More extensive monitoring of chemicals associated with this plant should be required.*

Federal effluent limitations guidelines prohibit the discharge of process wastewater pollutants from asphalt plants. *40 CFR, Part 443.23*. The NPDES permit will control surface and precipitation runoff from the asphalt plant area. This drainage will be directed to the quarry treatment system and monitored at discharge Outfall 001.

The NPDES permit also includes the following narrative limitations: "There shall be no visible floating scum, oil, or other materials contained in the wastewater discharge. The wastewater discharge must not cause an objectionable color contrast in the receiving stream." *NPDES Permit, Part I A (2)*.

### F. ARAP, Wetlands, and Mitigation

*The ARAP is inadequate because avoidance and minimization are not properly addressed and should be reexamined. The proposed ARAP did not contain an adequate evaluation of alternatives to the filling of wetlands.*

The ARAP covers proposed installation of stream crossings to allow access to the quarry site from Highway 61. The company indicates that no logistical site alternatives are available because the quarry pit is separated from the rest of the land by Buffalo Creek. A side street (Bethel Road) was eliminated as a viable access option by the City of Clinton as a condition of the rezoning decision. The ARAP application included required maps, plans, sequence of events for erosion control prevention and sediment control measures for the proposed alterations.

*A wetlands hydrology survey should be conducted.*

A wetlands jurisdictional determination was completed for the site. The wetlands assessment and delineation consisted of review by the U. S. Department of Agriculture, Soil

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Conservation Service (now NRCS), Soil Survey of Anderson County, Tennessee, review of available topographic and aerial photographs, as well as field reconnaissance. The applicant provided the required copy of the wetlands verification prepared by the U. S. Army Corps of Engineers.

*The ARAP mitigation is off site and not located in the same watershed. Mitigation should be in the same watershed as the project. TDEC should closely follow the Corps of Engineers requirements in this regard.*

The company proposes off site mitigation because of limitations imposed by zoning restrictions at the quarry facility. No space was available for on-site mitigation. The mitigation proposal involves the purchase of 0.49 acre of available credits from a wetland mitigation site in Morgan County, Tennessee. The mitigation site is in the Emory River Watershed (HUC 06010208) whose confluence is the Lower Clinch River watershed (HUC 06010207). This proposal is within the range of priorities for mitigation of wetlands. *TDEC Rule 1200-4-7.04 (7) (b).*

*The 2:1 mitigation ratio for this project is not adequate compensation.*

The 2:1 mitigation ratio complies with *TDEC Rule 1200-4-7.04 (2)* which states: "The ratio of acres required for wetland mitigation should not be less than 2:1 for restoration activities." The mitigation ratio and restoration activity achieve no net loss of resource value.

### G. General Concerns

*A number of the comments contained in the hearing record expressed general concerns relating to the project's potential impact on the ecology, recreation, historical and cultural resources in the Lower Clinch River watershed area including the Haley Farm, the Children's Defense Fund apple orchard, the Museum of Appalachia, wildlife and aquatic species, and the TWRA fish hatchery.*

The scope of our authority is defined by statute and associated rules describing the NPDES program. We tentatively determined that the proposed discharge and stream alteration activities would be protective of water quality in the affected area, developed a draft permit based on the type of activity, nature of discharge and status of receiving waters and placed the permit applications on public notice for comment and review. These actions were within the limits of our review requirements.

The Division has reviewed the applications, supporting plans and the alternatives analysis. We have conducted the required antidegradation assessment including a data survey regarding Federal and State listed endangered or threatened aquatic species present in the affected area and considered the oral and written comments contained in the hearing record.

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Public participation requirements included review by associated government agencies including the United States Fish and Wildlife Service (USFWS), Tennessee Wildlife Resources Agency (TWRA), U.S. Army Corps of Engineers (Corps), Tennessee Division of Natural Resources, Tennessee Historical Commission and Tennessee Valley Authority (TVA). These agencies did not respond with comments.

Based on the review results, we have determined that the NPDES permit can be issued. The permittee is required to discharge treated wastewater and stormwater in a manner such that pollution will not occur. Permit compliance will be monitored and enforced by the Division.

Citizens have the right of third party appeal of permit decisions in accordance with the requirements of *The Tennessee Water Quality Control Act of 1977, TCA 69-3-105 (i)*.



 Paul E. Davis, Director  
Division of Water Pollution Control

10 / 2 / 2009  
Date