

**MITIGATION FEASIBILITY STUDIES**  
**Detailed Riparian Buffer Mitigation Plans**  
**North Toe River and Tributaries**  
**Yancey & Mitchell Counties, North Carolina**

Prepared for:

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**NORTH CAROLINA DEPARTMENT OF TRANSPORTATION**  
**Raleigh, North Carolina**



**August 2005**

# **McCarty Family Partnership & R. Prisco Site Detailed Riparian Buffer Mitigation Plan North Toe River Mitchell County, North Carolina**

Prepared for the North Carolina Department of Transportation



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## EXECUTIVE SUMMARY

The North Carolina Department of Transportation (NCDOT) is currently evaluating riparian buffer preservation mitigation opportunities on the North Toe River within two properties belonging to: 1) the McCarty Family Partnership and 2) Mr. Richard Prisco in southwestern Mitchell County, NC. The properties are located approximately 10 miles northeast of the town of Burnsville, NC. Riparian buffer preservation at the McCarty/Prisco Site is expected to provide a portion of the mitigation to offset impacts to known federally endangered Appalachian elktoe (*Alasmidonta raveneliana*) mussel populations identified within, and adjacent to, NCDOT bridge replacement projects (TIP#'s B-1433 & B-2848).

An approximately 15.6 acre conservation easement (McCarty Family Partnership -10.47 acres, Prisco 4.85 acres), hereafter referred to as the Site, has been proposed for riparian buffer mitigation activities. The Site is composed of hillside slope that will be utilized for riparian buffer preservation adjacent to the North Toe River. Land use consists primarily of mature vegetated forest with walking and hiking trails. The Site watershed is comprised of forestland, agricultural land, and low-density residential development.

Site preservation of the riparian hillside slope vegetation community has been included within the entire Site to protect water quality and reduce sedimentation inputs into reaches of the North Toe River identified by the U.S. Fish and Wildlife Service as "Critical Habitat" for the federally protected mussels and by the North Carolina Natural Heritage Program as an Identified Priority Area the "Nolichucky – North Toe River Aquatic Habitat".

After implementation, riparian buffer mitigation activities are expected to result in the preservation of the hillside slope along the North Toe River within the approximately 15.6 acre conservation easement.

**McCARTY FAMILY PARTNERSHIP & RICHARD S. PRISCO SITE**  
**DETAILED BUFFER MITIGATION PLAN**  
**NORTH TOE RIVER**

**1.0 INTRODUCTION**

The North Carolina Department of Transportation (NCDOT) is currently evaluating riparian buffer preservation mitigation opportunities on up to 15.6 acres of two properties belonging to the McCarty Family Partnership (10.75 acres mitigation potential) and Mr. Richard Prisco (4.85 acres mitigation potential). The properties are located along the northern bank of the North Toe River in southwestern Mitchell County, North Carolina, approximately 10.0 miles northeast of Burnsville, NC (Fig. 1). The properties are bounded to the south by the North Toe River, to the north by Snow Creek Rd (SR 1171), and to the east and west by adjacent property owners. The properties are located approximately 11.0 miles upstream of NCDOT bridge replacement project B-1443 (NC HWY 197 – Bridge #61 over the North Toe River).

Riparian buffer mitigation at the McCarty & Prisco Site is expected to serve as a portion of the needed mitigation proposed to offset the impacts to known federally endangered Appalachian elktoe (*Alasmidonta raveneliana*) mussel populations identified within, and adjacent to, NCDOT TIP (Transportation Improvement Program) bridge replacement projects B-1443 and B-2848 (Huntdale Rd – replace Bridge #143 over the North Toe River).

The North Toe River flows in a general east to west direction along the property boundaries for approximately 4,576 linear feet (3,075 along the McCarty property boundary and 1,501 along the Prisco property boundary). The mitigation area, hereafter referred to as the Site, encompasses approximately 15.6 acres (proposed conservation area) of hillside slope along the North Toe River. The existing riparian buffer and hillside slope consists of mature, well forested, canopy vegetation.

The portions of the North Toe River that border the McCarty Family Partnership and the Prisco properties have been designated as critical habitat for the Appalachian Elktoe by the U.S. Fish and Wildlife Service (USFWS) and as an Identified Priority Area (IPA) (the Nolichucky-North Toe River Aquatic Habitat) by the NC Natural Heritage Program (NHP).

The purpose of this study is to establish a detailed Site mitigation plan for riparian buffer preservation within the properties. The objectives of this study are as follows:

- Develop a detailed plan of riparian buffer mitigation activities within the proposed 15.6 acre conservation easement boundary,
- Identify potential constraints which may preclude development of the Site for mitigation, and
- Estimate mitigation potential based on proposed mitigation activities.

The goals of the restoration effort include the preservation of the hillside slopes to: 1) maintain channel bank stability, 2) protect against sedimentation/siltation within the North Toe River, 3) filter and reduce pollutants prior to entering the North Toe River, 4) protect wildlife corridors by providing connectivity to forested areas adjacent to the Site, and 5) provide habitat for aquatic and terrestrial wildlife, and 6) provide organic matter, carbon export, and woody debris in the river corridor.

This document represents a detailed mitigation plan summarizing activities proposed within the Site. The plan includes 1) descriptions of existing conditions, 2) a review of potential mitigation constraints, and 3) potential mitigation plans. Upon approval of this plan by regulatory agencies, mitigation activities will be implemented as outlined. Proposed mitigation activities may be modified due to constraints such as access issues, CSX railroad and landowner concerns.

## **2.0 METHODS**

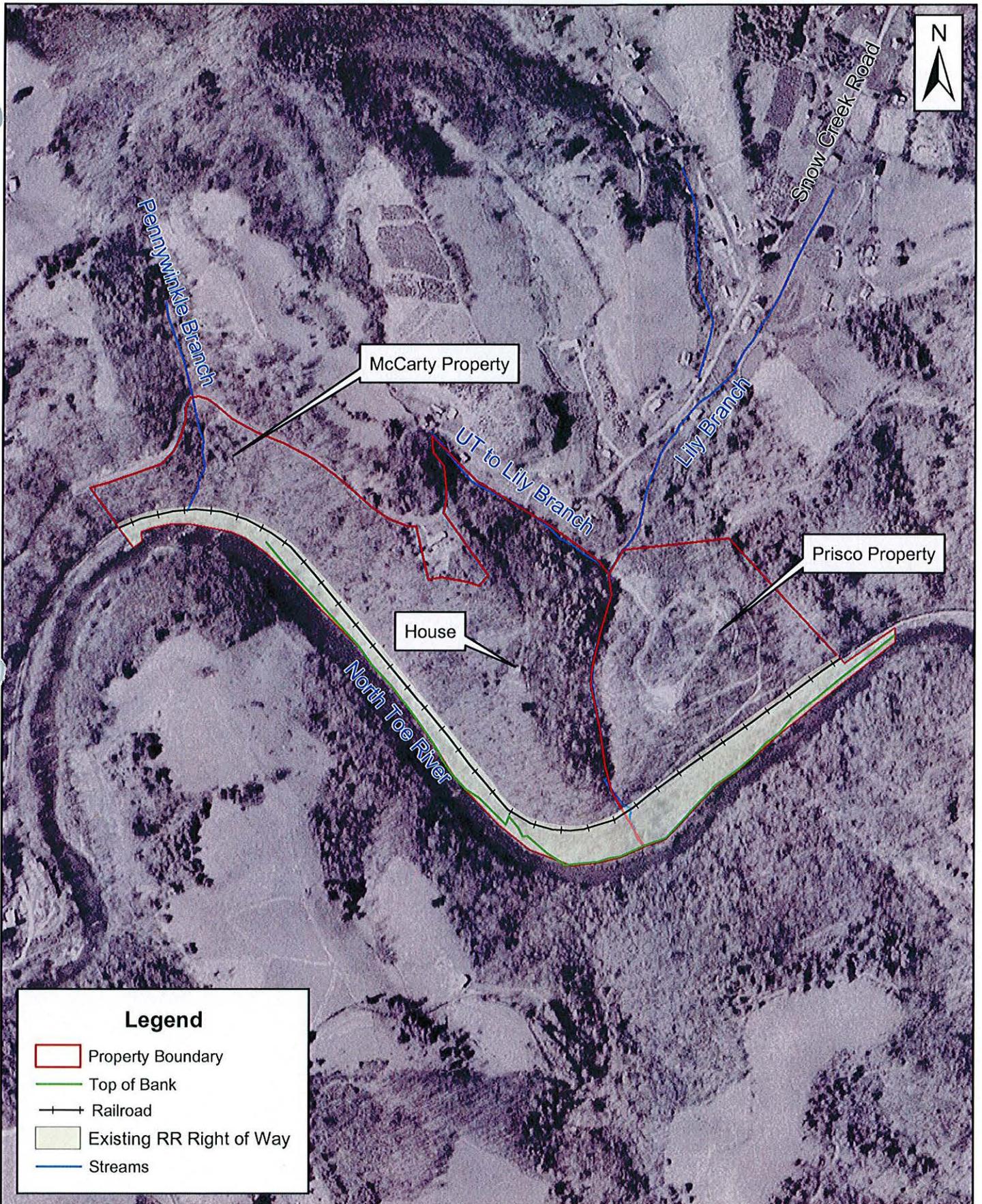
Natural resource information was obtained from available sources. U.S Geological Survey (USGS) 7.5 minute topographic mapping (Micaville, NC), U.S Fish and Wildlife Service mapping, National Wetland Inventory (NWI) mapping, Natural Resources Conservation Service (NRCS) soils mapping for Mitchell County (NRCS 2003), and recent aerial photography were utilized to evaluate existing landscape and soil information prior to on-site inspection. Characteristic and target natural community patterns were classified according to Schafale and Weakly's *Classification of the Natural Communities of North Carolina* (1990).

Detailed field investigations were performed in January 2005. Plant communities were delineated and described by structure and composition. Information collected, reference ecosystem analyses, and field observations were used to evaluate existing conditions. Subsequently, acquired information was incorporated into this mitigation plan to assist in examining riparian buffer mitigation potential to be used for mussel impacts associated with the NCDOT bridge replacement projects NCDOT TIP#'s B-2848 and B-1443.

## **3.0 EXISTING CONDITIONS**

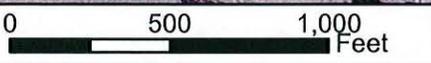
### **3.1 Land Use**

The properties contain residential homes and buildings used as storage facilities. Development of the area has been limited due to the topography and remoteness of the properties. The Site consists of the hillside slopes of two properties located along the northern bank of the North Toe River (Fig. 2). Site land use is predominantly composed of undeveloped forested land with walking and hiking trails which provide access and scenic views of the North Toe River (Photo 1). A thin, mature vegetated floodplain occurs within the southernmost portions of each property. The majority of the Site contains steep side slopes and areas difficult for vehicular access so vegetation has remained relatively pristine with a mixture of mature pine/hardwood forest.



**Legend**

- Property Boundary
- Top of Bank
- Railroad
- Existing RR Right of Way
- Streams




 NC Department of Transportation  
 Project Development and  
 Environmental Analysis Branch

**McCarty/Prisco Site**  
 North Toe River  
 French Broad River Basin  
 Mitchell County, North Carolina

Dwn by: CR  
 Ckd by: WE  
 Date: August 2005  
 Project: 00229.00

**FIGURE**  
**2**  
 Existing Conditions



**Photo 1**



**Photo 2**

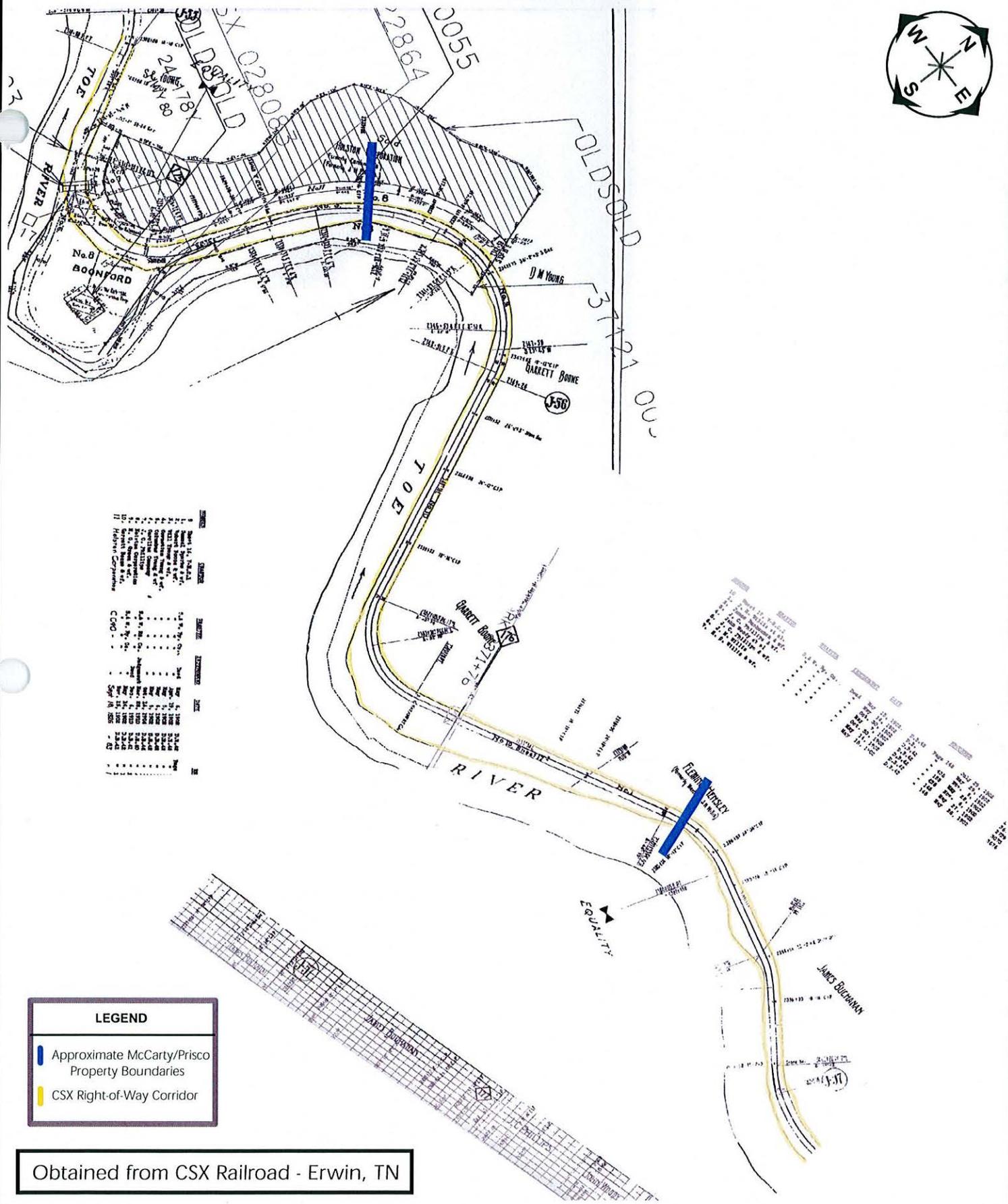
### 3.2 CSX Railroad

A CSX single track railroad corridor parallels the North Toe River passing through each of the properties southern borders (Photo 2). Discussions with Mr. Joe Jackson with CSX Railroad in Erwin, TN, and maps obtained from Mr. Jackson showing the existing CSX right-of-way, indicate that the railroad corridor varies in width from 30 to 125 ft within the Site properties (Fig. 3). The CSX corridor starts from the top of the bank of the North Toe River and runs through the railroad track into the adjacent hillside slope.

Mr. Jackson said that CSX annually sprays out 30 feet from the edge of the railroad tracks to prevent vegetation growth and anticipates maintenance will continue this way (Photo 3). Mr. Jackson also indicated that CSX will not allow vegetation to be planted in right-of-way areas that are presently unvegetated because of line of sight issues associated with moving trains. CSX also reserves the right to maintain vegetation, at its discretion, within the right-of-ways for existing and possible future uses of the railroad. CSX railroad recommends that any conservation easement boundaries for a potential riparian buffer conservation easement exclude any area(s) associated with the existing right-of-way corridors.



**Photo 3**



NO.	DATE	DESCRIPTION
1	10/1/04	Initial Survey
2	10/1/04	Final Survey
3	10/1/04	As-Built Survey
4	10/1/04	Final Survey
5	10/1/04	Final Survey
6	10/1/04	Final Survey
7	10/1/04	Final Survey
8	10/1/04	Final Survey
9	10/1/04	Final Survey
10	10/1/04	Final Survey
11	10/1/04	Final Survey
12	10/1/04	Final Survey

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8	10/1/04	Final Survey
9	10/1/04	Final Survey
10	10/1/04	Final Survey
11	10/1/04	Final Survey
12	10/1/04	Final Survey

**LEGEND**

- Approximate McCarty/Prisco Property Boundaries
- CSX Right-of-Way Corridor

Obtained from CSX Railroad - Erwin, TN

NC Department of Transportation and Environmental Analysis Branch

**McCarty/Prisco Site**  
 North Toe River  
 French Broad River Basin  
 Mitchell County, North Carolina

Dwn. by: DJ  
 Ckd by: WE  
 Date: April 2005  
 Project: 00229

FIGURE  
**3**

### 3.3 Physiography and Topography

The Site is located within the southwestern portions of Mitchell County, along the Mitchell and Yancey County border. The portion of the state is classified as the Southern Blue Ridge Mountain Belt ecoregion of North Carolina (USGS 14 digit HU's 06010108010030). The hydrophysiographic region is characterized by very steep mountains, rolling intermountain hills, and narrow valleys, with coves, terraces, and floodplains. The region is characterized by moderately high rainfall with precipitation averaging approximately 55 inches per year (NRCS 2003). Elevations range from approximately 2,400 ft National Geodetic Vertical Datum (NGVD) along the floodplain edges to approximately 2,650 ft NGVD in the northern most portions of the Site (Fig. 4).

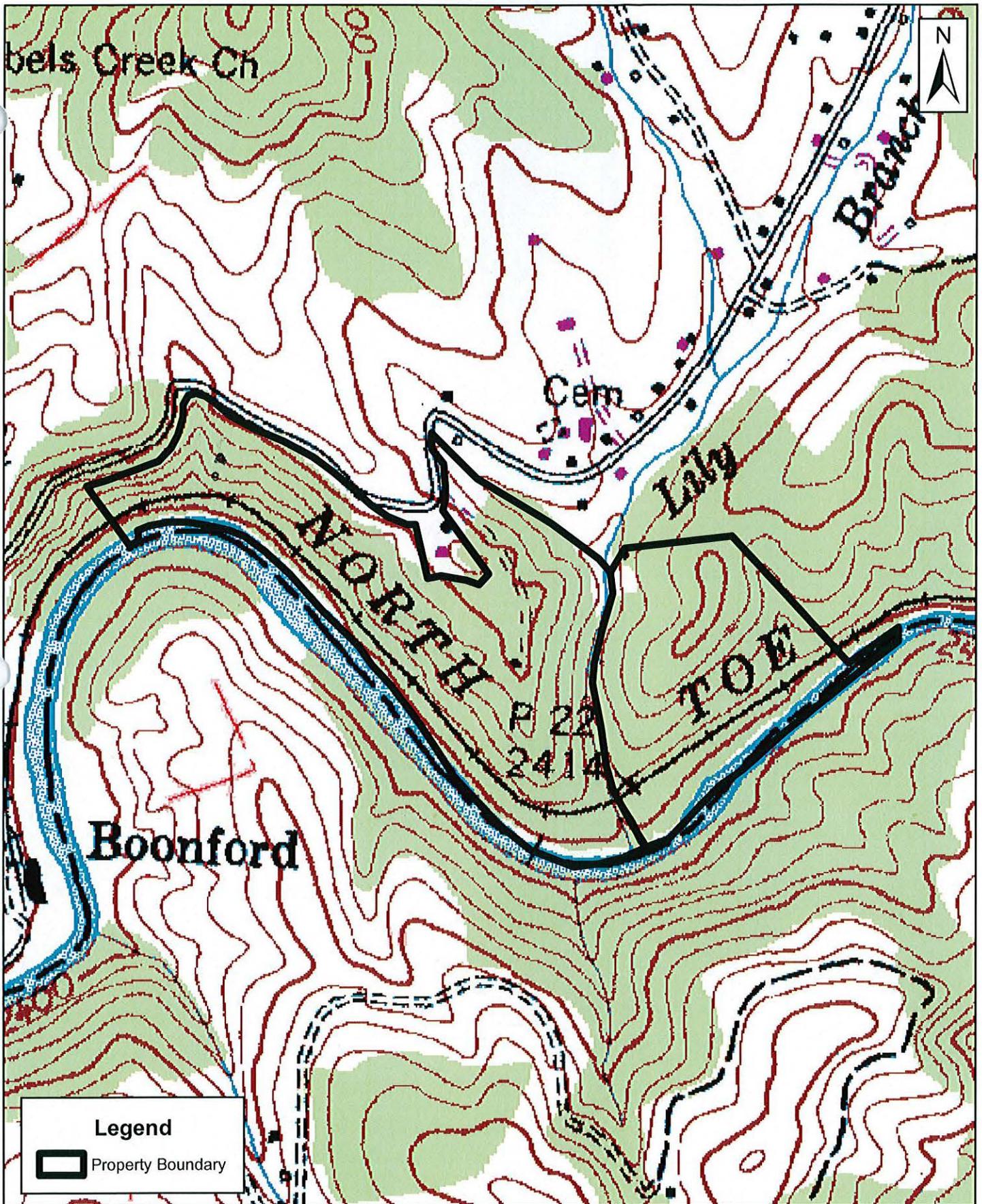
The Site encompasses hillside slopes adjacent to the CSX railroad right-of-way corridor just north of the North Toe River. The upstream watershed of the North Toe River is comprised of mixed bottomland hardwoods and evergreens, high mountain communities, agricultural land, and low-density residential development. On-site vegetation most closely resembles high elevation red oak forest as described in Schafale and Weakly's *Classification of the Natural Communities of North Carolina (1990)*. Impervious surfaces within the North Toe River watersheds appear to account for less than 10 percent of the upstream land coverage.

### 3.4 Hydrology

The major topographic feature associated with the Site is the North Toe River. The waterway flows in a general southeast to northwest direction along the southern property boundaries of both properties (Fig. 2). Approximately 4,576 linear feet of the North Toe River occur along the Site boundaries (3,075 linear feet along the McCarty parcel and 1,501 linear feet along the Prisco parcel).

The properties are located in the North Carolina Division of Water Quality (DWQ) subbasin 04-03-06. DWQ has assigned the North Toe River, from the Town of Spruce Pine water supply intake to Mitchell County SR 1187 (DWQ Index No. 7-2-(27.7)) a State Best Usage Classification of "C" with a supplemental classification of "Tr". Supplemental classifications including "Tr" indicate trout supporting waters. Based on the most recent DWQ Basinwide Water Quality Plan for the French Broad River (2003), designated uses within the North Toe River are classified as "**Fully Supporting**".

Two named tributaries and one unnamed tributary to the North Toe River were identified during on-site investigations of the properties (Fig. 2). Lily Branch, located just east of the midpoint of the Site originates off-site to the north. The waterway parallels Snow Creek Rd until it flows to the south where it begins serving as the property boundary line between the McCarty and the Prisco properties (Photo 4). Lily Branch serves as the property boundary for approximately 1,134 linear feet before crossing through a culvert underneath the CSX railroad track. It then continues to serve as the property line before its confluence with the North Toe River. An unnamed tributary to Lily Branch serves as the property boundary line for approximately 1,030 linear feet between the McCarty property and an adjoining landowner in the northeastern portions of the property.



**Legend**  
 [Black Outline] Property Boundary

0 500 1,000 Feet

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**McCarty/Prisco Site**  
 North Toe River  
 French Broad River Basin  
 Mitchell County, North Carolina

Dwn by: CR  
 Ckd by: WE  
 Date: August 2005  
 Project: 00229.00

**FIGURE**  
**4**  
 Topographic Map

Pennywinkle Branch is located near the westernmost property boundary within the McCarty property. The waterway originates offsite to the north, flows in a southerly direction, passing underneath Snow Creek Rd before traveling approximately 548 linear feet downslope passing underneath the CSX railroad corridor and entering the North Toe.

Of the on-site waterways, only Lily Branch is characterized on the Micaville, USGS quadrangle as a perennial stream. DWQ has assigned Lily Branch, from its source to the North Toe River (DWQ Index No. 7-2-49) a State Best Usage Classification of “C” with a supplemental classification of “Tr”. Designated uses within Lily Branch were “**Not Evaluated**”. Field investigations and macroinvertebrate sampling determined that Pennywinkle Branch and the unnamed tributary to Lily Branch appear to be perennial; however, neither Pennywinkle Branch or the unnamed tributary were rated by DWQ and their designated uses were “**Not Evaluated**”.

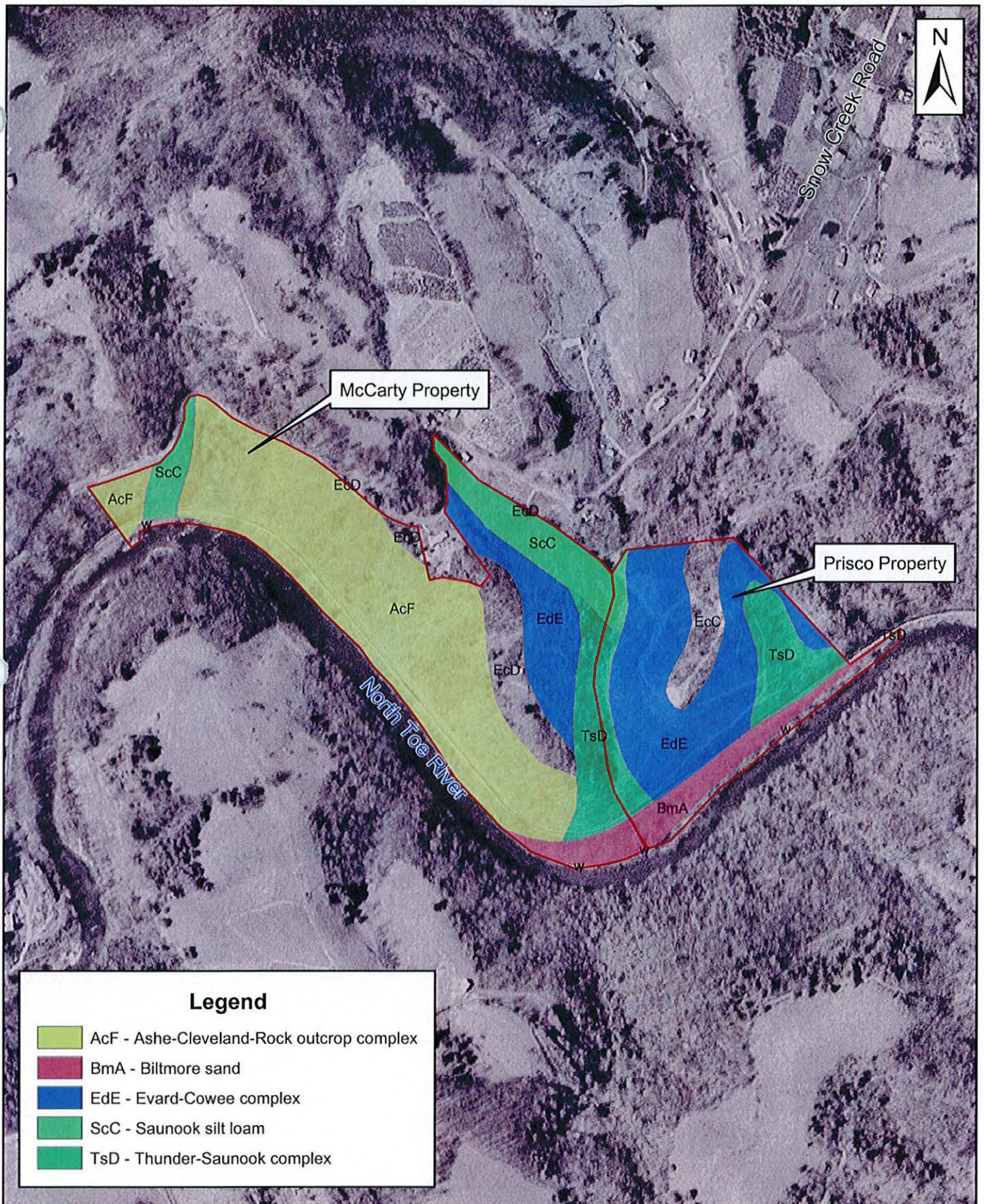


**Photo 4**

### **3.5 Soils**

Based on the Soil Survey of Mitchell County, North Carolina (NRCS 2003), soil mapping units identified by the NRCS within the Site consist of: Ashe-Cleveland-Rock outcrop complex, Biltmore sands, and Thunder-Saunook complex soils (Fig. 5).

The Ashe-Cleveland map unit consists of a complex generally composed of 40 percent Ashe, 20 percent Cleveland, 20 percent rock outcrop, and 20 percent dissimilar inclusions. The Evard-Cowee map unit consists of a complex generally composed of 55 percent Evard, 30 percent Cowee, and 15 percent dissimilar solutions. The Thunder-



**Legend**

- AcF - Ashe-Cleveland-Rock outcrop complex
- BmA - Biltmore sand
- EdE - Evard-Cowee complex
- ScC - Saunook silt loam
- TsD - Thunder-Saunook complex

0 500 1,000 Feet



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**FIGURE**  
**5**  
Soils Map

Saunook map unit consists of a complex generally composed of 50 percent Thunder, 30 percent Saunook, and 20 percent with dissimilar inclusions.

- Ashe series consists of moderately deep, somewhat excessively drained soils on gently sloping to very steep ridges and slide slopes. Depth of seasonal high water table is greater than 6.0 feet,
- Cleveland series consists of shallow, somewhat excessively drained, moderately rapidly permeable soils affected by soil creep. Depth of seasonal high water table is more than 6.0 feet,
- Biltmore sand is a very deep, well drained soil with rapid permeability, and very low available water capacity that is frequently flooded throughout the year. Depth to seasonal high water table is 3.5 to 6.0 feet,
- Thunder series is a very deep loam with many rock fragments. It is well drained soil with moderate permeability and seasonal available water capacity. Organic content is moderate to very high. Depth to seasonal high water table is more than 6.0 feet,
- Evard series consists of very deep, well drained, moderately permeable soils on intermediate hills and low and intermediate mountains. Depth of seasonal high water table is greater than 6.0 feet, and
- Cowee series consists of moderately deep, well drained, moderately permeable soils on intermediate hills and low intermediate mountains. Depth of seasonal high water table is greater than 6.0 feet.

Hydric soils are defined as “soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper soil layer” (SCS 1987). Two site soils are considered hydric B; the Biltmore and Thunder-Saunook soils may contain areas of poorly drained hydric soils and are considered non-hydric with hydric inclusions in Mitchell County (NRCS 2003).

### 3.6 Plant Communities

Distribution and composition of plant communities reflect landscape-level variation in topography, soils, hydrology, and past or present land use practices. One plant community has been identified within the Site, upland pine/hardwood forest. Upland pine/hardwood forest occurs along the length of the western boundary of both the McCarty and Prisco properties. Upland pine/hardwood forest accounts for all 10.49 acres of the Site. Representative species within the upland slopes includes: American sycamore (*Platanus occidentalis*), beech (*Fagus grandifolia*), black cherry (*Prunus serotina*), chestnut oak (*Quercus montana*), eastern hemlock (*Tsuga Canadensis*), eastern white pine (*Pinus strobus*), hickory (*Carya* sp.), red maple (*Acer rubrum*), rhododendron (*Rhododendron maximum*), yellow poplar (*Liriodendron tulipifera*), witch-hazel (*Hamamelis virginiana*), and white oak (*Quercus alba*).

A second plant community, mountain stream side forest assemblage, occurs within the floodplain portions of both the properties between the North Toe River and the existing CSX railroad corridor. The floodplain property; however, is not included within the Site mitigation limits due to right-of-way restrictions associated with the CSX corridor. In areas where the stream side forest assemblage does exist, it creates an existing riparian buffer varying from 10 feet to greater than 120 feet in width. Representative species within this area include American sycamore, tulip poplar, hackberry (*Celtis occidentalis*), ironwood (*Carpinus caroliniana*), river birch (*Betula nigra*), giant cane (*Arundinaria gigantea*), and greenbrier (*Smilax* sp.).

### **3.7 Hurricane Flood Damage**

Before field investigations were undertaken within the McCarty Family Partnership and Prisco properties in January, two severe hurricanes passed through western North Carolina. Hurricane Francis passed through Mitchell County on September 8<sup>th</sup> and Hurricane Ivan on September 17<sup>th</sup>, 2004. Rainfall totals reached between 10-15 inches within the North Toe River drainage basin for both hurricane events. Flood waters caused significant damage throughout the North Toe River drainage basin within both Mitchell and Yancey counties. Within the site, streamside and floodplain vegetation was uprooted and deposited within the floodplain and multiple areas of severe streambank collapse occurred. Streambank collapse has led to increased erosion and subsequent sedimentation into the North Toe River.

## **4.0 CONSTRAINT EVALUATION**

### **4.1 Cultural Resources**

North Carolina State Historical Preservation Office (NCSHPO) was asked to review the project and comment on any possible impact to historical or cultural resources within the project area. NCSHPO determined, in a letter dated May 23rd, 2005 that there were no known properties of architectural, historic, or archaeological significance that would be affected by the project (see Appendix A for a copy of the response from NCSHPO).

### **4.2 Environmental Screening**

Buck Engineering obtained an Environmental Data Resources (EDR) Transaction Screen Map Report that identifies and maps real or potential hazardous environmental sites within the distance required by The American Society of Testing and Materials (ASTM) Transaction Screen Process (E 1528). The overall environmental risk for this site was determined to be **low** due to the absence of any risk sites within the following tolerances:

- 1/2 mile of a reported Superfund Site (NPL)
- 1/2 mile of a reported Hazardous Waste Treatment, Storage or Disposal Facility (RCRIS-TSDF)

- 1/4 mile of a reported known or suspect CERCLIS hazardous waste site
- 1/4 mile of a reported known or suspect State Hazardous Waste site (SHWS)
- 1/2 mile of a reported Solid Waste Facility or Landfill (SWF/LF), or
- 1/8 mile of a site with a reported Leaking Underground Storage Tank incident (LUST).

A copy of the report with an overview map is included in Appendix B.

### 4.3 Species and Areas of Interest

#### 4.3.1 Federally Endangered Species

Species with the Federal classification of Endangered (E), Threatened (T), Proposed Endangered (PE), and Proposed Threatened (PT) are protected under the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). The term “Endangered species” is defined as “any species which is in danger of extinction throughout all or a significant portion of its range”, and the term “Threatened species” is defined as “any species which is likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range” (16 U.S. C. 1532). The U.S. Fish and Wildlife Service (USFWS) lists 11 federally protected species for Mitchell County (November 2004 listing) (Table 2), one species has been located within 1.0 mile of the property boundary within the North Toe River (Appalachian elktoe – *Alasmidonta raveneliana*) (Fig. 6). A brief description of the characteristics and habitat requirements of these species follows, along with a conclusion regarding potential project impact.

Family	Scientific Name	Common Name	Federal Status	State Status
Vertebrates				
<i>Sciuridae</i>	<i>Glaucomys sabrinus coloratus</i>	Carolina northern flying squirrel	E	E
<i>Vespertilionidae</i>	<i>Myotis sodalis</i>	Indiana bat	E	E
<i>Emydidae</i>	<i>Glyptemys muhlenbergii</i>	Bog turtle	T(S/A)	T
Vascular Plants				
<i>Rosaceae</i>	<i>Geum radiatum</i>	Spreading avens	E	E-SC
<i>Rubiaceae</i>	<i>Houstonia Montana</i>	Roan Mountain bluet	E	E
<i>Asteraceae</i>	<i>Liatris helleri</i>	Heller’s Blazing Star	T	T-SC
<i>Asteraceae</i>	<i>Solidago spithamea</i>	Blue Ridge goldenrod	T	SR-P
<i>Rosaceae</i>	<i>Spiraea virginiana</i>	Virginia spiraea	T	E
Non-Vascular Plants				
<i>Cladoniaceae</i>	<i>Gymnoderma lineare</i>	Rock gnome lichen	E	T
Invertebrates				
<i>Unionidae</i>	<i>Alasmidonta raveneliana</i>	Appalachian elktoe	E	E

<b>TABLE 2</b>				
<i>Species Under Federal Protection in Mitchell County — McCarty/ Prisco Buffer Mitigation Plan</i>				
<i>Dipluridae</i>	<i>Microhexura montivaga</i>	Spruce-fir moss spider	E	SR
<b>Notes:</b>				
E	An Endangered species is one whose continued existence as a viable component of the state's flora or fauna is determined to be in jeopardy.			
T	Threatened			
PE	Proposed Endangered			
PT	Proposed Threatened			
PD	These species have been proposed for delisting from the current status.			
FSC	Federal Species of Concern			
SC	A Special Concern species is one that requires monitoring but may be taken or collected and sold under regulations adopted under the provisions of Article 25 of Chapter 113 of the General Statutes (animals) and the Plant Protection and Conservation Act (plants).			
SR	A Significantly Rare species is not listed as "E," "T," or "SC," but which exists in the state in small numbers and has been determined to need monitoring.			

***Glaucomys sabrinus coloratus* (Carolina northern flying squirrel)**

Federal Status: Endangered

Animal Family: Sciuridae

Federally Listed: July 1, 1985

The northern flying squirrel is a small nocturnal mammal that inhabits the high elevation ecotone between coniferous and northern hardwood forest. This high elevation habitat usually occurs above 5,500 feet elevation. These squirrels are 10 – 12 inches long and weigh 3 – 5 ounces. Adults are gray with a light brown to reddish cast on their backs and light gray to white or buff undersides. The broad tails and folds of skin between the wrist and ankles form wing-like surfaces that enable these animals to glide downward from tree to tree or tree to ground. These mammals eat a wide variety of foods such as lichens, mushrooms, seeds, nuts, insects, and fruit. These squirrels nest in tree cavities such as woodpecker holes and usually produce one litter in the early spring. Carolina northern flying squirrel habitat is not expected to be adversely impacted by this project.

***Myotis sodalis* (Indiana bat)**

Federal Status: Endangered

Animal Family: Vespertilionidae

Federally Listed: March 11, 1967

The Indiana bat is 3.5 inches long, with mouse-like ears, plain nose, dull grayish fur on the back and lighter cinnamon-brown fur on the belly. Its "wingspread" is 9.5 inches to 10.5 inches. From early October until late March and April, Indiana bats hibernate in large clusters of hundreds or even thousands of individuals in limestone caves and abandoned mines, usually near water. During summer the females establish maternity colonies of two dozen to several hundred individuals under the loose bark of dead and

dying trees, shaggy-barked live trees like the shagbark hickory, or in hollows in live or dead trees. Most roost trees are usually exposed to the sun and are near water. Males and non-reproductive females typically roost singly or in small groups. Roost trees can be found within riparian areas, bottomland hardwoods, and upland hardwoods (Russo 2000). Indiana bat habitat is not expected to be adversely impacted by this project.

***Glyptemys muhlenbergii* (Bog turtle)**

Federal Status: Threatened Due to Similar Appearance

Animal Family: Emydidae

Federally Listed: November 4, 1997

Bog turtles are small (3 – 4.5 inches) turtles with a weakly keeled carapace (upper shell) that ranges from light brown to ebony in color. The species is readily distinguished from other turtles by a large, conspicuous bright orange to yellow blotch on each side of its head. Bog turtles are semi-aquatic and are only infrequently active above their muddy habitats during specific times of year and temperature ranges. They can be found during the mating season from June to July and at other times from April to October, when temperatures are in the seventies and the humidity is high, such as after a rain event. Bog turtle habitat consists of bogs, swamps, marshy meadows, and other wet environments, specifically those that have soft muddy bottoms. The southern populations of bog turtles (VA, TN, NC, SC, and GA) are listed as threatened due to similar appearance to northern bog turtles that are listed as threatened. The southern bog turtle population is not fully protected under the ESA, but may not be possessed, sold, traded, or collected. In the northern states (CT, DE, MA, MD, NJ, NY, and PA) bog turtles are fully protected under the ESA (USFWS 2003).

The NHP files indicate a known population of bog turtles (first recorded in May 1993) in a marshy meadow or degraded Southern Appalachian bog (“Vein Mountain Meadow Bog”) adjacent to Second Broad River and SR 1781 in McDowell County approximately 0.5 miles (0.8 kilometers) south of SR 1802 junction. Dennis Herman of the NC Museum of Natural Sciences stated that this is a known reproducing population. He said that these turtles are utilizing the Second Broad River floodplain near the project area. He also stated that transient bog turtles may use stream corridors, roadside ditches, and even travel overland in dispersal route (source: personal communication with Dennis Herman on June 19, 2002). Bog turtle habitat is not expected to be adversely impacted by this project.

***Geum radiatum* (Spreading avens)**

Federal Status: Endangered

Plant Family: Rosaceae

Federally Listed: April 5, 1990

***Spiraea virginiana* (Virginia spiraea)**

Federal Status: Threatened

Plant Family: Rosaceae

Federally Listed: July 16, 1990

Virginia spiraea is a perennial shrub of the rose family that grows 2 – 10 feet tall with arching, upright stems. Leaves may be shaped in a narrow ellipse, with a tapered base and a short bur at the end of the tip; leaf shape can be variable, however. Leaf edges may be toothed. There is a whitish bloom (powdery layer) on the leaf undersurface. The flowers grow in flat-topped clusters at the ends of a branching stalk. There are five petals and sepals. Petals are white, occasionally pink, and 0.04 – 0.12 inches long. Plants may grow in dense clumps. Flowering occurs from late May through July while fruiting occurs from August through September (NHP 2001).

Virginia spiraea is rare because it reproduces asexually, has a narrowly defined habitat niche subject to natural disturbance, limited opportunities for colonization, and competition from other species. Although seeds are plentiful in number, few mature. There has been little success in attempts to propagate seeds (NHP 2001).

Preferred habitats for Virginia spiraea include flood-scoured, high-gradient rocky riverbanks; braided areas of lower stream reaches, gorges, and canyons; as well as disturbed rights-of-way. It grows in thickets, in association with a variety of grape species (*Vitis* spp.) and royal fern (*Osmunda regalis*), among other plant associations. Virginia spiraea occurs in sunny areas on moist, acid soils, primarily over sandstone. Habitat is critical and restricts the species to a narrow ecological niche (NHP 2001). Virginia spiraea habitat is not expected to be adversely impacted by this project.

***Gymnoderma lineare* (Rock gnome lichen)**

Federal Status: Endangered

Lichen Family: Cladoniaceae

Federally Listed: January 18, 1995

Rock gnome lichen is a squamulose lichen of the reindeer moss family. This species is the only member of its genus occurring in North America. It occurs in small, dense colonies of narrow, strappy, leaf-like pads. These strap-like lobes are usually blue-gray on the upper surface and generally shiny white on the lower surfaces. The fruiting-bodies are borne at the tips of the strap-like lobes and are black, in contrast to the red to brown fruiting-bodies of other reindeer moss lichens. These lichens fruit from July through September. The rock gnome lichen is endemic to the southern Appalachian Mountains of North Carolina and Tennessee. They primarily inhabit vertical rock faces in areas of high humidity such as river gorges or areas frequently bathed in fog. Most populations occur above an elevation of 5,000 feet (Russo 2000). Rock gnome lichen habitat is not expected to be adversely impacted by this project.

#### 4.5.3 State Protected Species

Plant and animal species which are on the North Carolina State list as Endangered (E), Threatened (T), Special Concern (SC), Candidate (C), Significantly Rare (SR), or Proposed (P) (Amoroso 1999, Legrand and Hall 1999) receive limited protection under the North Carolina Endangered Species Act (G.S. 113-331 *et seq.*) and the North Carolina Plant Protection Act of 1979 (G.S. 106-202 *et seq.*). Based on NHP records, 3 documented occurrences of State-list species occur along the property boundaries or within 1.0 mile of the Site (Fig. 6).

<u>Common Name</u>	<u>Scientific Name</u>	<u>State Status</u>	<u>Potential Habitat</u>
Hellbender	<i>Cryptobranchus alleghansis</i>	SC	Yes
Olive darter	<i>Percina squamata</i>	SC	Yes
Appalachian elktoe	<i>Alasmidonta raveneliana</i>	E	Yes

#### 4.5.4 Priority Areas

A record search of NHP files indicates that the North Toe River is a NHP IPA (Identified Priority Area: The Nolichucky - North Toe River Aquatic Habitat) (Fig. 6). Discussions with the U.S. Fish and Wildlife Service also indicate that the North Toe River along the property boundaries has been identified as critical habitat for the Appalachian elktoe (*Alasmidonta raveneliana*). The Appalachian elktoe is listed as State and Federal "Endangered".



**Legend**

 Property Boundary

**USFWS-NHP**

**Species of Interest**

 Appalachian Elktoe

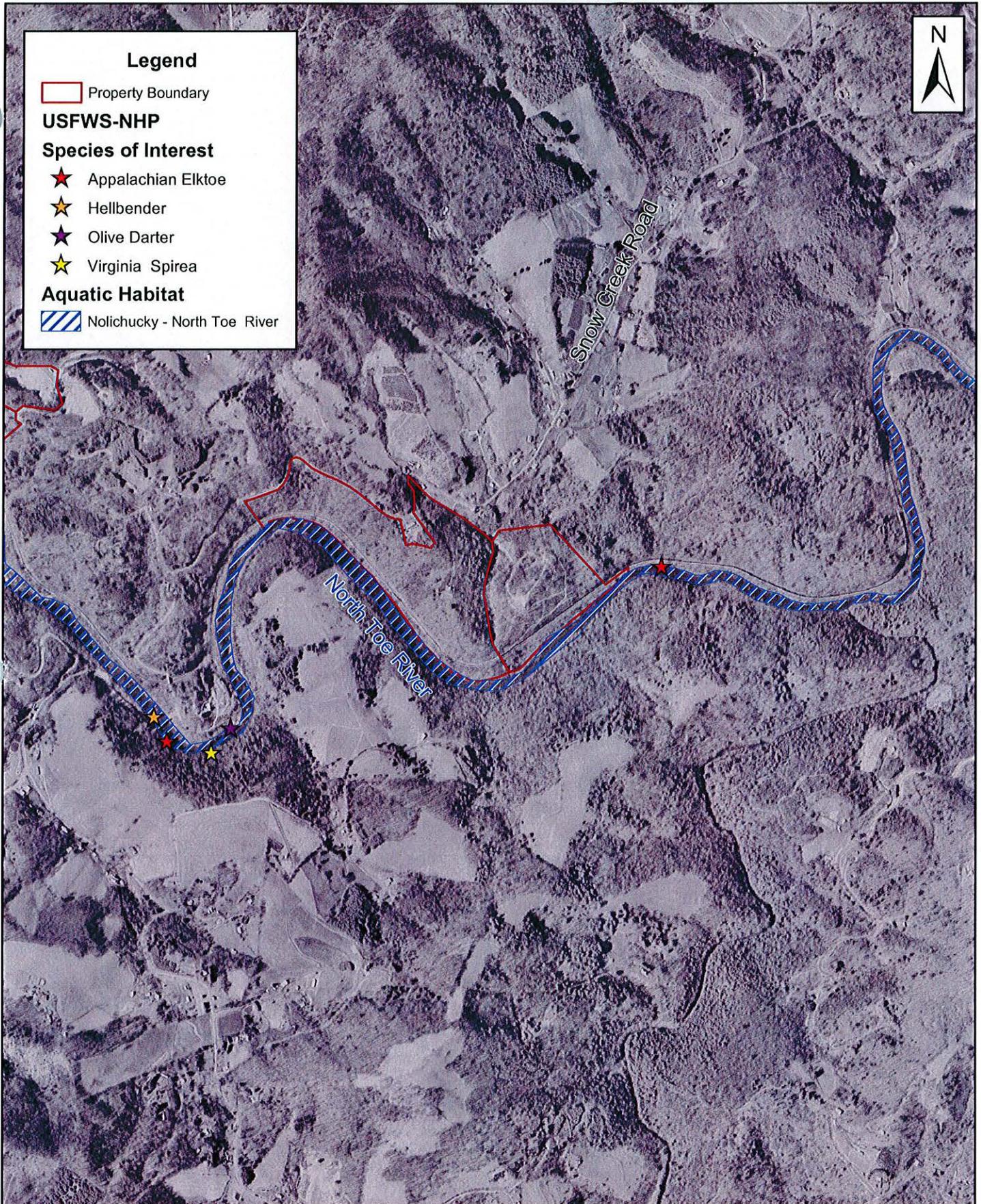
 Hellbender

 Olive Darter

 Virginia Spirea

**Aquatic Habitat**

 Nolichucky - North Toe River



0 1,000 2,000 Feet



NC Department of Transportation  
Project Development and  
Environmental Analysis Branch

**McCarty/Prisco Site**  
North Toe River  
French Broad River Basin  
Mitchell County, North Carolina

Dwn by: CR  
Ckd by: WE  
Date: August 2005  
Project: 00229.00

**FIGURE**

**6**

Species of Interest

## **5.0 MITIGATION PLAN**

The primary goals of this mitigation plan include the continued preservation of water quality functions associated with a mature forested riparian buffer in the on-site and downstream segments of the North Toe River and the preservation of a natural vegetated buffer along the hillside slope within the property boundaries. The complete mitigation plan is depicted in Figure 7. Components of this plan may be modified based on access constraints. Primary activities designed within the Site are limited to plant community preservation.

### **5.1 Riparian Buffer Preservation**

Approximately 4,576 linear feet of hillside slope along the North Toe River is recommended for a 100 foot riparian buffer preservation easement within the McCarty Family Partnership and Prisco properties (Fig. 7). Approximately 3,075 linear feet (7.04 acres) of hillside slope is located within the McCarty Family Partnership and approximately 1,501 linear feet (3.43 acres) of hillside slope is located within the Prisco property.

In addition, the McCarty Family Partnership is also interested in placing a 50 foot buffer along both banks of Pennywinkle Branch (approximately 548 linear feet – 1.25 acres), a 50 foot buffer along the western bank of Lily Branch (approximately 1,134 linear feet – 1.29 acres) and a 50 foot buffer along the southern bank of the unnamed tributary to Lily Branch (approximately 1,030 linear feet – 1.17 acres) within the buffer program. Approximately 10.75 acres of the McCarty property appear to be available for riparian buffer preservation.

Mr. Prisco is also interested in placing a 50 foot buffer along the eastern bank of Lily Branch (approximately 1,247 linear feet – 1.42 acres) along the property boundary. Approximately 4.85 acres of the Prisco property appear to be available for riparian buffer preservation.

The stability of areas designated for preservation within both the McCarty Family Partnership and Prisco properties is dependent upon the existence of a mature riparian buffer. Based on preliminary analysis and field investigations, the designated areas appear relatively stable.

## **6.0 LANDOWNER CONCERNS**

Discussions with Mr. McCarty indicate that he would like to have some of the damage from the floods cleaned up as part of his participation in the buffer program. Damage incurred includes tree removal and stream bank erosion. Mr. Prisco also expressed concern related to hurricane flood damage to his property within the floodplain between the CSX railroad corridor and the North Toe River. Mr. Prisco would like to have some trees that were deposited within the floodplain removed. Mr. Prisco expressed concern regarding an ephemeral drainage that was also blown out by the hurricane floods and whether its repair could be included in the buffer program.

## **7.0 FINAL DISPENSATION OF THE PROPERTY**

The NCDOT will maintain the Site conservation easement until all riparian buffer mitigation activities are completed and the Site is determined to be successful. Both the McCarty Family Partnership and Mr. Prisco are expected to retain ownership of the parcel. Upon completion of the monitoring period, the conservation easement will be turned over to a qualified non-profit entity mutually agreed upon by the Banks family and the NCDOT. Covenants and/or restrictions on the property deeds will be included which will ensure adequate management and protection of the Site in perpetuity. The conservation easement is expected to be transferred perpetually with the property upon any future sale of the McCarty Family Partnership or the Prisco property.

## 8.0 REFERENCES

- Amoroso, J.L. 1999. Natural Heritage Program List of Rare Plant Species of North Carolina. North Carolina Natural Heritage Program, Division of Parks and Recreation, Department of Environment, Health, and Natural Resources. Raleigh, North Carolina.
- Basinwide Assessment Report – French Broad River Basin. 2003. Division of Water Quality. NC Department of Environment and Natural Resources. Raleigh, North Carolina.
- LeGrand, H.E. and S.P. Hall. 1999. Natural Heritage Program List of Rare Animal Species of North Carolina. North Carolina Natural Heritage Program, Division of Parks and Recreation. Department of Environment, Health, and Natural Resources. Raleigh, North Carolina.
- Natural Resources Conservation Service (NRCS). 2003. Soil Survey of Mitchell County, North Carolina. United States Department of Agriculture.
- North Carolina Natural Heritage Program (NHP). 2001. Guide to Federally Listed Endangered Species of North Carolina. Division of Parks and Recreation, NC Department of Environment, Health, and Natural Resources. Raleigh, North Carolina. 133 pp.
- Russo, M. 2000. Threatened and Endangered Species in Forests of North Carolina: A Guide to Assist with Forestry Activities. Edited by J.M. Sweeney. International Paper Company. 183 pp.
- Schafale, M.P. and A.S. Weakley. 1990. Classification of the Natural Communities of North Carolina: Third Approximation. North Carolina Natural Heritage Program, Division of Parks and Recreation, NC Department of Environment, Health, and Natural Resources. Raleigh, North Carolina.
- Soil Conservation Service (SCS). 1987. Hydric Soils of the United States. In cooperation with the National Committee for Hydric Soils. United States Department of Agriculture.
- US Fish and Wildlife Service (USFWS). 2003. Threatened and Endangered Species in North Carolina – Mitchell County. <http://nc-es.fws.gov/es/countyfr.html>.

**APPENDIX A**



North Carolina Department of Cultural Resources  
State Historic Preservation Office

Peter B. Sandbeck, Administrator

Office of Archives and History  
Division of Historical Resources  
David Brook, Director

Michael F. Easley, Governor  
Lisbeth C. Evans, Secretary  
Jeffrey J. Crow, Deputy Secretary

May 23, 2005

Staci N. Ricks  
Buck Engineering  
8000 Regency Parkway, Suite 200  
Cary, NC 27511

Re: Bridge Replacements, B-1443, B-2848, Riparian Buffer Mitigation on Hensley, Emerson, Bingham, Gordon, and McCarty Properties, Yancey County, ER 05-0536

Dear Ms. Ricks:

Thank you for your letter of March 8, 2005, concerning the above project.

We have conducted a review of the proposed undertaking and are aware of no historic resources which would be affected by the project. Therefore, we have no comment on the undertaking as proposed.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919/733-4763. In all future communication concerning this project, please cite the above referenced tracking number.

Sincerely,

*PS*  
*for Peter B. Sandbeck*

Peter Sandbeck

cc: Mary Pope Furr, NCDOT  
Matt Wilkerson, NCDOT

	Location	Mailing Address	Telephone/Fax
ADMINISTRATION	507 N. Blount Street, Raleigh NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-4763/733-8653
RESTORATION	515 N. Blount Street, Raleigh NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-6547/715-4801
SURVEY & PLANNING	515 N. Blount Street, Raleigh, NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-6545/715-4801

**APPENDIX B**



**EDR™** Environmental  
Data Resources Inc

**The EDR Radius Map™  
Report  
with Geocheck®  
and ToxiCheck®**

**McCarty  
100 Slagel Road  
Penland, NC 28714**

**Inquiry Number: 01354030.1r**

**February 04, 2005**

**The Standard in  
Environmental Risk  
Management Information**

440 Wheelers Farms Road  
Milford, Connecticut 06460

**Nationwide Customer Service**

Telephone: 1-800-352-0050  
Fax: 1-800-231-6802  
Internet: [www.edrnet.com](http://www.edrnet.com)

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***Thank you for your business.***  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

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## EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

### TARGET PROPERTY INFORMATION

#### ADDRESS

100 SLAGEL ROAD  
PENLAND, NC 28714

#### COORDINATES

Latitude (North): 35.931300 - 35° 55' 52.7"  
Longitude (West): 82.160400 - 82° 9' 37.4"  
Universal Transverse Mercator: Zone 17  
UTM X (Meters): 395320.5  
UTM Y (Meters): 3976750.5  
Elevation: 2478 ft. above sea level

### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property: 35082-H2 MICAVILLE, NC  
Source: USGS 7.5 min quad index

### TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

### DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ( "reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

#### FEDERAL ASTM STANDARD

NPL..... National Priority List  
Proposed NPL..... Proposed National Priority List Sites  
CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System  
CERC-NFRAP..... CERCLIS No Further Remedial Action Planned  
CORRACTS..... Corrective Action Report  
RCRA-TSDF..... Resource Conservation and Recovery Act Information  
RCRA-LQG..... Resource Conservation and Recovery Act Information  
RCRA-SQG..... Resource Conservation and Recovery Act Information  
ERNS..... Emergency Response Notification System

#### STATE ASTM STANDARD

SHWS..... Inactive Hazardous Sites Inventory

## EXECUTIVE SUMMARY

<b>SWF/LF</b> .....	List of Solid Waste Facilities
<b>LUST</b> .....	Regional UST Database
<b>UST</b> .....	Petroleum Underground Storage Tank Database
<b>OLI</b> .....	Old Landfill Inventory
<b>VCP</b> .....	Responsible Party Voluntary Action Sites
<b>INDIAN LUST</b> .....	Leaking Underground Storage Tanks on Indian Land
<b>INDIAN UST</b> .....	Underground Storage Tanks on Indian Land

### FEDERAL ASTM SUPPLEMENTAL

<b>CONSENT</b> .....	Superfund (CERCLA) Consent Decrees
<b>ROD</b> .....	Records Of Decision
<b>Delisted NPL</b> .....	National Priority List Deletions
<b>FINDS</b> .....	Facility Index System/Facility Identification Initiative Program Summary Report
<b>HMIRS</b> .....	Hazardous Materials Information Reporting System
<b>MLTS</b> .....	Material Licensing Tracking System
<b>MINES</b> .....	Mines Master Index File
<b>NPL Liens</b> .....	Federal Superfund Liens
<b>PADS</b> .....	PCB Activity Database System
<b>ODI</b> .....	Open Dump Inventory
<b>UMTRA</b> .....	Uranium Mill Tailings Sites
<b>FUDS</b> .....	Formerly Used Defense Sites
<b>INDIAN RESERV</b> .....	Indian Reservations
<b>DOD</b> .....	Department of Defense Sites
<b>RAATS</b> .....	RCRA Administrative Action Tracking System
<b>TRIS</b> .....	Toxic Chemical Release Inventory System
<b>TSCA</b> .....	Toxic Substances Control Act
<b>SSTS</b> .....	Section 7 Tracking Systems
<b>FTTS INSP</b> .....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

### STATE OR LOCAL ASTM SUPPLEMENTAL

<b>NC HSDS</b> .....	Hazardous Substance Disposal Site
<b>AST</b> .....	AST Database
<b>LUST TRUST</b> .....	State Trust Fund Database
<b>DRYCLEANERS</b> .....	Drycleaning Sites
<b>IMD</b> .....	Incident Management Database

### EDR PROPRIETARY HISTORICAL DATABASES

<b>Coal Gas</b> .....	Former Manufactured Gas (Coal Gas) Sites
-----------------------	--

### BROWNFIELDS DATABASES

<b>US BROWNFIELDS</b> .....	A Listing of Brownfields Sites
<b>Brownfields</b> .....	Brownfields Projects Inventory
<b>INST CONTROL</b> .....	No Further Action Sites With Land Use Restrictions Monitoring
<b>VCP</b> .....	Responsible Party Voluntary Action Sites

### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were not identified.

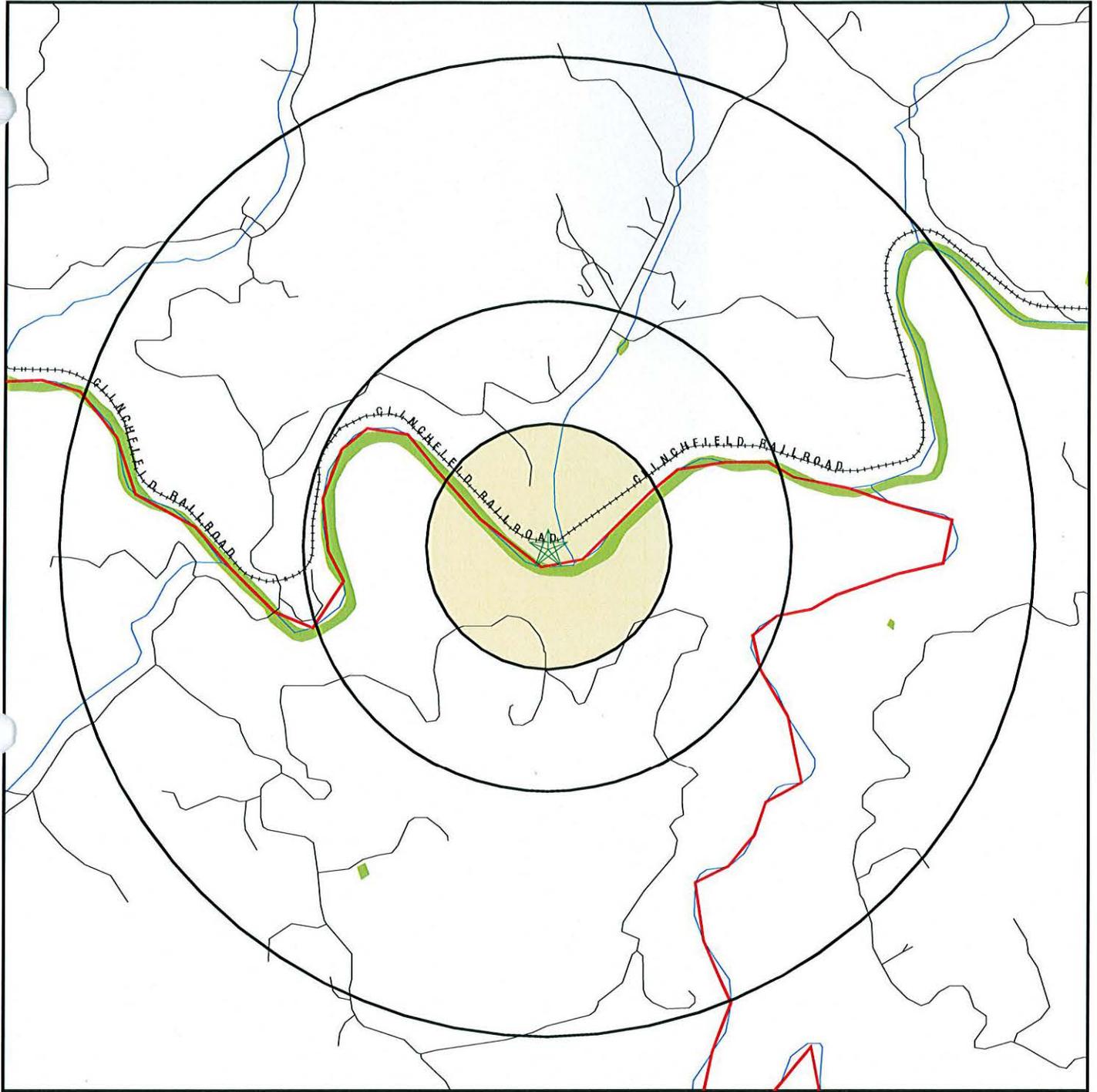
Unmappable (orphan) sites are not considered in the foregoing analysis.

## EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

<u>Site Name</u>	<u>Database(s)</u>
HENREDON FURNITURE INDUSTRIES	SHWS, UST
CARTERS RIDGE ROAD SITE	SHWS
HUMBACK MOUNTAIN ROAD DRUM	SHWS
ETHAN ALLEN-SPRUCE PINE	SHWS
CAROLINA P&L CO. SPRUCE PINE	SHWS
YANCEY-MITCHELL C&D LANDFILL	SWF/LF
YANCEY-MITCHELL TRANSFER STATION	SWF/LF
YANCEY/MITCHELL SANITARY LANDFILL	SWF/LF
GLEN AYRE GROC & HARDWARE	IMD, LUST, UST
ROAN VIEW GROC.	IMD, LUST, UST
CLEARMONT ELEMENTARY SCHOOL	IMD, LUST
NCDOT-BURNSVILLE WASTE OIL	IMD, LUST
MT. MITCHELL STATE PARK	IMD, LUST
JACKSON GENERAL STORE	IMD, LUST
B & B GROCERY	IMD, LUST, UST
MT MITCHELL STATE PARK	IMD, LUST
THOMAS GROCERY	UST
STEVE'S EXXON	UST
MILLER BROTHERS EXXON	UST
MITCHELL COUNTY JAIL	UST
GOUGE DRY GOODS	UST
CLAREMONT ELEMENTARY SCHOOL	UST
MOUNT MITCHELL STATE PARK	UST
CLAY MILLER GROCERY	UST
WESTALL GROCERY	UST
BOONFORD PLANT	UST
HENRY BOONE PROPERTY	IMD
CLARK C.W.F. SPILL	IMD

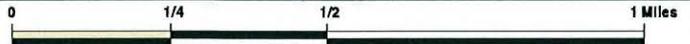
# OVERVIEW MAP - 01354030.1r - Buck Engineering



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites
-  National Priority List Sites
-  Landfill Sites
-  Dept. Defense Sites

-  Indian Reservations BIA
-  County Boundary
-  Oil & Gas pipelines
-  Federal Wetlands

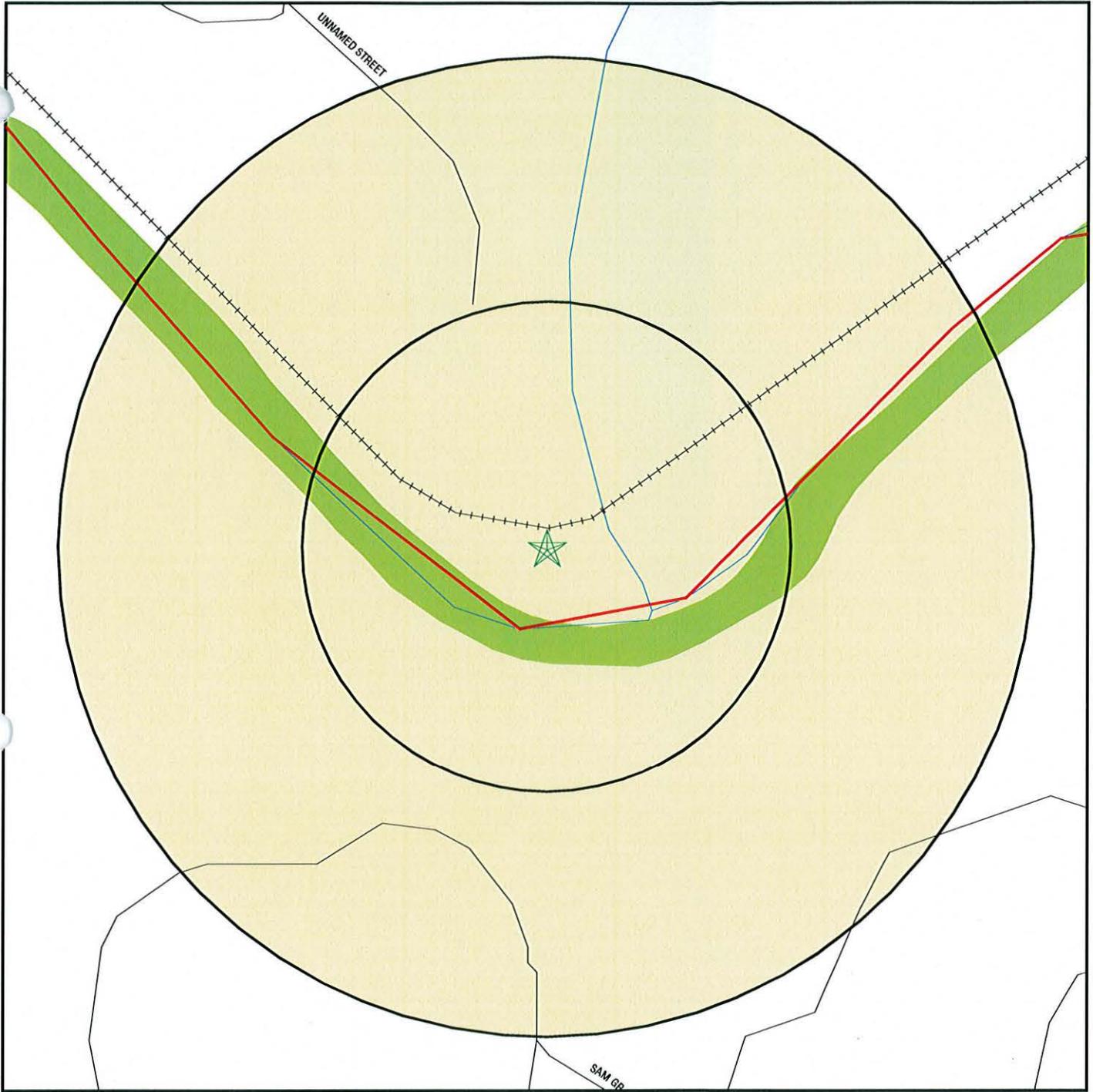
-  Hazardous Substance Disposal Sites



**TARGET PROPERTY:** McCarty  
**ADDRESS:** 100 Slagel Road  
**CITY/STATE/ZIP:** Penland NC 28714  
**LAT/LONG:** 35.9313 / 82.1604

**CUSTOMER:** Buck Engineering  
**CONTACT:** Staci Ricks  
**INQUIRY #:** 01354030.1r  
**DATE:** February 04, 2005 2:05 pm

**DETAIL MAP - 01354030.1r - Buck Engineering**



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites
- ♣ Sensitive Receptors
- ☒ National Priority List Sites
- ☒ Landfill Sites
- ☒ Dept. Defense Sites
- ☒ Indian Reservations BIA
- ☒ County Boundary
- ☒ Oil & Gas pipelines
- ☒ Federal Wetlands
- ☒ Hazardous Substance Disposal Sites



<b>TARGET PROPERTY:</b> McCarty <b>ADDRESS:</b> 100 Slagel Road <b>CITY/STATE/ZIP:</b> Penland NC 28714 <b>LAT/LONG:</b> 35.9313 / 82.1604	<b>CUSTOMER:</b> Buck Engineering <b>CONTACT:</b> Staci Ricks <b>INQUIRY #:</b> 01354030.1r <b>DATE:</b> February 04, 2005 2:05 pm
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## MAP FINDINGS SUMMARY

<u>Database</u>	<u>Target Property</u>	<u>Search Distance (Miles)</u>	<u>&lt; 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>&gt; 1</u>	<u>Total Plotted</u>
<b><u>FEDERAL ASTM STANDARD</u></b>								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
CERCLIS		0.500	0	0	0	NR	NR	0
CERC-NFRAP		0.250	0	0	NR	NR	NR	0
CORRACTS		1.000	0	0	0	0	NR	0
RCRA TSD		0.500	0	0	0	NR	NR	0
RCRA Lg. Quan. Gen.		0.250	0	0	NR	NR	NR	0
RCRA Sm. Quan. Gen.		0.250	0	0	NR	NR	NR	0
ERNS		TP	NR	NR	NR	NR	NR	0
<b><u>STATE ASTM STANDARD</u></b>								
State Haz. Waste		1.000	0	0	0	0	NR	0
State Landfill		0.500	0	0	0	NR	NR	0
LUST		0.500	0	0	0	NR	NR	0
UST		0.250	0	0	NR	NR	NR	0
OLI		0.500	0	0	0	NR	NR	0
VCP		0.500	0	0	0	NR	NR	0
INDIAN LUST		0.500	0	0	0	NR	NR	0
INDIAN UST		0.250	0	0	NR	NR	NR	0
<b><u>FEDERAL ASTM SUPPLEMENTAL</u></b>								
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
HMIRS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
NPL Liens		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
ODI		0.500	0	0	0	NR	NR	0
UMTRA		0.500	0	0	0	NR	NR	0
FUDS		1.000	0	0	0	0	NR	0
INDIAN RESERV		1.000	0	0	0	0	NR	0
DOD		1.000	0	0	0	0	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
<b><u>STATE OR LOCAL ASTM SUPPLEMENTAL</u></b>								
NC HSDS		1.000	0	0	0	0	NR	0

## MAP FINDINGS SUMMARY

<u>Database</u>	<u>Target Property</u>	<u>Search Distance (Miles)</u>	<u>&lt; 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>&gt; 1</u>	<u>Total Plotted</u>
AST		TP	NR	NR	NR	NR	NR	0
LUST TRUST		0.500	0	0	0	NR	NR	0
DRYCLEANERS		0.250	0	0	NR	NR	NR	0
IMD		0.500	0	0	0	NR	NR	0
<b><u>EDR PROPRIETARY HISTORICAL DATABASES</u></b>								
Coal Gas		1.000	0	0	0	0	NR	0
<b><u>BROWNFIELDS DATABASES</u></b>								
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
Brownfields		0.500	0	0	0	NR	NR	0
INST CONTROL		0.500	0	0	0	NR	NR	0
VCP		0.500	0	0	0	NR	NR	0

**NOTES:**

AQUIFLOW - see EDR Physical Setting Source Addendum

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Site \_\_\_\_\_ Database(s) \_\_\_\_\_ EDR ID Number  
EPA ID Number

**Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.**

NO SITES FOUND

## ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BAKERSVILLE	U001186528	GLEN AYRE GROC & HARDWARE	RTE 1 BOX 52A	28705	IMD, LUST, UST
BAKERSVILLE	U003143016	THOMAS GROCERY	RT 1 BOX 91	28705	UST
BAKERSVILLE	U001199486	STEVE'S EXXON	ROUTE 2 BOX 281	28705	UST
BAKERSVILLE	U001200840	ROAN VIEW GROC.	RT 2	28705	IMD, LUST, UST
BAKERSVILLE	U003562847	MILLER BROTHERS EXXON	ROUTE 2	28705	UST
BAKERSVILLE	U001205863	MITCHELL COUNTY JAIL	20 NORTH 226TH HIGHWAY	28705	UST
BAKERSVILLE	S103131565	HENRY BOONE PROPERTY	ROUTE 3, HIGHWAY 80	28705	IMD
BRUNSVILLE	U003202431	GOUGE DRY GOODS	RT 2 BOX 781	28714	UST
BURNSVILLE	S105764035	CLEARMONT ELEMENTARY SCHOOL	ROUTE 1	28714	IMD, LUST
BURNSVILLE	U003007898	CLAREMONT ELEMENTARY SCHOOL	ROUTE 1	28714	UST
BURNSVILLE	S106349186	NCDOT-BURNSVILLE WASTE OIL	ROUTE 10 BOX 324	28714	IMD, LUST
BURNSVILLE	S105893505	MT. MITCHELL STATE PARK	HWY 128	28714	IMD, LUST
BURNSVILLE	U001205993	MOUNT MITCHELL STATE PARK	HIGHWAY 128	28714	UST
BURNSVILLE	S105893601	JACKSON GENERAL STORE	ROUTE 4	28714	IMD, LUST
BURNSVILLE	U001187994	CLAY MILLER GROCERY	ROUTE 4, BOX 405	28714	UST
BURNSVILLE	S103131074	CLARK C.W.F. SPILL	RT 5 BOX 344	28714	IMD
BURNSVILLE	U001189429	B & B GROCERY	RT 5 S TOE RIVER ROAD	28714	IMD, LUST, UST
BURNSVILLE	U001189909	WESTALL GROCERY	ROUTE 5	28714	UST
BURNSVILLE	S105764158	MT MITCHELL STATE PARK	ROUTE 5, BOX 700	28714	IMD, LUST
BURNSVILLE	S105164075	YANCEY-MITCHELL C&D LANDFILL	HWY 80 / ARBUCKLE RD.	28714	SWF/LF
BURNSVILLE	S106021268	YANCEY-MITCHELL TRANSFER STATION	HWY 80 N/ARBUCKLE RD.	28714	SWF/LF
BURNSVILLE	U001188165	BOONFORD PLANT	HIGHWAY 80 NORTH	28714	UST
BURNSVILLE	S105164077	YANCEY/MITCHELL SANITARY LANDFILL	HWY 80/ ARBUCKLE RD.	28714	SWF/LF
SPRUCE PINE	U003561984	HENREDON FURNITURE INDUSTRIES	ALTAPASS ROAD	28777	SHWS, UST
SPRUCE PINE	S105739236	CARTERS RIDGE ROAD SITE	CARTER'S RIDGE ROAD	28777	SHWS
SPRUCE PINE	S104919020	HUMPBAC MOUNTAIN ROAD DRUM	4 MI EAST OF SPRUCE PINE	28777	SHWS
SPRUCE PINE	S103229174	ETHAN ALLEN-SPRUCE PINE	200 ETHAN ALLEN DRIVE	28777	SHWS
SPRUCE PINE	S103554265	CAROLINA P&L CO. SPRUCE PINE	MOUNTAIN LAUREL DR	28777	SHWS

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Elapsed ASTM days:** Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

## **FEDERAL ASTM STANDARD RECORDS**

### **NPL: National Priority List**

Source: EPA

Telephone: N/A

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/14/04

Date Made Active at EDR: 02/03/05

Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 02/01/05

Elapsed ASTM days: 2

Date of Last EDR Contact: 02/01/05

### **NPL Site Boundaries**

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-564-7333

EPA Region 1

Telephone 617-918-1143

EPA Region 3

Telephone 215-814-5418

EPA Region 4

Telephone 404-562-8033

EPA Region 6

Telephone: 214-655-6659

EPA Region 8

Telephone: 303-312-6774

### **Proposed NPL: Proposed National Priority List Sites**

Source: EPA

Telephone: N/A

Date of Government Version: 12/14/04

Date Made Active at EDR: 02/03/05

Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 02/01/05

Elapsed ASTM days: 2

Date of Last EDR Contact: 02/01/05

### **CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System**

Source: EPA

Telephone: 703-413-0223

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 08/10/04

Date Made Active at EDR: 10/27/04

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 09/21/04

Elapsed ASTM days: 36

Date of Last EDR Contact: 12/21/04

### **CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned**

Source: EPA

Telephone: 703-413-0223

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/10/04  
Date Made Active at EDR: 10/27/04  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 09/21/04  
Elapsed ASTM days: 36  
Date of Last EDR Contact: 12/21/04

**CORRACTS:** Corrective Action Report

Source: EPA

Telephone: 800-424-9346

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/23/04  
Date Made Active at EDR: 11/18/04  
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 10/07/04  
Elapsed ASTM days: 42  
Date of Last EDR Contact: 12/07/04

**RCRA:** Resource Conservation and Recovery Act Information

Source: EPA

Telephone: 800-424-9346

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 11/23/04  
Date Made Active at EDR: 01/18/05  
Database Release Frequency: Varies

Date of Data Arrival at EDR: 11/24/04  
Elapsed ASTM days: 55  
Date of Last EDR Contact: 11/24/04

**ERNS:** Emergency Response Notification System

Source: National Response Center, United States Coast Guard

Telephone: 202-260-2342

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/03  
Date Made Active at EDR: 03/12/04  
Database Release Frequency: Annually

Date of Data Arrival at EDR: 01/26/04  
Elapsed ASTM days: 46  
Date of Last EDR Contact: 10/25/04

**FEDERAL ASTM SUPPLEMENTAL RECORDS**

**BRS:** Biennial Reporting System

Source: EPA/NTIS

Telephone: 800-424-9346

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/01/01  
Database Release Frequency: Biennially

Date of Last EDR Contact: 12/13/04  
Date of Next Scheduled EDR Contact: 03/14/05

**CONSENT:** Superfund (CERCLA) Consent Decrees

Source: Department of Justice, Consent Decree Library

Telephone: Varies

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/05/04  
Database Release Frequency: Varies

Date of Last EDR Contact: 10/25/04  
Date of Next Scheduled EDR Contact: 01/24/05

**ROD: Records Of Decision**

Source: EPA  
Telephone: 703-416-0223

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 09/09/04  
Database Release Frequency: Annually

Date of Last EDR Contact: 01/05/05  
Date of Next Scheduled EDR Contact: 04/04/05

**DELISTED NPL: National Priority List Deletions**

Source: EPA  
Telephone: N/A

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/14/04  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 02/01/05  
Date of Next Scheduled EDR Contact: 05/02/05

**FINDS: Facility Index System/Facility Identification Initiative Program Summary Report**

Source: EPA  
Telephone: N/A

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 09/09/04  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 01/03/05  
Date of Next Scheduled EDR Contact: 04/04/05

**HMIRS: Hazardous Materials Information Reporting System**

Source: U.S. Department of Transportation  
Telephone: 202-366-4555

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 09/08/04  
Database Release Frequency: Annually

Date of Last EDR Contact: 10/28/04  
Date of Next Scheduled EDR Contact: 01/17/05

**MLTS: Material Licensing Tracking System**

Source: Nuclear Regulatory Commission  
Telephone: 301-415-7169

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/15/04  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 01/03/05  
Date of Next Scheduled EDR Contact: 04/04/05

**MINES: Mines Master Index File**

Source: Department of Labor, Mine Safety and Health Administration  
Telephone: 303-231-5959

Date of Government Version: 09/13/04  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 12/28/04  
Date of Next Scheduled EDR Contact: 03/28/05

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### **NPL LIENS:** Federal Superfund Liens

Source: EPA

Telephone: 202-564-4267

Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91

Database Release Frequency: No Update Planned

Date of Last EDR Contact: 11/22/04

Date of Next Scheduled EDR Contact: 02/21/05

### **PADS:** PCB Activity Database System

Source: EPA

Telephone: 202-564-3887

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 09/30/04

Database Release Frequency: Annually

Date of Last EDR Contact: 11/12/04

Date of Next Scheduled EDR Contact: 02/07/05

### **DOD:** Department of Defense Sites

Source: USGS

Telephone: 703-692-8801

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 10/01/03

Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 11/12/04

Date of Next Scheduled EDR Contact: 02/07/05

### **UMTRA:** Uranium Mill Tailings Sites

Source: Department of Energy

Telephone: 505-845-0011

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized. In 1978, 24 inactive uranium mill tailings sites in Oregon, Idaho, Wyoming, Utah, Colorado, New Mexico, Texas, North Dakota, South Dakota, Pennsylvania, and on Navajo and Hopi tribal lands, were targeted for cleanup by the Department of Energy.

Date of Government Version: 04/22/04

Database Release Frequency: Varies

Date of Last EDR Contact: 12/21/04

Date of Next Scheduled EDR Contact: 03/21/05

### **ODI:** Open Dump Inventory

Source: Environmental Protection Agency

Telephone: 800-424-9346

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/85

Database Release Frequency: No Update Planned

Date of Last EDR Contact: 05/23/95

Date of Next Scheduled EDR Contact: N/A

### **FUDS:** Formerly Used Defense Sites

Source: U.S. Army Corps of Engineers

Telephone: 202-528-4285

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/03

Database Release Frequency: Varies

Date of Last EDR Contact: 01/03/05

Date of Next Scheduled EDR Contact: 04/04/05

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### **INDIAN RESERV:** Indian Reservations

Source: USGS

Telephone: 202-208-3710

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 10/01/03

Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 11/12/04

Date of Next Scheduled EDR Contact: 02/07/05

### **RAATS:** RCRA Administrative Action Tracking System

Source: EPA

Telephone: 202-564-4104

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95

Database Release Frequency: No Update Planned

Date of Last EDR Contact: 12/06/04

Date of Next Scheduled EDR Contact: 03/07/05

### **TRIS:** Toxic Chemical Release Inventory System

Source: EPA

Telephone: 202-566-0250

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/02

Database Release Frequency: Annually

Date of Last EDR Contact: 12/20/04

Date of Next Scheduled EDR Contact: 03/21/05

### **TSCA:** Toxic Substances Control Act

Source: EPA

Telephone: 202-260-5521

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/02

Database Release Frequency: Every 4 Years

Date of Last EDR Contact: 12/06/04

Date of Next Scheduled EDR Contact: 03/07/05

### **FTTS INSP:** FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Source: EPA

Telephone: 202-564-2501

Date of Government Version: 04/13/04

Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/01/04

Date of Next Scheduled EDR Contact: 03/21/05

### **SSTS:** Section 7 Tracking Systems

Source: EPA

Telephone: 202-564-5008

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/03

Database Release Frequency: Annually

Date of Last EDR Contact: 11/29/04

Date of Next Scheduled EDR Contact: 04/18/05

### **FTTS:** FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Source: EPA/Office of Prevention, Pesticides and Toxic Substances

Telephone: 202-564-2501

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/13/04  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/01/04  
Date of Next Scheduled EDR Contact: 03/21/05

## STATE OF NORTH CAROLINA ASTM STANDARD RECORDS

### **SHWS:** Inactive Hazardous Sites Inventory

Source: Department of Environment, Health and Natural Resources  
Telephone: 919-733-2801

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 09/30/04  
Date Made Active at EDR: 11/24/04  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 10/22/04  
Elapsed ASTM days: 33  
Date of Last EDR Contact: 01/10/05

### **SWF/LF:** List of Solid Waste Facilities

Source: Department of Environment and Natural Resources  
Telephone: 919-733-0692

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 07/27/04  
Date Made Active at EDR: 08/31/04  
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 07/27/04  
Elapsed ASTM days: 35  
Date of Last EDR Contact: 10/25/04

### **LUST:** Regional UST Database

Source: Department of Environment and Natural Resources  
Telephone: 919-733-1308

This database contains information obtained from the Regional Offices. It provides a more detailed explanation of current and historic activity for individual sites, as well as what was previously found in the Incident Management Database. Sites in this database with Incident Numbers are considered LUSTs.

Date of Government Version: 11/03/04  
Date Made Active at EDR: 01/25/05  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 12/08/04  
Elapsed ASTM days: 48  
Date of Last EDR Contact: 12/08/04

### **UST:** Petroleum Underground Storage Tank Database

Source: Department of Environment and Natural Resources  
Telephone: 919-733-1308

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 11/03/04  
Date Made Active at EDR: 01/20/05  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 12/08/04  
Elapsed ASTM days: 43  
Date of Last EDR Contact: 12/08/04

### **OLI:** Old Landfill Inventory

Source: Department of Environment & Natural Resources  
Telephone: 919-733-4996

Old landfill inventory location information. (Does not include no further action sites and other agency lead sites).

Date of Government Version: 09/30/04  
Date Made Active at EDR: 11/17/04  
Database Release Frequency: Varies

Date of Data Arrival at EDR: 10/14/04  
Elapsed ASTM days: 34  
Date of Last EDR Contact: 10/14/04

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

**VCP: Responsible Party Voluntary Action Sites**

Source: Department of Environment and Natural Resources  
Telephone: 919-733-4996

Date of Government Version: 11/19/04  
Date Made Active at EDR: 12/22/04  
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 11/19/04  
Elapsed ASTM days: 33  
Date of Last EDR Contact: 01/10/05

**INDIAN UST: Underground Storage Tanks on Indian Land**

Source: EPA Region 4  
Telephone: 404-562-9424

Date of Government Version: 09/14/04  
Date Made Active at EDR: 10/18/04  
Database Release Frequency: Varies

Date of Data Arrival at EDR: 09/15/04  
Elapsed ASTM days: 33  
Date of Last EDR Contact: 11/22/04

**INDIAN LUST: Leaking Underground Storage Tanks on Indian Land**

Source: EPA Region 4  
Telephone: 404-562-8677  
LUSTs on Indian land in Florida, Minnesota, Mississippi and North Carolina.

Date of Government Version: 09/14/04  
Date Made Active at EDR: 10/18/04  
Database Release Frequency: Varies

Date of Data Arrival at EDR: 09/15/04  
Elapsed ASTM days: 33  
Date of Last EDR Contact: 11/22/04

**STATE OF NORTH CAROLINA ASTM SUPPLEMENTAL RECORDS****HSDS: Hazardous Substance Disposal Site**

Source: North Carolina Center for Geographic Information and Analysis  
Telephone: 919-733-2090

Locations of uncontrolled and unregulated hazardous waste sites. The file includes sites on the National Priority List as well as those on the state priority list.

Date of Government Version: 06/21/95  
Database Release Frequency: Biennially

Date of Last EDR Contact: 11/29/04  
Date of Next Scheduled EDR Contact: 02/28/05

**AST: AST Database**

Source: Department of Environment and Natural Resources  
Telephone: 919-715-6183

Facilities with aboveground storage tanks that have a capacity greater than 21,000 gallons.

Date of Government Version: 01/09/04  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 10/18/04  
Date of Next Scheduled EDR Contact: 01/17/05

**LUST TRUST: State Trust Fund Database**

Source: Department of Environment and Natural Resources  
Telephone: 919-733-1315

This database contains information about claims against the State Trust Funds for reimbursements for expenses incurred while remediating Leaking USTs.

Date of Government Version: 11/05/04  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 11/10/04  
Date of Next Scheduled EDR Contact: 02/07/05

**DRYCLEANERS: Drycleaning Sites**

Source: Department of Environment & Natural Resources  
Telephone: 919-733-2801

Potential and known drycleaning sites, active and abandoned, that the Drycleaning Solvent Cleanup Program has knowledge of and entered into this database.

Date of Government Version: 11/12/04  
Database Release Frequency: Varies

Date of Last EDR Contact: 11/01/04  
Date of Next Scheduled EDR Contact: 01/17/05

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **IMD:** Incident Management Database

Source: Department of Environment and Natural Resources  
Telephone: 919-733-3221  
Groundwater and/or soil contamination incidents

Date of Government Version: 06/15/04  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 10/29/04  
Date of Next Scheduled EDR Contact: 01/24/05

## **EDR PROPRIETARY HISTORICAL DATABASES**

**Former Manufactured Gas (Coal Gas) Sites:** The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

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## **BROWNFIELDS DATABASES**

### **Brownfields:** Brownfields Projects Inventory

Source: Department of Environment and Natural Resources  
Telephone: 919-733-4996

A brownfield site is an abandoned, idled, or underused property where the threat of environmental contamination has hindered its redevelopment. All of the sites in the inventory are working toward a brownfield agreement for cleanup and liability control.

Date of Government Version: 03/31/04  
Database Release Frequency: Varies

Date of Last EDR Contact: 11/04/04  
Date of Next Scheduled EDR Contact: 01/31/05

### **VCP:** Responsible Party Voluntary Action Sites

Source: Department of Environment and Natural Resources  
Telephone: 919-733-4996

Date of Government Version: 11/19/04  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 01/10/05  
Date of Next Scheduled EDR Contact: 04/11/05

### **INST CONTROL:** No Further Action Sites With Land Use Restrictions Monitoring

Source: Department of Environment, Health and Natural Resources  
Telephone: 919-733-2801

Date of Government Version: 09/30/04  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 01/10/05  
Date of Next Scheduled EDR Contact: 04/11/05

### **US BROWNFIELDS:** A Listing of Brownfields Sites

Source: Environmental Protection Agency  
Telephone: 202-566-2777

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: N/A  
Date of Next Scheduled EDR Contact: N/A

## OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

**Oil/Gas Pipelines:** This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

### **Electric Power Transmission Line Data**

Source: PennWell Corporation  
Telephone: (800) 823-6277

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**Sensitive Receptors:** There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

### **AHA Hospitals:**

Source: American Hospital Association, Inc.  
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

### **Medical Centers: Provider of Services Listing**

Source: Centers for Medicare & Medicaid Services  
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

### **Nursing Homes**

Source: National Institutes of Health  
Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

### **Public Schools**

Source: National Center for Education Statistics  
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

### **Private Schools**

Source: National Center for Education Statistics  
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

### **Daycare Centers: Child Care Facility List**

Source: Department of Health & Human Services  
Telephone: 919-662-4499

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## STREET AND ADDRESS INFORMATION

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## GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE ADDENDUM

### TARGET PROPERTY ADDRESS

MCCARTY  
100 SLAGEL ROAD  
PENLAND, NC 28714

### TARGET PROPERTY COORDINATES

Latitude (North):	35.931301 - 35° 55' 52.7"
Longitude (West):	82.160400 - 82° 9' 37.4"
Universal Transverse Mercator:	Zone 17
UTM X (Meters):	395320.5
UTM Y (Meters):	3976750.5
Elevation:	2478 ft. above sea level

EDR's GeoCheck Physical Setting Source Addendum has been developed to assist the environmental professional with the collection of physical setting source information in accordance with ASTM 1527-00, Section 7.2.3. Section 7.2.3 requires that a current USGS 7.5 Minute Topographic Map (or equivalent, such as the USGS Digital Elevation Model) be reviewed. It also requires that one or more additional physical setting sources be sought when (1) conditions have been identified in which hazardous substances or petroleum products are likely to migrate to or from the property, and (2) more information than is provided in the current USGS 7.5 Minute Topographic Map (or equivalent) is generally obtained, pursuant to local good commercial or customary practice, to assess the impact of migration of recognized environmental conditions in connection with the property. Such additional physical setting sources generally include information about the topographic, hydrologic, hydrogeologic, and geologic characteristics of a site, and wells in the area.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata. EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

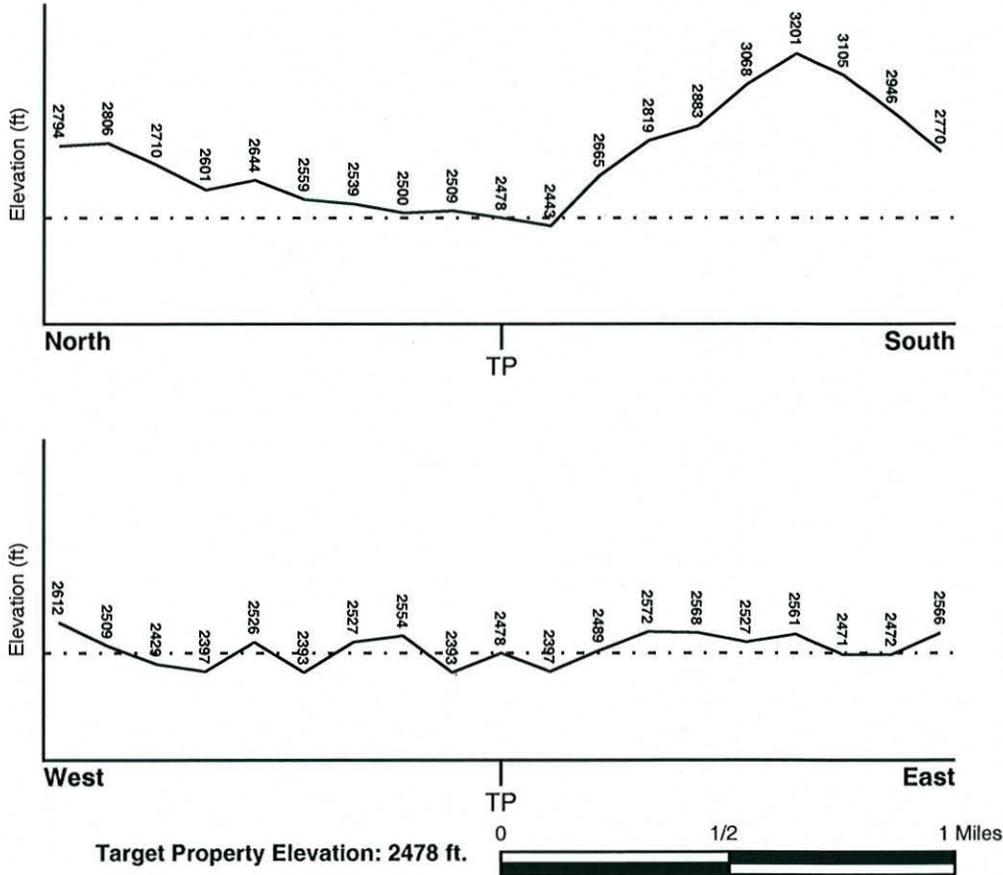
## TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## TARGET PROPERTY TOPOGRAPHY

USGS Topographic Map: 35082-H2 MICAVILLE, NC  
 General Topographic Gradient: General NNE  
 Source: USGS 7.5 min quad index

## SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

### **FEMA FLOOD ZONE**

<u>Target Property County</u> MITCHELL, NC	<u>FEMA Flood Electronic Data</u> Not Available
---	--

Flood Plain Panel at Target Property: Not Reported

Additional Panels in search area: Not Reported

### **NATIONAL WETLAND INVENTORY**

<u>NWI Quad at Target Property</u> MICAVILLE	<u>NWI Electronic Data Coverage</u> YES - refer to the Overview Map and Detail Map
---	---

### HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

### **AQUIFLOW®**

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

### GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

#### ROCK STRATIGRAPHIC UNIT

Era: Precambrian  
System: Precambrian  
Series: Z volcanic rocks  
Code: Zv (decoded above as Era, System & Series)

#### GEOLOGIC AGE IDENTIFICATION

Category: Volcanic Rocks

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: ASHE

Soil Surface Texture: stony - fine sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Somewhat excessive. Soils have high hydraulic conductivity and low water holding capacity. Depth to water table is more than 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: LOW

Depth to Bedrock Min: > 20 inches

Depth to Bedrock Max: > 40 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	7 inches	stony - fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 6.00 Min: 2.00	Max: 6.00 Min: 4.50
2	7 inches	25 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 6.00 Min: 2.00	Max: 6.00 Min: 4.50
3	25 inches	30 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 6.00 Min: 2.00	Max: 6.00 Min: 4.50
4	30 inches	34 inches	unweathered bedrock	Not reported	Not reported	Max: 0.00 Min: 0.00	Max: 0.00 Min: 0.00

### OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: loam  
fine sandy loam  
unweathered bedrock  
stony - loam

Surficial Soil Types: loam  
fine sandy loam  
unweathered bedrock  
stony - loam

Shallow Soil Types: No Other Soil Types

Deeper Soil Types: silt loam  
fine sandy loam  
gravelly - fine sandy loam

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## ADDITIONAL ENVIRONMENTAL RECORD SOURCES

According to ASTM E 1527-00, Section 7.2.2, "one or more additional state or local sources of environmental records may be checked, in the discretion of the environmental professional, to enhance and supplement federal and state sources... Factors to consider in determining which local or additional state records, if any, should be checked include (1) whether they are reasonably ascertainable, (2) whether they are sufficiently useful, accurate, and complete in light of the objective of the records review (see 7.1.1), and (3) whether they are obtained, pursuant to local, good commercial or customary practice." One of the record sources listed in Section 7.2.2 is water well information. Water well information can be used to assist the environmental professional in assessing sources that may impact groundwater flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

## WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

## FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

## FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

## STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

## OTHER STATE DATABASE INFORMATION

### NORTH CAROLINA NATURAL HERITAGE ELEMENT OCCURRENCES

<u>ID</u>	<u>Class</u>
NC50005717	Animal

## GEOCHECK - PHYSICAL SETTING SOURCE SUMMARY

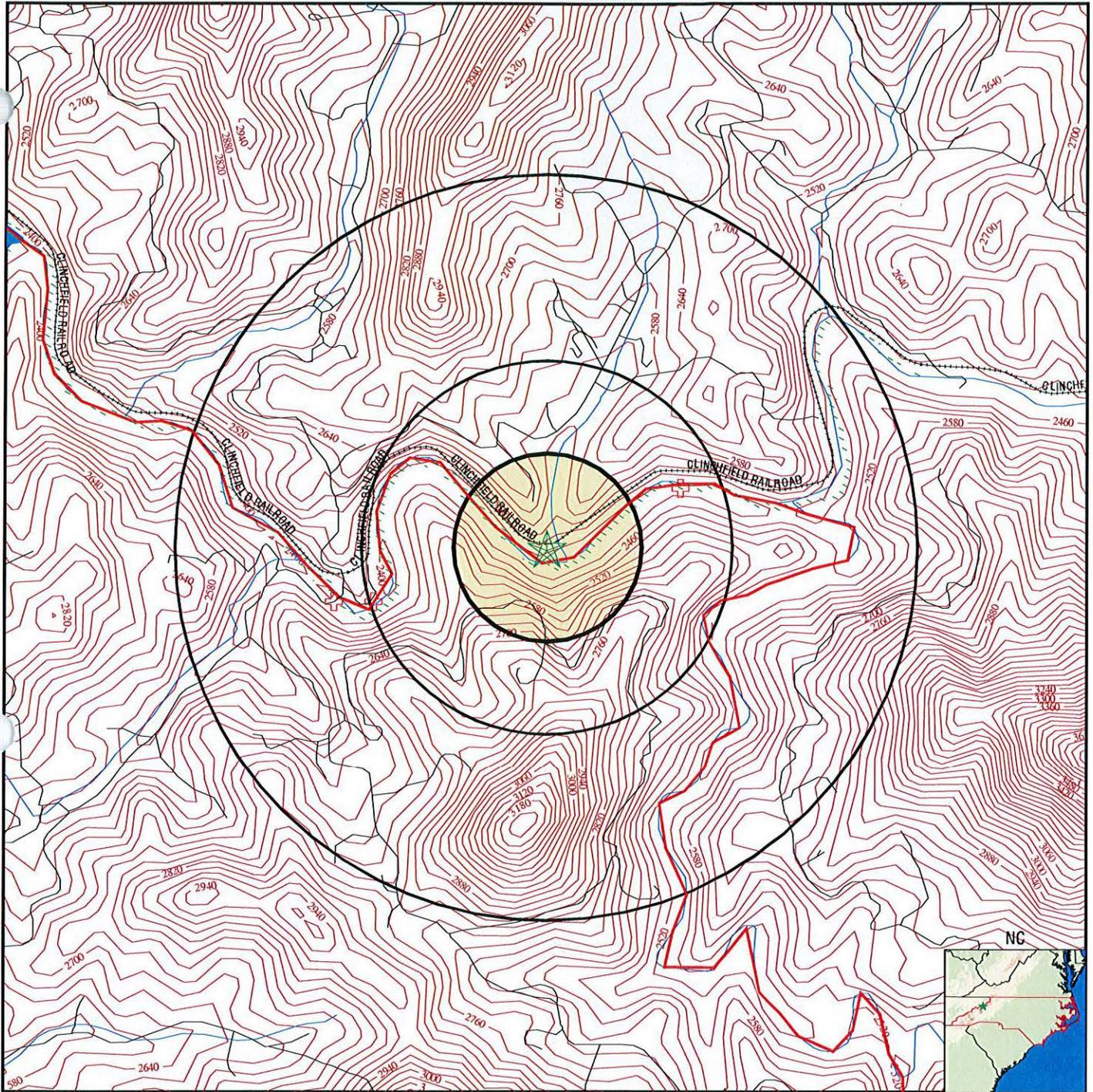
### NORTH CAROLINA NATURAL HERITAGE ELEMENT OCCURRENCES

ID	Class
NC50007541	Animal
NC50009551	Plants
NC50022064	Invertebrate
NC50022387	Invertebrate

### NORTH CAROLINA SIGNIFICANT NATURAL HERITAGE AREAS DATABASE:

ID	Name
NC10003318	NORTH TOE RIVER/NOLICHUCKY RIVER AQUATIC HABITAT
NC10003320	SOUTH TOE RIVER AQUATIC HABITAT

# PHYSICAL SETTING SOURCE MAP - 01354030.1r



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Wildlife Areas
- Natural Areas
- Rare & Endangered Species

**TARGET PROPERTY:** McCarty  
**ADDRESS:** 100 Slagel Road  
**CITY/STATE/ZIP:** Penland NC 28714  
**LAT/LONG:** 35.9313 / 82.1604

**CUSTOMER:** Buck Engineering  
**CONTACT:** Staci Ficks  
**INQUIRY #:** 01354030.1r  
**DATE:** February 04, 2005 2:05 pm

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Direction	Database	EDR ID Number
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GIS ID: Classification by Type: Occurrence Status:	521726 Animal Extant	NC_NHEO    NC50005717
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GIS ID: Classification by Type: Occurrence Status:	231218 Animal Extant	NC_NHEO    NC50007541
--	----------------------------	-----------------------

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GIS ID: Classification by Type: Occurrence Status:	201785 Plants Extant	NC_NHEO    NC50009551
--	----------------------------	-----------------------

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GIS ID: Classification by Type: Occurrence Status:	131637 Invertebrate Extant	NC_NHEO    NC50022064
--	----------------------------------	-----------------------

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GIS ID: Classification by Type: Occurrence Status:	131637 Invertebrate Extant	NC_NHEO    NC50022387
--	----------------------------------	-----------------------

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Site Name: Quality: Acres per Polygon:	NORTH TOE RIVER/NOLICHUCKY RIVER AQUATIC HABITAT Not Reported 743.62	NC_SNHA    NC10003318
--	--	-----------------------

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		NC_SNHA    NC10003320
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## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

### North Carolina - Significant Natural Heritage Areas:

Site Name:  
Quality:  
Acres per Polygon:

SOUTH TOE RIVER AQUATIC HABITAT  
Not Reported  
296.13

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

State Database: NC Radon

### Radon Test Results

County	Result Type	Total Sites	Avg pCi/L	Range pCi/L
MITCHELL	Statistical	5	1.76	-0.30-3.50
MITCHELL	Non-Statistical	43	6.63	0.00-25.50

Federal EPA Radon Zone for MITCHELL County: 1

Note: Zone 1 indoor average level > 4 pCi/L.  
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.  
 : Zone 3 indoor average level < 2 pCi/L.

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Federal Area Radon Information for Zip Code: 28714

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.350 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	3.700 pCi/L	50%	50%	0%

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## TOPOGRAPHIC INFORMATION

### **USGS 7.5' Digital Elevation Model (DEM)**

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002. 7.5-Minute DEMs correspond to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps.

## HYDROLOGIC INFORMATION

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

## HYDROGEOLOGIC INFORMATION

### **AQUIFLOW<sup>R</sup> Information System**

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## GEOLOGIC INFORMATION

### **Geologic Age and Rock Stratigraphic Unit**

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### **STATSGO: State Soil Geographic Database**

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

## ADDITIONAL ENVIRONMENTAL RECORD SOURCES

### **FEDERAL WATER WELLS**

#### **PWS: Public Water Systems**

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

#### **PWS ENF: Public Water Systems Violation and Enforcement Data**

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

#### **USGS Water Wells: USGS National Water Inventory System (NWIS)**

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## STATE RECORDS

### NC Natural Areas: Significant Natural Heritage Areas

Source: Center for Geographic Information and Analysis

Telephone: 919-733-2090

A polygon coverage identifying sites (terrestrial or aquatic that have particular biodiversity significance.

A site's significance may be due to the presence of rare species, rare or high quality natural communities, or other important ecological features.

### NC Game Lands: Wildlife Resources Commission Game Lands

Source: Center for Geographic Information and Analysis

Telephone: 919-733-2090

All publicly owned game lands managed by the North Carolina Wildlife Resources Commission and as listed in Hunting and Fishing Maps.

### NC Natural Heritage Sites: Natural Heritage Element Occurrence Sites

Source: Center for Geographic Information and Analysis

Telephone: 919-733-2090

A point coverage identifying locations of rare and endangered species, occurrences of exemplary or unique natural ecosystems (terrestrial or aquatic), and special animal habitats (e.g., colonial waterbird nesting sites).

### North Carolina Public Water Supply Wells

Source: Department of Environmental Health

Telephone: 919-715-3243

## RADON

### State Database: NC Radon

Source: Department of Environment & Natural Resources

Telephone: 919-733-4984

Radon Statistical and Non Statistical Data

### Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

### EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

## OTHER

### Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

### Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

# EDR TOXICHECK® 1.0 Environmental Risk Summary

February 4, 2005

## Target Property

MCCARTY  
100 SLAGEL ROAD  
PENLAND, NC 28714

440 Wheelers Farms Road  
Milford, CT 06460  
Phone:800-352-0050  
Fax:800-231-6802  
Web:www.edrnet.com



EDR™ Environmental  
Data Resources Inc

## ENVIRONMENTAL RISK LEVEL

To help evaluate environmental risk, the *ToxiCheck 1.0 Environmental Risk Summary* provides an Environmental Risk Level, based on a search of current government records. Refer to the supporting report for additional detail.

- HIGH RISK** Based on the records found in this report, the environmental risk level for this property is High. Please see page 2 for information on the records in this report that contribute to this risk level.
- LOW RISK** Based on the records found in this report, the environmental risk level for this property is minimal.

## Current Government Records

Current government regulatory files may identify known or potential sites of environmental concern.

- EDR Radius Map Report

## (Not Requested for ToxiCheck) Historical Records

The prior use of a property may contribute to environmental contamination. Historical sources such as fire insurance maps, city directories, and other databases may identify sites of potential environmental concern not identified in current government records. The following reports and/or databases were not requested for ToxiCheck by customer:

- EDR Fire Insurance Map Abstract
- EDR City Directory Abstract
- EDR Proprietary Gas Station/Dry Cleaner Database
- EDR Proprietary Coal Gas Database

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## TOXICHECK® 1.0 Environmental Risk Summary

### **FINDINGS CONTRIBUTING TO THE ENVIROMENTAL RISK LEVEL**

The environmental LOW RISK is based upon the findings listed below. Refer to the supporting report(s) for additional detail.

### **CURRENT GOVERNMENT RECORDS**

---

#### ***Target Property***

No records identified (if any) were determined to be of high risk.

#### ***Surrounding Properties***

No records identified (if any) were determined to be of high risk.

### **HISTORICAL RECORDS (NOT REQUESTED)**

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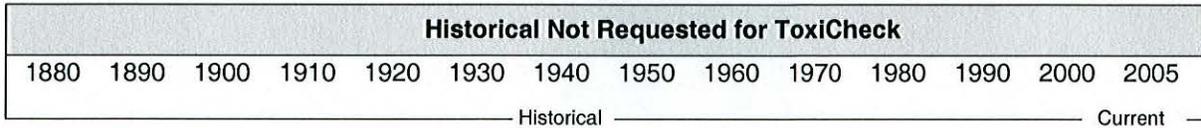
Property historical reports and/or data was not requested for ToxiCheck by the customer.

# TOXICHECK® 1.0 Environmental Risk Summary

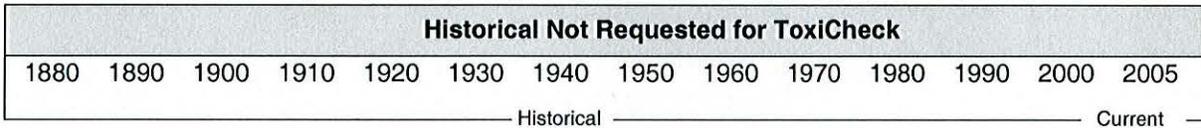
## PROPERTY TIMELINE

The property timeline indicates the year of the finding contributing to a LOW RISK environmental risk level. For details on data points along the timeline, refer to page 2 of the ToxiCheck Environmental Risk Summary.

### Target Property Timeline



### Surrounding Properties Timeline



○ Timeline ID (refer to page 2)

## TERMS AND DEFINITIONS

### Data Source

Data Source indicates the government database or historical record contributing to a HIGH Environmental Risk Level. Current government records sources include federal, state and local databases. Detailed information for current government records can be found in the EDR Radius Map Report Government Records Searched section. When requested to be searched by the customer, and where available, historical records sources include the EDR Proprietary Gas Station/Dry Cleaner Database, EDR Proprietary Coal Gas Database, EDR Fire Insurance Abstract and EDR City Directory Abstract. Additional information about the EDR Gas Station/Dry Cleaner Database and EDR Proprietary Coal Gas Database can be found in the EDR Radius Map Report. Additional information about the EDR Fire Insurance Abstract and EDR City Directory Abstract is located in the respective report(s).

### Surrounding Properties

Surrounding Properties included in the ToxiCheck Environmental Risk Summary are those sites found in the EDR Radius Map Report and Historical Reports near the target property. Surrounding Properties are also known as adjoining properties. Surrounding Property data which contribute to a HIGH Environmental Risk Level can be found in the Surrounding Properties section of the ToxiCheck Environmental Risk Summary.

### Target Property

The Target Property is the location for which this inquiry is conducted. Target Property is also known as the subject site. Target Property data which contribute to a HIGH Environmental Risk Level can be found in the Target Property section of the ToxiCheck Environmental Risk Summary.

### Timeline ID

Timeline ID is the identification number assigned to a property and used on the ToxiCheck Property Timeline to show the publication year of the document(s) which identify the property.

### EDR Radius Map(tm) Report

The EDR Radius Map Report is a map-based radius search of current government regulatory information that identifies sites of real or potential environmental concern. The report searches federal, state, local, and EDR proprietary databases for the target property and surrounding properties. Government records are regularly updated according to industry standards.

### EDR Proprietary Gas Station/Dry Cleaner Database

EDR has searched select national collections of business directories and has collected listings of potential dry cleaner and gas station/filling station/service station sites that were available to EDR researchers. EDR's review

## TOXICHECK<sup>®</sup> 1.0 Environmental Risk Summary

was limited to those categories of sources that might, in EDR's opinion, include dry cleaning and gas station/filling station/service station establishments. The categories reviewed included, but were not limited to: gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, dry cleaner, cleaners, laundry, laundromat, cleaning/laundry, wash & dry, etc. The information provided in this proprietary database may or may not be complete; i.e., the absence of a dry cleaner or gas station/filling station/service station site does not necessarily mean that such a site did not exist in the area covered by this report.

### EDR Fire Insurance Map Abstract

Fire insurance maps were initially produced by private companies for the insurance industry to provide information on the fire risks of buildings and other structures. Sanborn Maps are a valuable historical resource for persons concerned with evaluating the potential for site contamination based on the history of past use. Fire insurance maps are available for approximately 12,000 U.S. cities and towns from the mid-1800s to the present. Map coverage is most comprehensive in urban core areas and in older suburbs; map coverage is limited in suburban areas developed after 1950. When requested by the customer, EDR conducts a keyword search of the EDR Fire Insurance Map Abstract to identify records contributing to the Toxicheck Environmental Risk Level. Keyword searches are limited and should not be considered a substitute for review by an environmental professional. For more information about the keywords used for the ToxiCheck Environmental Risk Level, contact your EDR Account Executive.

### EDR City Directory Abstract

City directories have been published for cities and towns across the U.S. since the 1800s. Originally a list of residents, the city directory developed into a sophisticated tool for locating individuals and businesses in a particular urban or suburban area. Twentieth century directories are generally divided into three sections: a business index, a list of resident names and addresses, and a street index. With each address, the directory lists the name of the resident or, if a business is operated from this address, the name and type of business (if unclear from the name). While city directory coverage is comprehensive for major cities, it may be spotty for rural areas and small towns. When requested by the customer, EDR conducts a keyword search of the EDR City Directory Abstract to identify records contributing to the Toxicheck Environmental Risk Level. Keyword searches are limited and should not be considered a substitute for review by an environmental professional. For more information about the keywords used for the ToxiCheck Environmental Risk Level, contact your EDR Account Executive.

The following keywords were used to evaluate the EDR City Directory Abstract: 7-Eleven, AAMCO, AM General, Acura, Amerada Hess Corporation, Amoco, Arco, Aston Martin, Atlantic Richfield Oil Company, Audi, Auto, Autobody, Automobile, Automotive, BMW, BP, Battery, Beacon, Bentley, Body Shop, Body Works, Brake, British Petroleum, Buick, Cadillac, Caltex, Car, Chemical, Chevrolet, Chevron, Chevrontexaco, Chrysler, Circle K, Citgo, Cities Service Company, Cleaner, Cleaning, Clnr, Coastal Petroleum, Collision, Conoco, Conocophillips, Cumberland Farms, Daewoo, Dealer, Diamond Shamrock, Dodge, Dry Cleaner, Dry Cleaning, Drycleaning, Dyer, Dying, Eagle, Engine, Esso, Exxon, Exxonmobil, Ferrari, Ford, Fuel, GMC, Garage, Gas, Goodrich, Gulf Oil, Hanger, Heating, Hess, Honda, Hummer, Hyundai, Imperial Oil, Infiniti, Isuzu, Jaguar, Jeep, Jersey Standard, Jet Oil, Junk Yard, Junkyard, Kia, Kleener, Laboratory, Lamborghini, Land Rover, Landfill, Launderer, Launderette, Laundries, Laundromat, Laundry, Lexus, Lincoln, Lndry, Lndy, Lotus, Magnolia Petroleum Co, Manufacturing, Marathon, Marathon Ashland Petroleum, Martinizing, Maserati, Mazda, Mechanic, Meineke, Mercedes-Benz, Mercury, Midas, Mirastar, Mitsubishi, Mobil, Motor, Muffler, Nissan, Oil, Oldsmobile, Paint, Panoz, Pep Boys, Petroleum, Phillips 66, Photo, Pilot, Plymouth, Pontiac, Porsche, Press, Print, Printer, Printing, Prntr, Radiator, Railroad, Railway, Recycling, Repair, Richfield, Rolls-Royce, Royal Dutch/Shell, STA, STN, Saab, Saturn, Shell Oil, Sinclair Oil, Socony, Sohio, Speedway, Standard Oil, Standard Oil of Ohio, Station, Subaru, Sun Oil Company, Sunoco, Suzuki, Tailor, Tesoro, Texaco, Tire, Towing, Toyota, Transmission, Ultramar, Union 76, Union Oil, Vacuum Oil Co, Valero, Valero Energy, Volkswagen, Volvo, Wash, Waste, Wyatt Oil.

### EDR Proprietary Coal Gas Database

The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. (c)Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR Account Executive.

#### Disclaimer Provided by Real Property Scan, Inc.

The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

**APPENDIX C**