Riparian Corridor Conservation Design Study
For the
Dan, Mayo and Smith Rivers in Rockingham County, NC

Prepared for:

Piedmont Land Conservancy

For the:

Conservation Trust for North Carolina

and

North Carolina Clean Water Management Trust Fund

Prepared by:
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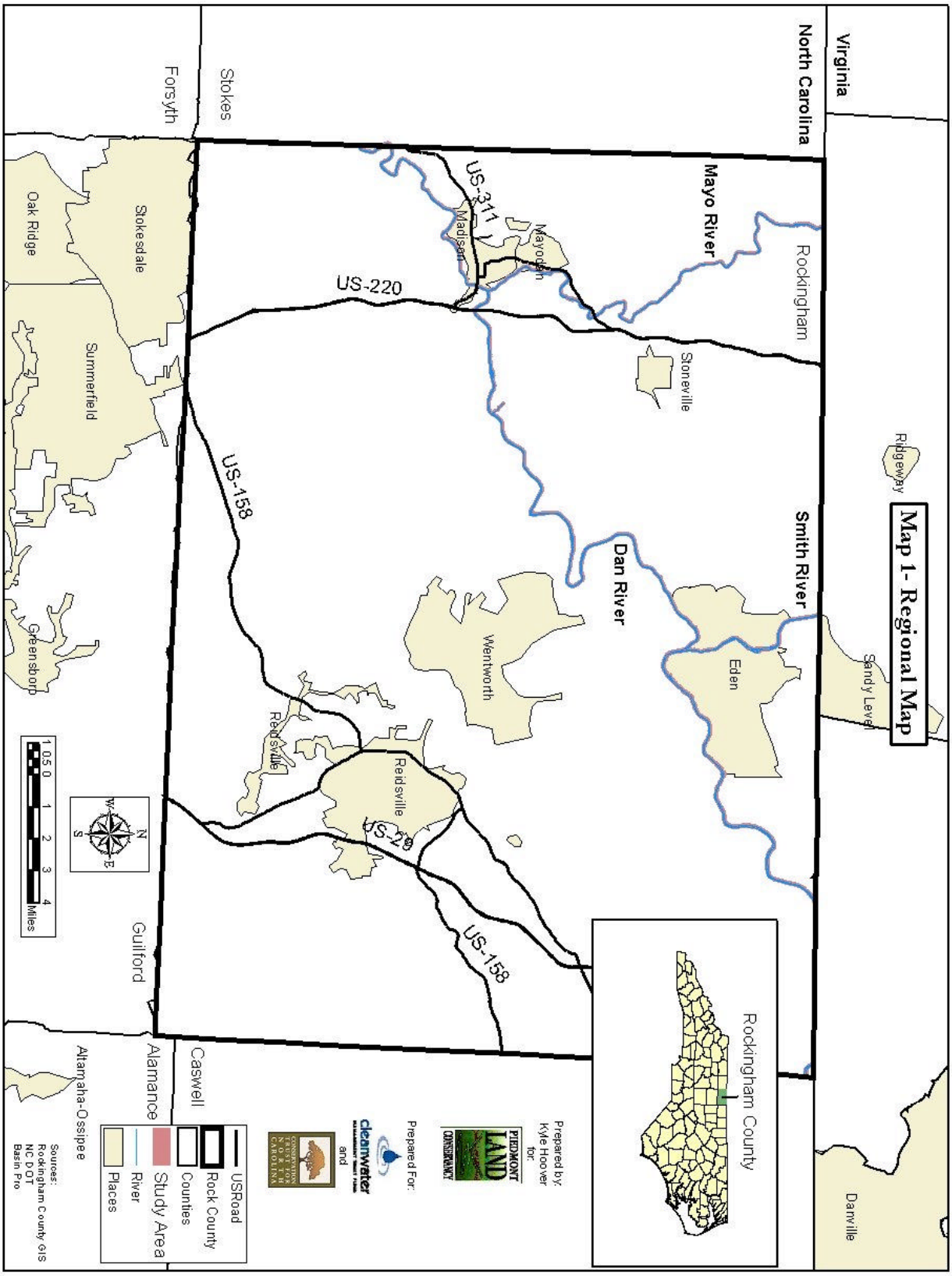
I. Executive Summary

The North Carolina Clean Water Management Trust Fund (CWMTF) and the Conservation Trust for North Carolina (CTNC) have collaborated to provide the Piedmont Land Conservancy (PLC) with the funding to continue the Dan River Riparian Corridor Conservation Plan from Stokes County into Rockingham County. The importance of riparian areas as filtering mechanisms for trapping sediment from agricultural fields before reaching a stream and in determining stream habitat and biotic characteristics are well documented (Stewart et al, 2001). This project is designed to also include the Mayo and Smith Rivers, both major tributaries to the Dan River located within Rockingham County. See Map 1 for a regional map of Rockingham County.

This study was conducted to help understand the waterways of the Dan River Corridor (the "Corridor") in Rockingham County and to see what improvements can be made to help maintain a sustainable ecological community where people and nature can thrive together. The study focused on preservation and restoration strategies and identifying examples of interventions that maintain water quality throughout the Corridor.

The waterways included are the Dan, Mayo and Smith Rivers including 300 feet on either side of each river denoted as the "Corridor". The end product of the study was to identify preservation management strategies such as conservation easements to enhance water quality and recommend BMP's that will also maintain and improve water quality throughout the Corridor.


Map 1- Regional Map
Virginia
North Carolina
Rockingham
Stokes
Forsyth
Guilford
Caswell
Alamance
Alamance-Ossipee
Mayo River
Smith River
Dan River
US-311
US-220
US-158
US-29
Madison
Mayodan
Stoneville
Ridgeway
Sandy Level
Danville
Eden
Wentworth
Reidsville
Stokesdale
Oak Ridge
Summerfield
Greensboro
Rockingham County
Prepared by:
Kyle Hoover
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Prepared For:
and
1 0.5 0 1 2 3 4
Miles
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USRoad
Rock County
Counties
Study Area
River
Places
Sources:
Rockingham County GIS
NC DOT
Basin Pro

The Dan River Corridor in Rockingham County is a major asset to the area in terms of recreation and water use. The Corridor also has ties to natural and cultural aspects that make it an important area for preservation and restoration. Riparian buffers are important parts of the landscape, they help to cool waters providing more habitats for bugs and fish which in turn help water quality. Riparian areas also reduce floodwaters and trap sediments that may enter streams and suffocate both habitat and water quality. Many threatened or endangered flora/fauna thrive in riparian areas (Bridle 2000). Due to these reasons the need for managed and restored riparian areas is tremendous.

Geographic Information Science (GIS) was utilized to organize and analyze data collected throughout this project. The GIS, in combination with a prioritization scheme, was used in selecting preservation and restoration sites along the river corridor. The prioritization scheme created a high, medium or lower ranking in the location of these sites. These rankings were a key part in determining where sites of significance lie within the river corridor. The prioritization scheme is discussed in more detail in the GIS methods section. Through ground truthing the GIS Analysis, 10 sites were selected for preservation and 3 sites were selected for restoration. A correlation matrix was created which states that the GIS Analysis was 74% correct in finding sites that were of higher priority for either preservation or restoration. This accuracy enables conservation organizations to utilize the functions of GIS in finding sites of conservation significance.

II. Introduction

"The continued exponential growth in human population has created a corresponding increase in the demand for the Earth's limited supply of freshwater" (Koplin et al., 2002). Since its inception in 1972, the Clean Water Act (CWA) has proven to be most effective in helping to clean the waterways of the US. For many years following the passage of the CWA, the Environmental Protection Agency (EPA) and various states have focused mainly on the chemical aspects of rivers. During the last decade, however, more attention has been given to their physical and biological integrity (EPA 2003).

The need for attention on the waters of the US has grown ever more important as the population continues to rise at an exponential rate and development closes in on our remaining natural communities. The rate of development and its subsequent impact on our rivers has increased the need for stricter regulations and implementation of Best Management Practices (BMP's) to help keep our rivers clean.

This project is an example of the importance and implementation of water quality studies and land preservation through the use of state funds and local land trust initiatives. The project assembles existing as well as collected data, sets goals and gives examples of some alternative ways of protecting the water quality along the Dan River Corridor in Rockingham County.

III. Water Quality Analysis and Definition

A. Population and Land Use

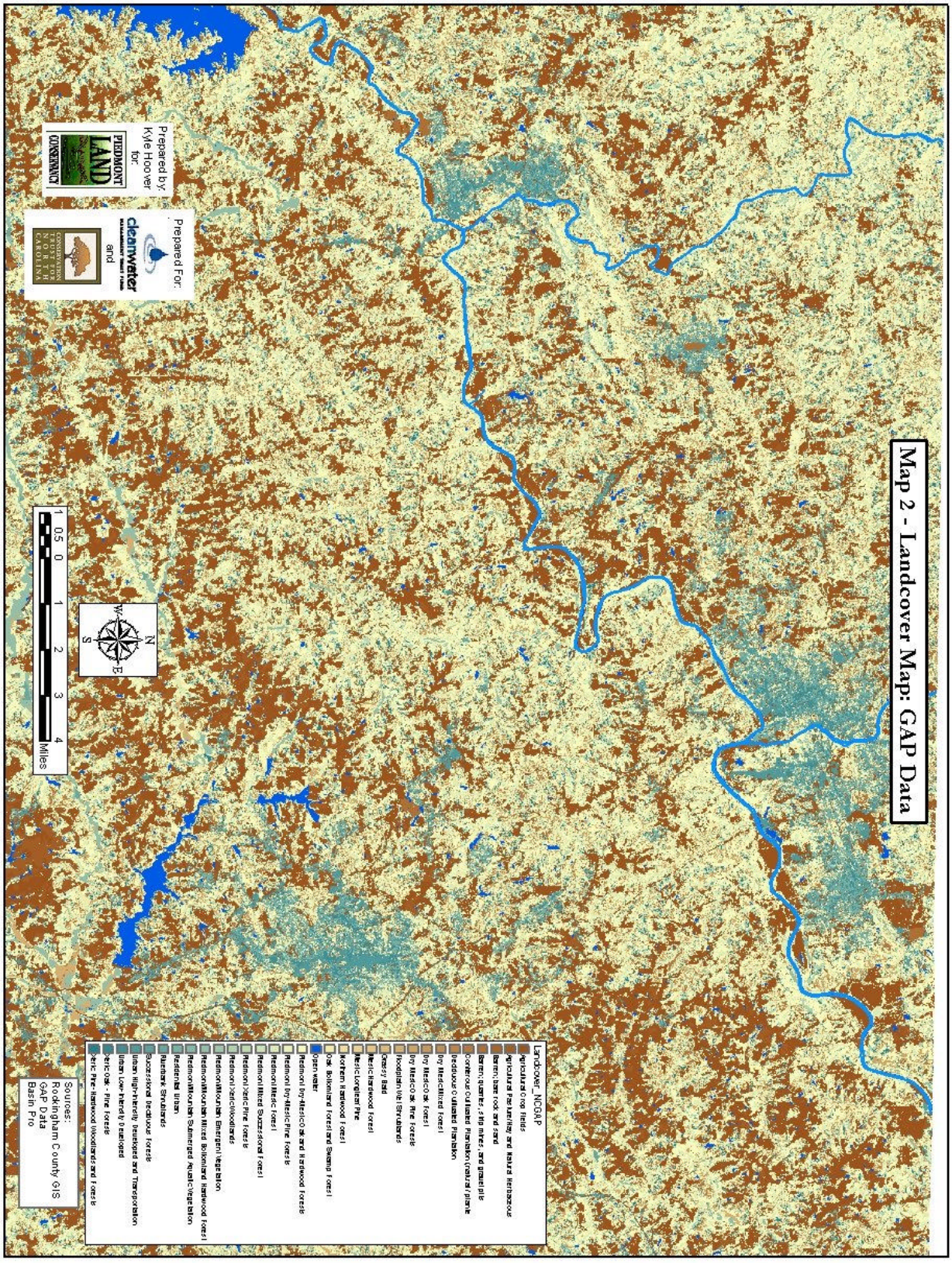
Rockingham County is bordered by Virginia to the North, Caswell County, NC, to the East, Stokes County to the West and Guilford County to the South. The population of Rockingham County in 2000 was 91,928 with a 6% increase from 1990. The two Roanoke

sub basins (03-02-02 and 03-02-03) in the study corridor had a population of 31,293 in 1990. The projected increase in population in the county in the next twenty years is only predicted to be 3% (DWQ 2001). As US 220 expands and becomes Interstate 73, there may be an increase in some development in the Western part of the County. Guilford County will likely be the source of any development pressures felt by Rockingham County (DWQ 2001).

The majority (75%) of Rockingham County is privately owned forestland and is not likely to be developed to the extent of surrounding areas, namely Guilford County, in the next twenty years. Agriculture accounts for approximately 22.25% of the land area in the county. The top agricultural uses in Rockingham County relative to the entire state are tobacco (#13), corn for silage (#17), barley (#22) and milk cows (#25). The minimal amount of urban area comprises the remaining 2.5% of the land area and includes Madison, Mayodan, Eden, Stoneville, and the county seat of Wentworth. Manufacturing jobs including textiles and Miller Brewing Company mostly supports these urban areas. Map 2 shows the land cover in Rockingham County obtained from North Carolina State University's Gap Analysis Program (GAP) dataset.

B. River Use

The river has been important to the industrial growth of Rockingham County due to its historic use for navigation for shipping and trade and its current use for power for textile mills and other industries along the river like Miller Brewing Company. Aside from its commercial value, the Dan River has also provided many recreational opportunities including fishing, canoeing, and tubing that are still enjoyed today and celebrated at regional events like the Dan River Boat Race and the Stokes Stomp.


Map 2 - Landcover Map: GAP Data
Prepared by:
Kyle Hoover
for:
PIEDMONT LAND CONSERVANCY
Prepared For:
cleanwater
and
CONSERVATION NORTH CAROLINA
1 0.5 0 1 2 3 4
Miles
N
W
E
S
Landcover_NCGAP
Agricultural Crop Fields
Agricultural Pasturelands and Natural Herbaceous
Barren, quarries, strip mines, and gravel pits
Barren, bare rock and sand
Coniferous cultivated Plantation (natural/exotic
Deciduous cultivated Plantation
Dry Mesic Mixed Forest
Dry Mesic Oak Pine Forests
Floodplain Wetlands/Shrublands
Grassy Bald
Mesic Hardwood Forest
Mesic Longleaf Pine
Northern Hardwood Forest and Swamp Forest
Oak Bottomland Forest and Swamp Forest
Open water
Piedmont Dry-Mesic Oak and Hardwood Forests
Piedmont Dry-Mesic Pine Forests
Piedmont Mesic Forest
Piedmont Mixed Successional Forest
Piedmont Xeric Pine Forests
Piedmont Xericwoodlands
Piedmont/Mountain Emergent Vegetation
Piedmont/Mountain Mixed Bottomland Hardwood Forest
Piedmont/Mountain Submerged Aquatic Vegetation
Residential Urban
Riverbank Shrublands
Successional Deciduous Forests
Urban High-Intensity Developed and Transportation
Urban Low-Intensity Developed
Xeric Oak - Pine Forests
Xeric Pine- Hardwood Woodlands and Forests
Sources:
Rockingham County GIS
GAP Data
Basin Prio

The Roanoke River Basin Association (RRBA), the Dan River Basin Association (DRBA), The North Carolina Nature Conservancy (NCNC) and Piedmont Land Conservancy (PLC) are several organizations that are interested in the preservation and enhancement of the Dan River. State agencies and local governments including the Rockingham County Department of Tourism, Department of Environmental Natural Resources (DENR) and the Clean Water Management Trust Fund (CWMTF) are also working to preserve and promote the value of Rockingham's rivers. Dr. Lindley Butler noted that the river has become much cleaner than in years past (Personal Interview). This observed improvement might be due to the efforts of these state and local organizations that are working to preserve and restore the water quality through public outreach.

Along the Mayo River, DENR's NC State Parks, PLC and DRBA are working together to create the Mayo River State Park that was authorized by the NC General Assembly in 2003. The park will help to protect the natural systems of the Mayo River as well as those downstream in the Dan River. The Mayo River State Park will be a place for residents and visitors to enjoy the natural beauty of the region through the use of the river and its surrounding forested areas.

C. Point and Non-Point Source Pollution

1. Point Source Pollution

There are 26 National Pollutant Discharge Elimination Systems (NPDES) permitted releases within the Dan, Mayo and Smith Corridors with 35 Million Gallons/Day (MGD) of discharged effluent from residential and town-managed Wastewater Treatment Plants (WWTP's) and nearly 45 MGD of discharge from companies. The majority of these releases are from the Towns of Madison, Mayodan, Stoneville, and Eden small WWTP's. Industrial

dischargers include Fieldcrest/Cannon, Miller Brewing and Duke Power's Dan River Station (DWQ 2001).

The Smith River and seven smaller residential WWTP's along the Dan River have had past problems with elevated amounts of Biochemical Oxygen Demand (BOD) and ammonia in the discharge water. For the Smith River the problem has stemmed from discharges occurring in Martinsville, VA. While some of the problems in the Dan River can be contributed to poor septic systems at the Bethany Elementary School and Sadler Elementary School. Both of these schools have upgraded their septic systems to resolve the problems. Additionally, the Betsy Jeff Penn 4-H Education Center's summer camp has experienced problems dealing with the large fluctuations of effluent in the summer months, and has upgraded their system to include ultraviolet disinfections (DWQ 2001).

The largest discharges occurring in the study area are from Mayodan's WWTP that discharges into the Mayo River, two Eden WWTP's that discharge into the Dan River and Fieldcrest/Cannon and Miller Brewing Companies that also discharge into the Dan River. Of the permitted discharges seven are required to monitor for toxicity including the WWTP's for Mayodan, Stoneville and Eden, Duke Power's Dan River Station and Miller Brewing Company.

2. Non-Point Source Pollution

Although agriculture or farmland is not the dominant land use in Rockingham County it definitely plays an important role in the water quality of a stream or river. Of the agricultural land along the corridor of study 3.45 percent is cultivated crop and 18.8 percent is pasture and/or managed herbaceous land. Runoff, fecal coliform and sediment from agricultural land is a serious problem. Best Management Practices (BMP's) in adjacent

uplands can be an integral part in protecting and improving the water quality in streams around these types of land use.

Surry County Soil and Water Conservation District is an important example in the protection of water quality using BMP's. Through the use of BMP's, the County has obtained and maintained the highest of water quality standards in the state for the Mitchell River.

Farmers can help to maintain higher levels of participation in Rockingham County Soil and Water Conservation District's current cost-share programs and BMP's. By utilizing these practices, farmers can help to reduce sediment loading and help preserve and improve water quality. For example, fencing used to prevent cattle and livestock from accessing streams reduces the levels of fecal coliform. Watering structures placed outside of the stream and within the fencing area also helps minimize livestock access to streams. A source of BMP references is listed in Appendix A.

In-stream mining is mentioned in DWQ's Roanoke River Basinwide Water Quality Plan report for creating problems associated with sedimentation and turbidity. BMP's that follow road construction guidelines may be utilized to help decrease the amount of sediment load in the streams. Monitoring up and down stream of the mining operations will also help to keep track of sediment loads within the streams.

The development of land in a watershed is a major contributor in stormwater runoff and decreased water quality. With each construction project or development comes increased runoff and increased pollutants that enter the streams. Urban areas in the Dan River Corridor are minimal and of very small size where existent. Land-use planning can

play a vital role in Rockingham County as further development continues to ensure that potential impacts to water quality are taken into consideration.

Aesthetic functions are also important, especially in urban areas where many lots are clear-cut or graded before development moves in. In urban areas, a riparian area may also serve as an aesthetically pleasing buffer between buildings or developments while it continues to protect and improve water quality in areas being developed and provide wildlife habitat. Many of these riparian areas can also function as public greenways, which provide an area for residents to enjoy the outdoors while simultaneously helping to protect the natural landscape including water quality.

As noted in the Dan River Riparian Corridor Design for Stokes County, there are several locations that support All-Terrain Vehicle (ATV) recreational usage either very close or even within the river corridor within Rockingham County. Since ATV's have the ability to cover a lot of ground in a short amount of time, the soil erosion caused by these vehicles is distributed in large areas. Unfortunately, the general population is usually unaware of the sediment problems created by ATV's.

Roads are another significant contributor of sediment and pollutants that enter our rivers both during and after construction. As expected, the construction of roads increases sediment and pollutant runoff into streams and rivers. After construction, roads act as a barrier between natural systems and also act as a passage for humans into areas that are otherwise left to nature. Many forestry roads that are designed to be decommissioned after forestry-related projects seem to be used later by ATV's or other means of transportation through otherwise natural or connected ecosystems. These roadways create an access for humans to enter the otherwise natural environment that in turn mine resources and degrade

the environment through human activities. According to The Nature Conservancy, road construction divides and destroys vital landscapes and scenic vistas, increases air and water pollution, and helps to spread invasive species. The construction of roadways often includes storm water sewers that help to keep roads from flooding. These sewers act as a pipe way for car snot (e.g., oil, gasoline and grease) and other roadway pollutants to enter the streams and rivers.

The process of clear-cutting and forestry-related practices can be very harmful to the water quality of a stream corridor if precautions are not taken. There are many BMP's that can be put in place to help prevent runoff and decrease sedimentation in streams and rivers. While there are not documented effects of forestry in the study corridor by DWQ, forestry practices can be a future threat due to the amount of forested land within the study corridor (75% of corridor).

Other types of Non-Point Source Pollutions include insecticides, herbicides and fertilizers that people use on their lawns, gardens, nurseries and farms near the waterways. These pollutants can have serious effects on the waterways by degrading wildlife habitat and affecting the water quality. Motor oils and other household wastes is also a contributor to degraded water quality. These substances contribute to the degradation of drinking water as well as the degradation of wildlife habitat within the river corridors.

D. Monitoring

In North Carolina there are more than 38,000 miles of freshwater streams, 311,071 acres of freshwater lakes and 1,997,375 acres of tidal saltwater. To monitor all of this water, DWQ conducts ambient and biological monitoring throughout the State of North Carolina

including the Dan, Mayo and Smith Rivers (NCSU Water Resources Research Institute 2002).

1. Ambient Monitoring

DWQ has ambient water stations to monitor for physical and chemical aspects of the water quality. Items tested at all stations may include dissolved oxygen, pH, temperature, conductance, total phosphorus, ammonia, total Kjeldahl nitrogen, chlorophyll a, nitrate+nitrite, total suspended solids, turbidity, hardness, fecal coliform bacteria, aluminum, arsenic, cadmium, chromium, copper, iron, lead, mercury, nickel, silver, and zinc. The following items are only tested where waters are classified as Water Supply WS-I - WS-V: chloride, total dissolved solids, total coliform bacteria, and manganese (DWQ 2001). There are two ambient water stations on the Dan River-- one near Wentworth, NC and the other near Mayfield, VA just north of the VA/NC state line. The Mayo River and Smith River both have one station each that is located near the VA/NC state line.

The Dan River stations have indicated that there is increased turbidity from years past with more frequent indications near the upstream station in Wentworth. This increased turbidity upstream may be due to agricultural activities that are more abundant in this section of the Dan River.

The Mayo River also has elevated levels of turbidity. Since the Mayo River's confluence with the Dan River is upstream of the Wentworth station, the elevated turbidity in the Mayo may be contributing to the elevated levels observed at the Wentworth station. Additionally, the Mayo River station shows elevated levels of fecal coliform. Since most of the Mayo River in North Carolina is forested and agricultural activities are very limited, the

increased levels of fecal coliform may be attributed to agricultural activities in Virginia and tributaries draining from eastern Stokes County, NC.

The Smith River has shown elevated levels of chloride and dissolved solids in the past but they have been lowered since NC DWQ has worked with the Town of Martinsville's WWTP issues.

2. Biological Monitoring

The Dan River was not tested for the 2001 DWQ Roanoke River Basinwide Water Quality Plan report due to flow fluctuations in the stream. However, from 1983-1999, the Dan River received Good to Good-Fair bioclassifications.

The Mayo River has two benthic sampling sites, one at the VA/NC state line and another downstream near the confluence with the Dan River in the Town of Mayodan. The station at the VA/NC state line received Good bioclassifications while the station downstream received a Good-Fair bioclassification. DWQ 2001 suggests this indicates poorer water quality in the North Carolina section of the Mayo River, which has been attributed to in-stream mining and agricultural activities, located in Virginia.

The Smith River has received a Fair bioclassification in the 1999 sample and is considered an impaired stretch of water due to the habitat degradation noted at the last sample as well as scouring caused by fluctuations in water levels during dam releases (DWQ 2001).

E. Water Quality Indicators

1. Sediment

Sediment is thought to be the number one non-point source pollutant in streams in the State of North Carolina (DWQ 2004). The causes of sediment that occur within the study

corridor include construction, agricultural activities, suspended sediment loading and permitted in-stream dredging. The resulting sediment-laden water smothers the benthic, fish and plant communities.

Sediment leads to depletion in available dissolved oxygen levels in the water, which essentially smothers the benthic, fish, and plant communities that indicate the health of the stream. Every one of these sources also causes the turbidity levels to increase in some way or another that leads to higher stream temperatures, and a reduction in light and oxygen levels (DWQ 2001).

2. Toxic Substances

The pollution of our freshwater supplies has become more evident through tests within the US that are showing an increase in not only the amount of pollution but also the number of different types of pollutants. With so much concern on farming and environmental pollution, the USGS has recently conducted a study on Organic Wastewater Contaminants (OWC's) that include human-related chemicals such as pharmaceuticals, hormones, household chemicals and consumables.

These OWC's pass directly through the WWTP's and enter bodies of freshwater that we often and regularly use downstream for potable water, and recreation. All 26 permitted dischargers in the study corridor passed toxicity levels testing in 1999 (DWQ 2001).

In regards to land use it has been noted in previous studies that there is a strong connection to water degradation and poor water quality and urban land settings (USGS 1998). The OWC's often enter the freshwater streams and lakes and become hydrophobic, or resistant to the association with water, therefore becoming mixed with the sediment. This creates a problem of testing for these OWC's in the sampling and analysis of water, due to

the fact that they may not be found in the water because the OWC's are binding to the sediment (Kolpin 2002). Currently, WWTP's do not test for these substances that may be entering our waters without any monitoring or testing.

4. Fecal Coliform

Nutrients are probably the second highest Non Point Source Pollutant (DWQ 2004). Fecal coliform bacteria enter streams and river through WWTP's, failing septic systems, livestock access to streams as well as intensive cattle farming activities. The Dan River has been noted by DWQ for having elevated levels of fecal coliform as well as the Mayo River, with both instances directly related to failing WWTP's as well as livestock farming activities.

F. Use Support Ratings

DWQ assigns water use support ratings to waters in order to report water quality and help to better understand water quality in terms of the desired use for a particular waterbody. By assigning use support ratings state officials and local conservation groups can work on a common goal of helping to protect water quality by observing and monitoring use support ratings. Appendix B defines the Use Support Ratings.

For water supply use, the Dan, Mayo, and Smith Rivers are all Fully Supported. Aquatic Life/Secondary Recreation Use Support is only Partially Supported in the Smith River, whereas the Dan and Mayo Rivers are Fully Supported. Fish Consumption is only Partially Supported in the Dan River due to the fish consumption state advisory for bowfin. Table 1 and Table 2 below depict the use support ratings for sub basins 03-02-02 and 03-02-03 respectively (DWQ 2001).

Table 1

Use Support Ratings Summary (1999) for Monitored and Evaluated[1] Freshwater Streams (miles) in Roanoke River Subbasin 03-02-02

Use Support Category	FS	PS	NS	NR	Total[2]
Aquatic Life/ Secondary Recreation	85.5	0	0	45.8	131.3
Fish Consumption[3]	0	9.3	0	0	9.3
Primary Recreation	0	0	0	11.3	11.3
Water Supply	0	0	0	0	0

[1] For the fish consumption use support category, only monitored stream miles are presented.

[2] Total stream miles assigned to each use support category in this subbasin. Column is not additive because some stream miles are assigned to more than one category.

[3] These waters are impaired because of a statewide fish consumption advisory for bowfin. Refer to Section A, Part 4.8.4 for further information. Fish tissue monitoring in the Dan River is discussed in Chapter 3 of this section.

Table2

Use Support Ratings Summary (1999) for Monitored and Evaluated[1] Freshwater Streams (miles) in Roanoke River Subbasin 03-02-03

Use Support Category	FS	PS	NS	NR	Total[2]
Aquatic Life/ Secondary Recreation	169.5	5.2	0	68.2	242.9
Fish Consumption[3]	0	14.8	0	0	14.8
Primary Recreation	0	0	0	5.7	5.7
Water Supply	69.7	0	0	0	69.7

[1] For the fish consumption use support category, only monitored stream miles are presented.

[2] Total stream miles assigned to each use support category in this subbasin. Column is not additive because some stream miles are assigned to more than one category.

[3] These waters are impaired because of a statewide fish consumption advisory for bowfin. Refer to Section A, Part 4.8.4 for further information. Fish tissue monitoring in the Dan River is discussed above.

The Department of Environmental and Natural Resources has listed the Dan River in Stokes and Rockingham County as a Natural and Scenic River for a total stretch of 79 river miles. This classification is listed under the DWQ's supplemental water use support ratings in Appendix B.

1. Watershed Classifications

Throughout the Dan River Corridor the watershed that comprises the Dan, Mayo and Smith Rivers are given use support ratings. Under part of this rating the watersheds are also given classifications as to what type of uses the waterways are used for. These classifications range from secondary uses being recreation, fishing, wildlife, fish and aquatic life propagation and agricultural uses. Primary uses include: swimming, skin-diving, water skiing, and other activities of human contact with the water source. Other classifications include uses of water that include culinary and other potable uses. The different types of classifications are listed in Appendix B.

G. Riparian Buffers

The riparian buffer is a unique ecosystem in the landscape that plays a major role in maintaining water quality and ecological habitat. Riparian buffers act as a filter for sediment and chemicals that would otherwise enter the streams. These buffers also provide habitat for flora and fauna that is otherwise being depleted by land-clearing activities such as clear-cutting and development. The riparian buffer is an important part of the landscape whether in rural or urban settings, providing many benefits for both. The degradation of buffers often leads to the destruction of a stream's structure and causes bank erosion. Water quality decline and increased sedimentation are examples of the effects of a degraded riparian area.

Restoration of riparian areas has become a major initiative in many urban and rural areas, focusing on water quality for potable water and habitat for flora and fauna.

Malanson (1993) describes riparian areas as three types of systems; economic, social and biological. Under the economic heading riparian areas serve as flood control, recharge of water supplies, and help to produce important timber resources. Within the social realm he includes recreation, aesthetics, natural laboratories for teaching, and natural heritage areas. And for biological functions he lists refuge for upland species, corridors for wildlife movement, and special habitat for some endangered/threatened species.

A riparian area in an urban setting can provide natural area for wildlife to thrive and, while in a rural settings they also serve as buffers between livestock or agricultural fields to help improve or maintain the water quality of streams. The importance of riparian areas as filtering mechanisms for trapping sediment from agricultural fields before reaching a stream and in determining stream habitat and biotic characteristics are well documented (Stewart et al, 2001).

This project helped identify where riparian buffers need to be preserved or restored to their natural state to maintain or improve water quality and the ecological function of the study corridor. Riparian buffers are an important aspect of the landscape that includes aesthetic, recreational and biological values to the landscape (Malanson 1993).

Intact small streams and wetlands provide the ecosystem service of keeping excess sediment out of downstream lakes and streams. Once sediment moves further down stream, it becomes an expensive problem. Too much sediment can fill up reservoirs and navigation channels, damage commercial and sport fisheries, eliminate recreation spots, harm aquatic

habitats and their associated plants and animals, and increase water filtration costs (Meyer 2003).

H. Water Quality Within the Study Corridor

1. Dan River

The waters within the Dan River indicate that there are elevated levels of fecal coliform and turbidity (or suspended sediment). Construction, agricultural activities, and in-stream mining operations were listed as potential sources of sedimentation by DWQ in 2001. These elevated levels led to an aquatic/secondary recreation use support rating of partially supporting in this section of the Dan River. This section of the Dan River in Rockingham County is also considered an impaired river stretch due to the elevated levels of sedimentation and bacteria observed by DWQ in 2001.

2. Mayo River

The Mayo River was indicated by DWQ to have good water quality with very few violations of water quality being detected. The biological monitoring was good to fair in the Mayo River. However, elevated levels of fecal coliform and sediment were observed downstream of the VA/NC state line and are attributed to in-stream mining and agricultural practices occurring along this section of the Mayo River.

3. Smith River

Water quality in the Smith River is in good standing, although greatly influenced by the release of contaminated water from the Martinsville, VA's WWTP. The water in the Smith River has been known to be very discolored and having a high conductivity as a result of the discharge from the WWTP, resulting in habitat degradation. In recent years, the WWTP has increased monitoring, water filtering and decreased the amount of flow into the

Smith River resulting in an improvement in the water quality observed in the Smith River. In addition to the discolorment and high conductivity, the large fluctuations in flow caused by the release of water from the Town of Martinsville's dam have caused scour in the river as well as decreased aquatic life parameters. These problems have resulted in the sampling of benthic macroinvertebrates assigning a fair classification to the Smith River near Eden.

IV. Natural Heritage Inventory

Natural heritage refers to natural communities that make up the biodiversity and assemblage of plants and animals. Schafale and Weakley (1990) defined a natural community as being "a distinct and recurring assemblage of populations of plants, animals, bacteria, and fungi naturally associated with each other and their physical environment." These natural communities make up the wildlife habitat areas and biodiversity that are important in the context of preservation and conservation. Development, farming and other changes to the natural environment create disturbances in these natural communities, in some cases creating havoc among the plant and animal communities that lead to the depletion and/or extinction of many different flora and faunal species.

A. Significant Areas

As of October 2003, the Natural Heritage Program inventory identified 32 Significant Natural Heritage Areas (SNHA) within Rockingham County with 13 of these sites being within a tenth of a mile of the Dan River. The habitats of the Mayo River and the Stokes County portion of the Dan River are ranked as Nationally Significant, while the Rockingham County portion of the Dan River is ranked as State Significant (Coomans, 1999). Rockingham County's significant areas include cliffs, bluffs and forests that support

important natural plant and animal communities. Map 3 illustrates the locations of the natural heritage areas within Rockingham County and the Study Corridor.

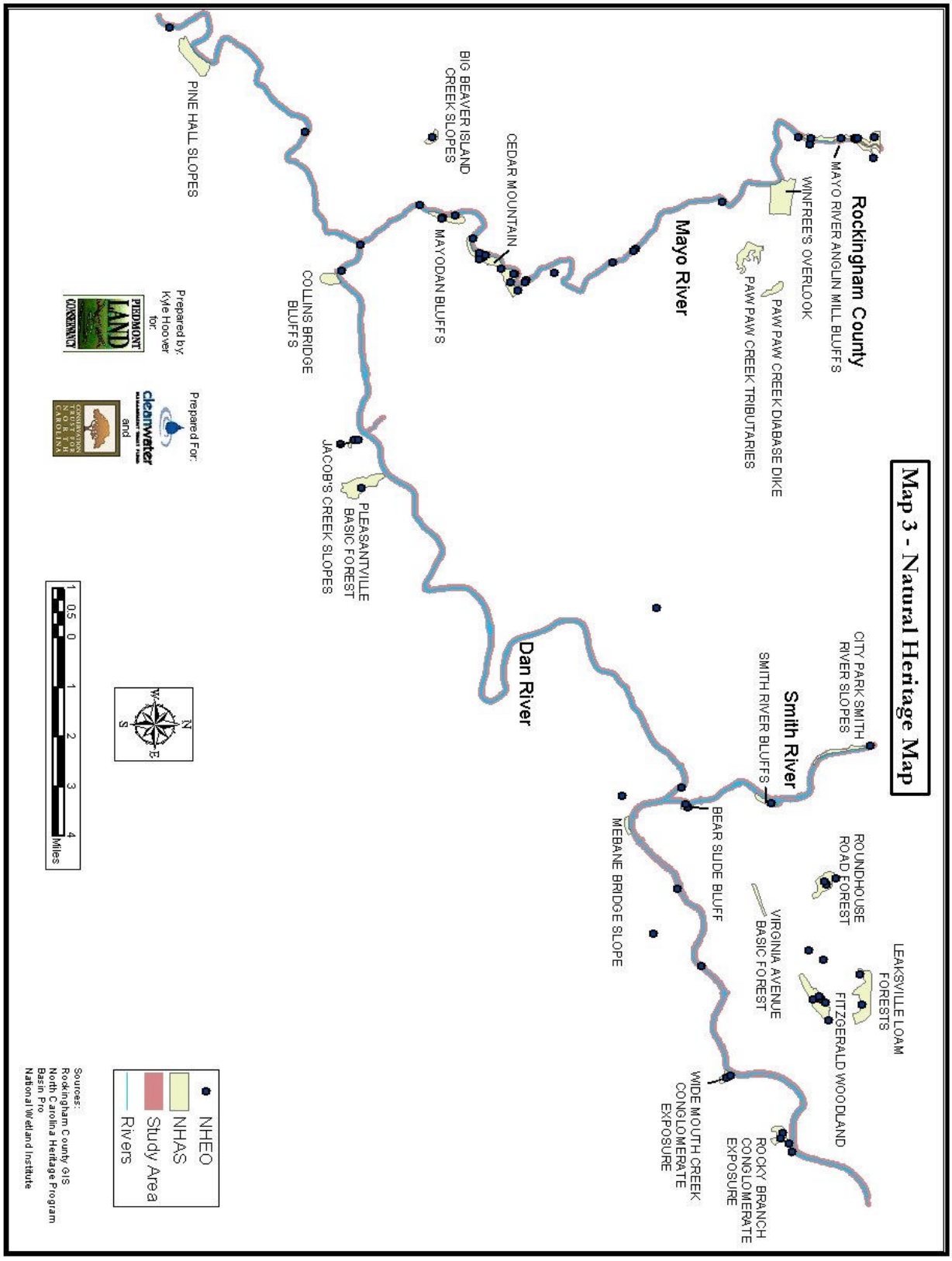
Plant and animal communities as well as land use play a part in determining the significance of a land parcel. There are several areas located within the study corridor that are listed in the North Carolina Natural Heritage Program as State, Regionally or Locally significant areas.

State Significant Sites:

Cedar Mountain: The Cedar Mountain area achieved a ranking of state significance due in large part to its good quality Piedmont Calcareous Cliff. Additional natural communities identified in this area include: Basic Oak-Hickory Forest, Piedmont Alluvial Forest, Mesic Mixed Hardwood Forest, and Dry-Mesic Oak-Hickory Forest. Cedar Mountain also has geologic interest, as it is the only known natural exposure in North Carolina of steeply dipping sandstone and siltstone. Known rare plant species include the significantly rare cliff stonecrop (*Sedum glaucophyllum*), the Virginia cup-plant (*Silphium connatum*), and the wafer-ash (*Ptelea trifoliata*).

Mayodan Bluffs: Located in close proximity to Cedar Mountain, this area has state significance for the presence of the rare cliff stonecrop (*S. glaucophyllum*) and lyreleaf rockcress (*Arabis lyrata*) that occur on the area's exposed ledges. Additionally, the forest has a subcanopy of red cedar and an unusually diverse herbaceous layer.

Jacob's Creek Slopes: This site that is located on a tributary to the Dan River includes a Basic Mesic Forest and a population of plant species that include the State Endangered goldenseal (*Hydrastis canadensis*).


Map 3 - Natural Heritage Map
Rockingham County
MAYO RIVER ANGLIN MILL BLUFFS
WINFREE'S OVERLOOK
PAW PAW CREEK DIABASE DIKE
PAW PAW CREEK TRIBUTARIES
Mayo River
CEDAR MOUNTAIN
BIG BEAVER ISLAND CREEK SLOPES
MAYODAN BLUFFS
COLLINS BRIDGE BLUFFS
PINE HALL SLOPES
JACOB'S CREEK SLOPES
PLEASANTVILLE BASIC FOREST
Dan River
CITY PARK SMITH RIVER SLOPES
Smith River
SMITH RIVER BLUFFS
BEAR SLIDE BLUFF
MEBANE BRIDGE SLOPE
ROUNDHOUSE ROAD FOREST
VIRGINIA AVENUE BASIC FOREST
LEAKSVILLE LOAM FORESTS
FITZGERALD WOODLAND
WIDE MOUTH CREEK CONGLOMERATE EXPOSURE
ROCKY BRANCH CONGLOMERATE EXPOSURE
Prepared by:
Kyle Hoover
for:
Prepared For:
and
1 0.5 0 1 2 3 4
Miles
NHEO
NHAS
Study Area
Rivers
Sources:
Rockingham County GIS
North Carolina Heritage Program
Basin Pro
National Wetland Institute

Rock House Creek Slopes: Like Jacob's Creek Slopes this site is also located on a tributary to the Dan River. Forests at this site include: Basic Mesic Forest, Mesic Mixed Hardwood Forest and Dry-Mesic Oak-Hickory Forest. The State Endangered goldenseal (*H. canadensis*) occurs here.

Rocky Branch Conglomerate Exposure: This state significant area has natural communities that include: Basic Mesic Forest and Mesic Mixed Hardwood Forest. The significantly rare cliff stonecrop (*S. glaucophyllum*) also occurs here. Finally, this site is also of geologic interest as it contains conglomerate boulders, petrified wood, and an exposed diabase dike.

Regionally Significant Sites:

Widemouth Creek Conglomerate Exposures: This site is considered of regional significance because of its rock and cliff exposures, which are the best examples of cliffs and bluffs in the Pine Hall Formation of the Dan River Triassic Basin. Forest communities at this site include: Piedmont Alluvial Forest, Dry Oak-Hickory Forest, and Mesic Mixed Hardwood Forest. These exposures represent unfarmed areas with natural forests and wetlands. There is also a small population of the rare cliff stonecrop (*S. glaucophyllum*).

Bear Slide Bluff: This site has an unusually rich herbaceous species diversity which includes the Virginia spiderwort (*Tradescantia virginiana*). Natural communities found on this site include: Basic Mesic Forest, Piedmont Alluvial Forest, and Dry Oak-Hickory Forest. Finally adding to its geologic interest is an unusually good exposure of Triassic sediments.

Mayo River Anglin Mill Bluffs: This site has several high quality natural communities including a Piedmont Heath Bluff, Mesic Mixed Hardwood Forest, Dry and

Dry-Mesic Oak-Hickory Forests, Piedmont Alluvial Forest, and Rocky Bar and Shore. Rare plant species include the significantly rare Virginia Cup-Plant (*S. connatum*), and several watch list species including Carolina Alumroot (*Heuchera caroliniana*), Jacob's-Ladder (*P. reptans*), Purple Loosestrife (*Lythrum salicaria*), and Dwarf Ginseng (*Panax trifolius*).

Pleasantville Basic Forest: Located along an intermittent tributary of the Dan River, this site consists of slopes and uplands of various aspects. Most significant portions of this site are small areas of Basic Mesic Forest (Piedmont Subtype) occurring on the slopes east of the stream near where a diabase dike crosses the site. Mesic Mixed Hardwood Forest and Dry Oak--Hickory are also represented at the site. A good quality Piedmont/Mountain Alluvial Forest occurs along the stream and supports a large population of the watch list species Jacob's-ladder (*P. reptans*).

Locally Significant Sites:

In addition to the state and regionally significant sites described above there are also several locally significant sites found within the study corridor. These sites include: Collins Bridge Bluff, City Park Smith River Slopes, Smith River Bluffs, Pine Hall Slopes, Winfree's Overlook, and Mebane Bridge Slope.

B. Aquatic Species

Many different types of fish are found in the Dan, Mayo and Smith Rivers. Redbreast Sunfish (*Lepomis auritus*), Sucker Species, both Smallmouth (*Micropterus dolomieu*) and Largemouth Bass (*Micropterus salmoides*), Gizzard Shad (*Dorosoma cepedianum*), Bluegill (*Lepomis macrochirus*), Carp (*Cyprinus carpio*), Channel (*Ictalurus punctatus*) and Flathead Catfish (*Pylodictis olivaris),* and trout are found in the Smith River, upstream reaches of the Mayo River in Virginia and in the Dan River in Stokes County. Additionally, the Riverweed Darter (*Etheostoma podostemone*), Bigeye Jumprock (*Scartomyson ariommus*) and Roanoke

Hog Sucker (*Hypentelium roanokense*) are all rare species of fish located in Rockingham County waters (DWQ 2000).

The fish tissue samples taken within the corridor have indicated that the levels of selenium and polychlorinated biphenyls (PCB's) are both below the state recommended levels for fish consumption. Fishing and other recreational uses of the corridor occur in a substantial amount of river miles and the quality of the river plays a large part in these uses by recreators.

The James River spinymussel (*Pleurobema collina*) is a Federally and State Endangered freshwater mussel that exists in the upstream reaches of the Dan River in Rockingham County and well into Stokes County. The spinymussel is believed to occur in upstream reaches of the Mayo River in North Carolina near the Virginia state line and on into Virginia. The Green Floater (*Lasmigona subviridis*) is another freshwater mussel of Special Concern found in the Dan River regions. The Mole Salamander (*Ambystoma talpoideum*) and Four-toed Salamander (*Hemidactylium scutatum*) are both indicated to be in the region and are both state and federally listed amphibians (NC NHP 2004).

C. Plant Species

There are several plants worth mentioning in the region. The small-anthered bittercress (*Cardamine micranthera*) is a plant that is found in the upstream reaches of the Dan River in Stokes County. Like the spinymussel, the small-anthered bittercress is also believed to be in the upstream reaches of the Mayo River. The smooth coneflower (*Echinacea laevigata*), Virginia cup-plant (*S. connatum*), Cliff stonecrop (*S. glaucophyllum*) and Goldenseal (*H. canadensis*) are other listed rare plants found throughout the river corridor in Rockingham County.

The protection of these species and other plants and animals are important in this part of the region. The forested buffers present along the corridor create good reaches for fish habitat as well as ecological and biological function. A listing by the Natural Heritage Program of aquatic animals and plants, respectively, known to occur within Rockingham County is provided in Appendix C.

V. Methods

With more than 830 parcels of land within 300 feet of the river corridor and due to time constraints and limited access, a complete field analysis could not be performed. Therefore, the use of a Geographic Information Science (GIS) became a significant part of this study. A GIS analysis of available digital data was used to prioritize the parcels in the study corridor as high, medium, or low. Once the GIS analysis was completed, permission letters were sent to those landowners whose parcels had been identified as high or medium priority requesting access to the sites for a field analysis. Additionally, a field assessment of the entire study area was conducted from public navigable waters to provide further insight into the accuracy of the GIS analysis.

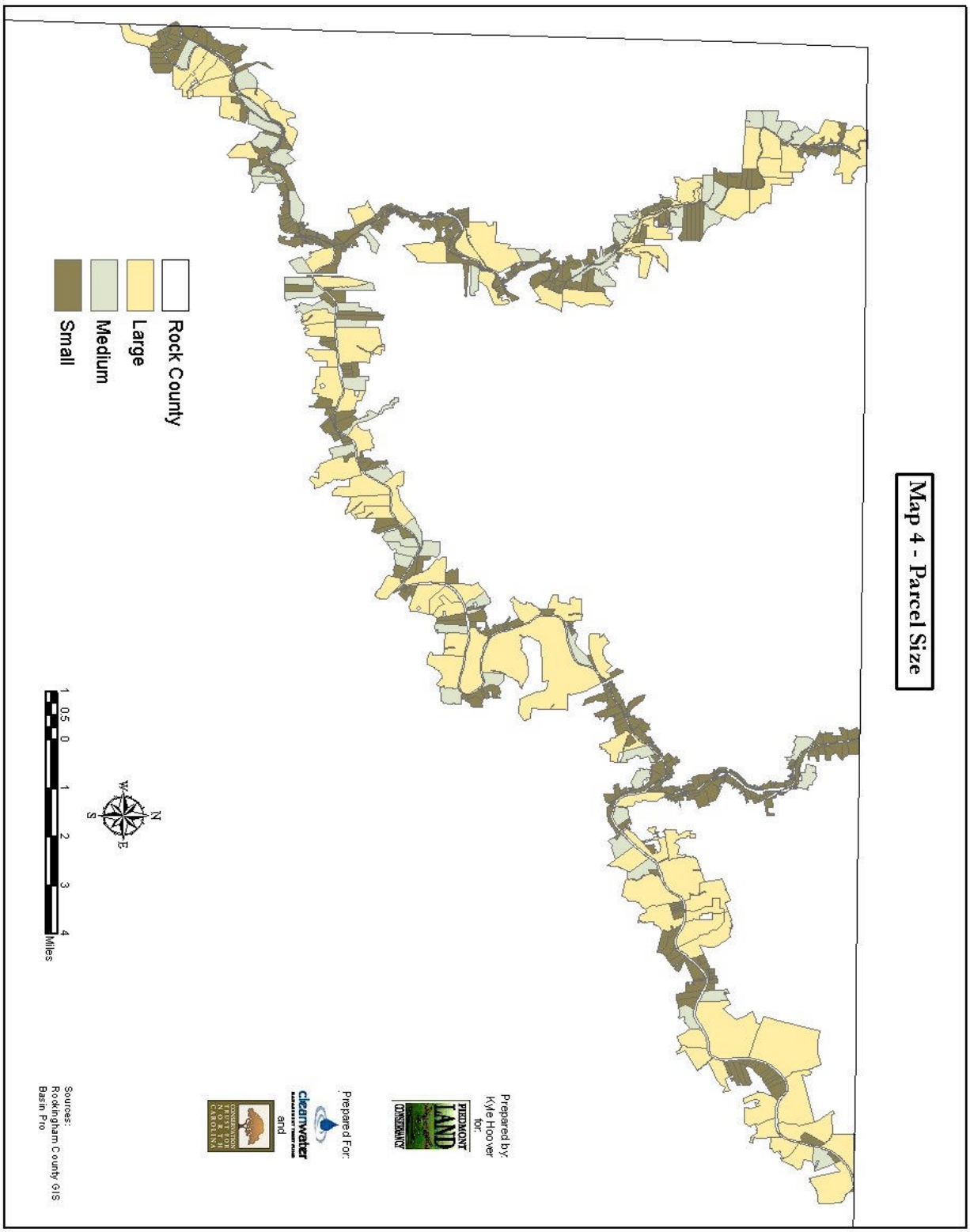
A. GIS Analysis

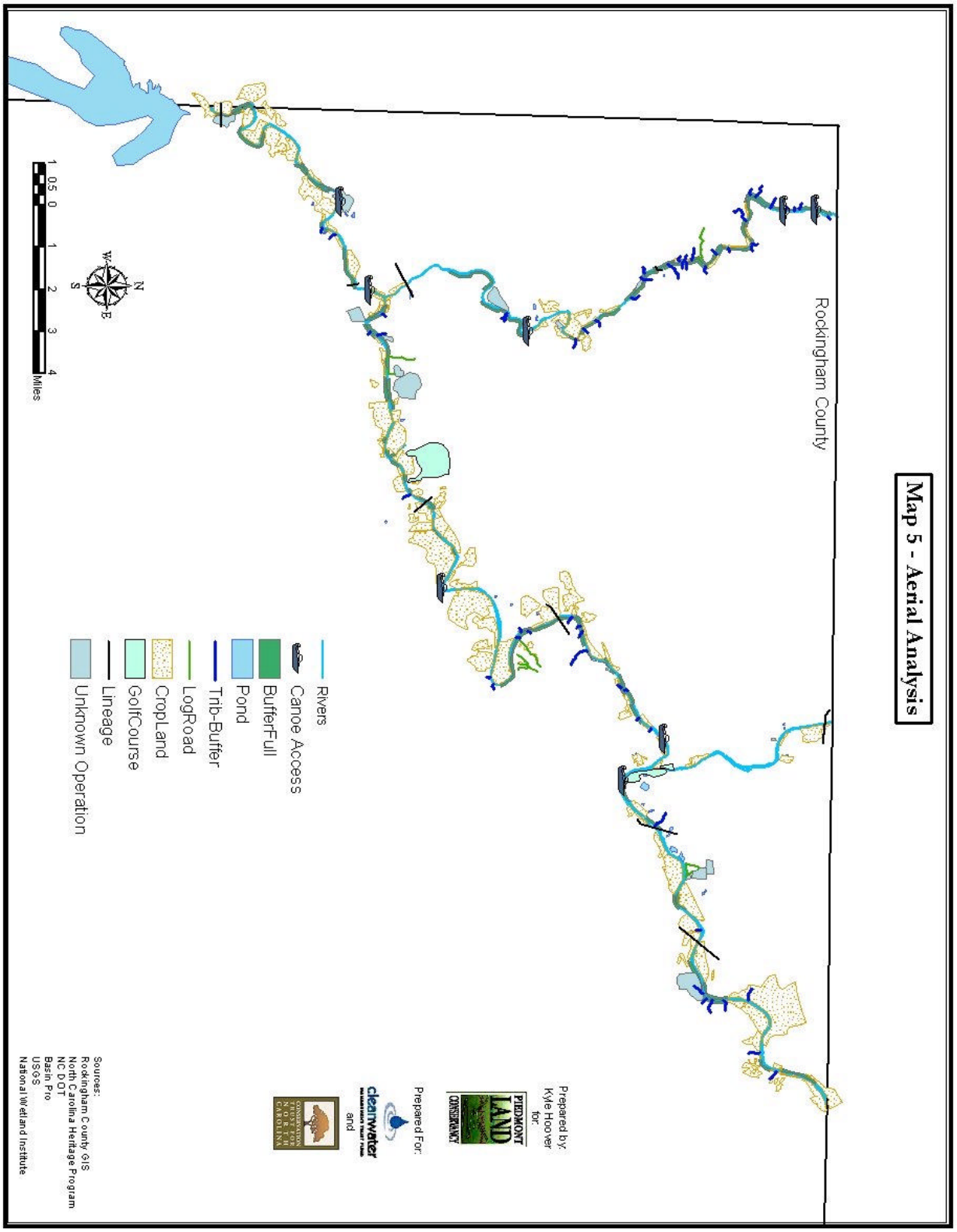
The first step was to collect the digital data layers of importance including, soils, slope, topography, aerial photos, National Pollutant Discharge Elimination System (NPDES) sites, parcel layers, natural heritage sites, element occurrences, hydrography layers, roadways, land use and development sites, wetland sites, Digital Elevation Models, and National Elevation Datasets for the study corridor defined as 300 feet from either side of the Dan, Mayo and Smith Rivers in Rockingham County. This digital data was collected from a number of sources including: the North Carolina Department of Environment and Natural

Resources, Natural Heritage Program, United States Geologic Survey (USGS), North Carolina Department of Transportation (NCDOT), North Carolina Center for Geographic Information Analysis (NCCGIA), U.S. Fish and Wildlife Service (National Wetland Inventory), and the Rockingham County GIS Department.

After the initial collection, the data layers were prioritized by their importance. The size of parcels in acreage, river frontage length, a buffer along the river that is intact to 300 feet or no buffer at all, and natural heritage areas and element occurrences were datasets considered to be of highest importance. Since it was important to not only identify parcels that were large in acreage but also to identify parcels that had a large length of river frontage, an analysis was performed that classified the parcels by acreage and then normalized the parcels by river frontage length (Map 4).

Since tributaries that feed a river are an important area of study for non-point source pollution sites and can also help to maintain the rivers by the ability to have forested buffers an aerial photo analysis was also conducted. In addition to finding the tributaries to these rivers, the aerial analysis also identified other features of importance including: cropland or agricultural activities, sand dredging operations, forested buffers, logging operations and logging roads, utility lines crossing the river such as power lines and gas lines, golf courses, ponds and lakes, and any other unknown or undecided operation that was deemed interesting in the aerial analysis. These features, as shown on Map 5, were created as shape files within the GIS for further analysis and the locating of significant sites of interest.


Map 4 - Parcel Size
Rock County
Large
Medium
Small
1 0.5 0 1 2 3 4
Miles
N
W
E
S
Prepared by:
Kyle Hoover
for:
Prepared For:
and
Sources:
Rockingham County GIS
Basin Pro


Map 5 - Aerial Analysis
Rockingham County
Rivers
Canoe Access
BufferFull
Pond
Trib-Buffer
LogRoad
CropLand
GolfCourse
Lineage
Unknown Operation
1 0.5 0 1 2 3 4
Miles
N
W
E
S
Prepared by:
Kyle Hoover
for:
Prepared For:
and
Sources:
Rockingham County GIS
North Carolina Heritage Program
NC DOT
Basin Pro
USGS
National Wetland Institute

Once the data layers were collected and thematic maps were created, the parcels were prioritized into three priority levels – high, medium and low – based on the features that each parcel contained (Table 3). According to the GIS analysis, a parcel classified as high priority (meaning that it has a high probability of to maintain water quality if preserved or improve water quality if restored) had the following characteristics: 1) presence of natural heritage areas or element occurrences, 2) presence of wetlands, 3) a forested buffer along the river frontage that is either fully buffered 300 feet from the bank (preservation) or not buffered at all (restoration), and 4) contains tributaries, artificial or natural, that are either fully buffered or not buffered at all. A parcel classified as medium priority has the following characteristics: 1) medium size parcel (53-89 acres) and/or a medium river frontage length (185-1385 linear feet), 2) at least one tributary or drainage feature that was at least partially buffered, and 3) natural heritage areas or element occurrences. Finally, a parcel classified as a lower priority site had these characteristics: 1) a small total parcel size (<52 acres), 2) a small river frontage length (<180 linear feet), and 3) does not have any natural heritage areas or element occurrences.

Table 3

GIS Prioritization	High	Med.	Lower
Natural Heritage Areas	X	X	
Element Occurrences	X	X	
Wetland Sites	X		
Tributary	X		
300' Buffer	X		
No Buffer	X		
Partial Buffer		X	X
Med. Parcel Size		X	
River Frontage (185-1385)		X	
Low Parcel Size			X
River Frontage (<180)			X

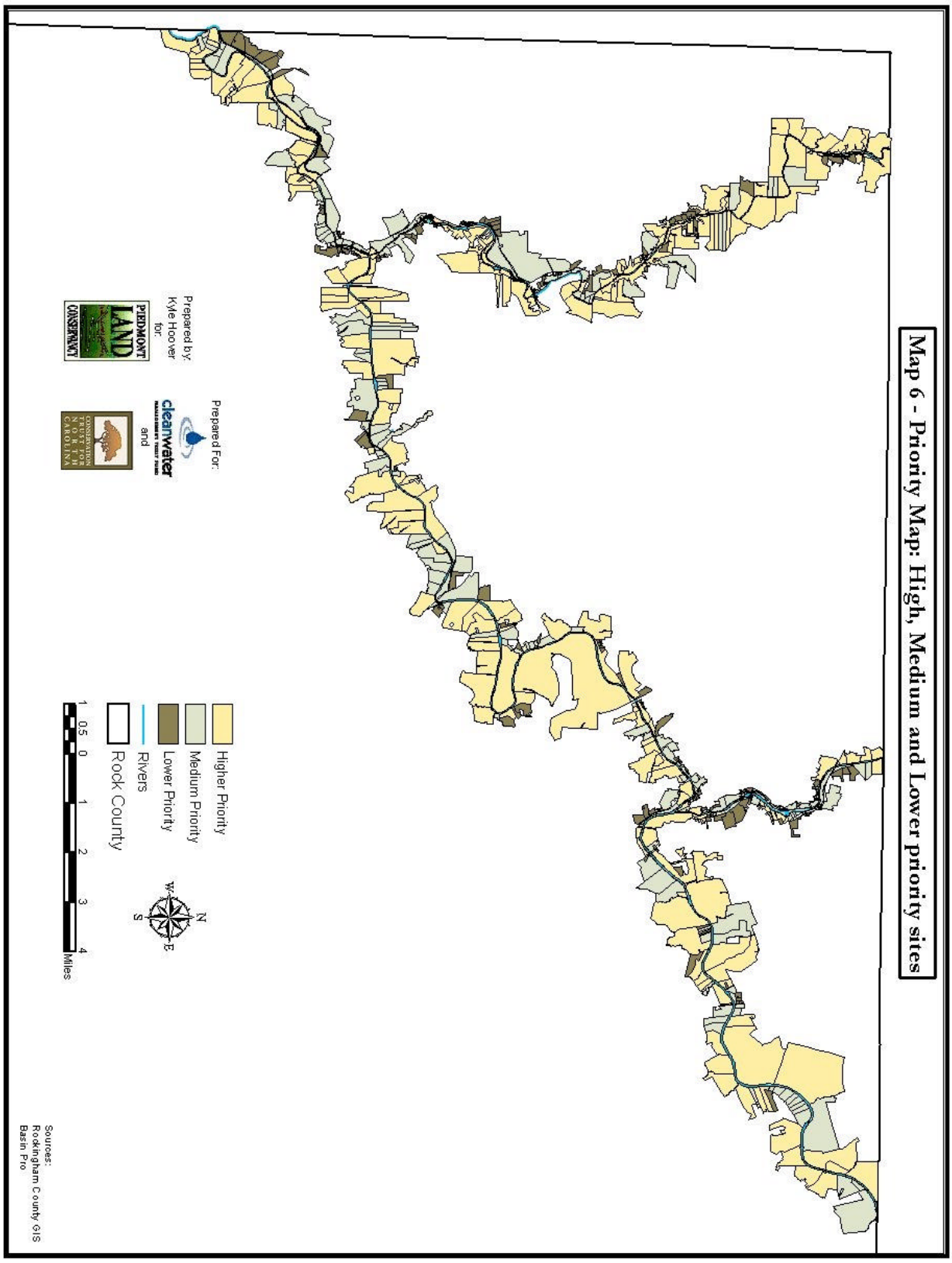
The use of GIS sped up the process of evaluating which of the 836 possible parcels would we want to target for field analysis to ground truth the GIS data through the recordation of actual condition of the sites using the Site Analysis Form (Appendix D). From the GIS Analysis, 365 parcels, 239 parcels, and 232 parcels were identified as high, medium or lower priority for preservation and/or restoration respectively (Map 6). At this point it was decided to focus our attention on the high priority sites first and if possible the medium priority sites too for the field analysis portion of the project.

B. Field Analysis

Although the GIS Analysis sped up the process of identifying high, medium and lower priority parcels, the field analysis was an essential part of the process to verify the accuracy of the results from the GIS Analysis and to obtain parcel specific data that cannot be obtained from GIS data layers. In preparation for the field analysis a permission letter (Appendix E) was mailed to all parcel owners of sites identified as high and medium priority parcels by the GIS analysis to inform them of the project and its purpose and to request their permission to include their parcel in the field analysis. Of the more than 600 letters mailed, PLC received 43 responses with 24 of those landowners granting permission.

1. Prioritization Scheme

While awaiting the responses from the permission letters, a prioritization scheme was developed that was applied after the field data was collected to rank the sites as high, medium or low priority. The prioritization scheme has two categories: 1) sites that can improve the water quality (restoration) and 2) sites that can maintain the water quality (preservation). Five major criteria were identified that complemented the GIS data layers used earlier and were given numerical scores of 1, 2 or 3 to indicate their importance within


Map 6 - Priority Map: High, Medium and Lower priority sites
Prepared by:
Kyle Hoover
for:
PIEDMONT LAND CONSERVANCY
and
Prepared For:
cleanwater
Higher Priority
Medium Priority
Lower Priority
Rivers
Rock County
N
W
E
S
1 0.5 0 1 2 3 4
Miles
Sources:
Rockingham County GIS
Basin Pro

the prioritization scheme. The sites will be prioritized as high, medium or low by the addition of the five criteria shown on the Site Analysis Form (Appendix D) that was completed for each parcel visited.

2. Site Analysis Form:

The prioritization scheme identified five criteria – parcel size, landowner interest, natural and wildlife habitat value, cultural and historical value, and threats of disturbance -- that determine a parcel's recommended conservation strategy (preservation, restoration or both) and its priority level relative to other parcels within the study. Each parcel that was visited in the study has a completed Site Analysis Form that is identifiable by the ID Code, or river number, for example, MR5L (Mayo River, parcel number 5, river left) as well as the landowner's name, field visit date and current/potential land use observations. The Site Analysis Form was used to collect and score the data relevant to the five criteria identified by the prioritization scheme as described below.

A) Site Size:

The size of a parcel will be based on the following four attributes: 1) a parcel's size in acres, 2) river frontage length, 3) acres within the studied buffer and 4) number of tributaries on the property. The parcel size and river lengths are split into three categories of small, medium and large as defined on the Site Analysis Form. The number of tributaries, which were defined as all drainage features, natural or artificial, that flow into the main stems of the Dan, Mayo and Smith Rivers, and the presence or absence of a forested buffer was also considered when rating a parcel's size. The final site size was determined by adding the numerical score of each of the four attributes together. Through the combination of these four attributes a parcel with a small number of acres but larger river length or large amount

of acres within the river buffer could still receive a high rating for site size. Table 4 depicts the correlation between the rating given and the total score received for site size.

Table 4. Site Size Rating

Total Site Size Score	Site Size Rating
7 or more	High
5 to 6	Medium
4 or less	Small

B) Landowner Interest:

The involvement of landowners is a critical part of the prioritization scheme and the continuation of the project will depend on the willingness of the landowner to cooperate, since the work is voluntary. For the purposes of this study, landowner interest was determined by a landowner's willingness to participate in this study and/or known involvement in conservation activities (e.g., in negotiation with the State to sell parcel for inclusion in the Mayo River State Park). This criterion is dynamic and will be modified as more information regarding a landowner's interest is provided. Within the Final Prioritization a classification of High was given to landowners that requested information on conservation easements and showed interest in working with the PLC. A landowner's interest was indicated as Medium if they requested a copy of the findings of the study and an unknown classification was given to the landowners that participated in the study and allowed access to their site but showed no interest in the results of the study.

C) Natural and Wildlife Habitat Value:

To evaluate a parcel's natural value eleven attributes were identified that could be observed during the field analysis. These eleven attributes include: 1) Mature hardwood forests, 2) Wetland/floodplain pools present, 3) diverse natural communities present, 4) fifty foot wide or greater hardwood buffer, 5) absence of exotic plants, 6) unique landforms, 7)

north-facing steep (30% or greater) slopes, 8) topographic variation of slope, 9) presence of interior forest species, 10) presence of natural communities, and 11) occurrence of a natural disturbance regime. Likewise eighteen attributes were identified to evaluate a parcel's wildlife habitat value. These fourteen attributes include: 1) stream not severely incised, 2) non-channelized stream, 3) presence of stream channel shade, 4) clear or slightly turbid water clarity, 5) moderate amount of woody debris in stream channel; 6) sheet flow runoff, 7) stable stream banks, 8) buffer length extends full length of parcel and connects with buffers on adjacent parcels-(buffer connectivity), 9) presence of den sites indicated by steep slopes, logs, snags, and large trees, 10) presence of mast producing trees and shrubs, 11) presence of few edge species, 12) presence of rare animal species, 13) absence of exotic animal species, and 14) documented use by animal or plant species. One point was assigned to each attribute observed on a parcel and total points were then added to arrive at a final score for a site's natural and wildlife habitat value. Table 5 illustrates the correlation between the total points received and a site's rating for these criteria.

Table 5. A Site's Natural and Wildlife Habitat Value Rating

Total Points Received	Natural and Wildlife Habitat Rating
5 or more	High
2 to 4	Medium
1 or less	Low

D) Cultural and Historical Value:

A point was given to each parcel that supported the following two attributes demonstrating cultural and historical value: 1) Historic features present including navigation structures and/or fish dams and 2) Historic Landmarks. Sites were then rated as shown in Table 6.

Table 6. A Site's Cultural and Historical Value Rating

Total Points Received	Cultural and Historical Value Rating
2	High
1	Medium
0	Low

E) Threats of Disturbance:

To evaluate the level of threat of disturbance a parcel is under, five types of land-use were identified as major threats; six types of land-use were identified as minor threats; and seven types of land-use were identified as positive influences. The major threats identified include: 1) construction, 2) cropland soil loss, 3) livestock intrusion, 4) logging, and 5) sedimentation. The minor threats identified include: 1) in-stream mining, 2) invasive weeds, 3) non-point source pollutants, 4) stream turbidity, 5) trash/dumping, and 6) view clearing within the riparian buffer area. The positive influences identified include: 1) animal movement corridor, 2) forest, 3) native plant communities, 4) riparian areas, 5) storm water BMP's, 6) presence of wetlands, and 7) wildlife habitat. These attributes were all evaluated based on their current existence and their potential to exist and are listed under the land use section on the Site Analysis Form. Points were given for each current or potential threat or positive influence exhibited on a parcel and then rated as shown in Table 7.

Table 7. A Site's Threat of Disturbance Rating

Total Points for Major Threats	Total Points for Minor Threats	Total Points for Positive Influences	Threat of Disturbance Rating
1 or less	1 or less	5 or more	High
2 to 4	2 to 4	2 to 4	Medium
5 or more	5 or more	1 or less	Low

VI. Field Analysis Findings and Priorities

Throughout the study area, the primary negative impact is sediment stemming from tributaries that feed the main stems of the Dan River Watershed through agricultural lands

within Rockingham County. The Mayo River is substantially forested with little agricultural land compared to the rest of the study area. In the future this could result in a great deal of forestry related practices in accordance with development occurring within the Mayo River Corridor. The Smith River in Rockingham County is forested in the Northern reaches and is encompassed by much of Eden, resulting in development issues in the lower reaches where it joins the Dan River. The Dan River Corridor is mainly a mix of forested areas with agriculture along the fertile soils of the riparian floodplains. Table 8 shows the properties visited along the river corridors and the results of the field analysis.

Table 8 Dan River Corridor (Rockingham County) Landowner Prioritization										
ID Code	**Landowner**	**Parcel Size (ac.)**	**Landowner Interest**	**Nat. and Wildlife Value**	**Cultural and Hist. Value**	**Maintain Water Quality**	**Improve Water Quality**	**Current Threats**	**Future Threats**	**NHI Site**
MR18R	Joyner	27.1	Unknown	High	Low	Yes	-	Low	Low	-
MR25R	Brady	64	Med	High	Low	Yes	-	Low	Low	-
MR40L	Smith	26.1	Unknown	High	Low	Yes	-	Low	Low	-
MR42L	Smith	6	Unknown	High	Low	Yes	-	Low	Low	-
MR67, 68R	Avalon	106.1	Unknown	Low	Low	Yes	-	Low	Med	-
MR79, 80, 81L	Roberts	21.7	Unknown	Med	Low	-	Yes	Med	Med	-
MR82L	Duggins	0.6	Unknown	Low	Low	Yes	-	Low	Low	-
MR96R	Sides	48.3	Unknown	Low	Low	-	Yes	High	High	-
MR97R	Sides	9.4	Unknown	Low	Low	-	Yes	High	High	-
DR8R	Purguson	36.3	Med	High	Low	Yes	-	Low	Low	-
DR26R	Starr	28.2	Unknown	High	Low	Yes	-	Low	Low	-
DR27R	Kirkpatrick	56.7	Unknown	High	Low	Yes	-	Low	Low	-
DR28R	Kirkpatrick	7.2	Unknown	High	Low	Yes	-	Low	Med	-
DR77R	Kennedy	31.8	Unknown	High	Low	Yes	-	Low	Low	-
DR141L	KEM	16.4	Med	Med	Low	-	Yes	Med	High	-
DR147, 148R	Fleishman	84	Med	Med	Low	Yes	-	Low	Low	-
DR172, 173R	Wangard	109.3	High	High	High	Yes	-	Low	Low	-
SR1R	Gibson	30.1	Unknown	Med	Low	Yes	-	Low	Low	Yes

Table 9 shows the parcels that are regarded as having preservation qualities or the ability to maintain the water quality as well as the parcels that are in need of restoration or

the ability to improve the water quality. These rankings are determined by Site Analysis Form (Appendix D). In addition to the form that is filled out for each site visit, in some instances the rankings will be the judgment of a qualified field technician and/or other PLC staff. Field visits made to each of the parcels ensure that the Site Analysis Form is a good representation of the site. Map 7 indicates the parcels that are prioritized as preservation and restoration.

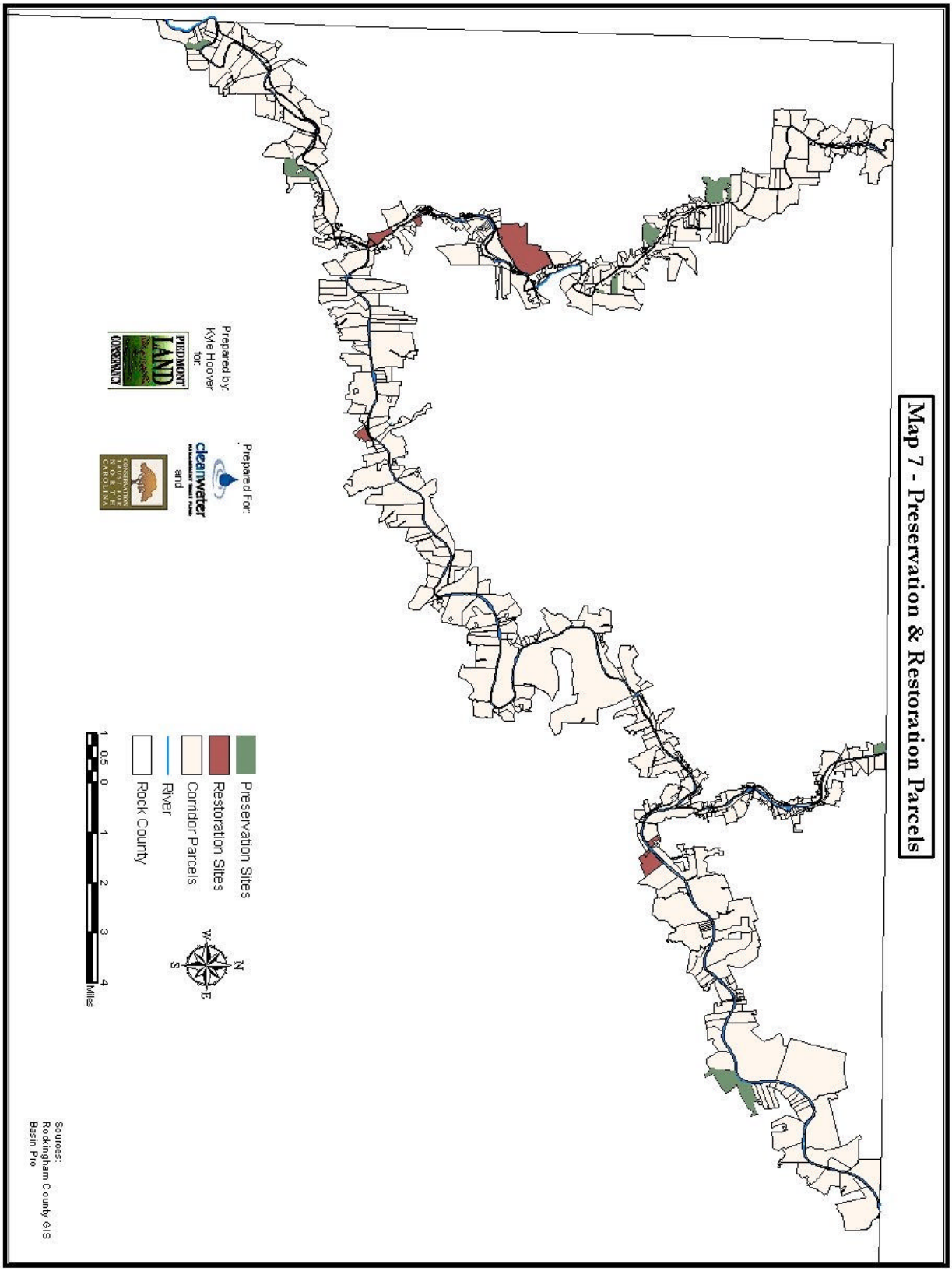
Table 9 Preservation and Restoration Classifications

Preservation

ID	Name	Field Analysis Priority Rating	GIS Priority Level
DR172, 173R	Wangard	High	High
MR25R	Brady	High	Med
MR18R	Joyner	High	High
DR27R	Kirkpatrick	High	High
DR8R	Purguson	High	High
MR42L	Smith	High	High
MR40L	Smith	High	High
DR26R	Starr	High	High
DR28R	Kirkpatrick	High	High
SR1R	Gibson	High	High
DR77R	Kennedy	Lower	Lower
DR147R	Fleishman	Lower	Lower
DR148R	Fleishman	Lower	Med.
DR77R	Kennedy	Lower	Lower

Restoration

ID	Name		
MR79, 80, 81L	Roberts	Lower	High
MR82L	Duggins	Lower	High
MR67, 68R	Avalon	Lower	Med
MR96R	Sides	High	Med
DR141L	KEM	High	Med
MR97R	Sides	High	High


Map 7 - Preservation & Restoration Parcels
Prepared by:
Kyle Hoover
for
PIEDMONT LAND CONSERVANCY
Prepared For:
cleanwater
and
CONSERVATION NORTH CAROLINA
Preservation Sites
Restoration Sites
Corridor Parcels
River
Rock County
1 0.5 0 1 2 3 4
Miles
N
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Sources:
Rockingham County GIS
Basin Pro

VII. Comparison of GIS Analysis with Field Analysis Priorities

Upon the completion of the GIS Analysis and the Field Analysis, there needed to be a way to correlate and check the differences between the prioritization of the parcels from the GIS analysis relative to the prioritization results from the Field Analysis. In the GIS Analysis there were 365 high priority sites, 239 medium priority sites and 232 lower priority sites. In the corridor inventory 24 sites were visited, resulting in 10 high priority sites for preservation, and 3 high priority sites for restoration. The rest of the sites were considered lower priority for either preservation or restoration. Of the 10 sites indicated as high priority for preservation under the corridor inventory, the same parcels were also indicated to be of high interest by the GIS portion of the study except for one parcel that was classified as medium. Of the three sites indicated as high priority for restoration, two of the same sites were considered medium and one high priority in the GIS Analysis. Of the six parcels that were not considered high priority in the corridor study for either preservation or restoration, the GIS considered these sites as lower or medium for all except two that were considered high. These numbers indicate that of the 24 parcels that were visited during the corridor inventory the GIS study proved to be 74% accurate in deciphering what should be considered a higher priority in ground surveys for either preservation or restoration.

These results were based on two studies, the GIS and Field Analyses. Though they were two different tasks the latter was completed to check the accuracy of the GIS Analysis. After the completion of the study it is decided that the black and white aerial photos were not only out-dated (1996) but they also had a lower resolution (1 foot) than is desired in a study such as this one. The new color aerial photos that were flown in 2005 will be a great benefit to refine the ability to identify sites of conservation significance through a GIS Analysis.

There is also some discrepancy in what is searched for on a computer screen and what is surveyed on the ground, details that can be surveyed from the ground are not easily discernable from a GIS Analysis. By using training sites of known points, the GIS Analysis can benefit greatly by matching known areas to unknown areas.

Table 10 (Appendix F) shows a list of parcels that are selected as High Priority for either preservation or restoration within the corridor as indicated by the GIS Analysis. The Field Analysis, while using the Site Analysis Form along with the five criteria, was able to indicate whether sites were important for preservation or restoration. The GIS Analysis gave a more broad priority that needed ground truthing using the Site Analysis Form to determine the classification of preservation or restoration. Table 11 (Appendix F) indicates Medium Priority sites and Table 12 (Appendix F) are Lower Priority sites both obtained through the GIS Analysis.

VIII. Recommendations for Corridor

Several recommendations can be made for the Dan, Mayo and Smith River Corridors according to the findings from this study. Of course education of the public can be a major source for helping to protect the water quality. The education of the general public about water quality and concerns towards the benefits of clean waterways is a major goal of many organizations. Consequently, it is recommended that PLC and the Dan River Basin Association continue their efforts to form a coalition in the watershed to assist with a unified outreach effort to the landowners in the Dan River Corridor.

For the parcels in this study that are listed as being candidates for preservation it is recommended that the landowners be contacted for the possibility of conservation easements or acquisition where applicable. For parcels that are listed as candidates for restoration the

same applies so that restoration activities can be performed such as invasive species management, BMP's, stream bank stabilization and other measures.

Forested areas are a significant source of good water quality in the Dan, Mayo and Smith Rivers. As these areas are developed in the future, BMP's need to be implemented when logging occurs. The importance of these BMP's have been tested and have proven to be very effective at decreasing sediment load in headwaters to major streams such as those present in this corridor. Forestry BMP's can include stream crossing measures, pre-harvest planning, riparian management zones and maintenance of forest roads.

The riparian areas along the corridor need to be preserved and many areas need restoration of these beneficial water filters. The riparian buffers are an essential part of filtering the agricultural lands that are prevalent throughout the Dan River Watershed. As these lands continue to be farmed and used in an agricultural manner many BMP's can help to alleviate the sediment load as well as habitat degradation. BMP's can also be used in conjunction with development as areas continue to grow and expand. BMP's that are beneficial to agricultural land planning include filter strip planting, riparian plantings, contour rows, cattle exclusion fencing and alternate watering systems.

Finally, this study's investigator, Kyle Hoover, is following up this study in thesis work while attending graduate school at the University of North Carolina at Greensboro, studying in Environmental Planning and GIS. The study will use remote sensing software (Visual Learning System's Feature Analyst) to perform an in-depth study of the river corridor using pixel-training sites with machine learning technology (remote sensing). The goal will be to increase the percentage of GIS finds against ground-truthing within the corridor, which totaled 74%. The results of his work will be provided to PLC at its

completion. This work will involve updated color aerial photos conducted by Rockingham County at the beginning of 2005, which were unavailable for the current study. These new aerial photos are critical in obtaining the most up-to-date study in the Corridor as well as using color photos in accordance with the remote sensing software Feature Analyst.

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Appendix A-BMP References

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Appendix B-Water Use Support Ratings (NCDENR DWQ)

Class C
Waters protected for secondary recreation, fishing, wildlife, fish and aquatic life propagation and survival, agriculture and other uses suitable for Class C. Secondary recreation includes wading, boating, and other uses involving human body contact with water where such activities take place in an infrequent, unorganized, or incidental manner. There are no restrictions on watershed development or types of discharges.

Class B
Waters used for primary recreation and other uses suitable for Class C. Primary recreational activities include swimming, skin diving, water skiing, and similar uses involving human body contact with water where such activities take place in an organized manner or on a frequent basis. There are no restrictions on watershed development or types of discharges.

Water Supply I (WS-I)
Waters used as sources of water supply for drinking, culinary, or food processing purposes for those users desiring maximum protection for their water supplies. These waters are also protected for Class C uses. WS-I waters are those within natural and undeveloped watersheds in public ownership with no permitted point source (wastewater) discharges. All WS-I waters are HQW by definition.

Water Supply II (WS-II)
Waters used as sources of potable water where a WS-I classification is not feasible. These waters are also protected for Class C uses. WS-II waters are generally in predominantly undeveloped watersheds and only general permits for discharges are allowed. All WS-II waters are HQW by definition.

Water Supply III (WS-III)
Waters used as sources of potable water where a more protective WS-I or II classification is not feasible. These waters are also protected for Class C uses. WS-III waters are generally in low to moderately developed watersheds. General discharge permits only are allowed near the water supply intake whereas domestic and nonprocess industrial discharges are allowed in the rest of the water supply watershed.

Water Supply IV (WS-IV)
Waters used as sources of potable water where a WS-I, II or III classification is not feasible. These waters are also protected for Class C uses. WS-IV waters are generally in moderately to highly developed watersheds or Protected Areas, and involve no categorical restrictions on discharges.

Water Supply V (WS-V)
Waters protected as water supplies which are generally upstream and draining to Class WS-IV waters or waters used by industry to supply their employees with drinking water or as waters formerly used as water supply. These waters are also protected for Class C uses. WS-V has no categorical restrictions on watershed development or wastewater discharges unlike other WS classifications and local governments are not required to adopt watershed protection ordinances.

Class WL
Freshwater Wetlands are a subset of all wetlands, which in turn are waters that support vegetation that is adapted to life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. These waters are protected for storm and flood water storage, aquatic life, wildlife, hydrologic functions, filtration and shoreline protection. Although there are no restrictions on watershed development or types of wastewater discharge in wetlands, impacts from these actions must be justified, minimized, and often mitigated. No water bodies in the state currently carry the Class WL designation.

Class SC
All tidal salt waters protected for secondary recreation such as fishing, boating and other activities involving minimal skin contact; aquatic life propagation and survival; and wildlife. Stormwater controls are required under CAMA and there are no categorical restrictions on discharges.

Class SB
Surface waters that are used for primary recreation, including frequent or organized swimming and all SC uses. Stormwater controls are required under CAMA and there are no categorical restrictions on discharges.

Class SA
Surface waters that are used for shellfishing or marketing purposes and all SC and SB uses. All SA waters are also HQW by definition. Stormwater controls are required under CAMA. No domestic discharges are permitted in these waters.

Class SWL
These are saltwater wetlands located landward of the mean high water line or contiguous with estuarine waters. See 15A NCAC 7H .0205 and .0206 for full definition of coastal wetlands. A general description of wetlands can be found at WL. There are no water bodies in the state that currently have this classification.

DWQ SUPPLEMENTAL CLASSIFICATIONS
Supplemental classifications are sometimes added by DWQ to the primary classifications to provide additional protection to waters with special uses or values.
Future Water Supply (FWS)
Supplemental classification for waters intended as a future drinking water source. FWS would be applied to one of the primary water supply classifications (WS-I, WS-II, WS-III, or WS-IV). State permitting requirements applicable to the primary water supply classification become effective upon reclassification. However, local government water supply protection ordinances are not required until after the FWS supplemental classification is removed. Currently no water bodies in the state carry this disignation.
High Quality Waters (HQW)
Supplemental classification intended to protect waters with quality higher than state water quality standards. In general, there are two means by which a water body may be classified as HQW. They may be HQW by definition or they may qualifiy for HQW and then be supplementally classified as HQW through the rule-making process. The following are HQW by definition:

WS-I,
WS-II,
SA (shellfishing),
ORW,
Waters designated as Primary Nursery Areas or other functional nursery areas by the Marine Fisheries Commission, or
Native and special native (wild) trout waters as designated by the Wildlife Resources Commission.

The following waters can qualify for supplemental HQW designation:

Waters for which DWQ has received a petition for reclassification to either WS-I or WS-II, or
Waters rated as Excellent by DWQ,

There are associated wastewater treatment and development controls enforced by DWQ. No restrictions are placed on the types of discharges allowed under this supplemental classification.
Nutrient Sensitive Waters (NSW)
Supplemental classification intended for waters needing additional nutrient management due to their being subject to excessive growth of microscopic or macroscopic vegetation. In general, management strategies for point and nonpoint source pollution control require control of nutrients (nitrogen and/or phosphorus usually) such that excessive growths of vegetation are reduced or prevented and there is no increase in nutrients over target levels. Management strategies are site-specific.
Outstanding Resource Waters (ORW)
Supplemental classification intended to protect unique and special waters having excellent water quality and being of exceptional state or national ecological or recreational significance. To qualify, waters must be rated Excellent by DWQ and have one of the following outstanding resource values:

Outstanding fish habitat or fisheries,
Unusually high level of waterbased recreation,
Some special designation such as NC or National Wild/Scenic/Natural/Recreational River, National Wildlife Refuge, etc.,
Important component of state or national park or forest, or
Special ecological or scientific significance (rare or endangered species habitat, research or educational areas).

No new or expanded wastewater discharges are allowed although there are no restrictions on the types of discharges to these waters. There are associated development controls enforced by DWQ. ORW areas are HQW by definition.
Swamp Waters (Sw)
Supplemental classification intended to recognize those waters that generally have naturally occurring very low velocities, low pH and low dissolved oxygen. No specific restrictions on discharge types or development are involved.
Trout Waters (Tr)

Supplemental classification intended to protect freshwaters for natural trout propagation and survival of stocked trout. This designation affects wastewater quality but not the type of discharges and there are no watershed development restrictions except stream buffer zone requirements of NC Division of Land Resources. DWQ's classification is not the same as the NC Wildlife Resources Commission's Designated Public Mountain Trout Waters classification.

Unique Wetland (UWL)

Wetlands of exceptional state or national ecological significance. These wetlands may include wetlands that have been documented to the satisfaction of the Environmental Management Commission as habitat essential for the conservation of state or federally listed threatened or endangered species. There are currently no water bodies in the state that have this classification.

ADDITIONAL SURFACE WATER CLASSIFICATIONS DETERMINED BY OTHER AGENCIES

NC Natural and Scenic Rivers

A state government river designation intended to protect certain free flowing rivers or segments with outstanding natural, scenic, educational, recreational, geologic, fish and wildlife, historic, scientific or other cultural values. There are three river classifications: Natural, Scenic, and Recreational river areas. The designation places no land use or development regulations on developments on private lands except on the construction of dams and other water resources projects. The program is administered by the NC Division of Parks and Recreation.

Federal Wild and Scenic Rivers

A federal government river designation intended to protect certain free flowing rivers or segments with outstanding scenic, recreational, geologic, fish and wildlife, historic, archaeologic or other values. There are three river classifications: Wild, Scenic, and Recreational. The designation restricts or prohibits certain "water resources projects." It places no federal land use or development regulations on private lands. Some controls apply to federal lands and are administered by the federal land management agencies (e.g. US Forest Service, National Park Service).

Designated Public Mountain Trout Waters

A state fishery management classification administered by the NC Wildlife Resources Commission which provides for public access to streams for fishing on private and public lands. It regulates fishing activities only (seasons, size limits, creel limits, and bait and lure restrictions) and is not the same classification as the DWQ Tr classification which protects water quality.

Areas of Environmental Concern

The Division of Coastal Management is responsible for maintaining estuarine Areas of Environmental Concern (AECs) and establishing Specific Use Standards that specify the types of projects and construction methods that may be located/used in AECs. DCM manages construction activities through the issuance of CAMA development permits.

Designated Shellfish Harvesting Areas

The Shellfish Sanitation and Recreational Water Quality Branch of the Division of Environmental Health classifies saltwaters for their quality and public safety relative to the harvesting of shellfish. They are responsible for monitoring shellfish harvesting areas and closing them if there is danger to the public from consumption of shellfish from a particular area. The agency reviews and makes recommendations regarding permit applications for projects located in coastal North Carolina.

Primary Nusery Areas

Primary Nursery Areas, as defined by the Marine Fisheries Commision, are those areas in the estuarine system where initial post-larval development takes place. These areas are usually located in the uppermost sections of a system where populations are uniformly very early juveniles. The Division of Marine Fisheries is responsible for preserving, protecting and developing Primary Nursery Areas for commercially important finfish and shellfish.

Appendix C.

1. NC Natural Heritage Program-Listed Aquatic Species

Little Dan River Aquatic Habitat

Scientific Name	Common Name	Major Group	State Status	Federal Status	State Rank	Global Rank
Cottus caeruleomentum	Blue Ridge sculpin	Fish	SR (PSC)		S1	G4
Etheostoma podostemone	Riverweed darter	Fish	SC		S2	G4
Noturus gilberti	Orangefin madtom	Fish	E	FSC	S1	G2
Thoburnia hamiltoni	Rustyside sucker	Fish	E		S1	G3
Hypentelium roanokense	Roanoke hog sucker	Fish	SR		S3	G4

Dan River (Stokes) Aquatic Habitat

Scientific Name	Common Name	Major Group	State Status	Federal Status	State Rank	Global Rank
Etheostoma podostemone	Riverweed darter	Fish	SC		S2	G4
Exoglossum maxillingua	Cutlips minnow	Fish	E (PSC)		S1	G5
Hypentelium roanokense	Roanoke hog sucker	Fish	SR		S3	G4
Cottus caeruleomentum	Blue ridge sculpin	Fish	SR (PSC)		S1	G4
Noturus gilberti	Orangefin madtom	Fish	E	FSC	S1	G2
Scartomyzon ariommus	Bigeye jumprock	Fish	T		S2	G4
Pleurobema collina	James spinymussel	Mollusk	SR	E	S1	G1
Lasmigona subviridis	Green floater	Mollusk	E	FSC	S1	G3

Dan River (Rockingham) Aquatic Habitat

Scientific Name	Common Name	Major Group	State Status	Federal Status	State Rank	Global Rank
Etheostoma podostemone	Riverweed darter	Fish	SC		S2	G4
Lasmigona subviridis	Green floater	**Mollusk**	E	FSC	S1	G3

Scientific Name	Common Name	Major Group	State Status	Federal Status	State Rank	Global Rank
Scartomyzon ariommus	Bigeye jumprock	Fish	T		S2	G4
Hypentelium roanokense	Roanoke hog sucker	Fish	SR		S3	G4

Mayo River Aquatic Habitat

Scientific Name	Common Name	Major Group	State Status	Federal Status	State Rank	Global Rank
Etheostoma podostemone	Riverweed darter	Fish	SC		S2	G4
Scartomyzon ariommus	Bigeye jumprock	Fish	T		S2	G4
Ephemerella berneri	A mayfly	Insect	SR		S3	G3
Ceraclea mentiea	A caddisfly	Insect	SR		S2?	G?
Micrasema sprulesi	A caddisfly	Insect	SR		S3	G?
Lasmigona subviridis	Green floater	Mollusk	E	FSC	S1	G3
Pleurobema collina	James spinymussel	Mollusk	SR	E	S1	G1
Hypentelium roanokense	Roanoke hog sucker	Fish	SR		S3	G4

2. NC Natural Heritage Program-Listed Plant Species (Rockingham County)

Scientific Name	Common Name	Major Group	State Status	Federal Status	State Rank	Global Rank
Baptisia albescens	Thin-pod White Wild Indigo	Vascular Plant	SR-P		S2	G4
Berberis canadensis	American Barberry	Vascular Plant	SR-T		S2	G3
Botrychium jenmanii	Alabama Grape-fern	Vascular Plant	SR-P		S1	G3G4
Echinacea laevigata	Smooth Coneflower	Vascular Plant	E-SC	E	S1	G2
Helianthemum propinquum	Creeping Sunrose	Vascular Plant	SR-P		S1	G4
Hydrastis canadensis	Goldenseal	Vascular Plant	E-SC		S2	G4
Lotus helleri	Carolina Birdfoot-trefoil	Vascular Plant	SR-T	FSC	S3	G5T3
Parthenium auriculatum	Glade Wild Quinine	Vascular Plant	SR-T		S1	G3?Q

Scientific Name	Common Name	Major Group	State Status	Federal Status	State Rank	Global Rank

Scientific Name	Common Name	Major Group	State Status	Federal Status	State Rank	Global Rank
Sedum glaucophyllum	Cliff Stonecrop	Vascular Plant	SR-P		S2	G4
Silphium connatum	Virginia Cup-plant	Vascular Plant	SR-T		S1	G3?Q
Solidago rigida ssp glabrata	Southeastern Bold Goldenrod	Vascular Plant	SR-P		S2	G5T4
Tradescantia virginiana	Virginia Spiderwort	Vascular Plant	SR-P		S1	G5
Trichostema brachiatum	Glade Bluecurls	Vascular Plant	SR-P		S1	G4G5

Appendix D. Dan River Riparian Corridor, Site Analysis Form

ID Code: **Landowner Name:** **Date:**

1. Ability to Maintain Water Quality: High (protection candidate) med low

2. Ability to Improve Water Quality: High (restoration candidate) med low

3. GIS analysis High Med Low

Size of parcel: Large(89 acres+) Medium(53 to 89 acres) Small(53 or less)

Acres within River Buffer Large(>18) Medium(17-7) Small(<6)

River Length (linear ft.) Large(>1390 feet) Medium(185-1385 feet) Small(<180 feet)

# of Tributaries Total___ Natural___ Artificial___ Buffered___ Not Buffered___

4. Parcel Size Rating Large Med Low

5. Landowner Interest High Med Low

6. Nat. and Wildlife Habitat Value High Med Low

7. Cultural and Historical Value High Med Low

8. Current Threats High Med Low

9. Potential Future Threats High Med Low

Land Use High Med Low

Major Threats
Construction-major
Cropland soil loss-major
Livestock intrusion-major
Logging-major
Sedimentation-major

Minor Threats
In stream Mining-minor
Invasive Weeds-minor
Non-point source pollutants-minor
Stream Turbidity-minor
Trash, dumping-minor
View clearing of buffer-minor

Positive Land Use Influences
Animal movement corridor
Forest
Plant communities
Riparian areas
Storm water BMP's
Wetlands Present
Wildlife habitat

Recommendations specific to this site

Appendix E-Landowner Permission Letter

May 20, 2004

Dan River Corridor Landowner
123 Dan River Road
Dan River, NC 12345

RE: Invitation to participate in a Dan River Corridor Study

Dear Dan River Corridor Landowner:

The Piedmont Land Conservancy (PLC) is a non-profit, grassroots land trust in nine North Carolina Counties. Our mission is to protect natural and scenic lands, farms, and open space in the Piedmont of North Carolina to enrich the quality of life for our communities and for future generations.

The intent of this letter is to ask your permission for biologists and PLC staff to access and briefly walk your property along the Dan, Mayo or Smith Rivers so that we can identify special natural areas and assess the stream bank condition. Kyle Hoover, local geographer and resident of the Piedmont will be organizing the fieldwork.

As a landowner along the Dan River Corridor, we are certain that you value this incredibly special and beautiful section of North Carolina. The Dan River is a nationally significant river known for its excellent water quality, natural buffers, and populations of rare aquatic species. In order to protect the aspects of the Dan River, PLC will produce a report on the existing conditions and provide suggestions for future preservation and conservation goals.

Additionally, we plan to conduct at least one public forum where we will be able to share all information gathered with every interested landowner and work with you to help protect the rivers and their surrounding areas in this exceptionally special region. PLC will be pleased to supply a copy of your site survey information if requested. Please be aware that we will do our utmost to respect your privacy and to protect the areas in which we are requesting access. In addition, you will be the first to hear of any significant findings and at your request be able to provide ways of protecting the natural heritage of lands surveyed.

For more information, any questions, or if you choose to or not to participate, please contact the Piedmont Land Conservancy at 691-0088 by June 12, 2004. Thank you in advance for your time and participation.

Sincerely,

Appendix F.

Table 10 High Priority (GIS Analysis)

AC_CALC	NAME1	TAXPAYCITY	TAX	TAXPAYZIP	RiverLen	RiverNum
180.491	SIMS ROBERT V	CASCADE	VA	24069	5230	DR169L
233.899	THOMAS RAYMOND CARL	EDEN	NC	27288	3540	DR167L
45.502	FRANKLIN CAROLINE R W	GREENSBORO	NC	27410	2090	DR168L
116.696	POWELL HERMAN WARD	RUFFIN	NC	27326	1250	DR189R
70.718	COCHRAN BEATRICE EVELYN	EDEN	NC	27288	1285	DR163L
358.875	DUKE POWER COMPANY	CHARLOTTE	NC	28201	5165	DR147L
19.086	WILSON ROBERT LEE	STONEVILLE	NC	27048	0	MR28L
17.934	HARRIS WINFRED LEE	EDEN	NC	27288	525	DR125R
41.786	HAYNES JOSEPH B	EDEN	NC	27288	495	DR121R
67.771	WILSON STEVE J	STONEVILLE	NC	27048	1175	DR72L
286.497	DUMAINE FARM TRUST	REIDSVILLE	NC	27320	14850	DR76L
130.852	MARTIN RUSSELL KENNETH	REIDSVILLE	NC	27320	2555	DR110R
72.325	ADAMS LINDA PUGH	MADISON	NC	27025-7706	950	DR109R
34.733	MITCHELL RICHARD KEMPER	MADISON	NC	27025	630	DR108R
99.237	WALKER DAVID R	MADISON	NC	27025-7705	1265	DR106R
95.453	WALKER DAVID R	MADISON	NC	27025-7705	2455	DR105R
157.249	RAKESTRAW WM GILBERT	MADISON	NC	27025	2915	DR104R
169.246	SMITH TROY C	WINSTON SALEM	NC	27107	5485	DR64L
90.645	DRAPER JAMES FRANKLIN SR	RALEIGH	NC	27604	615	DR97R
138.955	CARTER JAMES DONALD	MADISON	NC	27025	1175	DR88R
25.287	BROADNAX DOROTHY BRIM	STONEVILLE	NC	27048	1	DR62L
26.333	COX JEFFREY D	STONEVILLE	NC	27048	1270	DR61L
80.433	STEWART CHARLES ALFRED SR	MADISON	NC	27025	1305	DR51L
100.277	MOTSINGER ROBERT ALLEN	STONEVILLE	NC	27048	2735	DR52L
88.682	PINE HALL BRICK CO	MADISON	NC	270250836	0	DR18L
100.625	BUSICK JOHN III	MADISON	NC	27025	0	DR17R
112.347	WEBSTER JOHN MCRAE	MADISON	NC	27025	2445	DR14R
126.176	WEBSTER JACK K	STOKESDALE	NC	27357	1300	DR13R
104.182	RED LEAF LLC	EDEN	NC	27289	0	MR1R
5.056	HANNAH WALTER L TRUSTEE	GREENSBORO	NC	27402	3880	MR01L
189.022	FERGUSON LUMBER INC	SANDY RIDGE	NC	27046	2345	MR1L
10.263	HANNAH WALTER L TRUSTEE	GREENSBORO	NC	27402	1680	MR2L
30.065	GIBSON MAGDALENE C	EDEN	NC	27288	12400	SR1R

27.955	EDWARDS ARTHUR RAY	EDEN	NC	27288	1160	SR2R
23.129	SHELTON EUGENE T	STONEVILLE	NC	27048	0	MR3R
21.796	HANNAH WALTER L TRUSTEE	GREENSBORO	NC	27402	4275	MR2R
133.727	HUNDLEY SANFORD LEE	STONEVILLE	NC	27048	0	MR4R
34.948	LEMONS BRYANT DELANOR	REIDSVILLE	NC	27320	1500	SR3R
17.785	JONES JOEL T	HAMPTON	VA	23666	780	SR4R
73.557	SMITH ANNE BAILEY	MAYODAN	NC	27027	1625	MR5R
1.982	PAULL JUDITH	EDEN	NC	27288	380	SR5R
77.793	CITY OF EDEN	EDEN	NC	27288	2930	SR6R
98.757	EVANS GILBERT	RUFFIN	NC	27326	2240	DR188R
75.488	WALKER JAMES RICHARD	EDEN	NC	27289	1325	MR6R
163.186	LAMPE DONALD C	STONEVILLE	NC	27048	2530	MR17L
95.173	GALLAHER JOE CHARLES	RUFFIN	NC	27326	2385	DR187R
205.191	HARBOUR WILLIAM C	RUFFIN	NC	27326	1945	DR186R
6.056	CHILTON ZACHARY	EDEN	NC	27288	240	SR25L
13.812	HALL THOMAS EDSON JR	EDEN	NC	27288	1260	SR26L
10.261	MCLENDON LENNOX LANE	CHESTER	VA	23831	650	SR27L
5.665	LONG ISLAND OF EDEN LLC	EDEN	NC	27288	0	SR28L
13.057	SPRAY COTTON MILLS	EDEN	NC	27288	1200	SR29L
1.954	POSTON STANLEY E	EDEN	NC	27288	0	SR30L
1.958	SPRAY COTTON MILLS	EDEN	NC	27288	0	SR31L
90.484	WANGARD THOMAS R	RUFFIN	NC	27326	1165	DR173R
109.285	WANGARD THOMAS R	RUFFIN	NC	27326	1215	DR172R
11.691	ROCKINGHAM COMMUNITY COLLE	WENTWORTH	NC	27375	1565	SR53L
3.029	VAUGHN ROBERT M	EDEN	NC	27288	0	SR54L
2.302	WILSON STEPHANIE FISHER	EDEN	NC	27288-4155	0	SR55L
1.545	POWELL A J	EDEN	NC	27288	0	SR56L
1.405	EGGLESTON JAMES HARRISON	EDEN	NC	27288	0	SR57L
1.453	RAIFORD PHILIP C	EDEN	NC	27288	0	SR58L
1.692	SNOW MICKEY DALE	EDEN	NC	27288	0	SR59L
107.291	LYNROCK PROPERTIES LLC	EDEN	NC	27288	5850	SR60L
17.172	SAURATOWN ESTATES INC	EDEN	NC	27288	1945	DR146R
13.107	CLAPP WILLIAM F	SAXE	VA	23967	1160	DR145R
103.492	ELMS JOHN W JR	GREENSBORO	NC	27407	4215	MR51L
16.483	JAMES JOEL E	STONEVILLE	NC	27048	655	MR50L
59.661	ELMS JOHN W JR	GREENSBORO	NC	27407	0	MR53L
13.806	DOVER BUSINESS CENTER LLC	DOVER	FL	33527	1510	MR52L
38.251	CARTER JOHN M	RALEIGH	NC	27609	1830	MR54L
25.076	ELMS JOHN W JR	GREENSBORO	NC	27407	0	MR55L
46.038	WOOD CHARLES C JR	MAYODAN	NC	27027	2400	MR67L
3.487	CARTER CARRIE TURNER ESTATE	MADISON	NC	27025	505	MR56L
3.203	BRILEY HENRY L	MAYODAN	NC	27027	135	MR60L
17.652	HERNDON LAWRENCE W	MAYODAN	NC	27027	670	MR59L
2.783	HELMER PAUL E	MAYODAN	NC	27027	470	MR57L
178.856	WATKINS FRANCES LOUISE W	MAYODAN	NC	27027	0	MR58L
9.516	WOOD CHARLES C JR	MAYODAN	NC	27027	740	MR69L
29.544	CREWS JAMES G	MAYODAN	NC	27027	1745	MR70L
11.116	ELMS JOHN W JR	GREENSBORO	NC	27407	1670	MR71L
212.984	MANUEL SAMMY ODELL	REIDSVILLE	NC	27320	4335	DR87R
238.807	PEAY ODELL D	MADISON	NC	27025	1575	dr86r
11.155	WILKINS JOSEPH KIRBY III	REIDSVILLE	NC	27323	0	DR81R
76.347	SHELTON OTIS WILSON	MADISON	NC	27025	1770	DR64R
53.960	TUTTLE ANNE R	MADISON	NC	27025	390	DR62R

49.326	RIERSON LEE ANN	MADISON	NC	27025	0	DR63R
2.671	COLLINS PAUL F	MADISON	NC	27025	230	DR61R
144.748	POWELL JAMES LEONARD	MADISON	NC	27025	5825	DR12R
36.308	PURGASON ANTHONY W	MADISON	NC	27025	1475	DR8R
48.165	HOOKER PAUL F JR	MADISON	NC	27025	0	DR11R
29.326	TROXLER ELSIE ROBERTS	CARTHAGE	NC	28327	1295	DR10R
16.143	BURRIS DONALD LEE	MADISON	NC	27025	305	DR9R
20.552	MITCHELL HILDA R	MADISON	NC	27025	211	DR2R
104.182	RED LEAF LLC	EDEN	NC	27289	0	MR1R
5.056	HANNAH WALTER L TRUSTEE	GREENSBORO	NC	27402	3880	MR01L
189.022	FERGUSON LUMBER INC	SANDY RIDGE	NC	27046	2345	MR1L
10.263	HANNAH WALTER L TRUSTEE	GREENSBORO	NC	27402	1680	MR2L
30.065	GIBSON MAGDALENE C	EDEN	NC	27288	12400	SR1R
40.680	REYNOLDS WILLIAM J	EDEN	NC	27288	1250	SR1L
23.129	SHELTON EUGENE T	STONEVILLE	NC	27048	0	MR3R
21.796	HANNAH WALTER L TRUSTEE	GREENSBORO	NC	27402	4275	MR2R
133.727	HUNDLEY SANFORD LEE	STONEVILLE	NC	27048	0	MR4R
8.038	HANNAH WALTER L TRUSTEE	GREENSBORO	NC	27402	3775	MR9L
2.718	HANNAH WALTER L TRUSTEE	GREENSBORO	NC	27402	0	MR3L
14.998	MYERS ROY WILLIAM JR	WINSTON SALEM	NC	27115-6528	0	MR4L
73.557	SMITH ANNE BAILEY	MAYODAN	NC	27027	1625	MR5R
141.913	SHELTON CLYDE WELDON	STONEVILLE	NC	27048	1500	MR12L
98.757	EVANS GILBERT	RUFFIN	NC	27326	2240	DR188R
75.488	WALKER JAMES RICHARD	EDEN	NC	27289	1325	MR6R
3.484	BUSH FRANKLIN E	COLFAX	NC	27025	300	MR13L
3.374	SHELTON CLYDE WELDON	STONEVILLE	NC	27048	485	MR14L
95.173	GALLAHER JOE CHARLES	RUFFIN	NC	27326	2385	DR187R
137.360	SHELTON GLENN R	STONEVILLE	NC	27048	5795	MR15L
205.191	HARBOUR WILLIAM C	RUFFIN	NC	27326	1945	DR186R
13.812	HALL THOMAS EDSON JR	EDEN	NC	27288	1260	SR26L
222.015	BUIST NIGEL A	EDEN	NC	27288	1880	DR151L
90.484	WANGARD THOMAS R	RUFFIN	NC	27326	1165	DR173R
80.016	GROGAN LINCOLN	STONEVILLE	NC	27048	4055	MR15R
80.081	PILSON BROTHERS LUMBER CO I	STUART	VA	24171	1355	MR19L
109.285	WANGARD THOMAS R	RUFFIN	NC	27326	1215	DR172R
35.506	PILSON BROTHERS LUMBER CO I	STUART	VA	24171	430	MR20L
92.246	NORTH CAROLINA NATIONAL BAN	GREENSBORO	NC	27402	11265	MR17R
23.994	MATTOX RANDAL EARL	EDEN	NC	27288	645	DR163R
182.886	DEHART BOBBY GATES	EDEN	NC	27288	965	DR159R
91.831	N.C. NATIONAL BANK	GREENSBORO	NC	27402	9215	MR25L
323.665	KLUTTZ FAMILY LLC	WINSTON SALEM	NC	27104	3590	DR152R
23.696	HYLER ROBERT LEE	EDEN	NC	27288	955	DR162R
11.691	ROCKINGHAM COMMUNITY COLL	WENTWORTH	NC	27375	1565	SR53L
2.272	WILSON MITCHELL B	EDEN	NC	27288	570	SR52R
17.871	LYNROCK PROPERTIES LLC	EDEN	NC	27288	1140	SR53R
1.545	POWELL A J	EDEN	NC	27288	0	SR56L
1.405	EGGLESTON JAMES HARRISON	EDEN	NC	27288	0	SR57L
2.118	SPRAY WATER POWER AND LAND	CHAPIN	SC	29036	790	DR128L
1.453	RAIFORD PHILIP C	EDEN	NC	27288	0	SR58L
0.626	WILSON EDWIN GRAVES JR	EDEN	NC	27288	0	DR135L
1.692	SNOW MICKEY DALE	EDEN	NC	27288	0	SR59L
0.445	CHANDLER JOSEPH W III	EDEN	NC	27288	0	DR136L
1.858	ROBERTSON WILLIAM KELLY	EDEN	NC	27288	0	DR137L
38.719	JOHNSTON JEFFREY O	WENTWORTH	NC	27375	2120	DR131R

107.291	LYNROCK PROPERTIES LLC	EDEN	NC	27288	5850	SR60L
25.331	FODDRELL BUFORD S HEIRS	EDEN	NC	27288	1530	DR132R
1.905	LLOYD FRANK L JR	EDEN	NC	27288	270	DR138L
11.992	WRIGHT ALICE BETHANIA	EDEN	NC	27288	1915	DR139L
12.216	DUKE POWER COMPANY	CHARLOTTE	NC	28201	1010	DR151R
2.573	WHITTEN POWELL G	STONEVILLE	NC	27048-7953	0	MR35L
3.002	MARTIN JUDY M	STONEVILLE	NC	27048	0	MR27R
80.207	N.C. NATIONAL BANK	GREENSBORO	NC	27402	5770	MR36L
71.695	NORTH CAROLINA NATIONAL BAN	GREENSBORO	NC	27402	5815	MR29R
4.127	MARTIN JUDY M	STONEVILLE	NC	27048	0	MR30R
8.201	DUNLAP BRENDA KAY M	MAYODAN	NC	27027	0	MR31R
51.118	SMITH EUNICE WATKINS L/E	STONEVILLE	NC	27048	0	MR39L
25.219	CREWS WILLIAM EDWARD	STONEVILLE	NC	270480000	0	MR32R
46.025	ROMA REALTY LLC	MARTINSVILLE	VA	24114	895	MR45L
16.892	JAMES JOEL E	STONEVILLE	NC	27048	0	MR49L
5.876	BRYANT JAMES KEITH	PATRICK SPRINGS	VA	24133	1295	MR57R
103.492	ELMS JOHN W JR	GREENSBORO	NC	27407	4215	MR51L
2.591	MITCHELL FRED & SON	MADISON	NC	27025	355	MR60R
16.483	JAMES JOEL E	STONEVILLE	NC	27048	655	MR50L
0.509	TOWN OF STONEVILLE	STONEVILLE	NC	27048	0	MR48L
0.697	WALKER PATRICIA	STONEVILLE	NC	27048	0	MR61R
0.789	KNIGHT RIGELL	MAYODAN	NC	27027	0	MR62R
16.171	AVALON DEVELOPMENT CORP	RIDGEWAY	VA	24148-3456	2690	MR63R
59.661	ELMS JOHN W JR	GREENSBORO	NC	27407	0	MR53L
13.806	DOVER BUSINESS CENTER LLC	DOVER	FL	33527	1510	MR52L
38.251	CARTER JOHN M	RALEIGH	NC	27609	1830	MR54L
19.579	DOVER BUSINESS CENTER LLC	DOVER	FL	33527	3670	MR66R
9.277	COMPASS-AVALON LLC	WINSTON SALEM	NC	27104	1390	MR68R
10.097	WOOD CHARLES C JR	MAYODAN	NC	27027	2870	MR68L
11.240	HAWKS MARY	MAYODAN	NC	27027	425	mr61l
3.203	BRILEY HENRY L	MAYODAN	NC	27027	135	MR60L
17.652	HERNDON LAWRENCE W	MAYODAN	NC	27027	670	MR59L
11.460	DOVER BUSINESS CENTER LLC	DOVER	FL	33527	3680	MR87R
9.516	WOOD CHARLES C JR	MAYODAN	NC	27027	740	MR69L
29.544	CREWS JAMES G	MAYODAN	NC	27027	1745	MR70L
11.116	ELMS JOHN W JR	GREENSBORO	NC	27407	1670	MR71L
13.532	CASTLE BUILDERS INC	STONEVILLE	NC	27048	1770	MR90R
1.691	US BANK NATIONAL ASSOC TRUS	SALT LAKE CITY	UT	84165-0250	510	MR73L
1.050	TUCKER RICHARD	MAYODAN	NC	27027	0	MR75L
0.335	WILLIAMS S T HEIRS	MAYODAN	NC	27027	110	MR74L
0.133	DUGGINS PAUL CLIFFORD	MAYODAN	NC	27027	0	MR81L
2.545	TOWN OF MAYODAN	MAYODAN	NC	27027	35	MR93R
0.635	ROBERTS JANET A	MADISON	NC	27025	120	MR79L
0.329	WALL STEVE H	MAYODAN	NC	27027	0	MR92R
1.707	MAYO VIEW PROPERTIES INC	STONEVILLE	NC	27048	470	MR91R
0.598	DUGGINS PAUL CLIFFORD	MAYODAN	NC	27027	0	MR82L
7.117	ROBERTS JANET A	MADISON	NC	27025	1870	MR80L
212.984	MANUEL SAMMY ODELL	REIDSVILLE	NC	27320	4335	DR87R
117.560	SHARPE L DEAN	MADISON	NC	27025	1730	DR38L
6.480	SHARPE L DEAN	MADISON	NC	27025	45	DR37L
7.635	SMITH ROGER L	STONEVILLE	NC	27048	1215	MR94L
9.405	SIDES JOHNNY LEE	WINSTON SALEM	NC	27127	835	MR97R
24.027	WALTON MICHAEL KENNETH	STONEVILLE	NC	27048	1700	DR35L
11.155	WILKINS JOSEPH KIRBY III	REIDSVILLE	NC	27323	0	DR81R

35.772	SHARPE L DEAN	MADISON	NC	27025	2000	DR36L
2.903	MAYODAN BOY SCOUT TROOP 56	MAYODAN	NC	27027	1170	DR34L
116.247	JONES WILLIAM LORAINE JR	MADISON	NC	27025	3965	DR59R
12.747	SHARPE L DEAN	MADISON	NC	27025	1650	DR53R
59.088	GREATER STOKESDALE LAND	MADISON	NC	27025	0	DR60R
42.237	BULLINS MINNIE NELSON	MADISON	NC	27025	5970	DR23L
11.577	WILLIAMSON ESSIE M	MADISON	NC	27025	275	DR22R
79.413	FULP ALLEN L	MADISON	NC	27025	1575	DR23R
113.383	DUKE POWER COMPANY	CHARLOTTE	NC	28201	3580	DR1R
32.509	FERGUSON LUMBER INC	SANDY RIDGE	NC	27046	2345	MR1L
0.953	HANNAH WALTER L TRUSTEE	GREENSBORO	NC	27402	1680	MR2L
23.129	SHELTON EUGENE T	STONEVILLE	NC	27048	0	MR3R
21.796	HANNAH WALTER L TRUSTEE	GREENSBORO	NC	27402	4275	MR2R
133.727	HUNDLEY SANFORD LEE	STONEVILLE	NC	27048	0	MR4R
0.000	WILLOW OAKS PLANTATION LLC	GREENSBORO	NC	27429	0	DR165L
71.129	SMITH ANNE BAILEY	MAYODAN	NC	27027	1625	MR5R
0.000	EVANS GILBERT	RUFFIN	NC	27326	2240	DR188R
13.581	WALKER JAMES RICHARD	EDEN	NC	27289	1325	MR6R
1.997	LAMPE DONALD C	STONEVILLE	NC	27048	2530	MR17L
0.000	GALLAHER JOE CHARLES	RUFFIN	NC	27326	2385	DR187R
80.605	FAGGE DOUGLAS	HIGH POINT	NC	27262	1570	MR7R
205.175	HARBOUR WILLIAM C	RUFFIN	NC	27326	1945	DR186R
72.050	WALKER RHONDA	DANVILLE	VA	24540	165	MR8R
116.093	ROBERTSON BETTY J	MARTINSVILLE	VA	24112-0641	4725	MR9R
202.445	SMITH JOE FRANK	STONEVILLE	NC	27048	5140	MR18L
24.145	BURKS NORMA JEAN	DANVILLE	VA	24541	1127	DR176R
35.974	WILMOUTH JOHNNY B	RUFFIN	NC	27326	635	DR175R
170.040	BUIST NIGEL A	EDEN	NC	27288	1880	DR151L
90.484	WANGARD THOMAS R	RUFFIN	NC	27326	1165	DR173R
80.016	GROGAN LINCOLN	STONEVILLE	NC	27048	4055	MR15R
80.081	PILSON BROTHERS LUMBER CO II	STUART	VA	24171	1355	MR19L
43.814	WANGARD THOMAS R	RUFFIN	NC	27326	1215	DR172R
66.843	ESPOSITO JOHN N JR	EDEN	NC	27288	2105	DR171R
16.986	JOHNSON JAMES A SR	EDEN	NC	27288	0	DR152L
30.390	SMOTHERS ROBERT COLE AND O	EDEN	NC	27288	2845	DR165R
27.088	RONALD JOYNER FAMILY LLC	GREENSBORO	NC	27455-2144	0	MR18R
14.350	NORTH CAROLINA NATIONAL BAN	GREENSBORO	NC	27402	11265	MR17R
39.460	SMITH WILLIAM I	WINSTON SALEM	NC	27127	450	MR23L
43.973	HAIRSTON PATRICIA & VICTOR	MARTINSVILLE	VA	24114	440	MR24L
68.922	N.C. NATIONAL BANK	GREENSBORO	NC	27402	9215	MR25L
62.905	CLAYBROOK CLYDE H TRUST	STONEVILLE	NC	27048	0	MR26L
96.958	CLAYBROOK CLYDE H TRUST	STONEVILLE	NC	27048	0	MR30L
138.221	D R DEVELOPMENT CORP	EDEN	NC	27288	0	DR143L
58.060	LYNROCK PROPERTIES LLC	EDEN	NC	27288	5850	SR60L
86.735	WALKER MARJORIE T	CHARLOTTE	NC	28277	1280	DR129R
147.125	PULLIAM LONNIE LEO	EDEN	NC	27288	2140	DR127R
26.032	MANUEL SAMMY ODELL	REIDSVILLE	NC	27320	0	MR31L
52.311	FULCHER ROGER LEE	MAYODAN	NC	27027	0	MR24R
22.097	WALKER MARJORIE T	CHARLOTTE	NC	28277	0	DR128R
25.237	CWR CONSTRUCTION CORP	EDEN	NC	27288	2850	DR98L
172.020	N.C. NATIONAL BANK	GREENSBORO	NC	27402	5770	MR36L
25.504	HAWKINS MARCHALL RONNIE	STONEVILLE	NC	27048	1715	DR122R
0.000	WHITT FAMILY FARMS LLC	EDEN	NC	27288	20050	DR119R
26.114	SMITH STEPHEN E	REIDSVILLE	NC	27323	0	MR40L

29.633	SMITH EUNICE WATKINS	L/E	STONEVILLE	NC	27048	1060	MR41L
138.651	ROMA REALTY LLC		MARTINSVILLE	VA	24114	2545	MR44L
12.389	JOYCE JOHN TERRY		MADISON	NC	27025	1040	MR41R
13.433	STEELE BOYD J		STONEVILLE	NC	27048	985	MR46L
107.058	BELICZKY JOHN		STONEVILLE	NC	27048	1900	DR85L
7.555	BRAGDON JAMES		SALISBURY	NC	28146	560	DR79L
59.662	ELMS JOHN W JR		GREENSBORO	NC	27407	0	MR53L
13.804	DOVER BUSINESS CENTER LLC		DOVER	FL	33527	0	MR52L
487.467	MCCOLLUM EARL TRUSTEE		MADISON	NC	27025	3555	DR111R
83.066	WOOD GEORGE W		REIDSVILLE	NC	27320	885	DR112R
212.990	MANUEL SAMMY ODELL		REIDSVILLE	NC	27320	4335	DR87R
54.078	PINE HALL BRICK & PIPE CO		WINSTON SALEM	NC	27106	0	DR40L
35.772	SHARPE L DEAN		MADISON	NC	27025	2000	DR36L
5.063	SMITH BUDDY DAVIS		MAYODAN	NC	27027	410	DR39L
48.313	SHELTON OTIS WILSON		MADISON	NC	27025	1770	DR64R
53.266	KNIGHT BILLY DEAN		STOKESDALE	NC	27357	370	DR30R
56.676	KIRKPATRICK THOMAS M		MADISON	NC	27025	1590	DR27R
7.157	KIRKPATRICK THOMAS MICHAEL		MADISON	NC	27025	1160	DR28R
28.175	STARR ROBERT D AND OTHERS		MCLEANSVILLE	NC	27301	720	DR26R
31.399	MITCHELL RUBEN B JR MITCHELL		MADISON	NC	27025	2445	DR5R
15.428	POWELL JAMES LEONARD		MADISON	NC	27025	575	DR6R
21.796	HANNAH WALTER L TRUSTEE		GREENSBORO	NC	27402	4275	MR2R
80.605	FAGGE DOUGLAS		HIGH POINT	NC	27262	1570	MR7R
137.360	SHELTON GLENN R		STONEVILLE	NC	27048	5795	MR15L
46.135	EASON WARREN M		SUMMERFIELD	NC	27358	3260	MR10R
165.768	ROBERTSON BETTY J		MARTINSVILLE	VA	24112-0641	4725	MR9R
653.584	FRANK WILLIAM A		GREENSBORO	NC	27408	10120	DR164L
49.740	SCOTT GEORGE		STONEVILLE	NC	27048	1500	MR13R
222.015	BUIST NIGEL A		EDEN	NC	27288	1880	DR151L
80.016	GROGAN LINCOLN		STONEVILLE	NC	27048	4055	MR15R
195.158	HOPKINS LLC		WOOLWINE	VA	24185	3060	DR150L
92.246	NORTH CAROLINA NATIONAL BAN		GREENSBORO	NC	27402	11265	MR17R
75.899	GREENBRIER PIPELINE CO LLC		CLARKSBURG	WV	26302-2450	2500	DR170R
91.831	N.C. NATIONAL BANK		GREENSBORO	NC	27402	9215	MR25L
50.552	DEHART EARL WAYNE		EDEN	NC	27288	2600	DR161R
138.221	D R DEVELOPMENT CORP		EDEN	NC	27288	4950	DR143L
147.525	PULLIAM LONNIE LEO		EDEN	NC	27288	2140	DR127R
35.962	MCGRATH GARY L		EDEN	NC	27288	1390	DR126R
58.159	CITY OF EDEN		EDEN	NC	27288	2280	DR140L
14.465	HALL MORRIS L SR	L/E	EDEN	NC	27288	1530	DR108L
26.320	CWR CONSTRUCTION CORP		EDEN	NC	27288	2850	DR98L
80.207	N.C. NATIONAL BANK		GREENSBORO	NC	27402	5770	MR36L
159.141	LOCUST POINT INC		LUMBERTON	NC	28358	1615	DR96L
1489.280	WHITT FAMILY FARMS LLC		EDEN	NC	27288	20050	DR119R
87.950	JOYCE JERRY D		STONEVILLE	NC	27048	6700	DR88L
153.251	TUTTLE HELEN RAKESTRAW		STONEVILLE	NC	27048-7669	1515	DR87L
109.063	ROMA REALTY LLC		MARTINSVILLE	VA	24114	2545	MR44L
103.492	ELMS JOHN W JR		GREENSBORO	NC	27407	4215	MR51L
61.679	AXSOM JAMES K		EDEN	NC	27288	2075	DR118R
24.999	PINNIX SHERWOOD WAYNE		REIDSVILLE	NC	27320	1512	DR114R
13.806	DOVER BUSINESS CENTER LLC		DOVER	FL	33527	1510	MR52L
38.251	CARTER JOHN M		RALEIGH	NC	27609	1830	MR54L
16.764	SKAGGS TIMOTHY		MAYODAN	NC	27027	1560	MR62L
10.097	WOOD CHARLES C JR		MAYODAN	NC	27027	2870	MR68L

24.027	WALTON MICHAEL KENNETH	STONEVILLE	NC	27048	1700	DR35L
96.482	LAMBETH CHARLES F	LARGO	FL	33777	1815	DR71R
27.835	HAWKINS DORIS S	SUNBURY	NC	27979	1860	DR65R
95.844	PUCKETT ROY BAXTER	MADISON	NC	27025	1670	DR68R
116.247	JONES WILLIAM LORAINE JR	MADISON	NC	27025	3965	DR59R
76.347	SHELTON OTIS WILSON	MADISON	NC	27025	1770	DR64R
4.135	PINE HALL BRICK CO INC	MADISON	NC	27025	2185	DR20L
56.676	KIRKPATRICK THOMAS M	MADISON	NC	27025	1590	DR27R
86.422	WILLIAMSON ESSIE M	MADISON	NC	27025	4160	DR19R
61.877	PINE HALL BRICK CO INC	WINSTON SALEM	NC	271054235	5360	DR19L
37.228	NEAL LATIMER BRIGGS III	KILL DEVIL HILLS	NC	27948	1500	DR24R
155.555	WEBSTER JAMES DONALD	MADISON	NC	27025	2940	DR15R
14.268	PINE HALL BRICK CO	MADISON	NC	270250836	1905	DR17L
144.748	POWELL JAMES LEONARD	MADISON	NC	27025	5825	DR12R
31.387	MITCHELL RUBEN B JR MITCHELL	MADISON	NC	27025	2445	DR5R
36.308	PURGASON ANTHONY W	MADISON	NC	27025	1475	DR8R
113.383	DUKE POWER COMPANY	CHARLOTTE	NC	28201	3580	DR1R
133.727	HUNDLEY SANFORD LEE	STONEVILLE	NC	27048	0	MR4R
137.360	SHELTON GLENN R	STONEVILLE	NC	27048	5795	MR15L
165.768	ROBERTSON BETTY J	MARTINSVILLE	VA	24112-0641	4725	MR9R
653.584	FRANK WILLIAM A	GREENSBORO	NC	27408	10120	DR164L
222.015	BUIST NIGEL A	EDEN	NC	27288	1880	DR151L
90.484	WANGARD THOMAS R	RUFFIN	NC	27326	1165	DR173R
195.158	HOPKINS LLC	WOOLWINE	VA	24185	3060	DR150L
136.683	RONALD JOYNER FAMILY LLC	GREENSBORO	NC	27455-2144	0	MR18R
92.246	NORTH CAROLINA NATIONAL BAN	GREENSBORO	NC	27402	11265	MR17R
110.183	OSBORNE INVESTMENTS LLC	EDEN	NC	27289	215	DR146L
91.831	N.C. NATIONAL BANK	GREENSBORO	NC	27402	9215	MR25L
96.683	CLAYBROOK CLYDE H TRUST	STONEVILLE	NC	27048	0	MR30L
138.221	D R DEVELOPMENT CORP	EDEN	NC	27288	4950	DR143L
147.525	PULLIAM LONNIE LEO	EDEN	NC	27288	2140	DR127R
162.002	JOYCE AMY MATTHEWS TRUSTEE	STONEVILLE	NC	27048	500	MR43L
159.141	LOCUST POINT INC	LUMBERTON	NC	28358	1615	DR96L
1489.280	WHITT FAMILY FARMS LLC	EDEN	NC	27288	20050	DR119R
153.251	TUTTLE HELEN RAKESTRAW	STONEVILLE	NC	27048-7669	1515	DR87L
109.063	ROMA REALTY LLC	MARTINSVILLE	VA	24114	2545	MR44L
103.492	ELMS JOHN W JR	GREENSBORO	NC	27407	4215	MR51L
178.856	WATKINS FRANCES LOUISE W	MAYODAN	NC	27027	0	MR58L
95.697	CROWDER HENRY KENNETH	MADISON	NC	27025	1525	DR89R
212.984	MANUEL SAMMY ODELL	REIDSVILLE	NC	27320	4335	DR87R
373.943	PINE HALL BRICK & PIPE CO	WINSTON SALEM	NC	27106	4260	DR46L
118.184	BROWN EDGAR C JR	STONEVILLE	NC	27048	2730	DR56L
117.560	SHARPE L DEAN	MADISON	NC	27025	1730	DR38L
96.482	LAMBETH CHARLES F	LARGO	FL	33777	1815	DR71R
95.844	PUCKETT ROY BAXTER	MADISON	NC	27025	1670	DR68R
116.247	JONES WILLIAM LORAINE JR	MADISON	NC	27025	3965	DR59R
155.555	WEBSTER JAMES DONALD	MADISON	NC	27025	2940	DR15R
144.748	POWELL JAMES LEONARD	MADISON	NC	27025	5825	DR12R
113.383	DUKE POWER COMPANY	CHARLOTTE	NC	28201	3580	DR1R

Table 11 Medium Priority (GIS Analysis)

AC_CALC	NAME1	TAXPAYCITY	TAX	RiverLen	RiverNum
180.491	SIMS ROBERT V	CASCADE	VA	5230	DR169L
233.899	THOMAS RAYMOND CARL	EDEN	NC	3540	DR167L
45.502	FRANKLIN CAROLINE R W	GREENSBORO	NC	2090	DR168L
116.696	POWELL HERMAN WARD	RUFFIN	NC	1250	DR189R
70.718	COCHRAN BEATRICE EVELYN	EDEN	NC	1285	DR163L
358.875	DUKE POWER COMPANY	CHARLOTTE	NC	5165	DR147L
19.086	WILSON ROBERT LEE	STONEVILLE	NC	0	MR28L
17.934	HARRIS WINFRED LEE	EDEN	NC	525	DR125R
41.786	HAYNES JOSEPH B	EDEN	NC	495	DR121R
67.771	WILSON STEVE J	STONEVILLE	NC	1175	DR72L
286.497	DUMAINE FARM TRUST	REIDSVILLE	NC	14850	DR76L
130.852	MARTIN RUSSELL KENNETH	REIDSVILLE	NC	2555	DR110R
72.325	ADAMS LINDA PUGH	MADISON	NC	950	DR109R
34.733	MITCHELL RICHARD KEMPER	MADISON	NC	630	DR108R
99.237	WALKER DAVID R	MADISON	NC	1265	DR106R
95.453	WALKER DAVID R	MADISON	NC	2455	DR105R
157.249	RAKESTRAW WM GILBERT	MADISON	NC	2915	DR104R
169.246	SMITH TROY C	WINSTON SALEM	NC	5485	DR64L
90.645	DRAPER JAMES FRANKLIN SR	RALEIGH	NC	615	DR97R
138.955	CARTER JAMES DONALD	MADISON	NC	1175	DR88R
25.287	BROADNAX DOROTHY BRIM	STONEVILLE	NC	1	DR62L
26.333	COX JEFFREY D	STONEVILLE	NC	1270	DR61L
80.433	STEWART CHARLES ALFRED SR	MADISON	NC	1305	DR51L
100.277	MOTSINGER ROBERT ALLEN	STONEVILLE	NC	2735	DR52L
88.682	PINE HALL BRICK CO	MADISON	NC	0	DR18L
100.625	BUSICK JOHN III	MADISON	NC	0	DR17R
112.347	WEBSTER JOHN MCRAE	MADISON	NC	2445	DR14R
126.176	WEBSTER JACK K	STOKESDALE	NC	1300	DR13R
104.182	RED LEAF LLC	EDEN	NC	0	MR1R
5.056	HANNAH WALTER L TRUSTEE	GREENSBORO	NC	3880	MR01L
189.022	FERGUSON LUMBER INC	SANDY RIDGE	NC	2345	MR1L
10.263	HANNAH WALTER L TRUSTEE	GREENSBORO	NC	1680	MR2L
30.065	GIBSON MAGDALENE C	EDEN	NC	12400	SR1R
27.955	EDWARDS ARTHUR RAY	EDEN	NC	1160	SR2R
23.129	SHELTON EUGENE T	STONEVILLE	NC	0	MR3R
21.796	HANNAH WALTER L TRUSTEE	GREENSBORO	NC	4275	MR2R
133.727	HUNDLEY SANFORD LEE	STONEVILLE	NC	0	MR4R
34.948	LEMONS BRYANT DELANOR	REIDSVILLE	NC	1500	SR3R
17.785	JONES JOEL T	HAMPTON	VA	780	SR4R
73.557	SMITH ANNE BAILEY	MAYODAN	NC	1625	MR5R
1.982	PAULL JUDITH	EDEN	NC	380	SR5R
77.793	CITY OF EDEN	EDEN	NC	2930	SR6R
98.757	EVANS GILBERT	RUFFIN	NC	2240	DR188R
75.488	WALKER JAMES RICHARD	EDEN	NC	1325	MR6R
163.186	LAMPE DONALD C	STONEVILLE	NC	2530	MR17L
95.173	GALLAHER JOE CHARLES	RUFFIN	NC	2385	DR187R
205.191	HARBOUR WILLIAM C	RUFFIN	NC	1945	DR186R
6.056	CHILTON ZACHARY	EDEN	NC	240	SR25L
13.812	HALL THOMAS EDSON JR	EDEN	NC	1260	SR26L

10.261	MCLENDON LENNOX LANE	CHESTER	VA	650	SR27L
5.665	LONG ISLAND OF EDEN LLC	EDEN	NC	0	SR28L
13.057	SPRAY COTTON MILLS	EDEN	NC	1200	SR29L
1.954	POSTON STANLEY E	EDEN	NC	0	SR30L
1.958	SPRAY COTTON MILLS	EDEN	NC	0	SR31L
90.484	WANGARD THOMAS R	RUFFIN	NC	1165	DR173R
109.285	WANGARD THOMAS R	RUFFIN	NC	1215	DR172R
11.691	ROCKINGHAM COMMUNITY COLLE	WENTWORTH	NC	1565	SR53L
3.029	VAUGHN ROBERT M	EDEN	NC	0	SR54L
2.302	WILSON STEPHANIE FISHER	EDEN	NC	0	SR55L
1.545	POWELL A J	EDEN	NC	0	SR56L
1.405	EGGLESTON JAMES HARRISON	EDEN	NC	0	SR57L
1.453	RAIFORD PHILIP C	EDEN	NC	0	SR58L
1.692	SNOW MICKEY DALE	EDEN	NC	0	SR59L
107.291	LYNROCK PROPERTIES LLC	EDEN	NC	5850	SR60L
17.172	SAURATOWN ESTATES INC	EDEN	NC	1945	DR146R
13.107	CLAPP WILLIAM F	SAXE	VA	1160	DR145R
103.492	ELMS JOHN W JR	GREENSBORO	NC	4215	MR51L
16.483	JAMES JOEL E	STONEVILLE	NC	655	MR50L
59.661	ELMS JOHN W JR	GREENSBORO	NC	0	MR53L
13.806	DOVER BUSINESS CENTER LLC	DOVER	FL	1510	MR52L
38.251	CARTER JOHN M	RALEIGH	NC	1830	MR54L
25.076	ELMS JOHN W JR	GREENSBORO	NC	0	MR55L
46.038	WOOD CHARLES C JR	MAYODAN	NC	2400	MR67L
3.487	CARTER CARRIE TURNER ESTATE	MADISON	NC	505	MR56L
3.203	BRILEY HENRY L	MAYODAN	NC	135	MR60L
17.652	HERNDON LAWRENCE W	MAYODAN	NC	670	MR59L
2.783	HELMER PAUL E	MAYODAN	NC	470	MR57L
178.856	WATKINS FRANCES LOUISE W	MAYODAN	NC	0	MR58L
9.516	WOOD CHARLES C JR	MAYODAN	NC	740	MR69L
29.544	CREWS JAMES G	MAYODAN	NC	1745	MR70L
11.116	ELMS JOHN W JR	GREENSBORO	NC	1670	MR71L
212.984	MANUEL SAMMY ODELL	REIDSVILLE	NC	4335	DR87R
238.807	PEAY ODELL D	MADISON	NC	1575	dr86r
11.155	WILKINS JOSEPH KIRBY III	REIDSVILLE	NC	0	DR81R
76.347	SHELTON OTIS WILSON	MADISON	NC	1770	DR64R
53.960	TUTTLE ANNE R	MADISON	NC	390	DR62R
49.326	RIERSON LEE ANN	MADISON	NC	0	DR63R
2.671	COLLINS PAUL F	MADISON	NC	230	DR61R
144.748	POWELL JAMES LEONARD	MADISON	NC	5825	DR12R
36.308	PURGASON ANTHONY W	MADISON	NC	1475	DR8R
48.165	HOOKER PAUL F JR	MADISON	NC	0	DR11R
29.326	TROXLER ELSIE ROBERTS	CARTHAGE	NC	1295	DR10R
16.143	BURRIS DONALD LEE	MADISON	NC	305	DR9R
20.552	MITCHELL HILDA R	MADISON	NC	211	DR2R
104.182	RED LEAF LLC	EDEN	NC	0	MR1R
5.056	HANNAH WALTER L TRUSTEE	GREENSBORO	NC	3880	MR01L
189.022	FERGUSON LUMBER INC	SANDY RIDGE	NC	2345	MR1L
10.263	HANNAH WALTER L TRUSTEE	GREENSBORO	NC	1680	MR2L
30.065	GIBSON MAGDALENE C	EDEN	NC	12400	SR1R
40.680	REYNOLDS WILLIAM J	EDEN	NC	1250	SR1L
23.129	SHELTON EUGENE T	STONEVILLE	NC	0	MR3R
21.796	HANNAH WALTER L TRUSTEE	GREENSBORO	NC	4275	MR2R
133.727	HUNDLEY SANFORD LEE	STONEVILLE	NC	0	MR4R

8.038	HANNAH WALTER L TRUSTEE	GREENSBORO	NC	3775	MR9L
2.718	HANNAH WALTER L TRUSTEE	GREENSBORO	NC	0	MR3L
14.998	MYERS ROY WILLIAM JR	WINSTON SALEM	NC	0	MR4L
73.557	SMITH ANNE BAILEY	MAYODAN	NC	1625	MR5R
141.913	SHELTON CLYDE WELDON	STONEVILLE	NC	1500	MR12L
98.757	EVANS GILBERT	RUFFIN	NC	2240	DR188R
75.488	WALKER JAMES RICHARD	EDEN	NC	1325	MR6R
3.484	BUSH FRANKLIN E	COLFAX	NC	300	MR13L
3.374	SHELTON CLYDE WELDON	STONEVILLE	NC	485	MR14L
95.173	GALLAHER JOE CHARLES	RUFFIN	NC	2385	DR187R
137.360	SHELTON GLENN R	STONEVILLE	NC	5795	MR15L
205.191	HARBOUR WILLIAM C	RUFFIN	NC	1945	DR186R
13.812	HALL THOMAS EDSON JR	EDEN	NC	1260	SR26L
222.015	BUIST NIGEL A	EDEN	NC	1880	DR151L
90.484	WANGARD THOMAS R	RUFFIN	NC	1165	DR173R
80.016	GROGAN LINCOLN	STONEVILLE	NC	4055	MR15R
80.081	PILSON BROTHERS LUMBER CO II	STUART	VA	1355	MR19L
109.285	WANGARD THOMAS R	RUFFIN	NC	1215	DR172R
35.506	PILSON BROTHERS LUMBER CO II	STUART	VA	430	MR20L
92.246	NORTH CAROLINA NATIONAL BAN	GREENSBORO	NC	11265	MR17R
23.994	MATTOX RANDAL EARL	EDEN	NC	645	DR163R
182.886	DEHART BOBBY GATES	EDEN	NC	965	DR159R
91.831	N.C. NATIONAL BANK	GREENSBORO	NC	9215	MR25L
323.665	KLUTTZ FAMILY LLC	WINSTON SALEM	NC	3590	DR152R
23.696	HYLER ROBERT LEE	EDEN	NC	955	DR162R
11.691	ROCKINGHAM COMMUNITY COLLE	WENTWORTH	NC	1565	SR53L
2.272	WILSON MITCHELL B	EDEN	NC	570	SR52R
17.871	LYNROCK PROPERTIES LLC	EDEN	NC	1140	SR53R
1.545	POWELL A J	EDEN	NC	0	SR56L
1.405	EGGLESTON JAMES HARRISON	EDEN	NC	0	SR57L
2.118	SPRAY WATER POWER AND LAND	CHAPIN	SC	790	DR128L
1.453	RAIFORD PHILIP C	EDEN	NC	0	SR58L
0.626	WILSON EDWIN GRAVES JR	EDEN	NC	0	DR135L
1.692	SNOW MICKEY DALE	EDEN	NC	0	SR59L
0.445	CHANDLER JOSEPH W III	EDEN	NC	0	DR136L
1.858	ROBERTSON WILLIAM KELLY	EDEN	NC	0	DR137L
38.719	JOHNSTON JEFFREY O	WENTWORTH	NC	2120	DR131R
107.291	LYNROCK PROPERTIES LLC	EDEN	NC	5850	SR60L
25.331	FODDRELL BUFORD S HEIRS	EDEN	NC	1530	DR132R
1.905	LLOYD FRANK L JR	EDEN	NC	270	DR138L
11.992	WRIGHT ALICE BETHANIA	EDEN	NC	1915	DR139L
12.216	DUKE POWER COMPANY	CHARLOTTE	NC	1010	DR151R
2.573	WHITTEN POWELL G	STONEVILLE	NC	0	MR35L
3.002	MARTIN JUDY M	STONEVILLE	NC	0	MR27R
80.207	N.C. NATIONAL BANK	GREENSBORO	NC	5770	MR36L
71.695	NORTH CAROLINA NATIONAL BAN	GREENSBORO	NC	5815	MR29R
4.127	MARTIN JUDY M	STONEVILLE	NC	0	MR30R
8.201	DUNLAP BRENDA KAY M	MAYODAN	NC	0	MR31R
51.118	SMITH EUNICE WATKINS L/E	STONEVILLE	NC	0	MR39L
25.219	CREWS WILLIAM EDWARD	STONEVILLE	NC	0	MR32R
46.025	ROMA REALTY LLC	MARTINSVILLE	VA	895	MR45L
16.892	JAMES JOEL E	STONEVILLE	NC	0	MR49L
5.876	BRYANT JAMES KEITH	PATRICK SPRINGS	VA	1295	MR57R
103.492	ELMS JOHN W JR	GREENSBORO	NC	4215	MR51L

2.591	MITCHELL FRED & SON	MADISON	NC	355	MR60R
16.483	JAMES JOEL E	STONEVILLE	NC	655	MR50L
0.509	TOWN OF STONEVILLE	STONEVILLE	NC	0	MR48L
0.697	WALKER PATRICIA	STONEVILLE	NC	0	MR61R
0.789	KNIGHT RIGELL	MAYODAN	NC	0	MR62R
16.171	AVALON DEVELOPMENT CORP	RIDGEWAY	VA	2690	MR63R
59.661	ELMS JOHN W JR	GREENSBORO	NC	0	MR53L
13.806	DOVER BUSINESS CENTER LLC	DOVER	FL	1510	MR52L
38.251	CARTER JOHN M	RALEIGH	NC	1830	MR54L
19.579	DOVER BUSINESS CENTER LLC	DOVER	FL	3670	MR66R
9.277	COMPASS-AVALON LLC	WINSTON SALEM	NC	1390	MR68R
10.097	WOOD CHARLES C JR	MAYODAN	NC	2870	MR68L
11.240	HAWKS MARY	MAYODAN	NC	425	mr61l
3.203	BRILEY HENRY L	MAYODAN	NC	135	MR60L
17.652	HERNDON LAWRENCE W	MAYODAN	NC	670	MR59L
11.460	DOVER BUSINESS CENTER LLC	DOVER	FL	3680	MR87R
9.516	WOOD CHARLES C JR	MAYODAN	NC	740	MR69L
29.544	CREWS JAMES G	MAYODAN	NC	1745	MR70L
11.116	ELMS JOHN W JR	GREENSBORO	NC	1670	MR71L
13.532	CASTLE BUILDERS INC	STONEVILLE	NC	1770	MR90R
1.691	US BANK NATIONAL ASSOC TRUS	SALT LAKE CITY	UT	510	MR73L
1.050	TUCKER RICHARD	MAYODAN	NC	0	MR75L
0.335	WILLIAMS S T HEIRS	MAYODAN	NC	110	MR74L
0.133	DUGGINS PAUL CLIFFORD	MAYODAN	NC	0	MR81L
2.545	TOWN OF MAYODAN	MAYODAN	NC	35	MR93R
0.635	ROBERTS JANET A	MADISON	NC	120	MR79L
0.329	WALL STEVE H	MAYODAN	NC	0	MR92R
1.707	MAYO VIEW PROPERTIES INC	STONEVILLE	NC	470	MR91R
0.598	DUGGINS PAUL CLIFFORD	MAYODAN	NC	0	MR82L
7.117	ROBERTS JANET A	MADISON	NC	1870	MR80L
212.984	MANUEL SAMMY ODELL	REIDSVILLE	NC	4335	DR87R
117.560	SHARPE L DEAN	MADISON	NC	1730	DR38L
6.480	SHARPE L DEAN	MADISON	NC	45	DR37L
7.635	SMITH ROGER L	STONEVILLE	NC	1215	MR94L
9.405	SIDES JOHNNY LEE	WINSTON SALEM	NC	835	MR97R
24.027	WALTON MICHAEL KENNETH	STONEVILLE	NC	1700	DR35L
11.155	WILKINS JOSEPH KIRBY III	REIDSVILLE	NC	0	DR81R
35.772	SHARPE L DEAN	MADISON	NC	2000	DR36L
2.903	MAYODAN BOY SCOUT TROOP 56	MAYODAN	NC	1170	DR34L
116.247	JONES WILLIAM LORAINE JR	MADISON	NC	3965	DR59R
12.747	SHARPE L DEAN	MADISON	NC	1650	DR53R
59.088	GREATER STOKESDALE LAND	MADISON	NC	0	DR60R
42.237	BULLINS MINNIE NELSON	MADISON	NC	5970	DR23L
11.577	WILLIAMSON ESSIE M	MADISON	NC	275	DR22R
79.413	FULP ALLEN L	MADISON	NC	1575	DR23R
113.383	DUKE POWER COMPANY	CHARLOTTE	NC	3580	DR1R
32.509	FERGUSON LUMBER INC	SANDY RIDGE	NC	2345	MR1L
0.953	HANNAH WALTER L TRUSTEE	GREENSBORO	NC	1680	MR2L
23.129	SHELTON EUGENE T	STONEVILLE	NC	0	MR3R
21.796	HANNAH WALTER L TRUSTEE	GREENSBORO	NC	4275	MR2R
133.727	HUNDLEY SANFORD LEE	STONEVILLE	NC	0	MR4R
0.000	WILLOW OAKS PLANTATION LLC	GREENSBORO	NC	0	DR165L
71.129	SMITH ANNE BAILEY	MAYODAN	NC	1625	MR5R
0.000	EVANS GILBERT	RUFFIN	NC	2240	DR188R

13.581	WALKER JAMES RICHARD	EDEN	NC	1325	MR6R
1.997	LAMPE DONALD C	STONEVILLE	NC	2530	MR17L
0.000	GALLAHER JOE CHARLES	RUFFIN	NC	2385	DR187R
80.605	FAGGE DOUGLAS	HIGH POINT	NC	1570	MR7R
205.175	HARBOUR WILLIAM C	RUFFIN	NC	1945	DR186R
72.050	WALKER RHONDA	DANVILLE	VA	165	MR8R
116.093	ROBERTSON BETTY J	MARTINSVILLE	VA	4725	MR9R
202.445	SMITH JOE FRANK	STONEVILLE	NC	5140	MR18L
24.145	BURKS NORMA JEAN	DANVILLE	VA	1127	DR176R
35.974	WILMOUTH JOHNNY B	RUFFIN	NC	635	DR175R
170.040	BUIST NIGEL A	EDEN	NC	1880	DR151L
90.484	WANGARD THOMAS R	RUFFIN	NC	1165	DR173R
80.016	GROGAN LINCOLN	STONEVILLE	NC	4055	MR15R
80.081	PILSON BROTHERS LUMBER CO I	STUART	VA	1355	MR19L
43.814	WANGARD THOMAS R	RUFFIN	NC	1215	DR172R
66.843	ESPOSITO JOHN N JR	EDEN	NC	2105	DR171R
16.986	JOHNSON JAMES A SR	EDEN	NC	0	DR152L
30.390	SMOTHERS ROBERT COLE AND O	EDEN	NC	2845	DR165R
27.088	RONALD JOYNER FAMILY LLC	GREENSBORO	NC	0	MR18R
14.350	NORTH CAROLINA NATIONAL BAN	GREENSBORO	NC	11265	MR17R
39.460	SMITH WILLIAM I	WINSTON SALEM	NC	450	MR23L
43.973	HAIRSTON PATRICIA & VICTOR	MARTINSVILLE	VA	440	MR24L
68.922	N.C. NATIONAL BANK	GREENSBORO	NC	9215	MR25L
62.905	CLAYBROOK CLYDE H TRUST	STONEVILLE	NC	0	MR26L
96.958	CLAYBROOK CLYDE H TRUST	STONEVILLE	NC	0	MR30L
138.221	D R DEVELOPMENT CORP	EDEN	NC	0	DR143L
58.060	LYNROCK PROPERTIES LLC	EDEN	NC	5850	SR60L
86.735	WALKER MARJORIE T	CHARLOTTE	NC	1280	DR129R
147.125	PULLIAM LONNIE LEO	EDEN	NC	2140	DR127R
26.032	MANUEL SAMMY ODELL	REIDSVILLE	NC	0	MR31L
52.311	FULCHER ROGER LEE	MAYODAN	NC	0	MR24R
22.097	WALKER MARJORIE T	CHARLOTTE	NC	0	DR128R
25.237	CWR CONSTRUCTION CORP	EDEN	NC	2850	DR98L
172.020	N.C. NATIONAL BANK	GREENSBORO	NC	5770	MR36L
25.504	HAWKINS MARCHALL RONNIE	STONEVILLE	NC	1715	DR122R
0.000	WHITT FAMILY FARMS LLC	EDEN	NC	20050	DR119R
26.114	SMITH STEPHEN E	REIDSVILLE	NC	0	MR40L
29.633	SMITH EUNICE WATKINS L/E	STONEVILLE	NC	1060	MR41L
138.651	ROMA REALTY LLC	MARTINSVILLE	VA	2545	MR44L
12.389	JOYCE JOHN TERRY	MADISON	NC	1040	MR41R
13.433	STEELE BOYD J	STONEVILLE	NC	985	MR46L
107.058	BELICZKY JOHN	STONEVILLE	NC	1900	DR85L
7.555	BRAGDON JAMES	SALISBURY	NC	560	DR79L
59.662	ELMS JOHN W JR	GREENSBORO	NC	0	MR53L
13.804	DOVER BUSINESS CENTER LLC	DOVER	FL	0	MR52L
487.467	MCCOLLUM EARL TRUSTEE	MADISON	NC	3555	DR111R
83.066	WOOD GEORGE W	REIDSVILLE	NC	885	DR112R
212.990	MANUEL SAMMY ODELL	REIDSVILLE	NC	4335	DR87R
54.078	PINE HALL BRICK & PIPE CO	WINSTON SALEM	NC	0	DR40L
35.772	SHARPE L DEAN	MADISON	NC	2000	DR36L
5.063	SMITH BUDDY DAVIS	MAYODAN	NC	410	DR39L
48.313	SHELTON OTIS WILSON	MADISON	NC	1770	DR64R
53.266	KNIGHT BILLY DEAN	STOKESDALE	NC	370	DR30R
56.676	KIRKPATRICK THOMAS M	MADISON	NC	1590	DR27R

7.157	KIRKPATRICK THOMAS MICHAEL	MADISON	NC	1160	DR28R
28.175	STARR ROBERT D AND OTHERS	MCLEANSVILLE	NC	720	DR26R
31.399	MITCHELL RUBEN B JR MITCHELL	MADISON	NC	2445	DR5R
15.428	POWELL JAMES LEONARD	MADISON	NC	575	DR6R
21.796	HANNAH WALTER L TRUSTEE	GREENSBORO	NC	4275	MR2R
80.605	FAGGE DOUGLAS	HIGH POINT	NC	1570	MR7R
137.360	SHELTON GLENN R	STONEVILLE	NC	5795	MR15L
46.135	EASON WARREN M	SUMMERFIELD	NC	3260	MR10R
165.768	ROBERTSON BETTY J	MARTINSVILLE	VA	4725	MR9R
653.584	FRANK WILLIAM A	GREENSBORO	NC	10120	DR164L
49.740	SCOTT GEORGE	STONEVILLE	NC	1500	MR13R
222.015	BUIST NIGEL A	EDEN	NC	1880	DR151L
80.016	GROGAN LINCOLN	STONEVILLE	NC	4055	MR15R
195.158	HOPKINS LLC	WOOLWINE	VA	3060	DR150L
92.246	NORTH CAROLINA NATIONAL BAN	GREENSBORO	NC	11265	MR17R
75.899	GREENBRIER PIPELINE CO LLC	CLARKSBURG	WV	2500	DR170R
91.831	N.C. NATIONAL BANK	GREENSBORO	NC	9215	MR25L
50.552	DEHART EARL WAYNE	EDEN	NC	2600	DR161R
138.221	D R DEVELOPMENT CORP	EDEN	NC	4950	DR143L
147.525	PULLIAM LONNIE LEO	EDEN	NC	2140	DR127R
35.962	MCGRATH GARY L	EDEN	NC	1390	DR126R
58.159	CITY OF EDEN	EDEN	NC	2280	DR140L
14.465	HALL MORRIS L SR L/E	EDEN	NC	1530	DR108L
26.320	CWR CONSTRUCTION CORP	EDEN	NC	2850	DR98L
80.207	N.C. NATIONAL BANK	GREENSBORO	NC	5770	MR36L
159.141	LOCUST POINT INC	LUMBERTON	NC	1615	DR96L
1489.280	WHITT FAMILY FARMS LLC	EDEN	NC	20050	DR119R
87.950	JOYCE JERRY D	STONEVILLE	NC	6700	DR88L
153.251	TUTTLE HELEN RAKESTRAW	STONEVILLE	NC	1515	DR87L
109.063	ROMA REALTY LLC	MARTINSVILLE	VA	2545	MR44L
103.492	ELMS JOHN W JR	GREENSBORO	NC	4215	MR51L
61.679	AXSOM JAMES K	EDEN	NC	2075	DR118R
24.999	PINNIX SHERWOOD WAYNE	REIDSVILLE	NC	1512	DR114R
13.806	DOVER BUSINESS CENTER LLC	DOVER	FL	1510	MR52L
38.251	CARTER JOHN M	RALEIGH	NC	1830	MR54L
16.764	SKAGGS TIMOTHY	MAYODAN	NC	1560	MR62L
10.097	WOOD CHARLES C JR	MAYODAN	NC	2870	MR68L
46.038	WOOD CHARLES C JR	MAYODAN	NC	2400	MR67L
29.544	CREWS JAMES G	MAYODAN	NC	1745	MR70L
11.116	ELMS JOHN W JR	GREENSBORO	NC	1670	MR71L
26.863	MANUEL SAMMY ODELL	REIDSVILLE	NC	1885	DR92R
95.697	CROWDER HENRY KENNETH	MADISON	NC	1525	DR89R
72.193	CARDWELL WALTER	WESLEY CHAPEL	FL	2435	DR63L
212.984	MANUEL SAMMY ODELL	REIDSVILLE	NC	4335	DR87R
373.943	PINE HALL BRICK & PIPE CO	WINSTON SALEM	NC	4260	DR46L
118.184	BROWN EDGAR C JR	STONEVILLE	NC	2730	DR56L
64.723	PINE HALL BRICK AND PIPE CO	WINSTON SALEM	NC	9550	DR42L
117.560	SHARPE L DEAN	MADISON	NC	1730	DR38L
42.794	PINE HALL BRICK AND PIPE CO	WINSTON SALEM	NC	1715	DR41L
24.027	WALTON MICHAEL KENNETH	STONEVILLE	NC	1700	DR35L
96.482	LAMBETH CHARLES F	LARGO	FL	1815	DR71R
27.835	HAWKINS DORIS S	SUNBURY	NC	1860	DR65R
95.844	PUCKETT ROY BAXTER	MADISON	NC	1670	DR68R
116.247	JONES WILLIAM LORAINE JR	MADISON	NC	3965	DR59R

76.347	SHELTON OTIS WILSON	MADISON	NC	1770	DR64R
4.135	PINE HALL BRICK CO INC	MADISON	NC	2185	DR20L
56.676	KIRKPATRICK THOMAS M	MADISON	NC	1590	DR27R
86.422	WILLIAMSON ESSIE M	MADISON	NC	4160	DR19R
61.877	PINE HALL BRICK CO INC	WINSTON SALEM	NC	5360	DR19L
37.228	NEAL LATIMER BRIGGS III	KILL DEVIL HILLS	NC	1500	DR24R
155.555	WEBSTER JAMES DONALD	MADISON	NC	2940	DR15R
14.268	PINE HALL BRICK CO	MADISON	NC	1905	DR17L
144.748	POWELL JAMES LEONARD	MADISON	NC	5825	DR12R
31.387	MITCHELL RUBEN B JR MITCHELL	MADISON	NC	2445	DR5R
36.308	PURGASON ANTHONY W	MADISON	NC	1475	DR8R
113.383	DUKE POWER COMPANY	CHARLOTTE	NC	3580	DR1R
133.727	HUNDLEY SANFORD LEE	STONEVILLE	NC	0	MR4R
137.360	SHELTON GLENN R	STONEVILLE	NC	5795	MR15L
165.768	ROBERTSON BETTY J	MARTINSVILLE	VA	4725	MR9R
653.584	FRANK WILLIAM A	GREENSBORO	NC	10120	DR164L
222.015	BUIST NIGEL A	EDEN	NC	1880	DR151L
90.484	WANGARD THOMAS R	RUFFIN	NC	1165	DR173R
195.158	HOPKINS LLC	WOOLWINE	VA	3060	DR150L
136.683	RONALD JOYNER FAMILY LLC	GREENSBORO	NC	0	MR18R
92.246	NORTH CAROLINA NATIONAL BAN	GREENSBORO	NC	11265	MR17R
110.183	OSBORNE INVESTMENTS LLC	EDEN	NC	215	DR146L
91.831	N.C. NATIONAL BANK	GREENSBORO	NC	9215	MR25L
96.683	CLAYBROOK CLYDE H TRUST	STONEVILLE	NC	0	MR30L
138.221	D R DEVELOPMENT CORP	EDEN	NC	4950	DR143L
147.525	PULLIAM LONNIE LEO	EDEN	NC	2140	DR127R
162.002	JOYCE AMY MATTHEWS TRUSTEE	STONEVILLE	NC	500	MR43L
159.141	LOCUST POINT INC	LUMBERTON	NC	1615	DR96L
1489.280	WHITT FAMILY FARMS LLC	EDEN	NC	20050	DR119R
153.251	TUTTLE HELEN RAKESTRAW	STONEVILLE	NC	1515	DR87L
109.063	ROMA REALTY LLC	MARTINSVILLE	VA	2545	MR44L
103.492	ELMS JOHN W JR	GREENSBORO	NC	4215	MR51L
178.856	WATKINS FRANCES LOUISE W	MAYODAN	NC	0	MR58L
95.697	CROWDER HENRY KENNETH	MADISON	NC	1525	DR89R
212.984	MANUEL SAMMY ODELL	REIDSVILLE	NC	4335	DR87R
373.943	PINE HALL BRICK & PIPE CO	WINSTON SALEM	NC	4260	DR46L
118.184	BROWN EDGAR C JR	STONEVILLE	NC	2730	DR56L
117.560	SHARPE L DEAN	MADISON	NC	1730	DR38L
96.482	LAMBETH CHARLES F	LARGO	FL	1815	DR71R
95.844	PUCKETT ROY BAXTER	MADISON	NC	1670	DR68R
116.247	JONES WILLIAM LORAINE JR	MADISON	NC	3965	DR59R
155.555	WEBSTER JAMES DONALD	MADISON	NC	2940	DR15R
144.748	POWELL JAMES LEONARD	MADISON	NC	5825	DR12R
113.383	DUKE POWER COMPANY	CHARLOTTE	NC	3580	DR1R

Table 13 Lower Priority (GIS Analysis)

AC_CALC	NAME1	TAXPAYCITY	TAXF	RiverLe	RiverNum
1.193	PRYOR CLAUDE E JR	RUFFIN	NC	0	DR193R
31.446	EASLEY ROBERT A JR	PELHAM	NC	0	DR195R
1.692	THOMPSON SHERRY P	STONEVILLE	NC	0	
25.016	SHOUGH BILLY J L/E	EDEN	NC	0	SR5L
12.765	BEASLEY JAMES RAY JR	KING	NC	0	MR5L
11.586	DOHERTY NATALIE G	EDEN	NC	0	SR6L
1.509	MONTGOMERY CHARLES D	BELEWS CREEK	NC	0	MR6L
23.087	HANNAH WALTER L TRUSTEE	GREENSBORO	NC	0	MR7L
3.012	SHELTON DAVID M	STONEVILLE	NC	0	MR8L
20.297	TOWN & COUNTRY PET CARE IN(	EDEN	NC	0	SR7L
12.635	MORRISON RALPH M	EDEN	NC	0	MR11L
3.124	HOLMES NANCY MATTHEWS EST	SURFSIDE BEACH	SC	0	SR9L
0.492	REEVES JAMES LESLIE	EDEN	NC	0	SR12L
1.264	VALLEE AUX CHENE INC	REIDSVILLE	NC	0	SR13L
7.483	HILL JOSEPH	EDEN	NC	0	SR7R
0.373	JAMES JOSEPH MARION	EDEN	NC	0	SR14R
0.276	VESTAL BUD	EDEN	NC	0	SR13R
0.706	GILLEY GREGORY PAUL	REIDSVILLE	NC	0	SR12R
1.384	EDWARDS ROY CALVIN	EDEN	NC	0	SR11R
1.655	HARRIS CHARLES R	EDEN	NC	0	SR17R
0.494	JAMES JOSEPH MARION	EDEN	NC	0	SR15R
0.211	JAMES JOSEPH MARION	EDEN	NC	0	SR16R
1.734	ETHRIDGE JOSEPH D	EDEN	NC	0	SR9R
0.298	J MART OF EDEN INC	EDEN	NC	0	SR14L
0.459	LIGHT SANFORD CLAY	EDEN	NC	0	SR18R
0.063	WILSON ROBERT A	EDEN	NC	0	SR15L
0.534	HARRIS CHARLIE ROBERT	EDEN	NC	0	SR19R
0.641	WHITE JOSEPH T SR	EDEN	NC	0	SR16L
1.164	SMITH JAMES L	EDEN	NC	0	SR17L
0.779	NELSON JO ANN MILDRED	EDEN	NC	0	SR18L
1.706	PIERCE BARRY L	EDEN	NC	0	SR19L
27.816	BATEMAN DONNIE W	EDEN	NC	0	SR20L
3.479	AIKEN WARWICK JR	EDEN	NC	0	SR22R
1.602	SPRAY COTTON MILLS	EDEN	NC	0	SR24R
3.260	SPRAY COTTON MILLS	EDEN	NC	155	SR23R
6.084	WILSON TRUCKING CO	FISHERVILLE	VA	0	SR27L
26.774	WILSON PATSY POWELL	RUFFIN	NC	0	DR177R
2.996	FIELDCREST CANNON INC	DALLAS	TX	0	SR29R
2.589	SPRAY COTTON MILLS	EDEN	NC	0	SR28R
1.707	BRINKLEY JACK W	EDEN	NC	0	SR32L
1.474	SPRAY COTTON MILL	EDEN	NC	0	SR30R
1.022	VERNON JESSIE DAPHINE MORE	EDEN	NC	0	SR33L
1.052	SPRAY COTTON MILL	EDEN	NC	0	SR31R
46.974	MANUEL SAMUEL O	REIDSVILLE	NC	1	MR14R

0.473	EDEN OIL CO	REIDSVILLE	NC	0	SR36R
5.353	BOWERS RUSSELL	EDEN	NC	0	SR37R
0.048	RUSH PROPERTIES LLC	EDEN	NC	75	SR35L
0.768	RUSH PROPERTIES LLC	EDEN	NC	0	SR37L
3.979	EDEN WATER WORKS LLC	EDEN	NC	0	SR40L
0.138	HANCOCK ALLEN W JR	EDEN	NC	0	SR38L
0.344	RUSH PROPERTIES LLC	EDEN	NC	115	SR35R
0.263	HANCOCK ALLEN W JR	EDEN	NC	0	SR39L
16.391	CITY OF EDEN	EDEN	NC	0	SR41L
0.458	RUSH PROPERTIES LLC	EDEN	NC	120	
0.430	FIYMTIMM LLC	GREENSBORO	NC	0	SR38R
47.709	DYER RICHARD B	EDEN	NC	0	SR43L
1.128	WILLIAMS SHARON DIANE	EDEN	NC	0	SR39R
1.916	CASSELL LOY GROVER	DANVILLE	VA	0	SR40R
2.745	WOODS WILLIAM EDGAR EST	EDEN	NC	0	DR159L
4.589	COCHRAN HUBERT J	EDEN	NC	0	DR157L
7.136	EATON PENNY W	EDEN	NC	0	DR156L
0.593	YOUNT JOHN M	EDEN	NC	0	SR44R
2.000	DYKES RICHARD A	EDEN	NC	0	DR158L
0.389	ROCKINGHAM COUNTY BOARD	EDEN	NC	115	DR160L
44.900	Y M C A OF EDEN	EDEN	NC	0	SR44L
3.314	JOHNSON JAMES A SR	EDEN	NC	0	DR153L
13.002	DYER PROPERTIES LLC	EDEN	NC	0	SR45L
4.026	CAROLYN COURT CONDOMINIUM	EDEN	NC	0	SR46R
3.061	DAVES CONSTRUCTION SERVICE	EDEN	NC	0	SR47R
0.887	HUFFMAN OIL COMPANY INC	BURLINGTON	NC	0	SR48L
5.187	WIECZOREK DIANA A	HASLETT	MI	170	DR156R
0.107	CITY OF EDEN	EDEN	NC	35	SR48R
4.713	EDEN ESTATES LLC	CHICAGO	IL	0	SR52L
2.149	SPRAY WATER POWER AND LAN	CHAPIN	SC	0	SR51L
1.299	POOLE JOEL LANCE	CORTE MADERA	CA	0	SR50L
8.054	CANNON JOHN DILLARD SR	EDEN	NC	155	DR153R
3.781	DOGGETT J TAYLOR	GREENSBORO	NC	0	SR51R
48.422	ATHA DORA A	EDEN	NC	0	DR160R
2.880	CEMETERY	WENTWORTH	NC	0	DR131L
10.956	PELLETIER PAUL W	STONEVILLE	NC	0	MR19R
0.628	FLEMING JACK THOMASON	EDEN	NC	0	DR129L
2.001	GILL INAM U	EDEN	NC	0	DR132L
0.421	PIEDMONT NATURAL GAS COMP/	CHARLOTTE	NC	0	DR130L
1.703	MATTHEWS WILLIAM R	EDEN	NC	0	DR133L
16.197	WILSON ROBERT L	STONEVILLE	NC	0	MR27L
9.690	SANDIFER JAMES ALLEN	STONEVILLE	NC	0	MR29L
1.790	JAMES DELAURIS B	EDEN	NC	0	DR134L
15.472	CARDWELL RUTH G	STONEVILLE	NC	0	MR20R
19.086	WILSON ROBERT LEE	STONEVILLE	NC	0	MR28L
0.402	FC PROPERTIES LLC	EDEN	NC	0	DR124L
0.487	CAMPBELL BONNIE R	EDEN	NC	0	DR123L
0.762	CORUM STANFORD LEON	EDEN	NC	0	DR122L
1.188	MCBRAYER EMMA FABIAN	EDEN	NC	0	DR120L
0.661	EDEN MET SEWER DISTRICT INC	EDEN	NC	125	SR54R
6.823	SMITH WILLODAE G	MAYODAN	NC	0	MR21R
0.510	CLARK AUDREY M	RIDGEWAY	VA	0	DR120L
14.168	COVEY MICHAEL JAMES	EDEN	NC	0	DR145L
11.282	GROGAN TED DAVIS	MADISON	NC	0	MR22R

0.998	TOLBERT DAVID MICHAEL		EDEN	NC	0	DR118L
1.299	MORRIS RICHARD NORMAN		EDEN	NC	0	DR117L
0.528	GEOGHEGAN WILLIAM FRANCIS		EDEN	NC	0	DR116L
1.648	ROBERTS BUD R JR		EDEN	NC	0	DR114L
3.232	CORRALES JUAN		EDEN	NC	0	DR113L
8.188	SMITH WILLODAE G		MAYODAN	NC	0	MR23R
35.933	CLARK MARSHALL O	L/E	EDEN	NC	0	DR109L
15.117	MANUEL SAMMY ODELL		REIDSVILLE	NC	0	MR32L
1.838	CAUSEY TIFFANY DAWN		RIDGEWAY	VA	0	DR135R
1.017	DREW JOHN T		EDEN	NC	0	DR136R
1.574	J & T REALTY TRUST		EDEN	NC	0	DR144L
2.094	HANCOCK FRANK EDWARD		STONEVILLE	NC	0	MR34L
2.027	FOLEY MICHAEL JOHN		GREENSBORO	NC	0	DR142L
7.658	BURCHELL MICHAEL R		EDEN	NC	0	DR137R
19.034	EDWARDS B D JR		EDEN	NC	40	DR97L
4.948	FLEISHMAN HENRY A		EDEN	NC	115	DR147R
15.658	WRIGHT WILLIAM W SR		EDEN	NC	0	DR138R
8.121	MARTIN JIMMY LEE		STONEVILLE	NC	0	MR26R
3.625	FRAZIER KENNETH W		STONEVILLE	NC	0	MR37L
0.393	CEMETERY		WENTWORTH	NC	0	MR28R
0.571	ROBERTS BRYANT R		RINCO	GA	0	DR107L
0.569	INDIAN HILLS DEVELOPMENT CO		EDEN	NC	0	DR106L
22.734	ROCKINGHAM COUNTY SCHOOL		EDEN	NC	0	DR139R
0.542	INDIAN HILLS DEVELOPMENT CO		EDEN	NC	0	DR105L
0.519	INDIAN HILLS DEVELOPMENT CO		EDEN	NC	0	DR104L
0.609	HARRIS GERALD K		EDEN	NC	0	DR103L
0.584	BOYD WILLIAM SCOTT		EDEN	NC	0	DR101L
0.808	HARRIS GERALD K		EDEN	NC	0	DR102L
0.975	INDIAN HILLS DEVELOPMENT CO		EDEN	NC	0	DR100L
1.299	INDIAN HILLS DEVELOPMENT CO		EDEN	NC	0	DR99L
11.152	ROBERTSON ROBERT J		WINSTON SALEM	NC	130	DR95L
7.195	GEORGE TAYLOR MOORE LIVING		STONEVILLE	NC	0	MR33R
43.586	HARRIS JUNIUS C TRUSTEE		GREENSBORO	NC	0	MR35R
4.019	WILLIAMS GINGER JOYCE		EDEN	NC	0	DR94L
2.433	THOMPSON ROBERT JR		STONEVILLE	NC	0	DR93L
2.269	STOWE STEVEN W		STONEVILLE	NC	0	DR90L
1.331	GUSLER JAMES KENNETH		STONEVILLE	NC	0	DR92L
1.649	ALLENDER DANIEL D		STONEVILLE	NC	0	DR91L
2.311	BOEREMA JOHN C JR		STONEVILLE	NC	0	DR89L
1.883	SHOUGH JODY J		STONEVILLE	NC	0	MR42R
11.900	HAWKS MARY		MAYODAN	NC	0	MR45R
0.986	MABE JOHNNY MICHAEL		STONEVILLE	NC	0	MR48R
0.860	FARMER RICKY ARNOLD		STONEVILLE	NC	0	MR49R
0.648	MARTIN TERRY M		STONEVILLE	NC	0	MR50R
0.950	FREEMAN MARY VIRGINIA		STONEVILLE	NC	0	MR51R
0.404	NELSON CARLOS ROOSEVELT		STONEVILLE	NC	0	MR53R
0.612	JOYCE MAYNARD DIXON		STONEVILLE	NC	180	MR54R
1.972	JOYCE MAYNARD D		STONEVILLE	NC	0	MR55R
5.447	JOYCE MAYNARD D		STONEVILLE	NC	0	MR56R
4.369	JOHNSON JESSE C III	L/E	STONEVILLE	NC	0	MR58R
6.064	FULCHER TIMOTHY JACKSON		EDEN	NC	75	DR83L
3.790	HUNDLEY ELLEN DAVIS		STONEVILLE	NC	0	MR59R
37.040	PINNIX EARNEST C		EDEN	NC	0	DR117R
12.451	PINNIX HAROLD L		EDEN	NC	0	DR116R

8.518	HEISE LAYTON EDWARD	STONEVILLE	NC	0	DR78L
10.081	WILSON STEVE J	STONEVILLE	NC	0	DR73L
30.531	PINNIX JUNIOR CALVIN	EDEN	NC	0	DR115R
10.132	PRIDDY HASSEL F SR	STONEVILLE	NC	0	MR70R
9.951	PINE HALL BRICK AND PIPE CO	WINSTON SALEM	NC	0	MR71R
9.394	PINE HALL BRICK CO INC	WINSTON SALEM	NC	0	MR72R
15.084	RHODES CORNELIUS LORENZO	GREENSBORO	NC	0	MR73R
3.806	PRIDDY HASSEL F SR	STONEVILLE	NC	0	MR69R
1.068	PRIDDY HASSELL F SR	STONEVILLE	NC	0	MR74R
43.531	WEBSTER JOHN R	STONEVILLE	NC	13	DR70L
4.006	GENTRY DAVID	MAYODAN	NC	145	MR66L
6.538	SMITH THOMAS CHESTER JR	MAYODAN	NC	0	MR75R
0.199	TOWN OF MAYODAN	MAYODAN	NC	0	MR76R
0.637	CARUSO CHARLES J	EDEN	NC	0	MR77R
0.518	MANUEL DEBRA KALLAM	MAYODAN	NC	0	MR78R
0.276	DARTY JAMES N	STOKESDALE	NC	0	MR79R
0.286	COE JOHN MELVIN	SEMORA	NC	0	MR80R
0.462	GOAD GEORGE R JR	MAYODAN	NC	0	MR81R
0.288	PIKE CHARLES WILSON	MAYODAN	NC	0	MR82R
0.191	PIKE CHARLES WILSON	MAYODAN	NC	0	MR83R
0.233	LEPHEW EDDIE W	MAYODAN	NC	0	MR84R
0.179	BAILEY THOMAS S	MAYODAN	NC	0	MR85R
0.224	VADEN JACQUELINE	MAYODAN	NC	0	MR86R
1.139	RHODES JAMES THOMPSON	MAYODAN	NC	0	MR88R
32.010	WEBSTER JOHN RAY	STONEVILLE	NC	0	DR68L
1.519	ACE HOME CENTER OF MAYODAI	MAYODAN	NC	0	MR89R
5.182	TORRES MIGUEL	MADISON	NC	0	DR102R
16.395	COMPTON CYNTHIA LOU	MADISON	NC	0	DR100R
1.978	COMPTON CYNTHIA LOU	MADISON	NC	0	DR101R
0.483	SOUTHERN AUSTIN A	MAYODAN	NC	0	MR78L
0.987	WILSON WILLIAM E	MAYODAN	NC	0	MR77L
0.806	GENTRY WILLIAM LEE	MAYODAN	NC	0	MR72L
0.452	CARTER CARL R	MAYODAN	NC	0	MR76L
1.418	LAWSON MAXINE DUGGINS	MADISON	NC	0	MR84L
0.792	LAWSON MAXINE DUGGINS	MADISON	NC	0	MR83L
13.961	ROBERTS JANET A	MADISON	NC	1	MR86L
1.113	WHITE NELLIE C L/E	STONEVILLE	NC	0	MR85L
7.179	WIGINGTON DOUGLAS	MAYODAN	NC	0	MR88L
10.856	THOMPSON ROBERT CLYDE	MAYODAN	NC	1	
1.511	MALONE DIANA DOUGLAS	STONEVILLE	NC	0	DR59L
1.280	JULIAN ALEXANDER	SURFSIDE BEACH	SC	0	DR57L
0.911	MATHERLY BURTON	STONEVILLE	NC	0	DR58L
32.633	COLEMAN THOMAS C	STONEVILLE	NC	85	DR47L
1.195	COX REX BRYON	MADISON	NC	0	MR92L
1.418	KNIGHT RIGELL	MAYODAN	NC	0	MR93L
3.386	PARSONS DOROTHY M	MADISON	NC	0	MR96L
2.367	COLLINS PENCIE N	MAYODAN	NC	0	MR95L
31.863	KENNEDY DAVID MICHAEL	MADISON	NC	0	DR77R
43.078	WILLIAMSON ANGELA C	SUMMERFIELD	NC	120	DR73R
9.386	JOYCE SAUNDRA JOYNER	MADISON	NC	0	DR76R
1.185	CHAMPION LENDA S	GREENSBORO	NC	0	DR58R
1.530	SMITH MICHAEL E	MADISON	NC	0	DR57R
0.411	HOLT LARRY LEE	MADISON	NC	0	DR56R
1.140	WASTE MANAGEMENT OF PIEDM	CHICAGO	IL	0	DR33L

0.581	BULLINS JESSIE WILLIAM	MADISON	NC	0	DR55R
1.046	BURKE MICHAEL S	MADISON	NC	0	DR54R
2.462	JOYCE LISA ROBIN	MADISON	NC	0	DR52R
1.260	JOYCE JIMMY R	MADISON	NC	0	DR50R
7.606	TOWN OF MADISON	MADISON	NC	0	DR47R
0.386	TOWN OF MADISON	MADISON	NC	0	DR49R
1.608	DUKE POWER COMPANY	CHARLOTTE	NC	0	DR46R
3.305	SIMMONS RITA R	MADISON	NC	0	DR29L
4.484	JOYNER-LEE PEARL	MADISON	NC	0	DR45R
0.892	SCOTT ROBERT FERRY MRS	MADISON	NC	0	DR28L
42.699	FLORENCE LONIE JOYNER	MADISON	NC	0	DR44R
2.228	BOHIGAS BERNARDO M	MADISON	NC	0	DR43R
21.093	PINE HALL BRICK CO INC	WINSTON SALEM	NC	0	DR22L
6.589	BURKART GARY E	GREENSBORO	NC	0	DR36R
3.206	GRABE DONALD C	SUMMERFIELD	NC	0	DR34R
0.777	SHEPHERD CYNTHIA GRIFFIN	MADISON	NC	0	DR35R
1.890	TOWN OF MADISON	MADISON	NC	0	DR20R
0.190	TOWN OF MADISON	MADISON	NC	0	DR21R
27.967	MABE BILLY R	MADISON	NC	0	DR16L
4.440	HUGHES JOHN ROBERT JR	MADISON	NC	0	DR29R
47.019	CONSTRUCTION DYNAMICS INC	CHAPEL HILL	NC	0	DR13L
41.154	FRYE RANDALL BAILEY	WALNUT COVE	NC	0	DR11L
46.757	DURHAM WILLIS B	MADISON	NC	0	DR8L
46.035	ROBERTSON JAMES H III	MADISON	NC	0	DR7L
41.214	BURTON JENNIE B	PINE HALL	NC	0	DR2L

Appendix G-List of Acronyms

All Terrain Vehicles (ATV's)

Best Management Practice's (BMP's)

Biochemical Oxygen Demand (BOD)

Clean Water Management Trust Fund (CWMTF)

Conservation Trust of North Carolina (CTNC)

Dan River Basin Association (DRBA)

Department of Environmental Natural Resources (DENR)

Geographic Information Science (GIS)

National Pollutant Discharge Elimination Systems (NPDES)

The Nature Conservancy (TNC)

North Carolina Center for Geographic Information Analysis (NCCGIA)

North Carolina Department of Transportation (NCDOT)

Organic Wastewater Contaminants (OWC's)

Piedmont Land Conservancy (PLC)

Roanoke River Basin Association (RRBA)

Significant Natural Heritage Areas (SNHA)

United States Geological Survey (USGS)

Wastewater Treatment Plants (WWTP's)