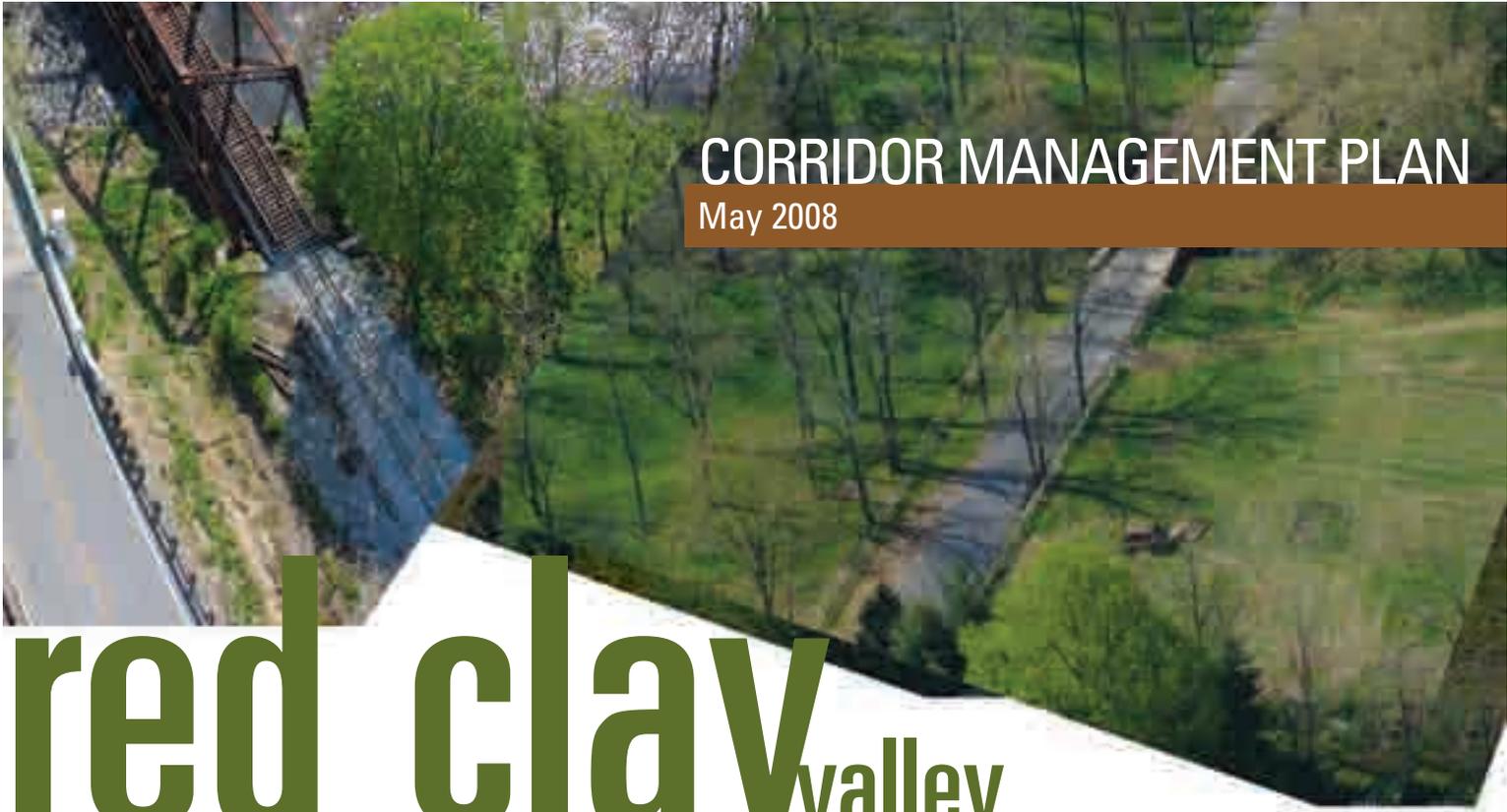
An aerial photograph of a scenic valley. A river flows through the center, with a wooden bridge crossing it on the left. The surrounding area is lush with green trees and grass. A road is visible on the right side of the image.

CORRIDOR MANAGEMENT PLAN

May 2008

red clay valley
scenic byway



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red clay valley

scenic byway

Submitted to:

- Delaware Department of Transportation
Division of Planning

Submitted by:

- Delaware Nature Society

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TABLE OF CONTENTS

Chapter 1

INTRODUCTION	4
A. Project Overview	
B. The Planning Process and Public Involvement	
C. Delaware Byway Program Requirements	
D. Plan Format	

Chapter 2

MISSION, VISION, GOALS and OBJECTIVES.....	9
A. Vision	
B. Mission	
C. Corridor Management Plan Goals	
D. Corridor Management Plan Objectives	

Chapter 3

DESCRIPTION OF THE RED CLAY VALLEY SCENIC BYWAY	14
A. Roadway Description and Definition (route description)	
B. Byway Character and Experience (experience of the corridor)	

CORRIDOR MANAGEMENT PLAN

May 2008

Chapter 4

INTRINSIC QUALITIES and RESOURCES	19
A. Introduction and Inventory (intrinsic quality resource inventory)	
B. Primary Intrinsic Quality: Scenic	
C. Secondary Intrinsic Quality: Natural	
D. Supporting Intrinsic Quality: Historic	
E. Recreational Qualities	
F. Cultural Qualities	
G. Archeological Qualities	

Chapter 5

TRANSPORTATION, TOURISM and MARKETING ISSUES	27
A. Transportation and Safety Livable Delaware Initiative Transportation Projects (current and future) Traffic Issues, Bicyclists, and Pedestrians Management Issues - Traffic Counts, Road Widths Coordination with DeIDOT – MOU Context Sensitive Design	
B. Tourism and Marketing Conservation and Preservation Issues Education and Outreach Signage	

Chapter 6

STEWARDSHIP OF INTRINSIC QUALITIES: RESOURCE PRESERVATION AND MANAGEMENT STRATEGIES	35
A. Conservation and Preservation	
B. Restoration and Enhancement	
C. Transportation and Safety	
D. Interpretation and Education	
E. Coordination and Management	
F. Roadway Status Report: Management Strategies for Individual Road Segments	

Chapter 7

PLAN IMPLEMENTATION.	63
A. Corridor Management: DNS as Coordinating Agency	
B. Byway Partners and the Byway Management Committee	
C. Potential Funding Sources	
D. Implementation Phasing	
E. Implementation of Preservation and Management Strategies (First two years plus First year budget; long-term)	
Implementation Matrices	
Part 1 – Project Goals and Management Strategies	
Part 2 – Implementation Phasing Schedule, Ongoing Activities and Years 1-5	

Appendices

1. Resource Inventory Maps (Intrinsic Quality Mapping and Land Use)	
2. Inventory of the Scenic and Historic Byways of the Red Clay Valley	
3. Visual Accents and Vista Points (including photos)	
4. Historic Resource Inventory	
5. Context Sensitive Design for the Red Clay Valley Scenic Byway	
6. DeIDot Plan Approval, Public Involvement and Support (including Steering Committee members and meetings, public workshops, letters of support, and news articles)	
7. Photolog of Byway	
8. Traffic Counts and Road Widths	
9. Draft Memorandum of Understanding (MOU) with DeIDOT (including DNS cover letter and interim DeIDOT response)	
10. References	



Chapter 1

Introduction

A. PROJECT OVERVIEW

The Red Clay Valley Scenic Byway is comprised of 28 secondary roads within the Red Clay Creek Watershed, located in New Castle County, Delaware. When the Delaware Nature Society (DNS) and its sponsoring partners nominated the Byway in July of 2004, the concept of nominating multiple roads within a single watershed was quite remarkable. Certainly such an approach had never been taken in Delaware and the sponsors quickly realized that such an approach was unique, if not original, to the nation.

Why were the sponsors willing to nominate an unheard of 28 roads all at once? The reason was that the roads of the Red Clay Valley form an interconnected and interdependent network closely linked to the Red Clay Creek and its watershed area. This “watershed-based planning effort” was pursued because it was determined that the roads in the watershed mimic an interconnected stream system as defined by the stream order concept (see the Stream Order Concept Figure in Chapter 3, page 3-2). Under this thinking, Route 82 (Creek Road) serves as the “main stem” with first and

second order “streams” (road corridors) linking at points of confluence (intersections). As with a stream system, all ordered roads play an integral part in the linked network. While each road has unto itself a corridor boundary, the watershed boundary of the Red Clay Valley has intrinsic value that is an integral component of each road’s character. Thus, while each road has a separate identified corridor boundary, the overall study boundary is the Red Clay Creek Watershed. Just as healthy streams evolved and meandered to shape and define their watersheds, so too did the road network that evolved in the Red Clay Valley. Together, the intrinsic qualities of the Byway told a unique story of scenic beauty, diverse natural resources, and a historically significant development pattern that contributed to the Valley’s growth and preservation.

Although the approach outlined above was unique, the Delaware Department of Transportation (DelDOT) clearly saw merit in the approach and the Secretary of the Department designated the Byway a Delaware Scenic and Historic Highway on April 5, 2005.

The roads of the Red Clay Valley date from early European settlements in the beginning of the eighteenth century. Three hundred years of human influence on the land has created a network of roads, mill dams and bridges, homes and barns,

rolling meadows, and fence rows. Remarkably, however, such influences often “spared” the natural resources that contribute immensely to the character of the Valley. All provide a pastoral tranquility. Not urban, nor suburban, the Red Clay Valley provides a unique natural beauty that is unsurpassed in Delaware. Today, the roads of the Valley are exceptionally scenic and help tell the history of the Valley in the context of human interaction with nature. In this context the use of the land, both historically and in the present, speaks to the stewardship that has formed the thinking of those that live and work in the Valley.

Several chapters contained herein describe in detail the intrinsic qualities of the Byway and attempt to give the reader an “experience of the corridor.” While numbers tell only part of the story, the Byway contains 94 identified visual accents, 11 vista points, 117 historic resources, and innumerable natural resources and stream tributaries that together form “a place of uncommon beauty and very special significance (1).”

This Corridor Management Plan has been undertaken through the leadership of the Delaware Nature Society (DNS) and the Plan sponsors and partners who make up the Red Clay Valley Scenic Byway Steering Committee. The goal of this project is to complete the requirements of the state’s Scenic and Historic Highway planning process by preparing and adopting a Corridor Management Plan for the Red Clay Valley Scenic Byway.

B. THE PLANNING PROCESS AND PUBLIC INVOLVEMENT

1. Previous Planning Initiatives

Prior to designation of the 28 road network as the Red Clay Valley Scenic Byway, many planning initiatives highlighted the important resources of this unique area.

A report by Turtle Creek Design was prepared for the Environmental Management Center of the Brandywine Conservancy in 1986. The purpose of the study was to develop a blueprint to guide changes in land use that arise when properties change hands and identify areas in need of protection. The study noted that the Red Clay Valley is a “place of uncommon beauty and very special significance (1).”

In 1972, the Delaware Nature Education Society began its Natural Areas Study by invento-

rying statewide the remaining areas worthy of preservation, resulting in the publication of *Delaware’s Outstanding Natural Areas and Their Preservation* in 1978 (2). Five Natural Areas in the Red Clay Watershed were identified in the book and include the Coverdale Farm Woods, Burrows Run Valley, Chestnut Ridge, Red Clay Ravine, and Red Clay Reservation. These areas were later grouped together and are known as the Red Clay Creek Valley Natural Area.

A report on the *Natural History and Heritage of the Red Clay Creek* was prepared by the Delaware Nature Education Society in 1987 for the Division of Water Resources, within the Delaware Department of Natural Resources and Environmental Control (3). The report was prepared as a lead into a major study of toxic compounds that was prepared by Weston Associates. The information was used as background material for discussions between Pennsylvania and Delaware regarding water pollution concerns in the Red Clay Creek watershed.

Completed as a component of the overall comprehensive planning process for New Castle County, the *Red Clay Creek Scenic River and Highway Study* highlights the characteristics of the Red Clay Valley, inventories its natural, scenic and historic resources, investigates management issues and priorities, and provides a means for achieving resource protection objectives (4). The New Castle County Department of Planning, in conjunction with the Environmental Management Center of the Brandywine Conservancy, prepared the study and the Wilmington Metropolitan Area Planning Council, among others, provided support.

2. Designation of the Red Clay Valley Scenic Byway

During the Delaware Nature Society’s annual meeting in April 2005, DelDOT Secretary Nathan Hayward announced the designation of the Red Clay Valley Scenic Byway. This was the culmination of a nearly five year effort by the Delaware Nature Society and other partners that began with support of Senate Bill 320 during the 140th General Assembly which enabled DelDOT to apply for federal funding to initiate a scenic and historic byways program.

Shortly after the bill became law, the Delaware Nature Society initiated meetings with

members of the public and organizations located in the Valley to discuss a proposal to incorporate 28 roads in the Red Clay Valley in the State's new Scenic Highways program. Over the period from July 2001 through December 2002, eight meetings were held resulting in the decision to move forward with the nomination application.

The nomination application was prepared through a collaborative process between Gaadt Perspectives, LLC, staff from the Delaware Nature Society, and staff from the New Castle County Department of Land Use and was sponsored by New Castle County, the Red Clay Valley Association, Center for Creative Arts, the Yorklyn Planning Group, the Chesapeake Bay Girl Scouts Council, and Historic Red Clay, Inc. More than twenty letters of support accompanied the nomination application.

3. Creation of the Corridor Management Plan

The Corridor Management planning process began with the first meeting of Steering Committee members on May 12, 2005 to outline the schedule for plan creation and identify the roles and responsibilities of committee members. A complete list of Steering Committee members can be found in Appendix 6.

Since that initial meeting, the Steering Committee has convened 13 times under the leadership of Delaware Nature Society staff and Gaadt Perspectives, LLC to develop the elements of the plan contained herein and review transportation projects and other timely issues affecting the Byway. Meetings were held on August 9, 2005; October 4, 2005; December 6, 2005; February 7, 2006; April 4, 2006; June 6, 2006; August 8, 2006; October 3, 2006; December 5, 2006; February 12, 2007; April 16, 2007; August 6, 2007; and October 1, 2007.

The importance of context sensitive design approaches became readily apparent during discussions within the Steering Committee which led to the formation of a Context Sensitive Design Subcommittee in May 2006. A complete list of Subcommittee members can be found in Appendix 6. The objective of the subcommittee was to create an appendix for this Corridor Management Plan, including a palette of design materials, description of demonstration projects, landscape management tools, and resources. The Subcommittee first met on May 15, 2006 and then

reconvened seven times under the leadership of Delaware Nature Society staff and Gaadt Perspectives, LLC. Meetings were held on July 10, 2006; September 11, 2006; November 6, 2006; January 8, 2007; March 20, 2007; May 14, 2007; and July 9, 2007.

Through attendance at meetings, Steering Committee and Subcommittee members donated over 300 hours of volunteer service through the corridor planning process. In addition, volunteers from the committees took hundreds of photographs throughout the Byway to compile a photolog for this plan and create a library of images for future projects such as brochures, websites, and publications.

The draft Corridor Management Plan was presented to the public during a workshop held at the Delaware Nature Society's Ashland Nature Center on Thursday, September 27, 2007 from 4:00 – 7:00 p.m. The workshop was promoted through the Delaware Nature Society's newsletter *Nature's Voice* and local newspapers such as The News Journal. In addition, DelDOT helped promote the workshop. The public workshop was intended as a poster session and informal discussion regarding the plan (no formal agenda was provided). The 30 individuals who attended the workshop responded positively to the Corridor Management Plan recommendations. Copies of responses to the workshop questionnaire can be found in Appendix 6.

A number of letters of support have been submitted on behalf of the plan indicating strong support for the recommendations regarding future management of the Red Clay Valley Scenic Byway.

Appendices to this Corridor Management Plan include information related to public involvement and support. Appendix 6 includes newsletter and press articles; letters of support; contact information for members of the Steering Committee and Context Sensitive Design Subcommittee, as well as sample minutes from meetings of both groups; and information related to the public workshop, such as the workshop announcement, sign-in sheet, and presentation materials.

C. DELAWARE BYWAY PROGRAM REQUIREMENTS

In order for a Byway to be eligible for Delaware Scenic and Historic Highway designation, it must possess at least one of the National Scenic Byway program's six intrinsic qualities (scenic, historic, natural, recreational, cultural, or archeological)(5). The Nomination Application for the Red Clay Valley Scenic Byway compared the merits of the Byway to the standards for each intrinsic quality set forth in the national program's policies [Federal Highway Administration (FHWA)](6). In fact, the Intrinsic Quality Resource Inventory contained in the Nomination Application quotes the FHWA policy at the beginning of each intrinsic quality resource description. Chapter 4 of this Plan replicates much of this description by providing an in-depth account of the unique and irreplaceable qualities that contribute to the Byway's overall character. The Red Clay Valley Scenic Byway is primarily associated with the state and nationally significant scenic and natural qualities (primary and secondary intrinsic qualities), and supported by its state and regional significant historic qualities.

The Delaware Scenic and Historic Highway Program Guide used for this Plan and the Nomination Application states that "A Corridor Plan lays out the vision, goals, and responsibilities for conserving and enhancing the corridor's most valuable qualities..." Furthermore, "(t)he Corridor Plan presents a strategy for balancing concern for the intrinsic resources with the visitor's opportunity to experience the Scenic and Historic Highway. It explains how the participants are involved in and responsible for implementing the Plan." (5)

REQUIRED INFORMATION FOR THE PLAN IS AS FOLLOWS:

1. Vision and goals statement with objectives and strategies for achieving the goals.
2. Documentation of public involvement efforts to illustrate the support the corridor designation has received from the public.
3. Stewardship of intrinsic qualities through resource preservation, enhancement of existing development, and accommodation of new development in a complementary manner.
4. Tourism development, including an explanation of the tourism potential of the corridor and

a description of how the visitor's experience will be maximized and enhanced.

5. Marketing and promotion, including a signage plan supportive of the visitor experience.
6. Resource interpretation, including recommended locations for distributing information.
7. Support and implementation responsibilities, including relationship to local government comprehensive plans.
8. Funding plan for implementing the Corridor Plan.
9. Transportation and safety, including consideration of appropriate design guidelines for Context Sensitive Design in the corridor, accommodating commercial traffic, accommodating multi-modal uses of the corridor to the extent feasible, and complying with outdoor advertising controls.
10. Short-term plan for implementation

AN APPENDIX TO THE PLAN SHOULD INCLUDE:

11. Physical description of the route.
12. Representative photographs.
13. Map of the byway boundaries, intrinsic qualities, and land uses.
14. Intrinsic quality resource inventory.
15. Summary of primary and secondary intrinsic qualities.
16. Summary of visitor experience.
17. Description of public involvement, comments, and input.

It should be noted that this Plan's format varies slightly from the *organizational* approach listed above but does not alter the *content* required under the state's program.

D. PLAN FORMAT

This Corridor Management Plan is organized to optimize readability and permit easy referencing as implementation activities come on line. Thus, while the Plan's organization is different from that referenced in the state's program guide, all of the state's submission requirements have conceivably been met.

The Plan contains seven chapters and accompanying maps and appendices. Beginning with a description of the mission, vision, goals and objectives, the Plan goes on to describe the

Byway, its intrinsic qualities, and the transportation, tourism and marketing issues relevant thereto. Later chapters address resource preservation and management, followed by implementation and funding strategies.

Chapter 1, Introduction, gives a brief project overview, including the purpose of the Plan and the process undertaken to prepare the Plan. Also included is a description of past preservation efforts in the Red Clay Valley, and a detailed explanation of the extensive public participation that has been a part of both the Nomination Application and the Corridor Management Plan. Supporting information, including letters of support, Steering Committee meetings and public workshops, is contained in Appendix 6.

Chapter 2, Mission, Vision, Goals and Objectives, presents the Byway's mission and vision statements, goals and objectives developed through public meetings and workshops held by the project Steering Committee. The goals and objectives listed in Chapter 2 provide the basis for the resource preservation and management strategies presented in Chapter 6.

Chapter 3, Description of the Red Clay Valley Scenic Byway, describes the Byway's physical boundaries and roads, as well as the experience of the corridor from the perspective of one driving the Byway. Supporting material includes the resource inventory mapping included in Appendix 1 and the Photolog contained in Appendix 7.

Chapter 4, Intrinsic Qualities and Resources, provides an in-depth discussion of the unique and irreplaceable scenic, natural and historic qualities that contribute immeasurably to the overall character of the Byway. Supporting materials include inventory data, visual accents/ vistas, and a historic resource inventory contained in Appendices 2, 3 and 4, respectively.

Chapter 5, Transportation, Tourism and Marketing Issues, reviews planned and recently implemented or completed transportation projects; discusses transportation management issues, coordination, and context sensitive design; and describes tourism and signage in the context of the Plan's conservation and preservation focus.

Supporting materials include Appendix 5 (Context Sensitive Design for the Red Clay Valley Scenic Byway), Appendix 8 (WILMAPCO traffic count data and DelDOT road width data), and Appendix 9 (MOU with DelDOT).

Chapter 6, Stewardship of Intrinsic Qualities: Resource Preservation and Management Strategies, presents the various preservation and management strategies aimed at conservation, restoration, safety, education and coordination. Included here are Byway-wide strategies, as well as those management strategies compiled for individual road segments.

Chapter 7, Plan Implementation, addresses the full range of activities involved in implementing the plan. Also included here is a description of responsible parties, funding sources, and implementation phasing. Two implementation matrices list management strategies, identify the parties responsible for implementation, provide a schedule for task completion, and identify possible funding options to accomplish tasks. One matrix lists management strategies according to the goals and objectives developed for the Plan; the other matrix lists management strategies according to scheduling milestones.

In all, the plan offers an in-depth description of the Byway's resources, provides the guiding mission and vision for the conservation and preservation of such resources, and offers a detailed plan by which the Byway can be managed and preservation can be achieved.



Chapter 2

Vision, Mission, Goals & Objectives

A. VISION

The Red Clay Valley Scenic Byway is a singularly unique combination of roads and hills, trees and streams, rock outcroppings and historic structures that together offer an experience like no other in the State of Delaware. Traveling the Byway's 28 roads in Delaware and adjoining Pennsylvania provides an understanding and appreciation of the scenic, natural and historic qualities of this unique landscape.

The vision of this effort is to ensure the preservation and conservation of the irreplaceable resources that together form the Red Clay Valley and its Scenic Byway.

B. MISSION OF THE RED CLAY VALLEY SCENIC BYWAY CORRIDOR MANAGEMENT PLAN

The mission of the Red Clay Valley Scenic Byway Corridor Management Plan is to develop strategies to preserve and protect the intrinsic qualities of the roadways that together comprise an interconnected and interdependent network closely linked to the Red Clay Creek and its watershed area.

It is also the Plan's mission to support enhancement and restoration efforts, where needed, to continually improve the value of the Byway's identified scenic, natural and historic qualities.

C. CORRIDOR MANAGEMENT PLAN GOALS

Significant to this effort is the desire to gain permanent recognition as a Delaware Scenic and Historic Highway. To this end, the Corridor Management Plan examines the following broad goals for byway management.

Conservation and Preservation

Goal 1 - Encourage stewardship of intrinsic qualities through continued conservation efforts.

Goal 2 - Conserve the roadside features of the Byway, particularly the scenic resources (vista points and visual accents), natural resources (rock outcroppings, mature trees, steep slopes and stream valley), and historic resources (houses, bridges, railroads, archeological sites, and scale and features of roads), that contribute to the character of the watershed.

Goal 3 - Encourage context sensitive design that respects the scale and character of surroundings and minimizes change to intrinsic qualities.

Restoration and Enhancement

Goal 4 - Encourage restoration and enhancement efforts, where appropriate, to improve the value of the Byway's intrinsic qualities.

Transportation and Safety

Goal 5 - Balance the transportation and safety needs of all roadway users in a manner that respects the intrinsic qualities of the Byway.

Goal 6 - Help guide future transportation and land use decisions made by government agencies to ensure consistency with the Byway's mission.

Interpretation and Education

Goal 7 - Inspire the public through education on the scenic, natural and historic qualities of the Byway.

Goal 8 - Instill in the public the need for stewardship of the Byway's intrinsic qualities.

Implementation: Coordination and Management

Goal 9 - Prepare a Corridor Management Plan acceptable to stakeholders and suitable for future funding.

Goal 10 - Create incentives to achieve the Plan's mission.

Goal 11 - Implement the Corridor Management Plan in a cooperative fashion that preserves and protects resources, recognizes the needs and inter-

ests of stakeholders, respects the rights and responsibilities of individual landowners, and is sensitive to the needs of organizations and businesses.

D. CORRIDOR MANAGEMENT PLAN OBJECTIVES

The objectives listed below were developed to achieve the goals of the Corridor Management Plan. Such objectives apply to the entire Scenic Byway.

Conservation and Preservation

Goal 1 - Encourage stewardship of intrinsic qualities through continued conservation efforts.

Objective 1-1 Develop a byway-specific voluntary conservation and preservation easement program utilizing the collective experience and knowledge of local land trusts. DNS shall, as the coordinating agency, monitor the status of the Byway's scenic, natural and historic qualities and work cooperatively with other land trusts to achieve voluntary protection.

Objective 1-2 Seek funding from public and private agencies to assist with fee-simple purchase, easement purchase, or purchase of development rights (PDR) where appropriate and feasible. Initiate partnerships that can achieve greater preservation through shared funding strategies, among them possible joint funding through the state's Open Space Council, possible use of the Preservation Delaware Revolving Fund for the preservation of historic buildings, possible federal funds for transportation enhancement programs designed to conserve land and protect scenic corridors, and the possible creation of a revolving fund for land conservation actions.

Objective 1-3 Link public and private purchase/donation initiatives (possibly linked to land development) to promote interconnected open space. Partner with the state (e.g., the Delaware Natural Heritage Program, etc.) and/or other suitable entities to better identify open space and habitat corridors as they relate to the protection of intrinsic qualities.

Objective 1-4 Develop a Byway Stewardship Recognition Program to recognize those individuals who voluntarily protect their lands and buildings or donate preservation or conservation easements in a manner that preserve's the Byway's intrinsic qualities.

Goal 2 - Conserve the roadside features of the Byway, particularly the scenic resources (vista points and visual accents), natural resources (rock outcroppings, mature trees, steep slopes and stream valley), and historic resources (houses, bridges, railroads, archeological sites, and scale, alignment and features of roads), that contribute to the character of the watershed.

Objective 2-1 Respect and value roadside vegetation as a critical component of the Byway and partner with those who do work along roadways (DelDOT, utility companies, etc.) to better manage and understand the inherent value of vegetation to the Byway. For example, work with utility companies to minimize the impact of pruning roadside vegetation for overhead utility wires; consider training workshops that address vegetation preservation techniques, etc.

Objective 2-2 Compile a complete photolog of the scenic, natural and historic resources of the Red Clay Valley, including scenic vistas, accents, intrusions and other visual aspects of the Byway.

Goal 3 - Encourage context sensitive design that respects the scale and character of surroundings and minimizes change to intrinsic qualities.

Objective 3-1 Consistent with the vision, mission and goals of the Byway, work with New Castle County to: 1) further the objectives of Conservation Design as codified in the County's "Environment First" ordinance; 2) review and update, as needed, the scenic corridor standards contained in Article 4 of the County's Unified Development Code (UDC); and 3) acknowledge and refine, as needed, the resource prioritization performed for the *Red Clay Valley Scenic River and Highway Study* (NCC 1989).

Objective 3-2 Ensure that county comprehensive plans and relevant state planning initiatives

adequately recognize the Red Clay Valley Scenic Byway. Such recognition should acknowledge the significant public benefit of the Byway and reinforce a conservation purpose for the scenic, natural and historic qualities documented in this publication and in past state and county publications.

Restoration and Enhancement

Goal 4 - Encourage restoration and enhancement efforts, where appropriate, to maintain and/or improve the Byway's intrinsic qualities.

Objective 4-1 Work with New Castle County to restore and enhance the Byway's intrinsic qualities as part of the development process. Towards this end, further the objectives of the Corridor Management Plan in relation to the County's Unified Development Code, particularly Article 4 (District Intensity and Bulk Standards), Article 10 (Environmental Standards), Article 22 (Drainage, Utilities, Septic Systems, Parking, Loading, and Lighting), Article 23 (Landscaping, Trees, and Erosion), and Article 27 (Maintenance Corporations, Open Space, and Common Facilities).

Objective 4-2 Seek support for and funding from public and private agencies to assist with restoration and enhancement activities focused on the intrinsic qualities of the Byway; examples of recent programs include the EPA Watershed Initiative Grant Program, the Delaware Nature Society's SMARTYARDS homeowner backyard stewardship project, the NRCS Conservation Partnership Initiative (CPI) and Conservation Reserve Enhancement Program (CREP), and the Landowner Incentive Program (LIP) (a program to restore habitat on private property).

Objective 4-3 Encourage volunteer maintenance and planting programs to enhance the roadside character of the Byway; promote the Adopt-a-Highway program and encourage roadside and property owner planting efforts that are compatible with the vision, mission and goals of the Byway.

Transportation and Safety

Goal 5 - Balance the transportation and safety needs of roadway users in a manner that respects the intrinsic qualities of the Byway.

Objective 5-1 Use safety measures, traffic enforcement procedures, and traffic calming techniques to warn trucks and other vehicles of the narrowness and the lack of shoulders along many road segments, and the roadside character that is an integral part of the Byway's intrinsic value.

Objective 5-2 Consolidate the number and guide the placement of traffic and byway signs along the road segments consistent with the vision, mission and goals of the Byway.

Goal 6 - Help guide future transportation and land use decisions made by government agencies to ensure consistency with the Byway's mission.

Objective 6-1 Establish a cooperative approach with DelDOT and other state agencies, including the State Historic Preservation Office, State Department of Natural Resources and Environmental Control (DNREC), and the Office of State Planning Coordination, to develop and implement all future transportation projects within the road network that comprises the Byway; said process shall involve stakeholders, as well as members of the Corridor Management Plan Steering Committee. The intent of this process is to receive public comment on proposed transportation projects, preserve and enhance the Byway's intrinsic qualities while ensuring safety and mobility, retain the scenic character of the roadways by maintaining current road width and alignment, and minimize the use of curbing and guardrails.

Objective 6-2 Work with DelDOT to develop context-sensitive design guidelines for transportation improvements sensitive to the individual roads that comprise the Byway; consider adapting the state's Context-Sensitive Design Manual to the unique characteristics of the Byway; participate in a DelDOT working group that will develop byway guidelines for the Red Clay Valley Scenic Byway.

Interpretation and Education

Goal 7 - Inspire the public through education on the intrinsic qualities of the Byway.

Objective 7-1 Assemble interpretive mapping and coordinated descriptions of the scenic, natural and historic intrinsic qualities of the Byway as part of an educational display and/or lecture program at the Delaware Nature Society or at any other partnering organization. Communicate the watershed-based planning effort that resulted in the designation of 28 secondary roads that together form an interconnected and interdependent network closely linked to the Red Clay Creek and its watershed area. Emphasize the importance of wise stewardship to protect the Byway's intrinsic qualities. Provide opportunities to show the display or give lectures throughout the watershed. Incorporate the display and/or lecture program into education programs offered by the Delaware Nature Society and other partnering organizations as an example of watershed-based stewardship.

Goal 8 - Instill in the public the need for stewardship of the Byway's intrinsic qualities.

Objective 8-1 Develop a brochure that provides an overview of the Byway and the region's vast resources. Describe the preservation efforts ongoing and the emphasis placed on watershed protection in all forms. Highlight the need for future stewardship to protect the Byway's intrinsic qualities.

Objective 8-2 Consider developing a multimedia internet website to share information about the Byway; offer links to other websites that provide useful information on scenic byways.

Implementation: Coordination and Management

Goal 9 - Prepare a Corridor Management Plan acceptable to stakeholders and suitable for future funding.

Goal 10 - Create incentives to achieve the Plan's mission.

Objective 10-1 Establish outreach efforts and

new planning initiatives linked to the implementation strategies developed for this plan, including: corridor and façade conservation easements, context sensitive design programs, voluntary landowner protection agreements, fee-simple or development rights purchase programs, corridor overlay regulations, etc. Consider periodic public events to celebrate the Byway and encourage future protection.

Goal 11 - Implement the Corridor Management Plan in a cooperative fashion that preserves and protects resources, recognizes the needs and interests of stakeholders, respects the rights and responsibilities of individual landowners, and is sensitive to the needs of organizations and businesses.

Objective 11-1 Explore ways in which the Delaware Nature Society can remain the coordinating agency to achieve the goals, objectives and implementation strategies of this plan.

Objective 11-2 Transition the Steering Committee for this plan into a management entity that will meet as needed to address major issues facing the Byway and facilitate opportunities for implementing the plan.

Objective 11-3 Continue to reach out and encourage the involvement of stakeholders, including individual landowners, organizations and businesses, and government agencies in the implementation of the plan.

Objective 11-4 Work within the framework of existing plans and programs to achieve Byway goals including, but not limited to:

- State and County planning initiatives (comprehensive plans, sub-area plans, Red Clay Valley Scenic River and Highway Study, New Castle County Conservation Strategy, State Resource Area planning, Natural Areas Program, Natural Heritage Program, etc.)
- Local land trust initiatives and easement programs (Mt. Cuba Center, DNS, Brandywine Conservancy, Nature Conservancy, The Conservation Fund, Kennett Township Land Trust, etc.)
- Red Clay Valley Association conservation

and education programs

- Historic Red Clay initiatives
- Wilmington and Western Railroad activities
- Mt. Cuba Center initiatives
- Preservation Delaware Revolving Fund and preservation programs
- Delaware Nature Society conservation and education programs
- DelDOT traffic calming initiatives, context sensitive design policy, and tree preservation requirements
- Delaware Greenways initiatives
- DNREC State Parks, County and City Parks Programs (Auburn Heights, Valley Garden Park, etc.)
- Pennsylvania planning initiatives (Township planning activities, County initiatives and state resource planning that can lead to bi-state preservation)
- Scenic America programs and initiatives

Objective 11-5 Establish a process with DelDOT regarding both future road improvement projects and standard maintenance and safety projects whereby all work is communicated to the Byway management entity in advance. Such advance notification will allow adequate time for response and will permit coordinated efforts to evaluate alternatives and seek funding for enhanced maintenance and safety.



Chapter 3

Description of the Red Clay Valley Scenic Byway

A. ROADWAY DESCRIPTION AND DEFINITION

1. Boundaries

The Red Clay Valley Scenic Byway includes 28 secondary roads in northern New Castle County that form an interconnected and interdependent network closely linked to the Red Clay Creek and its watershed area (see Appendix 1 for Resource Inventory Maps). The network is bounded on the north by the Pennsylvania state line, on the east by the Kennett Pike (Route 52) and on the south and west by the Lancaster Pike (Route 48/41). The Kennett Pike and the Lancaster Pike are not included in the network. Several roads in the northwestern and the southeastern sections of the bounded area are not in the network since they are either in highly populated areas or not in the Red Clay watershed. The roads of the Red Clay Valley are not a simple grid, but a complex network, that conforms to the contours of the land and the Red Clay Creek.

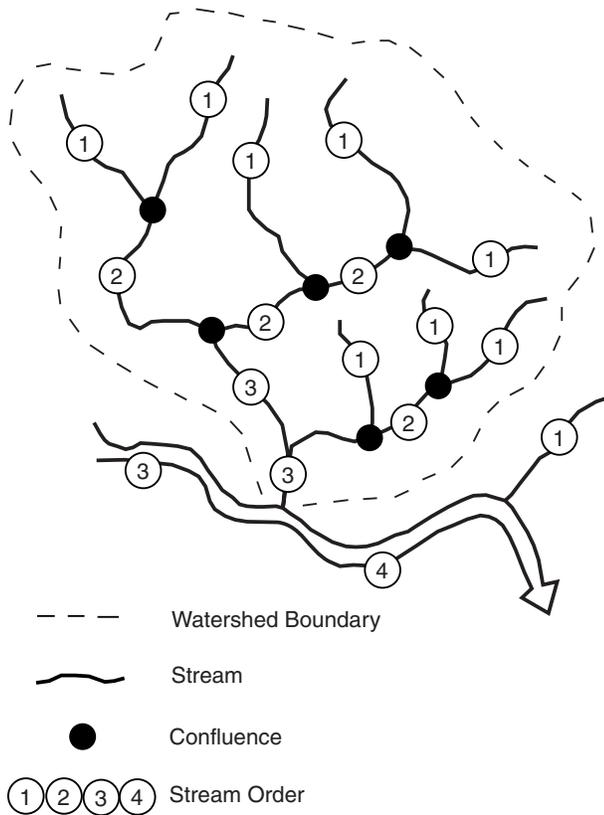
Although each road has a separate identified

corridor boundary (primarily related to the intrinsic qualities each possess), the overall study boundary is the Red Clay Creek watershed. This “watershed-based planning effort” was pursued because it was determined that the roads within the watershed mimic an interconnected stream system as defined by the stream order concept (see Figure). Under this thinking, Route 82 serves as the “main stem” with first and second order “streams” (road corridors) linking at points of confluence (intersections). As with a stream system, all “ordered” roads play an integral part in the linked network. So, while each road has unto itself a corridor boundary, the watershed boundary of the Red Clay Valley has intrinsic value that is an integral component of each road’s character. Just as healthy streams evolved and meandered to shape and define their watersheds, so too did the road network that evolved in the Red Clay Valley.

The planning team examined the road corridors from the perspective of the roadways themselves, the viewsheds from the roadways (visual accents and vista points), and the natural and historic resource components that contribute to roadway character and provide a landscape context for each roadway. The focus of this effort is on the roadways, their rights-of-way, and the scenic, natural and historic attributes that form individual corridors and together link the watershed. As

such, the highest priority for the corridor management plan is the preservation and stewardship of the watershed’s roadways and the intrinsic qualities that define them.

Stream Order Concept



2. Inventory Description

An inventory of the roads for inclusion in the Red Clay Valley Scenic Byway is provided below. A more inclusive inventory complete with intrinsic qualities is located in Appendix 2 (other appendices provide visual accents, vista points, historic resources and roadway photographs). Each road is referred to by number(s) and name(s) since some numbered roads go by multiple names and in some cases several numbered roads are combined together to form a single named road. For example: *Roads 244 and 247* are two sections of Snuff Mill Road. Road numbers are listed in *italics* to minimize confusion with route numbers such as route 52 or 41. This inventory includes a list of the roads in the scenic network (following below) and a description sheet for each road

(Appendix 2 – Roadway Inventory). In the list below, the road names for each numbered road are provided with the starting and ending location for each section of road included in the network. Delaware Route 82 is not listed separately in the inventory since it is a combination of different road numbers - 242, 247, 261, 262, and 262A - which extends from the Delaware/Pennsylvania state line to the Kennett Pike – Route 52.

B. BYWAY CHARACTER AND EXPERIENCE

The Red Clay Valley is a network of roads that conform to the overall topography of the land; such “land patterning” contributes greatly to the scenic diversity of the road network. The lowland roads follow the Red Clay Creek and are the “main stem” or spine of the road network. The highland roads travel the hills and ridges, dipping down at times to cross tributaries. The crossing roads connect the highland roads to the lowland roads and may follow a tributary or travel the higher more stable ground. Visualize the road network like the Red Clay watershed. The highland roads are the headwaters, which nourish, replenish and protect the Valley; the major vehicular highways are the highland roads, which are built on stable high ground. The crossing roads travel primarily at right angles to the highland and lowland roads and are as the tributaries or first and second order streams are to the creek. The lowland roads wind as the stream through narrow ravines, wetlands, and lowland pastures; this peaceful meandering follows the path of the creek.

The lowland roads of the Red Clay Valley are not a single road by name or number, but a collection of roads that mimic the flow of the creek itself. One road by name takes the lowland path for a distance but then veers off toward the highlands — only to be replaced in the lowland path by another road with a different name. The lowland road of the Red Clay Valley enters Delaware along the creek north of Yorklyn. The lowland road at this point has numerous local names, but most people know the road as Route 82. Route 82 travels through Yorklyn and then to the southeast where it becomes known as Creek Road. In Ashland, Route 82 crosses a flood plain and then is carved into the steep rocky hillside as the valley narrows. South of Ashland, Route 82 veers to the highlands and is replaced by Mt. Cuba Road,

which is promptly replaced by Barley Mill Road. Barley Mill Road passes across a lowland meadow and then again the Valley begins to narrow. Barley Mill Road now takes to the highland only to be replaced by Rolling Mill Road. Rolling Mill Road is carved into a steep, wooded hill on one side and has a straight drop to the creek on the other. After passing the Wooddale covered bridge, the stream passes through a narrow gorge and around an ox bow where the road cannot follow. The road must rise from the valley, over a rock outcropping, and again descend into the creek valley. At this point, the lowland road along the Red Clay Creek ends, but the creek continues on. The end of the lowland road defines the southern end of the Red Clay Valley Scenic Byway.

The Red Clay Valley Scenic Byway is far more than just the lowland road. The lowland road provides views of pastoral flood plains, the meandering creek, steep wooded hillsides, black rock outcroppings, and wooded wetlands. The highland and crossing roads are where the magnificent vistas, rolling meadows and upland forests are found. The Red Clay Creek is bounded on the east by several highland roads: Old Kennett Road, “new” Kennett Pike (Route 52) and Centerville Road/Owls Nest Road which is now bisected by

Hoopes Reservoir. The Kennett Pike connects Wilmington to many small and large towns in Delaware and Pennsylvania, including the towns of Greenville, Centerville, and Kennett Square (nearby on PA Route 1). The other highland roads best served the residents of the past when life was slower and the mode of transportation was horse or foot. Centerville Road/Owls Nest Road, which is now bisected by Hoopes Reservoir, is no longer the direct north-south route of years past. Centerville Road passes over rolling hills under a wooded canopy, and winds along the shore of the reservoir. After making a jog on Campbell Road, it reconnects as Owls Nest Road. The northerly path continues again as in the south through rolling hills under a wooded canopy and open lands, which are slowly reverting to woodlands. Owls Nest Road comes to an end in Centerville after passing the estate of its namesake and having crossed the Old Kennett Road. Both Owls Nest Road and Old Kennett Road intersect with the “new” Kennett Pike but at different points — the former in Centerville and the latter at the entrance to Winterthur Museum and Country Estate. From Winterthur, the Old Kennett Road travels northwest through once open land, which is reverting to woodlands. After crossing Owls Nest Road, the

SCENIC AND HISTORIC ROADS OF THE RED CLAY VALLEY

ROAD NUMBER	ROAD NAMES*	STARTING LOCATION	ENDING LOCATION
238	Burnt Mill Road	DE/PA State Line	9 - Kennett Pike (Rt. 52)
239	Pyles Ford Road	262 - New London Road (Rt. 82)	9 - Kennett Pike (Rt. 52)
240	Owls Nest Road	242 - Campbell Road (Rt. 82)	9 - Kennett Pike (Rt. 52)
241	Way Road	261 - Creek Road (Rt. 82)	243 - Old Kennett Road
242	Campbell Road (Rt. 82) Walnut Green Road	239 - Pyles Ford Road	9 - Kennett Pike (Rt. 52)
243	Old Kennett Road	DE/PA State Line	9 - Kennett Pike (Rt. 52)
244	Snuff Mill Road	243 - Old Kennett Road	9 - Kennett Pike (Rt. 52)
246/248	Center Mill Road	DE/PA State Line	287 - Ashland-Clinton School Rd.

Old Kennett Road dips down through a marsh to cross the Burrows Run, a major tributary of the Red Clay Creek. From Burrows Run, the road rises slowly for several miles as it passes through woodlands, past historic structures and open fields to eventually reach the Pennsylvania state line on its way to Kennett Square. Owls Nest Road, Centerville Road, Old Kennett Road, and the Kennett Pike are the highland roads to the east of the Red Clay Creek.

The highland roads to the west of the Red Clay Creek are Old Wilmington Road and Lancaster Pike (Route 48/41). As with Route 52 – the Kennett Pike to the east, Route 48/41 is the major modern commercial road to the west. Rising from its crossing of the Red Clay Creek at Wooddale, the Lancaster Pike travels the highlands through Loveville, Brackenville and Hockessin before crossing into Pennsylvania. Old Wilmington Road begins at a high point above Wooddale where it intersects the Lancaster Pike. While traveling a ridge to the east of Lancaster Pike, Old Wilmington Road has great vistas across rolling pastures, cultivated farmland and upland woodlands. The wooded roadway then winds until it intersects with Yorklyn Road, a major crossing road. Old Wilmington Road continues to wind

through woodlands and over pastures until it reaches the state line.

Numerous crossing roads connect the highland roads to the lowland road along the windy Red Clay Creek. Some crossing roads stay to the highlands and dip down when approaching the creek. Other crossing roads follow a major tributary and gradually drop for several miles when approaching the creek. To the east are the crossing roads of Snuff Mill Road, Ashland-Clinton School Road, Way Road, Pyles Ford Road and the east end of Barley Mill Road. Barley Mill Road becomes the lowland creek road for several miles then rises to becoming a crossing road on the west side. It rises to the highlands, and finally loops back to the creek where it crosses at the Ashland covered bridge. Benge Road/Old Public Road/Auburn Mill Road, Yorklyn Road, Sharpless Road, Brackenville Road, and the western end of Barley Mill Road are all crossing roads on the west side of the creek. Commentary on the unique character of each of the crossing roads would be quite lengthy; however the Road Inventory in Appendix 2 contains detailed information on the character and features of crossing roads, and all the highland and lowland roads, which together make up the Red Clay Valley Scenic Byway.

SCENIC AND HISTORIC ROADS OF THE RED CLAY VALLEY

ROAD NUMBER	ROAD NAMES*	STARTING LOCATION	ENDING LOCATION
247	Snuff Mill Road Creek Road (Rt. 82)	DE/PA State Line	243 - Old Kennett Road
250	Upper Snuff Mill Row Lower Snuff Mill Row	247 - Creek Road (Rt. 82)	247 - Snuff Mill Road
251	Sharpless Road	261 - Creek Road (Rt. 82)	275 - Old Wilmington Road
252	Auburn Mill Road	253 - Old Public Road	254 - Lee Road
253/255	Old Public Road Benge Road	247 - Creek Road (Rt. 82)	Dead End
256	Nine Gates Road Cloud Road	DE/PA State Line	250 - Upper Snuff Mill Row
257	Yorklyn Road	247 - Creek Road (Rt. 82)	275 - Old Wilmington Road

SCENIC AND HISTORIC ROADS OF THE RED CLAY VALLEY

ROAD NUMBER	ROAD NAMES*	STARTING LOCATION	ENDING LOCATION
<i>258/258A</i>	Barley Mill Road Wooddale Road	<i>261</i> - Creek Road (Rt. 82)	<i>263</i> - Rolling Mill Road
<i>259</i>	Barley Mill Road	<i>263</i> - Rolling Mill Road	Delaware Rt. 141
<i>261</i>	Mt. Cuba Road Creek Road (Rt. 82)	<i>247</i> - Snuff Mill Road (Rt. 82)	<i>258</i> - Barley Mill Road
<i>262</i>	New London Road (Rt. 82) Pyles Ford Road (Rt. 82)	<i>261</i> - Mt. Cuba Road	<i>242</i> - Campbell Road
<i>262A</i>	Creek Road (Rt. 82)	<i>261</i> - Mt. Cuba Road	<i>239</i> - Pyles Ford Road
<i>263</i>	Rolling Mill Road	<i>237</i> - Lancaster Pike (Rt. 48)	<i>258/259</i> - Barley Mill Road
<i>264</i>	Hillside Road	<i>273</i> - Centerville Road	<i>9</i> - Kennett Pike (Rt. 52)
<i>269</i>	Hillside Mill Road	<i>262</i> - New London Road (Rt. 82)	<i>261</i> - Mt. Cuba Road
<i>273</i>	Centerville Road	<i>242</i> - Campbell Road (Rt. 82)	<i>237</i> - Lancaster Pike (Rt. 48)
<i>274</i>	Brackenville Road Brackenville Mill Road	<i>275</i> - Old Wilmington Road	<i>258</i> - Barley Mill Road
<i>275</i>	Old Wilmington Road	<i>276</i> - Loveville Road	<i>257</i> - Yorklyn Road
<i>287</i>	Ashland-Clinton School Rd Ashland Road Ashland School Road	<i>261</i> - Creek Road (Rt. 82)	<i>243</i> - Old Kennett Road

NOTES:

Italic - All road numbers are shown in italic to differentiate them from route numbers.

* Some roads have two or more names for the same section of road; whereas, some roads have different names (or road numbers) for different sections of the same named road. The total number of road numbers is 28 (which discounts road sections with letter extensions such as 262A).

** Route 82 is a combination of the following different road numbers: *242, 247, 261, 262,* and *262A*, which extends at the DE/PA state line and ends at the Kennett Pike—Route 52.



Chapter 4

Intrinsic Qualities and Resources

A. INTRODUCTION AND INVENTORY

The National Scenic Byways Program, as well as Delaware’s Scenic and Historic Highways Program, provide guidelines for establishing a scenic byway. In particular, byways must possess *one or more* of the following intrinsic qualities (6):

- SCENIC
- HISTORIC
- NATURAL
- RECREATIONAL
- CULTURAL
- ARCHEOLOGICAL

The byways of the Red Clay Valley are exceptionally scenic and help tell the history of the valley in the context of human interaction with nature. In this context the use of the land, both historically and in the present, speaks to the stewardship that has pervaded the thinking of those that live and work in the Valley. While the Valley provides limited recreational, cultural and archeological opportunities to those traveling its roadways, those that do exist are significant. In the following sections, the merits of the Red Clay Valley Scenic Byway are compared to standards

for each intrinsic quality as set forth in state and FHWA Policy. The FHWA policy is quoted at the beginning of each section to clearly focus attention on the standard that the Red Clay Valley Scenic Byway must meet for recognition under the Delaware Scenic and Historic Highways Program.

This plan makes extensive use of the scenic, natural and historic resource inventories that have been performed in the Valley in recent years, among them *The Red Clay Valley Scenic River and Highway Study* prepared by New Castle County and *The Red Clay Valley Project* prepared for the Brandywine Conservancy. The nature and extent of these studies not only sets the stage for this effort, but attests to the interest and concern for the resources that define the Valley. Interestingly, while each resource inventory was confirmed and updated for this planning effort, very little change has occurred since the resources were originally inventoried. For example, the visual accents inventoried to support the scenic intrinsic quality of the Valley have remained much intact over the past 15-20 years.

B. PRIMARY INTRINSIC QUALITY: SCENIC

“Scenic quality is the heightened visual experience derived from the view of natural and man-made elements of the visual environment of the scenic byway corridor. The characteristics of the landscape are strikingly distinct and offer a pleasing and most memorable visual experience. All elements of the landscape – landform, water, vegetation, and man-made development – contribute to the quality of the corridor’s visual environment. Everything present is in harmony and shared in the intrinsic quality.” (FHWA Policy 5.18.95)

The Red Clay Valley is “a place of uncommon beauty and very special significance” (1). Both the Brandywine Conservancy study and the New Castle County study placed significant emphasis on the scenic resources of the Valley. In particular, the New Castle County study evaluated scenic roads in part according to the FHWA criteria contained in the then new publication *Scenic Byways* (July 1988). According to the New Castle County study, scenic byways are defined as roads having a high degree of natural beauty and historic or cultural value. The criteria used for selection included combinations of the following: 1) scale of roads (size, dimension, etc.), 2) characteristics of roads (runs with topography, winds, changes with terrain, etc.), 3) scenic accents and/or vistas along roads, 4) historic characteristics of, or along, roads (covered bridges, stone bridges, historic houses, etc.), 5) natural resources and/or ecosystems in close proximity to roads (watercourses, wetlands, rock outcrops and other geologic formations, woodlands, wildlife habitat, etc.), and 6) recreational activities along or adjacent to roads.

This past work provides a useful context for this planning effort; in fact, this plan builds on this research for several reasons: it shows consistency in FHWA policy as scenic byway literature has evolved, it helps define and characterize roads of significant value, and it underscores how little has changed in the Valley over the past 15-20 years.

The scenic quality of a roadway is largely a function of the criteria mentioned above and the forces that work to preserve land and resources along a roadway. In other words, what clearly contributes to scenic value are the host of visual, natural and historic features that grace a roadway

and the preservation efforts (listing on the National Register of Historic Places, execution of conservation easements, stream restoration efforts, etc.) that keep such features from being irrevocably changed or lost.

A majority of the Red Clay Valley lies in the piedmont physiographic province, largely characterized by rolling hills, ridges and valleys. While it appears that the Red Clay Creek sliced through the hills and ridges that stood in its way, the creek’s loops and turns are actually the result of detours around resistant metamorphic or igneous rock uplifts. These uplifts punctuate the region’s landscape and provide strikingly scenic points of relief. The natural forces that shaped the stream system also helped create a checkerboard of relatively level uplands that formed the basis for farms, residences and villages. Areas of land less accommodating, such as rock outcrops, steep slopes and wetlands, remained in a natural state. According to the New Castle County study, “the resulting landscape pattern was a tradition-rich mosaic of woods, fields, and settlements, stitched together by threads of flowing water.”

Travelers along the corridors of the Red Clay Valley enjoy this uniqueness in all its glory. As previously discussed, the character of the Valley inextricably links its roadways together. Whether witnessing the riverine resources or rock outcrops along Rt. 82 or the upland fields and forests along Ashland-Clinton School Road, travelers are witness to the landforms that shaped the Valley.

This uniqueness is evidenced by Delaware’s designation of several Natural Areas in the Valley: the Coverdale Farm Woods, the Burrows Run Valley, Chestnut Ridge, the Red Clay Ravine, and the Red Clay Reservation, have been documented as some of the most significant natural places in Delaware now known cumulatively as the Red Clay Creek Valley Natural Area (2).

The Scenic Landscapes map (Appendix 1) contained herein graphically illustrates the visual accents and vista points found along the Valley’s roadways; Appendix 3 contains a listing of visual accents and vista points, including photographs of each. Visual accents include visually significant landscapes and landforms that serve as indicators of natural or historic processes, contain multiple resources that together form visually significant groupings, or are clear examples of superior features or characteristics. Visual accents can be nat-

ural or manmade features which enhance or contribute to the landscape. Vista points designate broad, expansive views, the scenic boundary of which are primarily defined by forest cover (indicated on the map). All visual accents and vista points are within the public viewshed, i.e., visible from the public roads that form the scenic byways network.

On the Scenic Landscapes map, the approximate location of visual accents and vista points are shown and numbered according to their listing in Appendix 3. Visual accents are shown as points on the map and vista points are shown with arrows indicating the direction of the scenic viewshed. For visual accents, Appendix 3 indicates the type of accent and its location (numerically keyed to the Scenic Landscapes map). For vista points, Appendix 3 indicates the location and the direction of the scenic viewshed. In all, 94 visual accents and 11 vista points exist along the roads designated in this plan (as documented and photographed).

In addition, Appendix 2, Roadway Inventory, summarizes the overall characteristics of each road designated under the State's Scenic and Historic Highways Program.

C. SECONDARY INTRINSIC QUALITY: NATURAL

“Natural quality applies to those features of the visual environment that are in a relatively undisturbed state. These features predate the arrival of human populations and may include geological formations, fossils, landform, water bodies, vegetation, and wildlife. There may be evidence of human activity but the natural features reveal minimal disturbances.” (FHWA Policy 5.18.95)

A study prepared in 1987 by Elizabeth Marler of the Delaware Nature Society (for the Department of Natural Resources and Environmental Control) characterized the Valley in the following manner: “The terrain is appealing, rich in natural attractions. In all of its Pennsylvania segment and most of the Delaware portion, it is typical Appalachian Piedmont – with steep slopes, rolling hills, deeply incised stream valleys, and a general absence of upland plains. It is composed mostly of metamorphic and igneous crystalline rocks, with some thrusts of pegmatite.

Underlying is Wissahickon schist of the Glenelg Series.”(3) Such a description alludes to the varied and unique character of the natural resources that make up the Red Clay Valley.

1. Vegetation

Vegetation found in the Valley is quite diverse and was described in detail in the Delaware Nature Society study. “The woodland coverage is predominantly deciduous hardwood, often second and third growth. The major woodland associations characterizing the upland forest areas are red oak, white oak, and/or black oak, tulip poplar, and American beech. Other common but less abundant species include hickory, ash, red maple, and flowering dogwood. Sycamores are often of spectacular size. Frequently mountain laurel provides an attractive shrub layer cover on the steeper slopes, together with mapleleaf viburnum and southern arrowwood. The woodland ground layer supports an abundance and variety of ferns and club moss, and woody vines like fox and summer grape and Virginia creeper. Herbaceous plants are seasonally abundant. The band of serpentine adjacent to Mt. Cuba and Hoopes Reservoir has in the past been the location of sightings of some 49 plants now considered rare.”(6) Several of the areas described in this study subsequently became listed in the state's Natural Areas Inventory.

In collaboration with the Red Clay Valley Scenic Byway Steering Committee, the Delaware Natural Heritage Program recently began surveying/characterizing the roadside vegetative communities present along the Byway. A description of their findings can be found in Appendix 5. This roadside survey conducted by the Delaware Natural Heritage Program is the first phase in their project to characterize the vegetation of the entire Red Clay watershed.

2. Wildlife

A high diversity of wildlife thrives in the Valley today. Amphibians and Reptiles include; Spotted Salamander, Eastern Redback Salamander, Two-Lined Salamander, Long-tailed Salamander, Red-spotted Newt, Northern Dusky Salamander, Northern Red Salamander, Four-toed Salamander, Eastern American Toad, Northern Spring Peeper, Northern Green Frog, Pickerel Frog, American Bullfrog, Wood Frog, Eastern Box Turtle, Bog Turtle, Eastern Painted Turtle,

Northern Red-bellied Cooter, Eastern Snapping Turtle, Stinkpot, Common Watersnake, Queen Snake, Eastern Gartersnake, Northern Ring-necked Snake, Northern Black Racer, Black Ratsnake, Eastern Milksnake, and Northern Brownsnake.

Mammals include: Virginia Opossum, Eastern Mole, Star-nosed Mole, Least Shrew, Northern Short-tailed Shrew, Eastern Cottontail, Meadow Vole, Southern Bog Lemming, White-footed Mouse, House Mouse, Meadow Jumping Mouse, Eastern Gray Squirrel, Red Squirrel, Southern Flying Squirrel, Woodchuck, Little Brown Myotis, Big Brown Bat, Red Bat, Long-tail Weasel, Striped Skunk, Raccoon, Muskrat, Red Fox, and White-tailed Deer.

The Red Clay Valley provides valuable habitat for a large diversity of avian species. The Breeding Bird Atlas Study (1983-87), Ashland Bird Survey (1978-1979), the Mt. Cuba Bird Survey (1980's) and the Burrows Run Bird Survey (1991-1998) found approximately 100 breeding species in the Red Clay Valley. In addition, these studies found that the total breeding, winter and migrant population contained over 200 species. Nesting neotropical migrant species such as Louisiana Waterthrush, Scarlet Tanager, Wood Thrush, and Warbling Vireo are found in relatively high abundance. Raptors of several species are commonly found along the Red Clay Creek and nearby lands. Birds that not long ago were uncommon, like Osprey and Bald Eagle, are now often observed in the Hoopes Reservoir area.

3. Topography

The piedmont of northern Delaware and most of eastern Pennsylvania is underlain by a slanting, geomorphic plate that causes the landscape to tilt slightly to the southeast (4). By contrast, the main **structure** of the landscape, its hills and ridges, runs northeast to southwest exactly at right angles to the underlying geomorphic tilt. In this region, watercourses such as the Red Clay Creek flow with the tilt. As described above, the Red Clay Creek loops and meanders – such as the “S” curve in the Red Clay near Hoopes Reservoir – due principally to the particularly tough and resistant metamorphic or igneous rock uplift that forced changes in stream direction.

According to the New Castle County study, “these uplifts punctuate the region’s landscape”

and are “the protruding visible bones of the landscape pushing through soft sedimentary tissue, providing striking scenic high points. Visible gray boulders and jagged cliff faces betray the presence of the ancient skeleton.”

The overall land pattern in the Red Clay Valley is created by the so-called dendritic stream patterning process. Greater and lesser watercourses flow at right angles to each other creating landscape in the endless cycles of depositing and re-depositing soil. The dendritic process creates a checkerboard of more or less rectangular and level landform units that in the past have worked well in their traditional role as sites for farming, settlement, etc. Areas of land less accommodating to development, on the edges of rocky ridges and steep slopes, or in wetland recharge areas have remained in or reverted to mature upland forest, wetland forest, or some intermediate landscape stage in the inexorable push that eventually turns all landscape into mature forest (4).

According to the Brandywine Conservancy study, “(i)t is thus the morphology of landscape, its structure, its geology, its history, and patterning process, that in combination with the constant processes of climate, temperature and rainfall, have made the Red Clay Valley area a place of beauty, abundant water, rich deep soils, healthy vegetation, and well shaped settlement areas. It is all these elements together that make the beautiful pastoral scenes and dramatic vistas we enjoy.” (1)

4. State Designated Natural Areas

In the publication *Delaware’s Outstanding Natural Areas and Their Preservation*, five Natural Areas were identified in the Red Clay Valley: Coverdale Farm Woods, Burrows Run Valley, Chestnut Ridge, Red Clay Ravine, and Red Clay Reservation.

Coverdale Farm Woods was identified as having “essentially no sign of recent man-made disturbance.” The Burrows Run Valley was characterized as a “lovely valley with a diversity of wildflowers.” The Red Clay Ravine Natural Area is used today for natural history education, as many “foot trails parallel the stream and wander back and forth across the east facing slope.” Finally, the Red Clay Reservation, which totals approximately 600 acres, “is ideally suited for ecological education.”

There has been much land preservation activity in the Valley. In the early 1990's, the Delaware Nature Society received a generous donation of 352 acres of land known as the Burrows Run Preserve (a portion of which has been dedicated in the state system of nature preserves). The Preserve is bounded by Way Road, Old Kennett Road and Ashland-Clinton School Road and surrounded by easements of 65 acres. Coupled with other public and private open spaces, preserved land accounts for roughly 20% of the 8,000 acres of land in the Valley (4). In an effort to expand preservation opportunities, the Delaware Nature Society enrolled the Coverdale Farm portion of the Burrows Run Preserve in the Delaware Farmland Preservation Program in 2006, thereby creating the Coverdale Farm Preservation District and providing preservation opportunities for smaller agricultural landowners in the area. The Coverdale District was expanded toward the Brandywine River in 2007 with the enrollment of the Brandywine Conservancy's May property.

The Natural Resources Inventory map (Appendix 1) contained herein graphically illustrates the resources that contribute so strongly to the character of the Valley. Resources of special interest include Natural Areas (synonymous with the County's regulated Critical Natural Areas), surface waters and flood plains, state and federally inventoried wetlands, steep slopes, and geologic formations (the Cockeysville formation, which constitutes a water resource protection area in New Castle County).

Additional land use/ land cover information is included on the generalized land use map also contained in Appendix 1. Land use and settlement patterns have changed little in the portion of the Valley designated as a State Scenic and Historic Highway. This is attributable to the presence of stable, large land holdings that characterize the farms and agricultural settlements of the nineteenth and early twentieth centuries.(1) As this map clearly shows, significant areas of forest and agriculture/pasture remain and land held in public or private open space (indicating some level of preservation) is prominent (including land held by the Delaware Nature Society). The most significant changes are attributable to suburban subdivisions expanding outward from Wilmington and other urbanized areas.

D. SUPPORTING INTRINSIC QUALITY: HISTORIC

“Historic quality encompasses legacies of the past that are distinctly associated with physical elements of the landscape, whether natural or man made, that are of such historic significance that they educate the viewer and stir an appreciation of the past. The historic elements that reflect the actions of people and man include buildings, settlement patterns, and other examples of human activity. Historic features can be inventoried, mapped, and interpreted. They possess integrity of location design, setting, material, workmanship, feeling, and association.” (FHWA Policy 5.18.95)

1. Early History

Prehistoric settlement began in the Valley 12,000 to 14,000 years before European settlement. The “original settlers” were the Leni-Lenape, meaning “native-genuine man.” Probably the most ancient of the Algonquin peoples, the Leni-Lenape were peaceful hunters, farmers, and fishermen who grew corn, beans, and pumpkin-like gourds, as well as picked grapes and hickory nuts, (3) well before the arrival of the first European settlement in the 1600s. Archeological sites have been identified between the east and west branches of the Red Clay Creek in Kennett Square, as well as in Ashland.

The Red Clay Valley has a diverse history encompassing significant trends in settlement, agriculture, manufacturing, transportation, architecture, and engineering over a period of three centuries. Settlement history begins in the 1680's, but earliest extant structures date to the beginning of the eighteenth century. Throughout the eighteenth and nineteenth centuries, agriculture and manufacturing were the primary forces that shaped the Valley. A system of turnpikes, begun in the decade of the 1810's, and a rail line, opened in 1872, drastically expanded the market for local farmers and manufacturers. Historically, the water-powered mill industries on the Red Clay were known for the diversity of their production. The Red Clay Creek has more extant sites associated with mill industries than any other watercourse in the Delaware Piedmont. Until the beginning of the twentieth century, the Red Clay Valley was an agricultural landscape with a small concentration of industry along the creek. The first

manifestations of suburban development began to appear after 1900 (2).

2. History of the Milling Industry

As a result of the change in elevation from Pennsylvania’s hills to the Delaware lowlands, the Red Clay Creek’s steady current provided a reliable power source. The milling industry along the Red Clay Creek grew with the region’s economy and mirrored United States eastern seaboard development. By the mid-1600’s there were sawmills on Red Clay Creek, and in 1689 the first recorded grist mill was built on the shores of the creek, in what is now Kennett Township. The seventeenth and eighteenth century mills were for the most part adjuncts of the prevailing agricultural economy, gristmills and sawmills, catering to a local population. (3) In fact, “[I]n 1849, the John Garrett Snuff Mill near the Pennsylvania line was making ‘Spanish segars’, smoking and plug tobacco, ‘pigtail tobacco’ and Scotch snuff by the bottle and keg. In the heyday of milling, there were some 18 mills situated up and down the Red Clay Creek.” (3)

Mill products got to port either by Indian trail or cart track. Above the fall line (roughly following Kirkwood Highway) “transportation by road was notoriously poor; streams were crossed by fords or at dams. Before the Revolution, four main roads served the area, but for many years to come road travel was still chancy; well into the

1900s the present Pennsylvania Route 82 was just a muddy trail as it passed the Marshall Paper Mill on the Red Clay Creek above the state line, and Yorklyn and Hockessin were joined by rail before there was a highway connecting them.” (3)

3. Historic Preservation Programs

The New Castle County Historic Preservation Program evaluates the historic character of properties. Several county studies have inventoried and evaluated historic structures as part of the county’s land use planning efforts. The conversion of land as governed by the county’s Unified Development Code (UDC) also requires that sites undergoing development be assessed and inventoried, and measures taken to protect such sites where possible. The Delaware Cultural Resources Survey provides a list of historic structures which are on the National Register, are worthy of nomination for the Register, or have the potential for consideration. This inventory, monitored and updated by both the county and state, provides a useful resource for understanding the history of the Red Clay Valley.

In 1988, an Historic Bridge Inventory was developed by the Delaware Department of Transportation to determine eligibility of Delaware bridges for National Register recognition. The following table of bridges in the upper Red Clay Valley were listed as eligible National Register nominations:

Number	Construction	Location
88	Steel Girder Bridge	Snuff Mill Road (<i>road 244</i>) over a tributary
112	Metal Truss Bridge	Yorklyn Road (<i>road 257</i>) over the Red Clay Creek
118	Ashland Bridge	Barley Mill Road (<i>road 258</i>) over the Red Clay Creek
119	Steel Girder Bridge	Mt. Cuba Road (<i>road 261</i>) over the Red Clay Creek
120	Concrete Arch Bridge	Mt. Cuba Road (<i>road 261</i>) over the Red Clay Creek
137	Wooddale Bridge	Foxhill Lane (<i>road 263A</i>) over the Red Clay Creek

Both the Ashland and Wooddale bridges are listed on the National Register (although the Wooddale bridge was severely damaged during storm Henri). Both bridges were of nearly identical construction — wooden covered bridges with steel I-beams under the decking. The bridges have a Town lattice truss structural system, which was patented by Ithiel Town in 1829. Both bridges will be restored in the coming year as described in Chapter 5, Section A2 Transportation Projects.

Historic sites are scattered throughout the Valley. Residences, farmsteads, mills, and bridges all attest to the settlement and development of the human community in the Red Clay Valley. Numerous historic sites are reflected in the scenic road inventory contained in Appendix 2. Appendix 4 provides a full inventory of the historic resources found in the Red Clay Valley (see also the Historic Resource Inventory map contained in Appendix 1 for a graphic portrayal of the historic resources of the Valley). Among the Valley's national register historic districts are the Wooddale Historic District, Garrett Snuff Mill Historic District, Auburn Mills Historic District, Graves Mill Historic District on Way Road, and Centerville Historic District. Among the other sites listed on the national register are the Wilmington and Western Railroad, the S.P. Dixon Farm on the Red Clay Creek south of Ashland, and the A. Armstrong Farm north of Old Wilmington Road.

E. RECREATIONAL QUALITIES

“Recreational quality involves outdoor recreational activities directly associated with and dependent upon the natural and cultural elements of the corridor's landscape. The recreational activities provide opportunities for active and passive recreational experiences. They may include, but are not limited to, down hill skiing, rafting, boating, fishing, and hiking. Driving the road itself may qualify as a pleasurable recreational experience. The recreational activities may be seasonal, but the quality and importance of the recreational activities as seasonal operations must be well recognized.” (FHWA Policy 5.18.95)

The Red Clay Creek provides local residents and visitors with limited but expanding recreational opportunities. At present, the creek does not provide opportunities for fishing or swimming due

to poor water quality conditions and the shallow depth of the waterway. Public recreational opportunities, while limited, are expanding to include not only Valley Garden Park but the Hobbs tract (state parkland adjacent to Valley Garden Park), the Auburn Heights Preserve, and the Oversee state parkland adjacent to Auburn Heights. Not all of this land is immediately available for public access but much of it will be available within the next few years.

Recreational activities are also available to the public for a nominal fee at the Ashland Nature Center, operated by the Delaware Nature Society, or the Wilmington and Western Railroad of the Historic Red Clay, Inc. Members and guests are permitted access to the Ashland Nature Center for nature study, hiking and picnicking. Private recreational clubs, such as the Vicmead Hunt Club, Greenville Country Club, and Fieldstone Golf Course, provide recreational amenities to members. In addition, several horse riding stables and private swim clubs are located within the Valley.

F. CULTURAL QUALITIES

“Cultural quality is evidence and expression of the customs or traditions of a distinct group of people. Cultural features include but are not limited to: crafts, music, dance, rituals, festivals, speech, food, special events, and vernacular architecture. The cultural qualities of the corridor could highlight one or more significant communities and/or ethnic traditions.” (FHWA Policy 5.18.95)

The Delaware Nature Society hosts an annual Harvest Moon Festival at Coverdale Farm that includes local musicians, crafts and artisans; this festival has become a large public event (approximately 5,000 attendees a year). Native American lore, hayrides, demonstrations of farming practices, gardening, and farm animals are among the many events held during this festival. The Nature Society also hosts an annual native plant sale at Coverdale Farm.

Mt. Cuba Center, Inc. is a 650-acre non-profit horticultural institution in northern Delaware dedicated to the study, conservation, and appreciation of plants native to the Appalachian Piedmont region. Each year Mt. Cuba Center, Inc. hosts a Wildflower Celebration with tours, demonstrations and activities that highlight its mission of garden display, education and research (approx-

mately 3,500 visitors attend annually), all conducted in the region's finest wildflower gardens. Tours, classes, workshops and symposia are also offered to engage the public in a greater awareness and involvement in gardening, land use and environmental stewardship.

Additionally, Mt. Cuba Center Inc. endeavors to conserve natural lands and open spaces and has protected significant acreages in the region.

A number of partners including the National Park Service are working to create a Northern Delaware Heritage Coalition. Proposed projects include several driving loops; one of which, the Red Clay Mill and History Tour has some overlap with the Red Clay Valley Scenic Byway. Members of the Steering Committee and DNS (as the Coordinating Agency) will continue to monitor the Northern Delaware Heritage Coalition effort and determine appropriate connections with the Byway.

G. ARCHEOLOGICAL QUALITIES

“Archeological quality involves those characteristics of the scenic byways corridor that are physical evidence of historic or prehistoric human life or activity that are visible and capable of being inventoried and interpreted. The scenic byway corridor's archeological interest, as identified through ruins, artifacts, structural remains, and other physical evidence, have scientific significance that educate the viewer and stir an appreciation for the past.” (FHWA Policy 5.18.95)

The manmade “disturbances” of the landscape are the archeological record of the Red Clay Valley. The structures, the hedgerows, the country roads, and the other changes to the land throughout the Valley's history are the archeological remnants of early European settlers and the agrarian heritage of the eighteenth and nineteenth centuries. Stone building ruins, remains of the Valley's industrial and agrarian heritage are strewn across the landscape (see Appendix 3 (accents and vista pts.) for a listing of such sites).



Chapter 5

Transportation, Tourism, and Marketing Issues

The management of any roadway corridor, be it a scenic byway or not, hinges on issues of safety, access, mobility, efficiency and maintenance. The key question for scenic roads is how to maintain the unique characteristics of the roadway network (those characteristics that led to its nomination and eventual inclusion on the states' list of scenic and historic highways) while recognizing the need for addressing transportation issues consistent with a changing and evolving landscape.

The road network in northern Delaware has seen significant changes in recent years, and both DelDOT and WILMAPCO (Wilmington Metropolitan Planning Council) have been at the forefront of planning, designing, and financing safety and transportation improvements. Plans such as this attempt to provide guidance both to these agencies and the numerous others whose actions and activities impact scenic byways. This chapter is intended to outline the current transportation efforts underway in the Red Clay Valley Scenic Byway. Future transportation efforts within the Byway will include interaction with the

Byway Steering Committee (soon to be Management Committee) and the Context Sensitive Design components of this plan. It should be noted that current and future transportation projects in Delaware will be implemented in accordance with the Governor's Livable Delaware initiative, which directs transportation funding for improvements to growth zones identified through state planning efforts.

Also included in this chapter is a discussion of the limits to which tourism and marketing are a component of overall management strategies for the Byway. As stated throughout this plan, the preservation and wise stewardship of the Byway's roadways and intrinsic qualities is of highest priority. To that end, the inclusion of the Red Clay Valley Scenic Byway on the state's list of scenic and historic highways is seen not as a strategy for promoting increased use of the Byway, but rather as a tool for undertaking watershed-wide planning for resource protection and enhancement. As such, the tourism and marketing components of this plan are intended to elucidate the conservation and preservation objectives of this plan, describe education and outreach mechanisms intended to build a sense of stewardship in the Valley, and discuss appropriate signage for the Byway.

A. TRANSPORTATION AND SAFETY

1. Liveable Delaware Initiative

Governor Ruth Ann Minner signed Executive Order 14 introducing the Liveable Delaware Initiative on March 28, 2001. Built on the state's 1999 "Shaping Delaware's Future: Strategies for State Policies and Spending," the Liveable Delaware initiative is the state's blue print for fighting sprawl. As the Governor stated, liveable Delaware is a "comprehensive strategy to get sprawl under control and direct intelligent growth to areas where the state, county and local governments are most prepared for new development in terms of infrastructure, services and thoughtful planning."

As outlined in the Liveable Delaware initiative, each state agency and department was required to complete an implementation plan to address eleven key Liveable Delaware goals. For its effort, DelDOT identified thirty-one activities that directly supported one or more of the Liveable Delaware goals. Those most germane to this effort include the State Scenic and Historic Highways Program (of which this effort is a part), and DelDOT's policies and programs involving Context Sensitive Design, Traffic Calming, Tree Preservation, Bicycles, Pedestrians and Road Design Manual Update. Given the intent of this management plan, it is clear that the state's and DelDOT's activities go far towards helping to realize the Red Clay Valley Scenic Byway goals.

While each of these policies and programs is of value in the Red Clay Valley, DelDOT's Context Sensitive Design Policy (D-07) (including creation of its Context Sensitive Design Manual) has the greatest potential for influencing roadway design in Delaware. The essential purpose of this policy is to better plan and design transportation projects for compatibility with the communities they are intended to serve. As a result of this policy, all new transportation project planning and design efforts are required to take a context sensitive design approach. Included in this policy is the setting aside of five percent of project construction costs for improvements to the community or environment immediately adjacent to the project. Such a set-aside is intended to address quality-of-life issues potentially impacted by transportation projects.

2. Transportation Projects

The following projects within the Red Clay Valley Scenic Byway are included on a list compiled and maintained by DelDOT for projects within state-approved scenic byways. Each project is identified by a project number, a brief description of the project, and efforts used to minimize impact to the Byway through the principles of context sensitive design (7).

Project ID 04-00151

N274, Brackenville Road, SR 41, Lancaster Pike to N258, Barley Mill Road

This project includes roadway reconstruction, drainage improvements, slope stabilization, and stream relocations along Brackenville Road and drainage improvements along Barley Mill Road, just north of Brackenville Road.

Efforts used to minimize impact and address the principles of context sensitive design include numerous meetings and field visits with the Byway Steering Committee to assess alternative approaches and context sensitive design solutions, including refinements to the grading plan and planting plan (emphasizing additional/replacement vegetative planting consistent with native flora), modifications to the drainage plan to encourage sheet flow and reduce channelization of road runoff, alternative curbing treatments including the use of dyed curbing consistent with local interests, and modified guardrail consistent with the Valley's rural setting. DelDOT continues to inform and consult the Steering Committee on decisions affecting the Byway.

Project ID 05-01137

BR 1-137 on N263A, Foxhill Lane over Red Clay Creek and Rolling Mill Road

BR 1-137 (Wooddale Covered Bridge) was one of the last historic covered bridges located on a state-maintained road. The bridge was destroyed during a flood in September 2003. The covered bridge will be reconstructed. The approach alignment will be raised to accommodate higher flooding and a retaining wall will be constructed along Rolling Mill Road to retain the increased roadway profile and alleviate the existing slope stability concerns. Scour mitigation measures will be incorporated into the design. The reconstruction contract has been

awarded and construction is anticipated to begin in September 2007; work is expected to be completed in approximately one year.

Efforts used to minimize impact and address the principles of context sensitive design include replacing the covered bridge with a historic reproduction, minimizing impedance of flood waters and reducing flooding impacts to the road and bridge, and providing in-stream protection measures to reduce stream scouring.

Project ID 05-00402

Culvert replacements on N239 Pyles Ford Road

The culvert on the south end of Pyles Ford road will be replaced with a precast concrete culvert and wingwalls. The remains of the triangular stone culvert on the north end of the road will be replaced with a precast concrete culvert and wingwalls. Riprap will be placed at both structures to prevent scour.

As a planned project, little is currently known of the efforts to minimize impact and use context sensitive design principles. Clearly, the remains of the stone culvert need to be replaced and the use of riprap is an acceptable practice for stabilizing stream banks. Further discussion with DelDOT is warranted to assess impacts.

Project ID 07-10006

Pavement & Rehabilitation, North – VI, 2007

This project involves the rotomilling, hot-mix patching, and hot-mix overlay on Carpenter Road, Montchanin Road, Rock Spring Road, Hillside Road, Greenbank Road, and Kennett Pike.

These projects, some of which occur in the Red Clay Valley Scenic Byway, encompass milling, repair and replacement of existing paved surfaces. Impacts to the Byway are not anticipated.

Project ID 25-071-05

BR 1-100 on N243, Old Kennett Pike, West of Centreville

This project will replace concrete slab on stone abutments with precast concrete rigid frame or box culvert, widen and reconstruct approaches and guardrail, and add riprap for scour protection. Br. 1-100 is a concrete slab on stone abutments. Repairs were required to temporarily stabilize the headwall which had previ-

ously rotated. The bridge is structurally deficient.

The structural issues related to this project are a matter of safety and should proceed as scheduled. As of now, little is known of the context sensitive design efforts to be used, although the approach widenings, guardrail, and riprap should be discussed with DelDOT.

Project ID 25-074-05

BR 1 -099 on N243, Old Kennett Pike

The existing structure consists of a prestressed concrete box girder structure with concrete decking, supported by two concrete abutments. Recent scour calculations raised concerns about the abutments/wingwalls “scouring out” and causing the potential for bridge failure. Rip rap is not large enough to provide adequate scour protection, so precast articulated concrete block will be placed from abutment to abutment and along the wingwalls. The cabled concrete will be recessed one foot below the streambed elevation and backfilled using natural streambed materials, creating a low-flow channel.

The land on the south side of the bridge is owned by the Delaware Nature Society and is part of the Burrows Run Preserve, located within the Red Clay Valley Natural Area. A conservation easement, held by the Delaware Department of Natural Resources and Environmental Control (DNREC), was placed on the property in 1995 in accordance with the Nature Preserve designation.

DelDOT, DNS, and DNREC signed a temporary easement agreement for this project in January 2007. The agreement outlines the rights and points of access and requirements for stabilization in accordance with recommendations from DNS and DNREC.

During construction DelDOT will be removing all four sections of guardrail around the bridge. The current guardrail is steel beam. DNS requested the guardrail be replaced with materials (such as steel reinforced wood) more in keeping with the principles of context sensitive design for this Byway.

Project ID 25-074-01

BR 1-118 on N 258 Barley Mill Road over Red Clay Creek, Ashland

This bridge was selected for special funding

under the Historic Covered Bridge Preservation Program to maintain historic integrity and structural capacity. Bridge 1-118 is currently ranked 55th out of 1,399 in the Department's bridge deficiency list (via bridge management program).

Br. 1-118 is one of the last historic covered bridges located on a state-maintained road. Under the federal Historic Covered Bridge Preservation Program, this bridge will be rehabilitated. The work included in the project scope includes replacement of roof shingles, timber decking, and timber siding; cleaning and painting of the interior and exterior siding; painting of the steel support girders; placement of scour protection; and mill and overlay of the approaches with new hot-mix pavement.

It is clear from the selection of this bridge for special funding that DelDOT intends to utilize the principles of context sensitive design for this project. Undoubtedly, DNS will continue to monitor this project.

Centerville and Lancaster Pike Intersection Improvements

This is a privately funded project and does not have a Project ID number.

The proposed improvements will include some widening at the subject intersection to accommodate additional traffic that will be generated by the Little Falls Village. The project will also include adding crosswalks, sidewalks and medians to improve pedestrian movement.

Impacts to the intrinsic qualities of the Byway from this project are expected to be minimal. The extent to which this project utilizes the principles of context sensitive design is currently unknown. However, privately funded projects such as this raise several questions: (1) how will DelDOT (and presumably the New Castle County Department of Land Use) monitor and approve such projects along Scenic and Historic Highways?, and (2) what role will the Corridor Management Plan play when private entities propose transportation projects along Scenic and Historic Highways? This effort encourages continued dialogue on these issues so as to not compromise the Red Clay Valley Scenic Byway Corridor Management Plan.

3. Traffic Issues, Bicyclists and Pedestrians

DelDOT's guidelines for corridor management plans require the preparation of a "narrative describing strategies to accommodate traffic while maintaining a safe and efficient level of highway service and ensuring the safety of sightseers in small vehicles, as well as bicyclists, joggers and pedestrians."

Where increased tourism is anticipated, an evaluation of accident data can assist in determining where potential trouble spots will occur. This effort, however, focuses on preservation rather than tourism development (and the increased traffic corresponding thereto). As such, it is not the intent of this plan to examine accident analyses but rather the transportation issues associated with the Byway's roadways.

The roads of the Red Clay Valley are generally narrow, often lack shoulders and other "improvements" typical of modern roads, and negotiate the countryside along curves and steep slopes. However, it is these very conditions that contribute to the character of the Byway's roads and are an integral part of their intrinsic value. From the standpoint of traffic safety, it is these very elements that are often pointed to as effective traffic calming measures in other settings.

With regards to bicyclists, joggers, and pedestrians, this plan recognizes the narrow width of most Byway roadways and does not encourage changes thereto to accommodate pedestrian or bicycle traffic. Again, the intent here is to maintain the existing roadways in a manner that maximizes protection of the Valley's intrinsic qualities – the historic narrow road widths, sharp curves and nearby roadway features (rock outcrops, woodlands, specimen trees, etc.) are characteristic of the Valley and their preservation is seen as important not only for resource protection but for their ability to calm traffic.

While opportunities may be limited to accommodate bicyclists and pedestrians, this plan encourages coordination among DelDOT, Delaware Greenways, the Delaware Bicycle Council and others to coordinate safety and public access issues within the Byway. Public opportunities for pedestrian access are constrained by private land ownership but are certainly encouraged at several institutions with established trail systems (including Delaware Nature Society's Ashland Nature Center and Valley Garden Park).

Opportunities for biking may be somewhat limited given the characteristics of the Byway's roads, yet bicycle usage is acceptable on those roads designated by DelDOT as having average or above average cycling conditions (8)(9).

Average roads include portions of: Centerville Road, Hillside Road, Pyles Ford Road, Owls Nest Road, Way Road, Creek Road, Old Wilmington Road, Auburn Mill Road, Old Public/Benge Road, Nine Gates Road, Center Mill Road and Burnt Mill Road.

Above average roads include portions of: Benge Road, Mt. Cuba Road, Hillside Mill Road, Centerville Road and Rolling Mill Road.

Although this plan does not envision or encourage expanded tourism or recreational activities, opportunities nevertheless exist currently to experience the many wonders the Byway has to offer.

4. Transportation Management Issues

The unique roadways of the Red Clay Valley Scenic Byway traverse hills and streams, wrap around sharp curves and present many eye-catching splendors for tourists and residents alike; they also serve as thoroughfares to those commuting to Wilmington or Pennsylvania. As with many roads, these competing interests, coupled with increased volumes of traffic in recent years, contribute to accidents and traffic-related problems. In recent years, increased traffic and safety concerns have led DelDOT and WILMAPCO to undertake several transportation studies and road improvement projects within the Byway. Several of these studies and subsequent improvements have involved extensive community outreach and consensus building in an attempt to consider the intrinsic qualities of the Byway. Others have not. Reasons for this are many, including: changing paradigms in transportation planning, different staff working on different portions of the Byway at different times, and the need for quick responses to safety concerns. The transportation management issues associated with the Byway have never before been part of a coordinated approach such as this; in fact, part of the rationale for this scenic road designation was the desire to better coordinate traffic and safety improvements.

Traffic Counts

Appendix 8 contains traffic counts (average annual daily traffic) undertaken by WILMAPCO for the years 1999 through 2005. While shifts have certainly occurred, some roads have actually seen decreases in traffic between 1999 and 2005; others, as expected, have seen increases in traffic. It is unlikely that a trend analysis would yield much helpful information given the relatively small dataset available. Nonetheless, traffic counts should be monitored in the years to come in order to attempt to anticipate Byway needs and transportation management issues.

Road Widths

Likewise, DelDOT compiled a list and map depicting road widths throughout the Byway (also contained in Appendix 8). As different segments of the same Byway road can have different widths, this information should be consulted routinely when road work or improvements are anticipated within the Byway.

Access Management

Access management issues present a unique set of issues along any roadway, but especially along scenic byways. In addition to issues involving safety and sight distance, among others, groups working within scenic byways struggle to reduce the potential visual impact of driveways and new streets. New development will certainly continue within the Byway – the objective is to reduce the impact of such development on the Byway's intrinsic qualities.

Several techniques exist to reduce the impact of the curb cuts associated with new development, among them:

- improve landscaping criteria for access roads;
- limit the size and amount of signage permitted for new access streets;
- carefully assess the design speed along the byway in order to reduce the width and length of access lanes (acceleration and deceleration lanes);
- use attractive alternative pavers to differentiate access lanes from travel lanes;
- use landscape islands to create a boulevard at entrances and reduce overall imperviousness;
- use alternative curbing (such as granite or dyed curbing); and
- eliminate access lanes on rural roads with limited traffic.

Many of the techniques listed above draw from the principles of Context Sensitive Design. Both DelDOT and a subcommittee of this plan's Steering Committee have been working to prepare Context Sensitive Design guidelines for the state and the Red Clay Valley, respectively. Such guidelines will be valuable tools for better design along scenic and historic highways.

In addition, this plan recommends collaboration with New Castle County to improve protection for scenic byways, including the possibility of incorporating corridor overlay standards into the Unified Development Code.

5. Coordination with DELDOT

Many people utilize the roads of the Red Clay Valley and it is important to balance their interests so that safe transportation is available in a manner that respects the intrinsic qualities of the Byway. To date, DNS, as the sponsoring organization for this effort, has taken the lead in communicating the interests of the Steering Committee/Management Entity and stakeholders to DelDOT when knowledge of transportation improvements becomes available. For example, recent design improvements unveiled for Brackenville Road and Barley Mill Road led to meetings with DelDOT, site walks with DelDOT staff and consultants, and suggested revisions to landscape improvements and road design using context sensitive techniques. In addition, DNS, through the auspices of the Steering Committee, initiated a dialogue with the Secretary of DelDOT to institutionalize a process for communicating with sponsoring organizations and the public about construction and major maintenance plans that impact Scenic Byways. These discussions have also touched on the desire to create procedural guidelines for engineers and design staff who will work on projects that impact Scenic Byways.

One of the objectives of this study is to establish a cooperative approach for implementing future transportation projects that involves stakeholders; the intent is to receive public comment on proposed transportation projects, preserve and enhance the Byway's intrinsic qualities (while ensuring safety and mobility), retain the scenic character of the roadways by maintaining current road width and alignment, and minimize the use of curbing and guardrails. Towards this end, DNS is working with DelDOT to implement a

Memorandum of Understanding (MOU) to formalize an approach that involves DNS in the design and construction of any road improvements or major maintenance activities within the Byway. One of the objectives is to capitalize on DelDOT's context-sensitive design policy, the intended purpose of which is to plan and design transportation improvement projects that fit into the communities they are intended to serve, and make DelDOT and other stakeholders aware of the useful knowledge contained in this plan.

Appendix 9 contains draft language for the first MOU between DelDOT and DNS. It is anticipated that a revised version of this document will be executed upon approval by DelDOT of the Corridor Management Plan. In the first several years it is the intent of the two parties to execute the agreement yearly in order to more clearly assess the roles of the two organizations. Once these roles are established, it is likely the agreement will not need to be executed on a yearly basis.

6. Context Sensitive Design

For its part, DelDOT has been working to prepare context sensitive design guidelines for each identified scenic road "that will address design issues related to preservation and enhancement of their unique characteristics without compromising safety." (December 12, 2005 correspondence from DelDOT Secretary Nathan Hayward). The state's intended manual will likely provide a generic description of context sensitive design techniques within the context of the State of Delaware and the byways currently designated.

In addition to the state manual, this planning effort has resulted in a Context Sensitive Design Appendix intended to aid DelDOT in its future efforts. It should be noted that the intent of Appendix 5, Context Sensitive Design for the Red Clay Valley Scenic Byway, is to complement and build upon the state's efforts to develop a state-wide Context Sensitive Design Manual. As such, Appendix 5 contains a palette of design materials germane to the Red Clay Valley, including:

Photographs and descriptions of guardrails, signage, sensitive road improvements, etc. that can help create a unified vision; Landscape management tools (including lists of plants indigenous to this region, a description of maintenance and enhancement issues, etc.); and

Descriptions of “demonstration” projects within the Byway that attest to the value of public communication and outreach.

It is anticipated that both efforts will complement each other and contribute to more thoughtful design in the Red Clay Valley.

B. TOURISM AND MARKETING

The vision of this planning effort is to better understand and appreciate the scenic, natural and historic qualities of the Red Clay Valley and ensure their preservation and conservation. As such, it is inconsistent to consider conventional marketing aimed at expanding tourism opportunities within the Byway. Having said this, however, it is not the goal of this planning effort to exclude those with an appreciation of the Byway but rather to provide interpretation and education that properly conveys the importance of preservation, the rich and distinctive history of the region, the scenic splendors that grace the Valley, and the natural resources that demonstrate ecological processes and contribute to the overall character and visual amenities of the Byway.

The following sections document the various kinds of outreach appropriate for the Red Clay Valley Scenic Byway.

1. Conservation and Preservation Issues

The Red Clay Valley has a rich tradition of conservation and preservation - from private land stewardship initiatives to resource protection inventories and studies to habitat and stream watch programs, efforts have been broad-based and comprehensive. From a historical perspective, conservation extended beyond the set-aside of land to include working partnerships that have influenced landowner stewardship and land management. Regardless of the modern influences that have shaped other communities, the Red Clay Valley’s resources have largely been spared. It is due to this “intact” landscape that preservation is viewed so highly.

Chapter 4 describes in detail the intrinsic qualities that contribute immeasurably to the Red Clay Valley Scenic Byway. Chapter 6 describes the preservation and management strategies by which this plan is to be implemented. Together, they focus this plan’s efforts to understand, interpret, and enhance the intrinsic qualities of the

Byway and ensure their long term preservation. Among the objectives for preservation are the creation of a byway-specific preservation easement program, initiation of a Byway stewardship recognition program, coordination with utility providers to better manage vegetation along the Byway, and government recognition of the Byway through comprehensive plans and development regulations.

2. Education and Outreach

In order to fully understand the importance of conservation and preservation within the Valley, it will be critical to provide interpretation and education materials that properly convey the rich and distinctive history of the region, its scenic splendors and the natural resources that demonstrate ecological processes and contribute to the overall character and visual environment of the Byway.

Much work has been done to inventory and interpret the resources of the Valley and documentation of much of this is offered herein. The sponsors and partners who together guided the creation of this plan possess innumerable resources that together contribute strongly to the regional identity of the Byway. Clearly, these organizations share a common heritage rooted in the region’s rich history. What this plan hopes to do is provide an impetus for a coordinated story that can be told of the broader landscape with a focus on the need to preserve and protect the Byway’s unique intrinsic qualities. This need not be a daunting task, but rather a coordinated effort to provide education and interpretation that recognizes the efforts of those in the Valley and makes such information available to the broader public.

With this in mind, Chapter 6 envisions the following:

- creation of interpretive mapping and coordinated descriptions of the scenic, natural and historic intrinsic qualities of the Byway as part of an educational display and/or lecture program at the Delaware Nature Society or at any other partnering organization;
- the development of Byway-focused curriculum materials for use by DNS, other organizations, and local schools;
- the formation of coordinated education programs among the primary area institutions utilizing shared resources and shared staff expertise;

- the design and production of a brochure that provides an overview of the Byway and the region's vast resources; and
- the establishment of a multi-media internet website to share information about the Byway and offer links to other websites that provide useful information on scenic byways.

Together, these efforts will help visitors interpret and appreciate the wealth of resources this Valley has to offer.

3. Signage

Signage can be helpful in ways that convey needed information or be so excessive as to detract from the visual landscape and contribute to scenic blight. Of paramount importance to this planning effort is the desire to "consolidate the number and guide the placement of signs along the Byway consistent with the vision, mission and goals of the Byway" (Objective 5-2).

To this end, the plan envisions inventorying existing roadside signs pursuant to the Manual on Uniform Traffic Control Devices (MUTCD). This will better gauge the number of signs and the potential for consolidating, eliminating, and replacing signs. Several discussions by the project Steering Committee helped develop a consensus about appropriate signage for the Byway. Conclusions include the following:

- remove unnecessary signs and paint the backs of remaining signs a dark color to reduce visual contrast;
- consider signage intended to reduce truck traffic (including "local traffic only" signs and tonnage limit signs);
- encourage the continued use of complementary direction and distance-oriented signage as a way to reduce off-premises signs;
- limit the number, placement and size of scenic byway identification signs (place signs on identified Byway roads upon entering the watershed only); and
- consider the elimination of "Welcome To" signs typically announcing subdivisions in the Byway.

Consideration should also be given to reexamining the signage provisions contained in New Castle County's Unified Development Code in order to assess the feasibility of revisions to sign standards (such as size, materials, types of illumi-

nation, etc.).

Outdoor Advertising

Outdoor advertising, in the form of signs or billboards, often detracts from the scenic landscape. At present, little signage of this type exists in the Byway and those that do exist are governed by New Castle County's Unified Development Code, Article 6. As with many codes of this type, the County regulates the number, placement, size, and spacing of such signs.

Along state highways such as Route 82, a permit is required from DelDOT for the erection of any billboard visible from the road. Such permits are required to be renewed annually. Delaware's rules controlling outdoor advertising are found in Title 17 Highways, Sections 1101 to 1131 and govern size, spacing, and lighting, among other things. Delaware also has Outdoor Advertising Rules and Regulations found in Section 1.13.

The federal law governing requirements for state receipt of federal highway funds prohibits the erection of new billboards along applicable roadways that are designated as scenic byways. The State of Delaware adheres to this requirement and DelDOT will not issue permits for new billboards along routes that have been designated as part of the state Scenic and Historic Highways Program. This includes the 28 secondary roads in New Castle County that comprise the Red Clay Valley Scenic Byway. It should be noted that existing signage or billboards are grandfathered; furthermore, the state does not require the removal of existing outdoor advertising nor does it control signs on the premises of individual businesses.



Chapter 6

Stewardship of Intrinsic Qualities: Resource Preservation and Management Strategies

This plan's highest priority is the preservation and stewardship of the Red Clay Valley Scenic Byway's roadways and intrinsic qualities. As such, this planning effort encompasses two levels of stewardship and preservation: 1) those efforts that are significant to the watershed as a whole and 2) those efforts most relevant to individual road segments.

Of significance to the stewardship efforts under this plan is the desire to focus on the Byway's roads as an interconnected network closely linked to the Red Clay Creek and its watershed area. This watershed-based planning approach is important because the roads within the watershed mimic an interconnected stream system. Just as healthy streams evolve and meander to shape and define their watersheds, so too does the road network in the Red Clay Valley. As such, this effort places significant importance on consistent watershed-based planning objectives and strategies; such consistency provides an over-

all framework for stewardship and preservation efforts. In this light, the plan's objectives and corresponding preservation and management strategies are presented herein to address the overall corridor management plan goals presented in Chapter 2.

In addition, each of the Byway's 28 roadways is evaluated separately to determine, in the context of the overall planning effort, the specific preservation and management strategies that lend themselves to each road. As warranted, reference is made to the overall management strategies developed for the Byway as a whole; in addition, specific recommendations are made in light of the individual characteristics of each roadway.

An historical evaluation of the Red Clay Valley shows that three hundred years of human influence has created a network of roads, mill dams and bridges, homes and barns, rolling meadows, and fence rows. Remarkably, however, such influences often "spared" the natural, scenic and historic resources that contribute immensely to the character of the Valley. Although the area was largely influenced by early industry and its associated development, the Valley retained its pastoral tranquility. Not urban, nor suburban, the Red Clay Valley's natural beauty is unsurpassed in Delaware. Through the centuries, roads were molded into the landscape and large trees now line

their way. Banks at the edges of the roads are covered with native flora of bloodroot, Christmas fern, and pinxterbloom azalea. In recent years, the focus of those who reside in and care for the Valley has been to preserve its roads and landscape. As such, the strategies contained herein are intended to help guide future change in a way that respects the existing landscape and maintains the unique features that define the Red Clay Valley Scenic Byway. Potential threats to the Byway's character are attributable to urban and suburban growth and include, among others: loss of remaining open space, insensitive land development, inappropriate roadway improvements, increased traffic and congestion, and the diminution of the Byway's character in the hearts and minds of its stakeholders and visitors.

Over several years, Byway stakeholders have worked to develop a comprehensive set of objectives and strategies intended to reflect the vision, mission and goals developed for this plan. While it is recognized that the Valley will change, it is hoped that such change can be accommodated in a way that preserves and enhances the special qualities of the Byway. The objectives and strategies are organized around the classes of goals presented in Chapter 2:

- Conservation and Preservation – encourage the continued voluntary preservation of open space and scenic corridors through conservation easements and other voluntary actions; conserve roadside features that contribute to the character of the watershed; and encourage context sensitive design that respects the scale and character of surroundings.
- Restoration and Enhancement – promote activities that restore and enhance the Byway's intrinsic qualities as part of the development process; seek support and funding for programs that protect and restore landscapes; encourage volunteer planting programs to enhance roadside character.
- Transportation and Safety – adopt traffic calming measures along the Byway; minimize signage along the Byway; and promote cooperative approaches to transportation improvements that consider context-sensitive design guidelines.
- Interpretation and Education – inspire the public

and instill in them the need for stewardship of the Byway's intrinsic qualities.

- Coordination and Management – implement the plan in a cooperative fashion and guide change over time.

The objectives and corresponding preservation and management strategies described below are based on a thorough understanding of the processes that have shaped the Red Clay Valley over time and are intended to address issues of common interest. It is hoped that this effort will assist stakeholders in realizing their shared preservation goals, further encourage responsible stewardship actions, and help stakeholders respond to changes over time.

A. CONSERVATION AND PRESERVATION

The Red Clay Valley has a rich tradition of conservation and preservation - from private land stewardship initiatives to resource protection inventories and studies to habitat and stream watch programs, efforts have been broad-based and comprehensive. From a historical perspective, conservation extended beyond the set-aside of land to include working partnerships that have influenced landowner stewardship and land management. Early industry, particularly that of the water-powered mill industries on the Red Clay Creek, contributed to the development of the road network now designated a Delaware Scenic and Historic Highway and expanded markets for local farmers and manufacturers. This early "industrialization" actually contributed to the preservation of agricultural land and resulted in the creation of hamlets and villages that today are honored as national historic districts. While this historic pattern of land use forged the rural landscape of the eighteenth and nineteenth centuries, other influences began to exert themselves on the Valley in the twentieth century. Suburbanization, the automobile and the revolution brought about by new methods of industrialization began their relentless pursuit of land throughout New Castle County. Remarkably, such influences often "spared" the natural resources that contribute immensely to the character of the Valley.

Significant to the preservation of the Valley in recent years have been the efforts of private land

owners, citizens groups, local institutions and non-profits, and government agencies.

Organizations such as the Delaware Nature Society, the Mt. Cuba Center, the Red Clay Valley Association, Historic Red Clay, the Center for the Creative Arts, the Yorklyn Planning Group, the Greater Hockessin Area Development Association (GHADA), New Castle County, and the State of Delaware have contributed greatly to land preservation efforts, education, stewardship, and public outreach. It is in the works of these many organizations, as well as the formal and informal partnerships among these groups and private citizens, that conservation and preservation actions have flourished.

In recent years, the Delaware Nature Society has emerged as a leader in the preservation of the Red Clay Valley. Numerous initiatives, including easement acquisitions, educational programs, land management, stream watch and backyard habitat programs, to name a few, have contributed greatly to their success. Perhaps as important has been the willingness on the part of the Society to initiate partnerships with many of the other organizations working in the Valley to pool resources and strive for greater accomplishments. This effort is one such example.

The following objectives and strategies have been developed by Byway stakeholders to support Goals 1, 2 and 3, which together seek to conserve the intrinsic qualities of the Valley. Objectives include developing a byway-specific preservation easement program, initiating a Byway stewardship recognition program, coordinating with utility providers to better manage vegetation along the Byway, and obtaining government recognition of the Byway through comprehensive plans and development regulations.

Goal 1 - Encourage stewardship of intrinsic qualities through continued conservation efforts.

Objective 1-1 Develop a byway-specific voluntary conservation and preservation easement program utilizing the collective experience and knowledge of local land trusts. DNS shall, as the coordinating agency, monitor the status of the Byway's scenic, natural and historic qualities and work cooperatively with other land trusts to achieve voluntary protection.

Preservation and Management Strategies

1-1.1 Expand upon current conservation efforts to develop a full range of easement options for Byway-related preservation, including historic house façade easements, scenic corridor easements, and voluntary landowner protection agreements. Prepare model easement language and landowner agreements consistent with this plan's mission. (Note: corridor easements should be no less than 200 feet on each side, where feasible)

1-1.2 Convene periodic meetings of local land trusts to assess and coordinate actions in the Red Clay Valley (note: this effort can be incorporated as an agenda item into regularly scheduled meetings currently conducted). Develop priority list of properties for protection, paying particular attention to the potential for achieving interconnected open space (include here the preparation and maintenance of resource prioritization mapping – consider identifying concentrations of scenic, natural and historic resources, open space corridor opportunities, etc.).

1-1.3 Continue monitoring the Byway's intrinsic qualities and development activities; continue efforts to educate landowners and others regarding the benefits of voluntary preservation options. Consider preparing a conservation easement brochure and/or scheduling events such as landowner "meet and greets" targeted to Byway landowners who may be prospects for Byway coordination, landowner agreements or conservation easements.

Objective 1-2 Seek funding from public and private agencies to assist with fee-simple purchase, easement purchase, or purchase of development rights (PDR) where appropriate and feasible. Initiate partnerships that can achieve greater preservation through shared funding strategies, among them possible joint funding through the state's Open Space Council, possible use of the Preservation Delaware Revolving Fund for the preservation of historic buildings, possible federal funds for transportation enhancement programs designed to conserve land and protect

scenic corridors, and the possible creation of a revolving fund for land conservation actions.

Preservation and Management Strategies

1-2.1 Initiate dialogue with funding agencies (both public and private) to assess the potential for an umbrella purchase program linked directly to the Red Clay Valley. Options may exist to match different funding sources for land preservation efforts.

1-2.2 Create a Red Clay Valley Scenic Byway revolving fund for land preservation. DNS shall, as coordinating agency, be responsible for coordinating strategies 1-2.1 and 1-2.2.

1-2.3 Further examine funding options and their viability for the Red Clay Valley, including: Transportation Enhancement Funds which are available for the purchase of scenic corridor easements, the Delaware Open Space Council, the Delaware and New Castle County farmland preservation programs, and Preservation Delaware's Revolving Fund which is intended for historic resource preservation.

Objective 1-3 Link public and private purchase/donation initiatives (possibly linked to land development) to promote interconnected open space. Partner with the state (e.g., the Delaware Natural Heritage Program, etc.) and/or other suitable entities to better identify open space and habitat corridors as they relate to the protection of intrinsic qualities.

Preservation and Management Strategies

1-3.1 Determine availability of funding from and identify private foundations whose missions' include the preservation of interconnected open space and/or scenic, natural and historic resources.

1-3.2 Utilize resource prioritization mapping to assist in responding to land development proposals. Encourage developers to set-aside lands consistent with the desire to interconnect open space. Link public open space, private land donations/ easements and develop-

ment-related open space to achieve greenways, biodiversity corridors, etc. (Note: interconnecting open space does not imply public access unless specifically permitted).

1-3.3 Further refine resource inventories to reflect State Resource Areas and Natural Areas programs and better identify open space and habitat corridors.

Objective 1-4 Develop a Byway Stewardship Recognition Program to recognize those individuals who voluntarily protect their lands and buildings or donate preservation or conservation easements in a manner that preserve's the Byway's intrinsic qualities.

Preservation and Management Strategies

1-4.1 Utilize flexibility in how landowners are recognized and respect landowner privacy issues with regard to any recognition program developed.

Goal 2 - Conserve the roadside features of the Byway, particularly the scenic resources (vista points and visual accents), natural resources (rock outcroppings, mature trees, steep slopes and stream valley), and historic resources (houses, bridges, railroads, archeological sites, and scale, alignment and features of roads), that contribute to the character of the watershed.

Objective 2-1 Respect and value roadside vegetation as a critical component of the Byway and partner with those who do work along roadways (DelDOT, utility companies, etc.) to better manage and understand the inherent value of vegetation to the Byway. For example, work with utility companies to minimize the impact of pruning roadside vegetation for overhead utility wires; consider training workshops that address vegetation preservation techniques, etc.

Preservation and Management Strategies

2-1.1 Develop a landscape management component of the context sensitive design criteria for this plan. Include descriptions of indigenous (native) roadside vegetation, photo-

graphs of representative Byway vegetation, and suggestions for preservation and future planting and management (reference the publication “Enhancing Delaware Highways” for improvement and maintenance options).

2-1.2 Undertake outreach efforts (seminars, memoranda of understanding, etc.) to utility providers (electric, railroad, water, sewer, cable, phone, road) and explore partnership opportunities that further protect and enhance the Byway’s vegetation. Communicate to such entities the objectives of context sensitive design and proper landscape management (as described in the appendices to this plan). Encourage the underground placement of utilities where feasible and less environmentally damaging.

Objective 2-2 Compile a complete photolog of the scenic, natural and historic resources of the Red Clay Valley, including scenic vistas, accents, intrusions and other visual aspects of the Byway.

Preservation and Management Strategies

2-2.1 Provide a “virtual tour” of the Byway through photographs, maps and text on the DNS website and other partnering organizations websites. Consider producing a video tour that conveys the uniqueness of the Byway.

2-2.2 Prepare a complete photolog of the virtual tour in hard copy for public outreach efforts.

Goal 3 - Encourage context sensitive design that respects the scale and character of surroundings and minimizes change to intrinsic qualities.

Objective 3-1 Consistent with the vision, mission and goals of the Byway, work with New Castle County to: 1) further the objectives of Conservation Design as codified in the County’s “Environment First” ordinance; 2) review and update, as needed, the scenic corridor standards contained in Article 4 of the County’s Unified Development Code (UDC); and 3) acknowledge

and refine, as needed, the resource prioritization performed for the *Red Clay Valley Scenic River and Highway Study (NCC 1989)*.

Preservation and Management Strategies

3-1.1 Initiate a dialogue with the New Castle County Department of Land Use to address the issues raised in Objective 3-1 and consider an MOU with NCC that accomplishes the goals and objectives of this plan. Additional discussion items include the likelihood of expanding the corridor overlay standards, providing higher protection ratios for trees and other resources along the Byway, and utilizing Transfer of Development Rights (TDR) as a protection strategy within the Valley.

3-1.2 Coordinate with New Castle County, DelDOT and others regarding the desire to preserve watershed and site hydrology during land conversion and road improvements. Current County regulations concerning Conservation Design and stormwater management address the need to maintain site hydrology and manage stormwater appropriately. Consideration should be given to an MOU with DelDOT that addresses context-sensitive design issues and road hydrology. Future land conversion and road improvements, among other watershed impacts, must be monitored regularly to ensure watershed health.

Objective 3-2 Ensure that county comprehensive plans and relevant state planning initiatives adequately recognize the Red Clay Valley Scenic Byway. Such recognition should acknowledge the significant public benefit of the Byway and reinforce a conservation purpose for the scenic, natural and historic qualities documented in this publication and in past State and County publications.

Preservation and Management Strategies

3-2.1 Initiate a dialogue with the state and county regarding any planning activities or resource inventories in the Valley that should recognize the Byway.

3-2.2 Encourage continued research and docu-

mentation of the Valley's resources by county and state agencies. Continue assessments of and protection for the unique biodiversity habitats of the Valley, including those species listed as rare or endangered by the state or federal governments.

B. RESTORATION AND ENHANCEMENT

Many of the organizations and individuals responsible for preservation within the Red Clay Valley have expanded their efforts over the years to include restoration and enhancement. This focus is nothing new however; much of the historic development pattern of the Valley, particularly the early industrial pattern of mills and agriculture, placed significant emphasis on maintaining and enhancing the land, water, and transportation infrastructure in a way that contributed to the "health" of the Valley. Although the suburbanization and industrialization referred to in Section A (Conservation and Preservation) seemed to spare much of the Valley, such limited influence provided ample opportunity to cherish the resources that remained undisturbed and continue management in ways that enhanced their protection and enjoyment.

Today, many individuals and organizations work cooperatively to interpret, protect, restore and enhance the landscape of the Red Clay Valley. As with preservation, such efforts involve private landowners, citizen groups, local institutions and non-profits, and government agencies that often form formal or informal partnerships to achieve mutual objectives. For example, the Delaware Nature Society and the Red Clay Valley Association have coordinated for many years on stream monitoring programs, stream restoration efforts, stream clean-ups and other enhancement activities. Another example is the recent relationship between DNS and Mt. Cuba Center to promote native landscapes: Mt. Cuba Center hosts a native plant open house intended to educate the general public about the benefits of indigenous vegetation and DNS hosts a native plant sale to encourage private landowners to restore and enhance their own gardens. Another program, spearheaded by DNS and the National Wildlife Federation, encourages landowners to create "backyard habitat" for wildlife.

It is anticipated that new development will

occur within the Byway as the greater northern Delaware and southeastern Pennsylvania area continues to grow and change. One of the purposes of the Red Clay Valley Scenic Byway is to help guide that change in a way that continues to restore and enhance the character of the landscape. The many organizations and individuals that comprise this effort have been leaders in finding new and creative ways to accommodate growth while respecting and enhancing the Byway's unique landscape. This plan is intended to help guide future efforts.

The following objectives and strategies have been developed by Byway stakeholders to support Goal 4 which seeks to maintain and/or improve the Byway's intrinsic qualities. Objectives include working with New Castle County to restore and enhance the Byway's intrinsic qualities during the development process, seeking financial support to assist with restoration and enhancement activities, and further encouraging volunteer programs to enhance roadside character.

Goal 4 - Encourage restoration and enhancement efforts, where appropriate, to maintain and/or improve the Byway's intrinsic qualities.

Objective 4-1 Work with New Castle County to restore and enhance the Byway's intrinsic qualities as part of the development process. Towards this end, further the objectives of the Corridor Management Plan in relation to the County's Unified Development Code, particularly Article 4 (District Intensity and Bulk Standards), Article 10 (Environmental Standards), Article 22 (Drainage, Utilities, Septic Systems, Parking, Loading, and Lighting), Article 23 (Landscaping, Trees, and Erosion), and Article 27 (Maintenance Corporations, Open Space, and Common Facilities).

Preservation and Management Strategies

4-1.1 Initiate a dialogue with the New Castle County Department of Land Use to recognize the opportunities for restoration and enhancement during land conversion. Encourage staff use of this plan's recommendations, particularly the context sensitive design components of this plan, when reviewing subdivision and land development applications. Participate in

the pre-exploratory site plan review conference and subsequent plan review phases for all plans located within the Byway.

4-1.2 Review and offer suggestions for revised code language in the UDC, including, but not limited to those sections identified in Objective 4-1. In particular, consider creating corridor overlay regulations (setbacks, buffering, resource protection, use provisions, building placement, etc.) that expand on Article 4, Section 40.04.240 (Scenic Corridors); consider higher protection ratios for those natural resources within the Byway (such as trees and other indigenous vegetation); and consider new and creative ways to utilize Transfer of Development Rights tools to preserve land in the Byway.

4-1.3 Promote efforts to maintain watershed hydrology consistent with this “watershed-based planning effort.” In particular, continue to encourage conservation design efforts that preserve site hydrology through the development process and preserve hydrology along new roads and during road improvements.

Objective 4-2 Seek support for and funding from public and private agencies to assist with restoration and enhancement activities focused on the intrinsic qualities of the Byway; examples of recent programs include the EPA Watershed Initiative Grant Program, the Delaware Nature Society’s SMARTYARDS homeowner backyard stewardship project, the NRCS Conservation Partnership Initiative (CPI) and Conservation Reserve Enhancement Program (CREP), and the Landowner Incentive Program (LIP) (a program to restore habitat on private property).

Preservation and Management Strategies

4-2.1 Continue to seek funding and encourage the creation of matching grant programs from those public and private agencies that have traditionally encouraged restoration efforts. Among those are the State of Delaware, New Castle County, the Environmental Protection Agency, the Natural Resources Conservation Service, and various local and regional foun-

dations that promote demonstration projects that support foundation goals. Efforts should be explored whereby public and private organizations match community and civic association fund raising efforts for restoration and enhancement efforts such as landscaping. Cooperative ventures utilizing matching funding and volunteer efforts should be actively pursued.

4-2.2 Encourage sensitive redevelopment, such as through the State of Delaware’s “Brownfields” legislation that provides tax inducements for restoration of degraded properties.

4-2.3 Consider establishing a small matching grant program and/or revolving fund, potentially administered by the permanent management entity and Byway partners, which can provide funds for landscaping, façade improvements, and streetscaping on private lands meeting Byway guidelines. Make available to businesses, institutions and private landowners and provide public recognition for successful projects along the Byway. Funds for such a program can be raised in a variety of ways, including grant acquisition (government grants, foundation grants, endowments, etc.), event-based fund raising activities, speaking honorariums, etc.

Objective 4-3 Encourage volunteer maintenance and planting programs to enhance the roadside character of the Byway; promote the Adopt-a-Highway program and encourage roadside and property owner planting efforts that are compatible with the vision, mission and goals of the Byway.

Preservation and Management Strategies

4-3.1 Establish a Scenic Byway Landscape Committee to work with DelDOT, civic groups, business owners and landowners to encourage the establishment or continuation of volunteer planting and maintenance programs such as Adopt-a-Highway, promote roadside vegetation management and tree planting (see “Enhancing Delaware Highways” and the landscape management

component of the context sensitive design appendices of this plan), and encourage property owner initiated plantings.

4-3.2 Establish a Byway stewardship recognition program that specifically acknowledges those landowners, business and civic groups that undertake enhancement and restoration activities consistent with the vision, mission and goals of the Byway.

C. TRANSPORTATION AND SAFETY

The unique roadways of the Red Clay Scenic Byway traverse hills and streams, wrap around sharp curves and present many eye-catching splendors for tourists and residents alike; they also serve as thoroughfares to those commuting to Wilmington or Pennsylvania and make available options to transport goods throughout the region. As with many roads, these competing interests, coupled with increased volumes of traffic in recent years, contribute to accidents and traffic-related problems. In particular, the roads of the Red Clay Valley are generally narrow, often lack shoulders and other “improvements” typical of modern roads, and negotiate the countryside along curves and steep slopes. However, it is these very conditions that contribute to the character of the Byway’s roads and are an integral part of their intrinsic values. Furthermore, such road components are often used as effective traffic calming measures along new roads.

In recent years, increased traffic and safety concerns have led DelDOT to undertake several traffic studies and road improvement projects within the Byway. Several of these studies and subsequent improvements have involved extensive community outreach and consensus building in an attempt to consider the intrinsic qualities of the Byway, while others have not. Many reasons for this exist, including changing paradigms in transportation planning, different staff working on different portions of the Byway at different times, and the need for quick responses to safety concerns. The transportation and safety issues associated with the Byway have never before been part of a coordinated approach such as this; in fact, part of the rationale for this scenic road designation was the desire to better coordinate traffic and safety improvements.

This goal class recognizes the many people who utilize the roads of the Red Clay Valley and attempts to balance their interests so that safe transportation is available in a manner that respects the intrinsic qualities of the Byway. To date, DNS, as the sponsoring organization for this effort, has taken the lead in communicating the interests of the Steering Committee/Management Entity and stakeholders to DelDOT when knowledge of transportation improvements is known. For example, recent design improvements unveiled for Brackenville Road and Barley Mill Road led to meetings with DelDOT, site walks with DelDOT staff and consultants, and suggested revisions to landscape improvements and road design using context sensitive techniques. In addition, DNS, through the auspices of the Steering Committee, initiated a dialogue with the Secretary of DelDOT to institutionalize a process for communicating with sponsoring organizations and the public about construction and major maintenance plans that impact Scenic Byways. These discussions have also touched on the desire to create procedural guidelines for engineers and design staff who will work on projects that impact Scenic Byways. For its part, DelDOT has initiated steps to develop context sensitive design guidelines for each identified scenic road “that will address design issues related to preservation and enhancement of their unique characteristics without compromising safety.” (December 12, 2005 correspondence from DelDOT Secretary Nathan Hayward). Toward this end, this corridor management plan includes a context sensitive design appendix intended to aid DelDOT in its future efforts. Contained in this appendix are a palette of design materials germane to the Red Clay Valley, including:

- Photographs and descriptions of guardrails, signage, sensitive road improvements, etc. that can help create a unified vision;
- Landscape management tools (including lists of plants indigenous to this region, a description of maintenance and enhancement issues, etc.);
- Draft language for a Memorandum of Understanding (MOU) between DelDOT and a management entity; and
- Descriptions of “demonstration” projects within the Byway that attest to the value of public communication and outreach.

The objectives and strategies listed below have been developed by Byway stakeholders to support Goals 5 and 6. Objectives include balancing transportation and safety needs in a way that respects intrinsic qualities and working with government agencies to ensure that future transportation and land use decisions are consistent with the Byway's mission.

Goal 5 - Balance the transportation and safety needs of roadway users in a manner that respects the intrinsic qualities of the Byway.

Objective 5-1 Use safety measures, traffic enforcement procedures, and traffic calming techniques to warn trucks and other vehicles of the narrowness and the lack of shoulders along many road segments, and the roadside character that is an integral part of the Byway's intrinsic value.

Preservation and Management Strategies

5-1.1 Maintain narrow road widths, sharp curves, and nearby roadside features (rock outcrops, woodlands, etc.) as effective traffic calming devices. Maintenance of existing features that serve to calm traffic is preferable to any road modifications, particularly those that are uncharacteristic of the Byway. Correlate the speed limit of roads and reduce speed limits as applicable to reflect roadway characteristics. Increase speed limit enforcement. Use signs instead of tree removal when sight distance is a problem (removing trees often encourages speeding, whether signs exist or not).

5-1.2 Where road improvements or significant maintenance is warranted, maintain the scenic integrity of the rural roadways within the Byway through the following:

- Use context-sensitive design techniques when undertaking improvements.
- Consider, as needed, measures that assist drivers in recognizing those areas where caution must be exercised (tools such as bump outs or curb transitions, alternating plantings, shifts in alignment and "neck-downs" may be options to selectively consider).

- Maintain existing alignment and two lane cross sections of Byway roads (except where it is absolutely necessary to modify alignment for safety reasons).
- Undertake landscape management and site improvements as part of any road improvement project or significant maintenance project (refer to the context-sensitive design appendix included with this plan)(also refer to Goal 2, Objective 2-1, regarding the need for outreach and communication with utility providers).

5-1.3 Meet with DelDOT, Delaware Greenways, the Delaware Bicycle Council and local bicycle and trails organizations to coordinate safety and public access issues within the Red Clay Valley Scenic Byway. While public access to existing resources and institutions is encouraged, this planning effort does not envision or encourage expanded tourism or recreational activities (due primarily to the plan's Mission, the desire to preserve existing roadway characteristics and the need to maintain safe road conditions). For example, bicycle usage is not encouraged on roads other than those designated by DelDOT as having average or above average cycling conditions. Due to private land ownership, pedestrian access will likely remain limited to existing institutions that have established trails (e.g., Delaware Nature Society, Valley Garden Park).

Objective 5-2 Consolidate the number and guide the placement of traffic and byway signs along the road segments consistent with the vision, mission and goals of the Byway.

Preservation and Management Strategies

5-2.1 Inventory existing roadside signs and consolidate the number and placement of such signs pursuant to the Manual on Uniform Traffic Control Devices (MUTCD). Remove old signs that are not necessary and consider painting darkly the backs of all regulatory signs to reduce visual contrast. Consider appropriate signage aimed at reducing truck traffic, including, but not limited to "local traffic only" signs and tonnage limit signs.

DNS, as coordinating agency, should facilitate the inventory and communicate the results to DelDOT for their consideration.

5-2.2 Encourage the continued use of a complementary direction and distance-oriented signage system so as to reduce off-premises signs within and adjacent to the Byway.

5-2.3 Limit the number, placement and size of Byway identification signs; place signs on identified Byway roads upon entering the watershed only.

5-2.4 Consider working with DelDOT to delist Route 82 as a state highway. Delisting will change the status of the road and eliminate its reference in state highway mapping. The chief advantage of delisting is to reduce truck traffic within the Red Clay Valley Scenic Byway. This process is best facilitated through a letter to the DelDOT Secretary requesting delisting be considered.

Goal 6 - Help guide future transportation and land use decisions made by government agencies to ensure consistency with the Byway's mission.

Objective 6-1 Establish a cooperative approach with DelDOT and other state agencies, including the State Historic Preservation Office, State Department of Natural Resources and Environmental Control (DNREC), and the Office of State Planning Coordination, to develop and implement all future transportation projects within the road network that comprises the Byway; said process shall involve stakeholders, as well as members of the Corridor Management Plan Steering Committee. The intent of this process is to receive public comment on proposed transportation projects, preserve and enhance the Byway's intrinsic qualities while ensuring safety and mobility, retain the scenic character of the roadways by maintaining current road width and alignment, and minimize the use of curbing and guardrails.

Preservation and Management Strategies

6-1.1 Implement the Memorandum of

Understanding (MOU) with DelDOT so as to formalize an approach that involves the coordinating agency in the design and construction of any road improvements or major maintenance activities within the Byway. Capitalize on DelDOT's context-sensitive design policy, the intended purpose of which is to plan and design transportation improvement projects that fit into the communities they are intended to serve. In addition, make the most of DelDOT's stated intention to have staff planners and engineers coordinate projects affecting scenic byways with stakeholders (see also Strategy 3-1.2).

Objective 6-2 Work with DelDOT to develop context-sensitive design guidelines for transportation improvements sensitive to the individual roads that comprise the Byway; consider adapting the state's Context-Sensitive Design Manual to the unique characteristics of the Byway; participate in a DelDOT working group that will develop Byway guidelines for the Red Clay Valley Scenic Byway.

Preservation and Management Strategies

6-2.1 Make available to DelDOT the context-sensitive design appendix prepared for this publication. Work with DelDOT as it prepares context-sensitive design guidelines for the state's scenic highways and ensure that the components of the appendix contained in this report are incorporated accordingly.

D. INTERPRETATION AND EDUCATION

As the Vision and Mission statements for this plan attest, the highest priority for the management of the Red Clay Valley Scenic Byway is the preservation and stewardship of the watershed's roadways and the intrinsic qualities that define them. In order to achieve this, it will be critical to provide interpretation and education that properly conveys the rich and distinctive history of the region, the scenic splendors that grace travelers' eyes and the natural resources that demonstrate ecological processes and contribute to the overall character and visual environment of the Byway.

The roots of the Red Clay Valley community date from the early European settlement in the

beginning of the eighteenth century. Three hundred years of human influence on the land has created a network of roads, mill dams and bridges, homes and barns, rolling meadows, and fence rows. The roads of the Red Clay Valley help tell the history of the Valley in the context of human interaction with nature. In this context the use of the land, both historically and in the present, speaks to the stewardship that has pervaded the thinking of those that live and work here.

Much work has been done to inventory and interpret the resources of the Valley and documentation of much of this is offered in the Nomination Application (and reprinted herein as part of the management plan and its appendices). The sponsors and partners for both that effort and this plan possess innumerable resources that together contribute strongly to the regional identity of the Byway. Clearly, these organizations share a common heritage rooted in the region's rich history. What remains to be done is to interconnect these efforts in such a way that a coordinated story can be told of the broader landscape with a focus on the need to preserve and protect the Byway's unique intrinsic qualities.

Much of the effort in this undertaking resides with the project's major sponsor, the Delaware Nature Society, and its ability to remain the coordinating agency for this project, help transition the Steering Committee into a management entity, and coordinate among the organizations that work within the Valley.

This need not be a daunting task, but rather a coordinated effort to provide education and interpretation that recognizes the efforts of those in the Valley and makes such information available to the broader public. Goals 7 and 8 speak to interpretation and education, as do the objectives and strategies listed here to assemble and interpret information for public consumption.

Goal 7 - Inspire the public through education on the intrinsic qualities of the Byway.

Objective 7-1 Assemble interpretive mapping and coordinated descriptions of the scenic, natural and historic intrinsic qualities of the Byway as part of an educational display and/or lecture program at the Delaware Nature Society or at any other partnering organization. Communicate the watershed-based planning effort that resulted

in the designation of 28 secondary roads that together form an interconnected and interdependent network closely linked to the Red Clay Creek and its watershed area. Emphasize the importance of wise stewardship to protect the Byway's intrinsic qualities. Provide opportunities to show the display or give lectures throughout the watershed. Incorporate the display and/or lecture program into education programs offered by the Delaware Nature Society and other partnering organizations as an example of watershed-based stewardship.

Preservation and Management Strategies

7-1.1 Assemble a working group of plan sponsors and partners to develop an interpretive thematic exhibit of the intrinsic qualities of the Byway. The creation of interpretive and educational programs will rely on collaborative contributions from local organizations, local historians, community groups and others. Such an exhibit should:

- Focus on the watershed model as the encompassing theme for interpretive information, linking together the history of the area in the context of human interaction with nature;
- Incorporate the visible historic landscape and built resources;
- Coordinate themes and subject matter among partnering organizations, building on each organization's mission as a way to convey the need for stewardship of the Byway's resources (the role of stewardship is particularly important given the preservation of the Valley's intrinsic qualities in recent years);
- Assemble interpretive mapping, photographs and other media (such as video and fine art reproductions) to accompany the exhibit; and
- Provide suitable formats for the exhibit, including but not limited to: an educational display, a PowerPoint slide presentation, a self-guided auto tour, a virtual tour accessible via the internet, etc. Although the Delaware Nature Society will be the primary host for this information, media formats must be tailored to the needs of other host organizations as well.

7-1.2 Develop curriculum materials for use by DNS, other organizations, and local schools

that focus on the Byway. Such programs should employ existing state education standards, including those related to environmental education.

The educational content of the curriculum should focus on the Red Clay Valley watershed, the roadways that together form an interconnected network closely linked to the Red Clay Creek and its watershed area, and the Valley's landscapes, historic places and communities. The materials could be organized according to various fields of study, including earth sciences, history and visual arts, to name a few. Field trips should be organized among the various educational institutions.

7-1.3 Consider the development of coordinated education programs among the primary area institutions utilizing shared resources and shared staff expertise. One such program could be a revolving/complementary circuit of lectures or activities held at area institutions. Another such program could be a themed workshop involving timed sessions at different institutions. One recent example of coordinated events is Mt. Cuba Center's Wildflower Celebration held in conjunction with the Delaware Nature Society's Native Plant Sale (attendees were able to view plants growing in a native landscape at one location and purchase such plants at another location). Activities or lectures could be organized by theme (such as native plants) or by historic period.

Goal 8 - Instill in the public the need for stewardship of the Byway's intrinsic qualities.

Objective 8-1 Develop a brochure that provides an overview of the Byway and the region's vast resources. Describe the preservation efforts ongoing and the emphasis placed on watershed protection in all forms. Highlight the need for future stewardship to protect the Byway's intrinsic qualities.

Preservation and Management Strategies

8-1.1 Assemble a working group of plan sponsors and partners to collectively develop a

brochure that achieves Objective 8-1.

Objective 8-2 Consider developing a multi-media internet website to share information about the Byway; offer links to other websites that provide useful information on scenic byways.

Preservation and Management Strategies

8-2.1 DNS, as coordinating agency, should manage the creation of a website dedicated to this planning effort and its implementation. The website should be composed of materials prepared for this plan, as well as materials created as part of implementation activities. In addition, DelDOT should be encouraged to maintain the portion of its website dedicated to the Scenic and Historic Highways Program and website links should be established between the two sites.

E. COORDINATION AND MANAGEMENT

The ultimate success of this plan relies upon the willingness of stakeholders to work cooperatively to implement the policies and recommendations of the Corridor Management Plan. The preservation and wise management of the Red Clay Valley Scenic Byway will depend upon the joint efforts of a range of public and private partners, among them property owners, non-profit organizations, businesses, elected officials, and county and state government agencies.

Chapter 7 of this Plan outlines how the various partners will work cooperatively to implement the plan's Goals and Objectives. It prioritizes the Preservation and Management Strategies and identifies which partners will have responsibility for their implementation. In addition, Chapter 7 identifies potential funding sources and relates them to the strategies identified.

It is encouraging to note that the efforts of those involved in this planning endeavor are part of a broad and long standing tradition of stewardship in the Valley. Many of the groups identified in this Plan currently work together in other capacities or have worked successfully in the past to achieve common goals related to the management of the Valley's resources. It is anticipated that this trend will continue. The coordination and

management strategies listed below form the basis for implementation of the Red Clay Valley Scenic Byway Corridor Management Plan.

Goal 9 - Prepare a Corridor Management Plan acceptable to stakeholders and suitable for future funding.

Preservation and Management Strategies

9-1 The Corridor Management Plan is intended to be a “living” document and should be consulted often to promote implementation and ensure adherence to the phased schedule included in Chapter 7. Furthermore, the plan should be updated periodically as conditions change to maintain relevance over time.

Goal 10 - Create incentives to achieve the Plan’s mission.

Objective 10-1 Establish outreach efforts and new planning initiatives linked to the implementation strategies developed for this plan, including: corridor and façade conservation easements, context sensitive design programs, voluntary landowner protection agreements, fee-simple or development rights purchase programs, corridor overlay regulations, etc. Consider periodic public events to celebrate the Byway and encourage future protection.

Preservation and Management Strategies

10-1.1 Establish and maintain mutually beneficial relationships among the stakeholders of the Byway, including private landowners, civic associations, maintenance corporations and other community groups, and provide opportunities for continued dialogue on issues affecting the Valley.

10-1.2 Consider opportunities to celebrate and protect the Byway through various public forums, including landowner “meet and greets” (intended to educate landowners about the value of conservation easements), educational programs (potentially highlighting the natural, scenic and historic values of the Red Clay Valley), and open houses (intended to introduce residents to the organizations and

businesses of the Valley).

Goal 11 - Implement the Corridor Management Plan in a cooperative fashion that preserves and protects resources, recognizes the needs and interests of stakeholders, respects the rights and responsibilities of individual landowners, and is sensitive to the needs of organizations and businesses.

Objective 11-1 Explore ways in which the Delaware Nature Society can remain the Coordinating Agency to achieve the goals, objectives and implementation strategies of this plan.

Preservation and Management Strategies

11-1.1 Officially designate the Delaware Nature Society as the “Coordinating Agency” for the Red Clay Valley Scenic Byway.

Objective 11-2 Transition the Steering Committee for this plan into a management entity that will meet as needed to address major issues facing the Byway and facilitate opportunities for implementing the plan.

Preservation and Management Strategies

11-2.1 Secure commitments from individuals and organizations represented on the Steering Committee and other stakeholders that participated in the preparation of this Plan to serve as members of a new “Red Clay Valley Scenic Byway Management Committee.” Working in conjunction with the Coordinating Agency, this committee will be able to respond in a timely manner to major issues facing the Byway and facilitate opportunities for implementing the Plan.

Objective 11-3 Continue to reach out and encourage the involvement of stakeholders, including individual landowners, organizations and businesses, and government agencies in the implementation of the plan.

Preservation and Management Strategies

11-3.1 Hold community workshops to review

the final plan document and introduce the plan to the broader public. Consider holding periodic public meetings to update the public on implementation activities.

Objective 11-4 Work within the framework of existing plans and programs to achieve Byway goals including, but not limited to:

- State and County planning initiatives (comprehensive plans, sub-area plans, Red Clay Valley Scenic River and Highway Study, New Castle County Conservation Strategy, State Resource Area planning, Natural Areas Program, Natural Heritage Program, etc.)
- Local land trust initiatives and easement programs (Mt. Cuba Center, DNS, Brandywine Conservancy, Nature Conservancy, The Conservation Fund, Kennett Township Land Trust, etc.)
- Red Clay Valley Association conservation and education programs
- Historic Red Clay initiatives
- Red Clay Reservation initiatives
- Wilmington and Western Railroad activities
- Mt. Cuba Center initiatives
- Preservation Delaware Revolving Fund and preservation programs
- Delaware Nature Society conservation and education programs
- DelDOT traffic calming initiatives, context sensitive design policy, and tree preservation requirements
- Delaware Greenways initiatives
- DNREC State Parks, County and City Parks Programs (Auburn Heights, Valley Garden Park, etc.)
- Pennsylvania planning initiatives (Township planning activities, County initiatives and state resource planning that can lead to bi-state preservation)
- Scenic America programs and initiatives

Preservation and Management Strategies

11-4.1 Maintain ongoing working relationships with the organizations and entities responsible for plans and programs related to the Byway.

Objective 11-5 Establish a process with

DelDOT regarding both future road improvement projects and standard maintenance and safety projects whereby all work is communicated to the Byway management entity in advance. Such advance notification will allow adequate time for response and will permit coordinated efforts to evaluate alternatives and seek funding for enhanced maintenance and safety.

Preservation and Management Strategies

11-5.1 Update and re-execute yearly the MOU with DelDOT described as part of Goal 6.

F. ROADWAY STATUS REPORT: MANAGEMENT STRATEGIES FOR INDIVIDUAL ROAD SEGMENTS

As part of the scenic byway nomination for the Red Clay Valley Scenic Byway, the planning team examined the road corridors from the perspective of the roadways themselves, the viewsheds from the roadways (visual accents and vista points), and the natural and historic resource components that contribute to roadway character and provide a landscape context for each roadway. It was determined that the focus of the nomination would be on the roadways, their rights-of-way, and the scenic, natural and historic attributes that form individual corridors and together link the watershed. As referenced in the nomination: “(t)he highest priority in the corridor management plan will be the preservation and stewardship of the watershed’s roadways and the intrinsic qualities that define them.”

In this context, management strategies were defined for the Byway as a whole as well as for the individual roads that together comprise the Byway. The following status report evaluates each of the Byway’s 28 roadways to determine, in the context of the overall planning effort, the specific preservation and management strategies that lend themselves to each road. As warranted, reference is made to the overall management strategies developed for the Byway; in addition, specific recommendations are made according to the individual characteristics of the roadways and their contributing intrinsic qualities.

Roadway Status Report

ROAD 238

BURNT MILL ROAD

ROAD NUMBER: 238

ROAD NAMES: Burnt Mill Road

STARTING LOCATION: DE/PA State Line

ENDING LOCATION: 9 - Kennett Pike (Rt. 52)

CURRENT STATUS:

Land ownership pattern: Agricultural/
Pasture land, DNS owned/eased land, private owned land

Preservation in place: Some land owned and/or eased by DNS on south side of road

MANAGEMENT OBJECTIVES/STRATEGIES:
(individual road management strategies that relate to the overall byway network)

Obtain greater protection for the roadway and its scenic, natural, and historic resources through combinations of the following:

- Seek additional conservation easements or fee-simple purchase adjacent to land now held by DNS
- Consider scenic road corridor easements within road viewshed
- Consider context sensitive design for private land undergoing conversion
- Consider additional protection in NCC Unified Development Code (UDC) for road corridor
- Pursue byway linkages, including linkages in PA
- Consider voluntary landowner protection agreements
- See Strategies 1-1.1, 1-1.3, 1-3.2, 2-1.2, 3-1.1, 3-1.2, 4-1.3, 4-3.1, 5-1.1, 5-1.2, 5-2.3, 10-1.1

ROAD 239

PYLES FORD ROAD

ROAD NUMBER: 239

ROAD NAMES: Pyles Ford Road

STARTING LOCATION: 262 - New London Road (Rt. 82)

ENDING LOCATION: 9 - Kennett Pike (Rt. 52)

CURRENT STATUS:

Land ownership pattern: Agricultural/
Pasture land, Public/Private open space, private owned land, eased land

Preservation in place: Some land in Public/Private open space on north side of road (near intersection of Walnut Green Road)

MANAGEMENT OBJECTIVES/STRATEGIES:
(individual road management strategies that relate to the overall byway network)

Obtain greater protection for the roadway and its scenic, natural, and historic resources through combinations of the following:

- Seek conservation easements or fee-simple purchase adjacent to land now held as public/ private open space
- Consider scenic road corridor easements within road viewshed
- Consider context sensitive design for private land undergoing conversion
- Consider additional protection in NCC UDC for road corridor
- Pursue byway linkages throughout watershed
- Consider voluntary landowner protection agreements
- See Strategies 1-1.1, 1-1.3, 1-3.2, 2-1.2, 3-1.1, 3-1.2, 4-1.3, 4-3.1, 5-1.1, 5-1.2, 5-2.3, 10-1.1

ROAD 240

OWLS NEST ROAD

ROAD NUMBER: 240

ROAD NAMES: Owls Nest Road

STARTING

LOCATION: 242 - Campbell Road
(Rt. 82)

ENDING

LOCATION: 9 - Kennett Pike (Rt. 52)

CURRENT STATUS:

Land ownership pattern: Agricultural/
Pasture land, Forest, private owned land

Preservation in place: No public or private protection in place currently other than protection offered by private landowners

MANAGEMENT OBJECTIVES/STRATEGIES:

(individual road management strategies that relate to the overall byway network)

Obtain greater protection for the roadway and its scenic, natural, and historic resources through combinations of the following:

- Consider seeking conservation easements or fee-simple purchase where appropriate and feasible – low priority given that no protected land currently exists
- Consider scenic road corridor easements within road viewshed
- Strongly consider context sensitive design for private land undergoing conversion (no land currently protected)
- Consider additional protection in NCC UDC for road corridor
- Pursue byway linkages throughout watershed
- Consider voluntary landowner protection agreements
- See Strategies 1-1.1, 1-3.2, 2-1.2, 3-1.1, 3-1.2, 4-1.3, 4-3.1, 5-1.1, 5-1.2, 5-2.3, 10-1.1

ROAD 241

WAY ROAD

ROAD NUMBER: 241

ROAD NAMES: Way Road

STARTING

LOCATION: 261 - Creek Road (Rt. 82)

ENDING

LOCATION: 243 - Old Kennett Road

CURRENT STATUS:

Land ownership pattern: Agricultural/
Pasture land, DNS owned/eased land,
private owned land

Preservation in place: Several parcels of land owned and/or eased by DNS on north and south sides of road

MANAGEMENT OBJECTIVES/STRATEGIES:

(individual road management strategies that relate to the overall byway network)

Obtain greater protection for the roadway and its scenic, natural, and historic resources through combinations of the following:

- Seek conservation easements or fee-simple purchase adjacent to land now held by DNS
- Consider scenic road corridor easements within road viewshed
- Consider context sensitive design for private land undergoing conversion
- Consider additional protection in NCC UDC for road corridor
- Pursue byway linkages throughout watershed
- Consider voluntary landowner protection agreements
- See Strategies 1-1.1, 1-1.3, 1-3.2, 2-1.2, 3-1.1, 3-1.2, 4-1.3, 4-3.1, 5-1.1, 5-1.2, 5-2.3, 10-1.1

ROAD 242

CAMPBELL ROAD

ROAD NUMBER: 242

ROAD NAMES: Campbell Road (Rt. 82)
Walnut Green Road

STARTING LOCATION: 239 - Pyles Ford Road

ENDING LOCATION: 9 - Kennett Pike (Rt. 52)

CURRENT STATUS:

Land ownership pattern: Agricultural/
Pasture land, Public/Private open space,
private owned land

Preservation in place: Land in Public/Private open space on north and south sides of road (Hoopes Reservoir and Valley Garden Park)

MANAGEMENT OBJECTIVES/STRATEGIES:
(individual road management strategies that relate to the overall byway network)

Obtain greater protection for the roadway and its scenic, natural, and historic resources through combinations of the following:

- Seek conservation easements or fee-simple purchase adjacent to land now held as public/ private open space
- Consider scenic road corridor easements within road viewshed
- Consider context sensitive design for private land undergoing conversion
- Consider additional protection in NCC UDC for road corridor
- Pursue byway linkages throughout watershed
- Consider voluntary landowner protection agreements
- See Strategies 1-1.1, 1-1.3, 1-3.2, 2-1.2, 3-1.1, 3-1.2, 4-1.3, 4-3.1, 5-1.1, 5-1.2, 5-2.3, 10-1.1

ROAD 243

OLD KENNETT ROAD

ROAD NUMBER: 243

ROAD NAMES: Old Kennett Road

STARTING LOCATION: DE/PA State Line

ENDING LOCATION: 9 - Kennett Pike (Rt. 52)

CURRENT STATUS:

Land ownership pattern: Agricultural/
Pasture land, DNS owned/eased land,
private owned land

Preservation in place: Several parcels of land owned and/or eased by DNS on north and south sides of road

MANAGEMENT OBJECTIVES/STRATEGIES:
(individual road management strategies that relate to the overall byway network)

Obtain greater protection for the roadway and its scenic, natural, and historic resources through combinations of the following:

- Seek conservation easements or fee-simple purchase adjacent to land now held by DNS
- Consider scenic road corridor easements within road viewshed
- Consider context sensitive design for private land undergoing conversion
- Consider additional protection in NCC UDC for road corridor
- Pursue byway linkages throughout watershed
- Consider voluntary landowner protection agreements
- See Strategies 1-1.1, 1-1.3, 1-3.2, 2-1.2, 3-1.1, 3-1.2, 4-1.3, 4-3.1, 5-1.1, 5-1.2, 5-2.3, 10-1.1

ROAD 244

SNUFF MILL ROAD (Upper)

ROAD NUMBER: 244

ROAD NAMES: Snuff Mill Road

STARTING LOCATION: 243 - Old Kennett Road

ENDING LOCATION: 9 - Kennett Pike (Rt. 52)

CURRENT STATUS:

Land ownership pattern: Agricultural/
Pasture land, DNS owned/eased land,
private owned land

Preservation in place: Several parcels of land
owned and/or eased by DNS on north side of road

MANAGEMENT OBJECTIVES/STRATEGIES:
(individual road management strategies that relate
to the overall byway network)

Obtain greater protection for the roadway and its
scenic, natural, and historic resources through
combinations of the following:

- Seek conservation easements or fee-simple purchase adjacent to land now held by DNS
- Consider scenic road corridor easements within road viewshed
- Consider context sensitive design for private land undergoing conversion
- Consider additional protection in NCC UDC for road corridor
- Pursue byway linkages throughout watershed
- Consider voluntary landowner protection agreements
- See Strategies 1-1.1, 1-1.3, 1-3.2, 2-1.2, 3-1.1, 3-1.2, 4-1.3, 4-3.1, 5-1.1, 5-1.2, 5-2.3, 10-1.1

ROAD 246/248

CENTER MILL ROAD

ROAD NUMBER: 246/248

ROAD NAMES: Center Mill Road

STARTING LOCATION: DE/PA State Line

ENDING LOCATION: 287 - Ashland-Clinton School Rd

CURRENT STATUS:

Land ownership pattern: Agricultural/
Pasture land, DNS owned/eased land,
private owned land

Preservation in place: Several parcels of land
owned and/or eased by DNS on east and west
sides of road (bordering Ashland-Clinton School
Rd)

MANAGEMENT OBJECTIVES/STRATEGIES:
(individual road management strategies that relate
to the overall byway network)

Obtain greater protection for the roadway and its
scenic, natural, and historic resources through
combinations of the following:

- Seek conservation easements or fee-simple purchase adjacent to land now held by DNS
- Consider scenic road corridor easements within road viewshed
- Consider context sensitive design for private land undergoing conversion
- Consider additional protection in NCC UDC for road corridor
- Pursue byway linkages throughout watershed
- Consider voluntary landowner protection agreements
- See Strategies 1-1.1, 1-1.3, 1-3.2, 2-1.2, 3-1.1, 3-1.2, 4-1.3, 4-3.1, 5-1.1, 5-1.2, 5-2.3, 10-1.1

ROAD 247

SNUFF MILL ROAD (Lower)

ROAD NUMBER: 247

ROAD NAMES: Snuff Mill Road
Creek Road (Rt. 82)

STARTING LOCATION: DE/PA State Line

ENDING LOCATION: 243 - Old Kennett Road

CURRENT STATUS:
Land ownership pattern: Agricultural/
Pasture land, DNS owned/eased land,
private owned land

Preservation in place: Several parcels of land owned and/or eased by DNS on south side of road

MANAGEMENT OBJECTIVES/STRATEGIES:
(individual road management strategies that relate to the overall byway network)

Obtain greater protection for the roadway and its scenic, natural, and historic resources through combinations of the following:

- Seek conservation easements or fee-simple purchase adjacent to land now held by DNS
- Consider scenic road corridor easements within road viewshed
- Consider context sensitive design for private land undergoing conversion
- Consider additional protection in NCC UDC for road corridor
- Pursue byway linkages throughout watershed
- Consider voluntary landowner protection agreements
- See Strategies 1-1.1, 1-1.3, 1-3.2, 2-1.2, 3-1.1, 3-1.2, 4-1.3, 4-3.1, 5-1.1, 5-1.2, 5-2.3, 10-1.1

ROAD 250

UPPER SNUFF MILL ROW

ROAD NUMBER: 250

ROAD NAMES: Upper Snuff Mill Row
Lower Snuff Mill Row

STARTING LOCATION: 247 - Creek Road (Rt. 82)

ENDING LOCATION: 247 - Snuff Mill Road

CURRENT STATUS:
Land ownership pattern: Agricultural/
Pasture land, Public/Private open space,
private owned land

Preservation in place: Land in Public/Private open space, parcel owned and/or eased by DNS in viewshed

MANAGEMENT OBJECTIVES/STRATEGIES:
(individual road management strategies that relate to the overall byway network)

Obtain greater protection for the roadway and its scenic, natural, and historic resources through combinations of the following:

- Consider context sensitive design for remaining private land
- Consider additional protection in NCC UDC for road corridor (historic character)
- Pursue byway linkages throughout watershed
- See Strategies 2-1.2, 3-1.2, 4-1.3, 4-3.1, 5-1.1, 5-1.2, 5-2.3, 10-1.1

ROAD 251

SHARPLESS ROAD

ROAD NUMBER: 251

ROAD NAMES: Sharpless Road

STARTING LOCATION: 261 - Creek Road (Rt. 82)

ENDING LOCATION: 275 - Old Wilmington Road

CURRENT STATUS:

Land ownership pattern: Forest land, some agricultural/pasture land, Public/Private open space, private owned land

Preservation in place: Land in Public/Private open space on south side of road (adjacent to Red Clay Creek)

MANAGEMENT OBJECTIVES/STRATEGIES: (individual road management strategies that relate to the overall byway network)

Obtain greater protection for the roadway and its scenic, natural, and historic resources through combinations of the following:

- To the extent possible, consider seeking conservation easements or fee-simple purchase adjacent to land now held as public/ private open space
- Consider context sensitive design for remaining private land undergoing conversion
- Pursue byway linkages throughout watershed
- Consider voluntary landowner protection agreements
- See Strategies 1-1.1, 1-1.3, 1-3.2, 2-1.2, 3-1.2, 4-1.3, 4-3.1, 5-1.1, 5-1.2, 5-2.3, 10-1.1

ROAD 252

AUBURN MILL ROAD

ROAD NUMBER: 252

ROAD NAMES: Auburn Mill Road

STARTING LOCATION: 253 - Old Public Road

ENDING LOCATION: 254 - Lee Road

CURRENT STATUS:

Land ownership pattern: Agricultural/Pasture land, Forest, private owned land

Preservation in place: No public or private protection in place currently other than protection offered by private landowners

MANAGEMENT OBJECTIVES/STRATEGIES: (individual road management strategies that relate to the overall byway network)

Obtain greater protection for the roadway and its scenic, natural, and historic resources through combinations of the following:

- Consider seeking conservation easements or fee-simple purchase where appropriate and feasible – low priority given that no protected land currently exists
- Consider scenic road corridor easements within road viewshed
- Strongly consider context sensitive design for private land undergoing conversion (no land currently protected)
- Consider additional protection in NCC UDC for road corridor
- Pursue byway linkages throughout watershed
- Consider voluntary landowner protection agreements
- See Strategies 1-1.1, 1-3.2, 2-1.2, 3-1.1, 3-1.2, 4-1.3, 4-3.1, 5-1.1, 5-1.2, 5-2.3, 10-1.1

ROAD 253

OLD PUBLIC ROAD

ROAD NUMBER: 253/255

ROAD NAMES: Old Public Road
Benge Road

STARTING LOCATION: 247 - Creek Road (Rt. 82)

ENDING LOCATION: Dead End

CURRENT STATUS:

Land ownership pattern: Forest, private owned land, Public/Private open space, single family residential, small stand of woods

Preservation in place: Small piece of public/ private open space, portion of land in Public/Private open space on north side of road; no other public or private protection in place currently other than protection offered by individual residential lot owners

MANAGEMENT OBJECTIVES/STRATEGIES: (individual road management strategies that relate to the overall byway network)

Obtain greater protection for the roadway and its scenic, natural, and historic resources through combinations of the following:

- Consider seeking conservation easements or fee-simple purchase where appropriate and feasible – low priority given that little protected land currently exists and much of corridor is lotted out
- Strongly consider context sensitive design for remaining private land undergoing conversion
- Consider additional protection in NCC UDC for road corridor
- Pursue byway linkages throughout watershed
- Consider voluntary landowner protection agreements
- Consider management strategies for protection of land held as public/private open space
- Consider more attractive and functional alternative drainage systems when road resurfacing is undertaken (given scenic road characteristics)
- See Strategies 1-1.1, 1-1.3, 1-3.2, 2-1.2, 3-1.1, 3-1.2, 4-1.3, 4-3.1, 5-1.1, 5-1.2, 5-2.3, 10-1.1

ROAD 256

NINE GATES ROAD

ROAD NUMBER: 256

ROAD NAMES: Nine Gates Road
Cloud Road

STARTING LOCATION: DE/PA State Line

ENDING LOCATION: 250 - Upper Snuff Mill Row

CURRENT STATUS:

Land ownership pattern: Agricultural/ Pasture land, Forest, private owned land

Preservation in place: No public or private protection in place currently other than protection offered by private landowners

MANAGEMENT OBJECTIVES/STRATEGIES: (individual road management strategies that relate to the overall byway network)

Obtain greater protection for the roadway and its scenic, natural, and historic resources through combinations of the following:

- Consider seeking conservation easements or fee-simple purchase where appropriate and feasible – low priority given that no protected land currently exists
- Consider scenic road corridor easements within road viewshed
- Strongly consider context sensitive design for private land undergoing conversion (no land currently protected)
- Consider additional protection in NCC UDC for road corridor
- Pursue byway linkages throughout watershed
- Consider voluntary landowner protection agreements
- See Strategies 1-1.1, 1-3.2, 2-1.2, 3-1.1, 3-1.2, 4-1.3, 4-3.1, 5-1.1, 5-1.2, 5-2.3, 10-1.1

ROAD 257

YORKLYN ROAD

ROAD NUMBER: 257

ROAD NAMES: Yorklyn Road

STARTING LOCATION: 247 - Creek Road (Rt. 82)

ENDING LOCATION: 275 - Old Wilmington Road

CURRENT STATUS:

Land ownership pattern: Forest, private owned land

Preservation in place: No public or private protection in place currently other than protection offered by private landowners

MANAGEMENT OBJECTIVES/STRATEGIES: (individual road management strategies that relate to the overall byway network)

Obtain greater protection for the roadway and its scenic, natural, and historic resources through combinations of the following:

- Consider scenic road corridor easements within road viewshed
- Pursue byway linkages throughout watershed
- Consider voluntary landowner protection agreements
- See Strategies 2-1.2, 3-1.2, 4-1.3, 4-3.1, 5-1.1, 5-1.2, 5-2.3, 10-1.1

ROAD 258/258A

BARLEY MILL ROAD

ROAD NUMBER: 258/258A

ROAD NAMES: Barley Mill Road, Wooddale Road

STARTING LOCATION: 261 - Creek Road (Rt. 82)

ENDING LOCATION: 263 - Rolling Mill Road

CURRENT STATUS:

Land ownership pattern: Agricultural/Pasture land, Forest, Public/Private open space, private owned land

Preservation in place: Land in Public/Private open space on north and south ends of road

MANAGEMENT OBJECTIVES/STRATEGIES: (individual road management strategies that relate to the overall byway network)

Obtain greater protection for the roadway and its scenic, natural, and historic resources through combinations of the following:

- Seek conservation easements or fee-simple purchase adjacent to land now held as public/ private open space
- Consider scenic road corridor easements within road viewshed
- Consider context sensitive design for private land undergoing conversion
- Consider additional protection in NCC UDC for road corridor
- Pursue byway linkages throughout watershed
- Consider voluntary landowner protection agreements
- See Strategies 1-1.1, 1-1.3, 1-3.2, 2-1.2, 3-1.1, 3-1.2, 4-1.3, 4-3.1, 5-1.1, 5-1.2, 5-2.3, 10-1.1

ROAD 259

BARLEY MILL ROAD

ROAD NUMBER: 259

ROAD NAMES: Barley Mill Road

STARTING
LOCATION: 263 - Rolling Mill Road

ENDING
LOCATION: Delaware Rt. 141

CURRENT STATUS:

Land ownership pattern: Forest, Public/ Private open space, private owned land, single family residential, several stands of woods, sizable school property with Public/Private open space

Preservation in place: Land in Public/ Private open space on south side of road, land in Public/Private open space associated with school; otherwise no public or private protection in place currently other than protection offered by individual residential lot owners.

MANAGEMENT OBJECTIVES/STRATEGIES:
(individual road management strategies that relate to the overall byway network)

Obtain greater protection for the roadway and its scenic, natural, and historic resources through combinations of the following:

- Seek conservation easements or fee-simple purchase adjacent to land now held as public/ private open space
- Consider scenic road corridor easements within road viewshed
- Consider context sensitive design for private land undergoing conversion
- Consider additional protection in NCC UDC for road corridor
- Pursue byway linkages throughout watershed
- Consider voluntary landowner protection agreements
- Consider working with school to develop management strategies for protection of land held as public/private open space
- See Strategies 1-1.1, 1-1.3, 1-3.2, 2-1.2, 3-1.1, 3-1.2, 4-1.3, 4-3.1, 5-1.1, 5-1.2, 5-2.3, 10-1.1

ROAD 261

MT. CUBA ROAD

ROAD NUMBER: 261

ROAD NAMES: Mt. Cuba Road
Creek Road (Rt. 82)

STARTING
LOCATION: 247 - Snuff Mill Road

ENDING
LOCATION: 258 - Barley Mill Road

CURRENT STATUS:

Land ownership pattern: Agricultural/ Pasture land, Forest, Public/Private open space, private owned land, eased land

Preservation in place: Land in Public/Private open space on east side of road

MANAGEMENT OBJECTIVES/STRATEGIES:
(individual road management strategies that relate to the overall byway network)

Obtain greater protection for the roadway and its scenic, natural, and historic resources through combinations of the following:

- Seek conservation easements or fee-simple purchase adjacent to land now held as public/ private open space
- Consider scenic road corridor easements within road viewshed
- Consider context sensitive design for private land undergoing conversion
- Consider additional protection in NCC UDC for road corridor
- Pursue byway linkages throughout watershed
- Consider voluntary landowner protection agreements
- See Strategies 1-1.1, 1-1.3, 1-3.2, 2-1.2, 3-1.1, 3-1.2, 4-1.3, 4-3.1, 5-1.1, 5-1.2, 5-2.3, 10-1.1

ROAD 262

NEW LONDON ROAD

ROAD NUMBER: 262

ROAD NAMES: New London Road (Rt. 82)
Pyles Ford Road (Rt. 82)

STARTING LOCATION: 261 - Mt. Cuba Road

ENDING LOCATION: 242 - Campbell Road

CURRENT STATUS:

Land ownership pattern: Agricultural/
Pasture land, Forest, Public/Private open space,
private owned land, eased land

Preservation in place: Land in Public/Private open
space on south side of road

MANAGEMENT OBJECTIVES/STRATEGIES:
(individual road management strategies that relate
to the overall byway network)

Obtain greater protection for the roadway and its
scenic, natural, and historic resources through
combinations of the following:

- Seek conservation easements or fee-simple purchase adjacent to land now held as public/ private open space
- Consider scenic road corridor easements within road viewshed
- Consider context sensitive design for private land undergoing conversion
- Consider additional protection in NCC UDC for road corridor
- Pursue byway linkages throughout watershed
- Consider voluntary landowner protection agreements
- See Strategies 1-1.1, 1-1.3, 1-3.2, 2-1.2, 3-1.1, 3-1.2, 4-1.3, 4-3.1, 5-1.1, 5-1.2, -2.3, 10-1.1

ROAD 262A

CREEK ROAD

ROAD NUMBER: 262A

ROAD NAMES: Creek Road (Rt. 82)

STARTING LOCATION: 261 - Mt. Cuba Road

ENDING LOCATION: 239 - Pyles Ford Road

CURRENT STATUS:

Land ownership pattern: Forest, private owned
land

Preservation in place: No public or private protection in place currently other than protection offered by private landowners

MANAGEMENT OBJECTIVES/STRATEGIES:
(individual road management strategies that relate
to the overall byway network)

Obtain greater protection for the roadway and its
scenic, natural, and historic resources through
combinations of the following:

- Consider seeking conservation easements or fee-simple purchase where appropriate and feasible
- Consider scenic road corridor easements within road viewshed
- Strongly consider context sensitive design for private land undergoing conversion (no land currently protected)
- Consider additional protection in NCC UDC for road corridor
- Pursue byway linkages throughout watershed
- Consider voluntary landowner protection agreements
- See Strategies 1-1.1, 1-1.3, 1-3.2, 2-1.2, 3-1.1, 3-1.2, 4-1.3, 4-3.1, 5-1.1, 5-1.2, 5-2.3, 5-2.4, 10-1.1

ROAD 263

ROLLING MILL ROAD

ROAD NUMBER: 263

ROAD NAMES: Rolling Mill Road

STARTING LOCATION: 237 - Lancaster Pike (Rt. 48)

ENDING LOCATION: 258/259 - Barley Mill Road

CURRENT STATUS:
Land ownership pattern: Forest, private owned land

Preservation in place: No public or private protection in place currently other than protection offered by private landowners

MANAGEMENT OBJECTIVES/STRATEGIES:
(individual road management strategies that relate to the overall byway network)

Obtain greater protection for the roadway and its scenic, natural, and historic resources through combinations of the following:

- Consider seeking conservation easements or fee-simple purchase where appropriate and feasible
- Consider scenic road corridor easements within road viewshed
- Strongly consider context sensitive design for private land undergoing conversion (no land currently protected)
- Consider additional protection in NCC UDC for road corridor
- Pursue byway linkages throughout watershed
- Consider voluntary landowner protection agreements
- See Strategies 1-1.1, 1-1.3, 1-3.2, 2-1.2, 3-1.1, 3-1.2, 4-1.3, 4-3.1, 5-1.1, 5-1.2, 5-2.3, 10-1.1

ROAD 264

HILLSIDE ROAD

ROAD NUMBER: 264

ROAD NAMES: Hillside Road

STARTING LOCATION: 273 - Centerville Road

ENDING LOCATION: 9 - Kennett Pike (Rt. 52)

CURRENT STATUS:
Land ownership pattern: Agricultural/
Pasture land, Forest, private owned land

Preservation in place: No public or private protection in place currently other than protection offered by private landowners; Valley Garden Park extends almost to road corridor

MANAGEMENT OBJECTIVES/STRATEGIES:
(individual road management strategies that relate to the overall byway network)

Obtain greater protection for the roadway and its scenic, natural, and historic resources through combinations of the following:

- Consider seeking conservation easements or fee-simple purchase where appropriate and feasible (near Valley Garden Park)
- Consider scenic road corridor easements within road viewshed
- Strongly consider context sensitive design for private land undergoing conversion (no land currently protected)
- Consider additional protection in NCC UDC for road corridor
- Pursue byway linkages throughout watershed
- Consider voluntary landowner protection agreements
- See Strategies 1-1.1, 1-1.3, 1-3.2, 2-1.2, 3-1.1, 3-1.2, 4-1.3, 4-3.1, 5-1.1, 5-1.2, 5-2.3, 10-1.1

ROAD 269

HILLSIDE MILL ROAD

ROAD NUMBER: 269

ROAD NAMES: Hillside Mill Road

STARTING
LOCATION: 262 - New London Road
(Rt. 82)

ENDING
LOCATION: 261 - Mt. Cuba Road

CURRENT STATUS:

Land ownership pattern: Agricultural/ Pasture land, Forest, Public/Private Open Space (Hoopes Reservoir), private owned land

Preservation in place: Land in Public/Private open space on south and north sides of road (Hoopes Reservoir)

MANAGEMENT OBJECTIVES/STRATEGIES:
(individual road management strategies that relate to the overall byway network)

Obtain greater protection for the roadway and its scenic, natural, and historic resources through combinations of the following:

- Seek conservation easements or fee-simple purchase adjacent to land now held as public/ private open space (Hoopes Reservoir)
- Consider scenic road corridor easements within road viewshed
- Consider context sensitive design for private land undergoing conversion
- Consider additional protection in NCC UDC for road corridor
- Pursue byway linkages throughout watershed
- Consider voluntary landowner protection agreements
- See Strategies 1-1.1, 1-1.3, 1-3.2, 2-1.2, 3-1.1, 3-1.2, 4-1.3, 4-3.1, 5-1.1, 5-1.2, 5-2.3, 10-1.1

ROAD 273

CENTERVILLE ROAD

ROAD NUMBER: 273

ROAD NAMES: Centerville Road

STARTING
LOCATION: 242 - Campbell Road
(Rt. 82)

ENDING
LOCATION: 259 - Barley Mill Road

CURRENT STATUS:

Land ownership pattern: Forest, Public/ Private Open Space (Hoopes Reservoir and Valley Garden Park), private owned land, single family residential, several stands of roadside trees, Public/Private open space affiliated with Stonewold development

Preservation in place: Land in Public/ Private open space on east and west sides of road (Hoopes Reservoir and Valley Garden Park), Land in Public/Private open space associated with Stonewold development; otherwise no public or private protection in place currently other than protection offered by individual residential lot owners.

MANAGEMENT OBJECTIVES/STRATEGIES:
(individual road management strategies that relate to the overall byway network)

Obtain greater protection for the roadway and its scenic, natural, and historic resources through combinations of the following:

- Seek conservation easements or fee-simple purchase adjacent to land now held as public/ private open space (Hoopes Reservoir and Valley Garden Park)
- Consider scenic road corridor easements within road viewshed
- Consider context sensitive design for private land undergoing conversion
- Consider additional protection in NCC UDC for road corridor
- Pursue byway linkages throughout watershed
- Consider voluntary landowner protection agreements
- Consider management strategies for protection of land held as public/private open space
- See Strategies 1-1.1, 1-1.3, 1-3.2, 2-1.2, 3-1.1, 3-1.2, 4-1.3, 4-3.1, 5-1.1, 5-1.2, 5-2.3, 10-1.1

ROAD 274

BRACKENVILLE ROAD

ROAD NUMBER: 274

ROAD NAMES: Brackenville Road
Brackenville Mill Road

STARTING LOCATION: 275 - Old Wilmington Road

ENDING LOCATION: 258 - Barley Mill Road

CURRENT STATUS:

Land ownership pattern: Forest, Public/ Private
Open Space, private owned land

Preservation in place: Land in Public/Private open
space on north side of road

MANAGEMENT OBJECTIVES/STRATEGIES:
(individual road management strategies that relate
to the overall byway network)

Obtain greater protection for the roadway and its
scenic, natural, and historic resources through
combinations of the following:

- Seek conservation easements or fee-simple purchase adjacent to land now held as public/ private open space
- Consider scenic road corridor easements within road viewshed
- Consider context sensitive design for private land undergoing conversion
- Consider additional protection in NCC UDC for road corridor
- Pursue byway linkages throughout watershed
- Consider voluntary landowner protection agreements
- See Strategies 1-1.1, 1-1.3, 1-3.2, 2-1.2, 3-1.1, 3-1.2, 4-1.3, 4-3.1, 5-1.1, 5-1.2, 5-2.3, 10-1.1

ROAD 275

OLD WILMINGTON ROAD

ROAD NUMBER: 275

ROAD NAMES: Old Wilmington Road

STARTING LOCATION: 276 - Loveville Road

ENDING LOCATION: 257 - Yorklyn Road

CURRENT STATUS:

Land ownership pattern: Small amount of
Agricultural/Pasture land, private owned land

Preservation in place: No public or private protection in place currently other than protection offered by private landowners

MANAGEMENT OBJECTIVES/STRATEGIES:
(individual road management strategies that relate
to the overall byway network)

Obtain greater protection for the roadway and its
scenic, natural, and historic resources through
combinations of the following:

- Strongly consider context sensitive design for private land undergoing conversion (no land currently protected)
- Pursue byway linkages throughout watershed
- See Strategies 2-1.2, 3-1.2, 4-1.3, 4-3.1, 5-1.2, 5-2.3, 10-1.1

ROAD 287

ASHLAND-CLINTON SCHOOL ROAD

ROAD NUMBER: 287

ROAD NAMES: Ashland-Clinton School Rd
Ashland Road
Ashland School Road

STARTING LOCATION: 261 - Creek Road (Rt. 82)

ENDING LOCATION: 243 - Old Kennett Road

CURRENT STATUS:

Land ownership pattern: Agricultural/ Pasture land, Forest, DNS owned/eased land, private owned land

Preservation in place: Several parcels of land owned and/or eased by DNS on north and south sides of road

MANAGEMENT OBJECTIVES/STRATEGIES:
(individual road management strategies that relate to the overall byway network)

Obtain greater protection for the roadway and its scenic, natural, and historic resources through combinations of the following:

- Seek conservation easements or fee-simple purchase adjacent to land now held by DNS
- Consider scenic road corridor easements within road viewshed
- Consider context sensitive design for private land undergoing conversion
- Consider additional protection in NCC UDC for road corridor
- Pursue byway linkages throughout watershed
- Consider voluntary landowner protection agreements
- See Strategies 1-1.1, 1-1.3, 1-3.2, 2-1.2, 3-1.1, 3-1.2, 4-1.3, 4-3.1, 5-1.1, 5-1.2, 5-2.3, 10-1.1



Chapter 7

Plan Implementation

Chapter 6 initiates the process of plan implementation by fully articulating the Preservation and Management Strategies needed to implement the Goals and Objectives of the Corridor Management Plan. This chapter is intended to outline the various players involved in implementation, from the Delaware Nature Society to the myriad of partners who assisted with the creation of the plan, examine potential funding sources for implementation activities, and outline a phased schedule for plan implementation.

A. CORRIDOR MANAGEMENT: THE DELAWARE NATURE SOCIETY AS COORDINATING AGENCY

The Delaware Nature Society (DNS) has served as the Coordinating Agency for the Red Clay Valley Scenic Byway from the initiation of plans to first nominate the Byway for inclusion in the state’s Scenic and Historic Highways program through preparation of the Corridor Management Plan. One of the management strategies identified in Chapter 6 is to “officially designate the Delaware Nature Society as the “Coordinating

Agency” for the Red Clay Valley Scenic Byway.” The intent of this strategy is to ensure DNS’s continued role as Coordinating Agency during implementation of the Corridor Management Plan.

As the Coordinating Agency, DNS will continue efforts to secure funding for implementation of the Corridor Management Plan and for related staff administration and coordination responsibilities. DNS may engage partnering organizations in this effort as appropriate. Several potential funding sources are listed herein.

Throughout the development of the Corridor Management Plan and Nomination Application, DNS has coordinated and facilitated Byway activities with the participation of a Steering Committee composed of those organizations listed in Section B below. One additional subcommittee, the Context Sensitive Design Subcommittee, was formed by the Steering Committee to compile an appendix to the Plan entitled Context Sensitive Design for the Red Clay Valley Scenic Byway.

B. BYWAY PARTNERS AND THE BYWAY MANAGEMENT COMMITTEE

It is intended that the existing Steering Committee for this plan will transition into a management entity that will meet as needed to address

major issues facing the Byway and facilitate opportunities for implementing the plan.

Commitments will be secured from individuals and organizations represented on the Steering Committee and other stakeholders that participated in the preparation of this Plan to serve as members of a new “Red Clay Valley Scenic Byway Management Committee.” The Committee will work in conjunction with the Coordinating Agency to implement the Corridor Management Plan and respond in a timely manner to major issues facing the Byway. From an organizational standpoint, this Committee will function as an alliance, or partnership, of individuals and organizations committed to the protection of the Red Clay Valley. Each contributing member of the alliance or partnership will be entitled to one vote. The presence in person or by proxy of 50% of the members entitled to vote shall be necessary and sufficient to constitute a quorum for the transaction of any business at any meeting of the Red Clay Valley Scenic Byway Management Committee. The act of the majority of the alliance members or partners present at a meeting at which a quorum is present shall be the act of the Committee. Ad-hoc subcommittees will be created as needed to undertake specific tasks.

A wide variety of planning partners have provided valuable guidance and technical support for the Red Clay Valley Scenic Byway, among them: local organizations, governmental agencies, businesses, legislators, and private individuals. It is anticipated that such partners will continue to be involved in the management of the Byway and in implementation of Byway projects. The following entities have served on the Steering Committee or been project sponsors for this effort:

- New Castle County
- Delaware Department of Transportation (DelDOT)
- Wilmington Area Planning Council (WILMAPCO)
- Delaware Department of Natural Resources and Environmental Control (DNREC) State Resource Area planning, Natural Areas Program, Natural Heritage Program, State Parks, etc.
- Delaware State Office of Historic and Cultural Affairs
- Red Clay Valley Association

- Brandywine Conservancy
- Historic Red Clay, Inc.
- Red Clay Reservation
- Wilmington and Western Railroad
- Mt. Cuba Center
- Preservation Delaware
- Delaware Greenways, Inc.
- Center for the Creative Arts
- The Yorklyn Planning Group
- The Chesapeake Bay Girl Scouts Council
- Delaware Center for Horticulture

In addition, several individuals, some of whom are Byway residents, have devoted their skills and expertise to this effort and their continued involvement is encouraged.

C. POTENTIAL FUNDING SOURCES

Funding for Byway projects will by necessity come from a variety of sources, including federal, state, and county programs, institutional/ foundation support, and private partners. Since it is not the intention of this effort to seek federal scenic byway status at this time, some limitations may exist regarding eligibility for federal grants; regardless, several federal grant programs simply require adherence to state standards for eligibility. Although such funds are quite competitive, particularly given the likely number of applications submitted by federal program designees, opportunities are nonetheless available and should be pursued. The unique nature of the Red Clay Valley Scenic Byway will likely make such grant applications attractive to funders despite the lack of federal designation.

It should be noted that many funding programs require local matches, either in dollars or in-kind contributions of time and labor.

Listed below are many of the likely funding options available to assist with implementation of the Corridor Management Plan.

Federal Programs

Federal Highway Administration (FHWA) – National Scenic Byways Program

Within the U.S. Department of Transportation, the FHWA has the lead responsibility for the National Scenic Byways Program (10). The Program is a grass-roots collaborative effort estab-

lished to help recognize, preserve and enhance selected roads throughout the United States.

The Secretary of Transportation makes grants to States to implement projects on highways designated as state scenic byways (and other roads, such as National Scenic Byways). Funds are provided on a cost reimbursement basis. The maximum Federal share is 80 percent. DNS and its program partners will have to work through DelDOT and its State Byways Coordinator to determine eligibility for grants and steps for submitting applications under this program.

There are eight categories of eligible project activities (although some are not necessarily applicable to the Red Clay Valley Scenic Byway, all are listed here for future reference):

1. An activity related to the planning, design, or development of a State scenic byway program.
2. Development and implementation of a corridor management plan to maintain the scenic, historical, recreational, cultural, natural, and archaeological characteristics of a byway corridor while providing for accommodation of increased tourism and development of related amenities.
3. Safety improvements to a State scenic byway to the extent that the improvements are necessary to accommodate increased traffic and changes in the types of vehicles using the highway as a result of the designation as a State scenic byway.
4. Construction along a scenic byway of a facility for pedestrians and bicyclists, rest area, turnout, highway shoulder improvement, overlook, or interpretive facility.
5. An improvement to a scenic byway that will enhance access to an area for the purpose of recreation, including water-related recreation.
6. Protection of scenic, historic, recreational, cultural, natural, and archaeological resources in an area adjacent to a scenic byway.
7. Development and provision of tourist information to the public, including interpretive information about a scenic byway.
8. Development and implementation of a scenic byway marketing program.

It should be noted that special emphasis is placed on how proposed projects benefit byway travelers. FHWA expects an applicant advancing a project benefiting the general public to propose a larger share of non-byways funds. Once a project is selected, applicants must work with their State Byways Coordinator to implement the project and be reimbursed for eligible expenses. For more information, consult the following: National Scenic Byways Program Guidance at www.bywaysonline.org.

Federal Transportation Enhancement Funds

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and its successor Acts, the Transportation Equity Act for the 21st Century (TEA-21) of 1998 and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), enacted on August 10, 2005, have created many successful programs intended to improve and enhance our transportation system, among them: the National Scenic Byways Program; safety programs for drivers; highway construction programs; transit programs; rail programs; congestion and pollution mitigation programs; bicycle and pedestrian trail programs; and transportation enhancements.

Transportation Enhancement Fund Programs include, but are not limited to: provision of facilities for pedestrians and bicycles; provision of safety and educational activities for pedestrians and bicyclists; acquisition of scenic easements and scenic or historic sites (including historic battlefields); scenic or historic highway programs (including the National Scenic Byways Program); landscaping and other scenic beautification; historic preservation; rehabilitation and operation of historic transportation buildings, structures, or facilities (including historic railroad facilities and canals); preservation of abandoned railway corridors (including the conversion and use of the corridors for pedestrian or bicycle trails); inventory, control, and removal of outdoor advertising; archaeological planning and research; environmental mitigation (to address water pollution due to highway runoff or reduce vehicle-caused

wildlife mortality while maintaining habitat connectivity); and establishment of transportation museums.

While SAFETEA-LU contains numerous other funding programs, most are limited in their focus to state construction projects or projects unrelated to this planning effort. Regardless, opportunities may exist under other funding programs should State support be obtained. The following programs should be discussed with the State's byways coordinator for potential applicability: Urbanized Area Formula Program; State Managed Programs – Formula Programs for Other Than Urbanized Areas; Transportation, Community, and Systems Preservation Program; Bicycle Transportation and Pedestrian Walkways; Recreational Trails Program; and Environmental Stewardship.

Regional Programs and Local Sources of Support

Sources of program funding to match federal support and underwrite projects for which no federal funds are available will be sought from a variety of governmental, institutional, foundation, and private entities and partners.

Government Support

Government support for this project has been widespread, including funding support, participation on the Steering Committee, and involvement in Plan preparation. Governmental partners include local legislators, New Castle County, the Wilmington Area Planning Council (WILMAPCO), the Delaware Department of Transportation, and other state agencies (see subsection B, above). It is anticipated that these governmental partners will continue to be active participants in the implementation of this corridor management plan and will continue to provide various types of financial, administrative, and participatory forms of support in future years.

Much of the success of this effort is due in large measure to the funding provided by New Castle County and the administrative support provided by DeLDOT and WILMAPCO. Their future involvement is paramount to the continued success of this effort.

Institutional and Foundation Support

Additional sources of funding support may be available from the many institutions and foundations that support local organizations and work within the area. Among others, these include local and regional community and private charitable foundations, philanthropic entities associated with major local and regional corporations, and others. Among the many that exist are the following: the ADVANTA Foundation, AstraZeneca, Charles Stewart Mott Foundation, Discover Bank, DuPont Corporation and Community Fund, Fair Play Foundation, Gannett Foundation, Laffey-McHugh Foundation, Longwood Foundation, Pew Charitable Trusts, Welfare Foundation, William Penn Foundation, Wilmington Savings Fund Society, and Wilmington Trust Company.

Collectively, these organizations provide funding for a variety of projects related to such things as environmental conservation, resource protection, historic preservation, public outreach, and planning. These organizations should be researched further in light of identifiable implementation projects and grant applications should be prepared pursuant to organizational submission deadlines.

Private Support through Byway Partners

Byway partners continue to be a source for financial, administrative, and participatory forms of support. These partners and the many private citizens that have expressed interest in this project may be willing to offer their time and efforts in support of implementation activities. In addition, small donations from many people contribute greatly to the whole and provide each with a sense of investment in the successful implementation of the scenic byway. Each partner organization should be encouraged to solicit support from the broader public for identified, mutually beneficial projects.

D. IMPLEMENTATION PHASING

The Red Clay Valley Scenic Byway Corridor Management Plan contains a long list of goals, objectives and resource preservation and management strategies that are intended to be acted upon over several years. The phasing of implementation activities is intended to prioritize implementation

efforts so that work can be accomplished in a timely and efficient manner. The phasing schedule was developed in accordance with staff availability and the perceived strengths of DNS as the Coordinating Agency, the likelihood of funding and the ability of DNS to manage specific projects with or without outside funding, and the possibility that the existing planning team can continue their efforts (including DNS staff, Steering Committee members, and likely consultants).

The list of goals, objectives and resource preservation and management strategies contained in Chapter 6 is divided into four categories: Ongoing Activities, Year 1 Strategies, Years 2-3 Strategies, and Years 3-5 Strategies.

Ongoing Activities

Ongoing activities are those activities that are expected to continue into the future indefinitely. Such activities may be initiated in Year 1 or in some other year, however once initiated, they do not have an identifiable ending.

Year 1 Strategies (*including Years 1-2 activities*)

These projects or strategies are intended to solidify the standing of DNS as the Coordinating Agency, organize the Byway Management Committee, and establish the Byway as a geographic area for which conservation and preservation efforts are underway. Projects or strategies under Year 1 are seen as readily implementable; activities under Years 1-2 are seen as being initiated and most likely completed under Year 1 but may carry over to Year 2.

Years 2-3 Strategies

Years 2-3 strategies are mid-term activities that rely on a greater level of staff and funding, are more complex and require a longer term to accomplish, or have been designed to follow Year 1 activities.

Years 3-5 Strategies

These projects or strategies are long-term activities that require a longer planning horizon, require higher levels of staff and funding, or are considered low priority projects.

The resource preservation and management strategies contained in Chapter 6 were developed by the Steering Committee and the consulting

team. Although implementation is intended to begin with plan adoption, several strategies are already underway; furthermore, since many strategies require outside funding, their implementation will of necessity be a function of available support. While the official time frame for completion is at the conclusion of year five, it is likely that many activities, once initiated, will remain as ongoing activities for the foreseeable future. Others, such as those with specific time frames, may need to be revisited at future dates in order to assess effectiveness. It is anticipated that new activities and strategies will be developed over time as needs arise; it is also quite possible that some of the strategies identified herein will be eliminated or modified due to changes in plan implementation.

E. IMPLEMENTATION OF RESOURCE PRESERVATION AND MANAGEMENT STRATEGIES

The Steering Committee for the Red Clay Valley Scenic Byway has developed an implementation schedule for the resource preservation and management strategies identified in Chapter 6. Two matrices summarizing the goals, objectives and resource preservation and management strategies are included at the end of this chapter; both matrices identify responsible parties (both principal and secondary), the time frame/schedule for the activity, and the funding options and resource needs associated with implementation. The first matrix classifies the Goals, Objectives and Strategies according to Chapter 6; the second matrix contains the same Goals, Objectives and Strategies but organizes them according to the phasing schedule identified in Section D, above.

The budget for implementation is evaluated for Year 1 Strategies and estimates are based upon staff support needed (in hours) to complete the assigned task. It should be noted that “staff support” indicates either DNS staff or consulting staff support, depending upon DNS staff availability and skills. For the sake of determining a budget for Year 1 Strategies, the Steering Committee and the planning team converted the hours assigned in the matrix to dollars and assigned roles for both DNS and outside consultants (see the Year 1 Strategy discussion on next page).

As outlined in the matrices, several of the strategies are ongoing activities that are initiated during several periods of implementation. As stated in Section D, these activities, once started, are anticipated to continue indefinitely. Work on these types of activities may at times be intermittent depending on need and staff availability. Pursuant to this planning effort, DNS, as the Coordinating

brochure, respectively.

Total costs are as follows:

\$32,620 (DNS costs, including administrative and clerical support)

\$32,500 (Consultants, including web consultant, brochure design and printing)

\$65,120 (Total Estimated First Year Budget)

Strategy	Estimated Cost (based on assigned hours)	
	DNS Staff	Consultants
1-1.2	\$3,625	
1-3.2	\$1,500	
2-2.1	\$2,500	\$5,000
3-1.1	\$1,500	\$2,000
3-1.2	\$2,000	\$2,500
3-2.1	\$1,000	\$1,000
4-1.1	\$1,000	\$1,000
4-1.2	\$1,000	\$4,000
4-1.3	\$500	\$500
5-1.2	\$1,500	\$1,000
5-2.3	\$500	\$500
5-2.4	\$500	\$500
6-2.1	\$2,000	\$2,500
8-1.1	\$1,500	\$11,000
10-1.2	\$3,500	
11-1.1	\$3,000	\$1,000
11-2.1	\$2,000	
	\$29,125	\$32,500

Agency, will assume management responsibility for these continuing tasks. It is not known at present whether this type of management responsibility will necessitate funding support in future years.

Year 1 Strategy Funding

Beginning with year one, the strategies listed in the matrix above will be initiated by the Delaware Nature Society consistent with its role as Coordinating Agency.

In addition to the strategies listed above, DNS anticipates the need for approximately \$3,495 to cover the costs of administrative and clerical support for Year 1 (such costs equate to 12% of DNS's project budget). It should also be noted that the consultant tasks for Strategies 2-2.1 and 8-1.1 include \$5,000 for a web consultant and \$10,000 for design and printing of a Byway

Performance measures for Year 1 strategies (and subsequent strategies) will be based upon successful completion of projects in a timely manner within cost. Performance measures for ongoing activities will be based upon review of the status of such activities by the Byway Management Committee, which will meet with DNS staff to assess performance periodically.

It is anticipated that a detailed action plan and budget will be developed for Years 2 through 3 by the third quarter of Year 1; this action plan will presumably prioritize projects within Years 2 and 3 and schedule, consistent with prior experience and accomplishments, future activities. A similar approach will be used to prepare an action plan for Years 3-5.

Implementation Matrices

Project Goals, Objectives and Management Strategies for the Red Clay Valley Scenic Byway

Part 1 – Project Goals and Management Strategies

Part 2 – Implementation Phasing Schedule: Ongoing Activities and Years 1-5

Part I - Project Goals, Objectives and Management Strategies

Goal 1 – Encourage Stewardship Through Continued Conservation	Responsible Parties		Time Frame/ Schedule	Funding Options/ Resource Needs
	Principal	Secondary		
Objective 1-1 Develop a conservation easement program for the byway.				
Management Strategy				
1-1.1 Develop range of easement options (historic house façade easements, scenic corridor easements, voluntary protection agreements) and model easement language. (200 ft. corridor easements, where feasible)	DNS (Coordinating Agency, Monitor, Easement Holder)	Brandywine Conservancy (BC) Natural Lands Trust (NLT), The Nature Conservancy (TNC), RCVSB Management Committee	Year 2-3	Organizational Funding, State, WILMAPCO, County, Foundation Support
1-1.2 Coordinate local land trusts and develop priority list of properties for protection	DNS (Coordinating Agency, Monitor)	BC, NLT, TNC, DNREC, Red Clay Valley Association (RCVA)	Year 1; Ongoing thereafter	Organizational Funding, Foundation Support Staff support: 20 hrs. – yr. 1
1-1.3 Monitor intrinsic qualities, educate landowners; prepare easement brochure and schedule events for landowners	DNS	BC, NLT, TNC, DNREC, RCVA, RCVSB Management Committee	Year 2-3; Ongoing thereafter	Organizational Funding, State, WILMAPCO, Foundation Support
Objective 1-2 Seek funding for land, easements and development rights purchases.				
Management Strategy				
1-2.1 Initiate dialogue with funding agencies for umbrella purchase program	DNS (Coordinating Agency)	BC, NLT, TNC	Year 2-3	Organizational Funding, State, WILMAPCO, County, Foundation Support
1-2.2 Create a revolving fund for land preservation	DNS (Coordinating Agency)	BC, NLT, TNC, DNREC	Year 3-5	Delaware Open Space Council, Delaware and New Castle County farmland preservation programs, Preservation Delaware's Revolving Fund, Reinvested Funds, etc.
1-2.3 Further examine funding options	DNS (Coordinating Agency)	BC, NLT, TNC, DNREC, RCVSB Management Committee	Year 2-3; Ongoing thereafter	Organizational Funding, State, WILMAPCO, County, Foundation Support
Objective 1-3 Link public and private purchase/donation initiatives for interconnected open space.				
Management Strategy				
1-3.1 Determine availability of funding from private foundations	DNS (Coordinating Agency)	BC, NLT, TNC, RCVSB Management Committee	Year 2-3; Ongoing thereafter	Organizational Funding
1-3.2 Encourage developers to set-aside lands to interconnect open space	DNS (Coordinating Agency)	BC, NLT, TNC, RCVSB Management Committee	Year 1; Ongoing	Organizational Funding, Foundation Support, Private Donations (time, \$) Staff support: 15 hrs. – yr. 1
1-3.3 Refine resource inventories to reflect State Resource Areas and Natural Areas programs	DNS (Coordinating Agency)	BC, NLT, TNC, RCVSB Management Committee	Complete; Ongoing	Organizational Funding, State, WILMAPCO, County, Foundation Support
Objective 1-4 Develop a Byway Stewardship Recognition Program for Preservation.				
Management Strategy				
1-4.1 Develop flexible recognition program that respects privacy	DNS (Coordinating Agency) & RCVSB Management Committee	BC, NLT, TNC, DNREC, De Ag. Pres. Foundation, DE OS Council, NCC, Preservation Delaware, etc.	Year 3-5	Organizational Funding, State, County, Foundation Support, Private Donations

Goal 2 – Conserve The Roadside Features That Contribute To The Byway	Responsible Parties		Time Frame/ Schedule	Funding Options/ Resource Needs
	Principal	Secondary		
Objective 2-1 Respect roadside vegetation and partner with those who do work along roadways.				
Management Strategy				
2-1.1 Develop a landscape management component for this plan (landscape management tools)	DNS (Coordinating Agency)	Mt. Cuba Center, RCVSB Management Committee, DelDOT	Complete (part of plan)	Organizational Funding, County Support
2-1.2 Undertake outreach efforts to utility providers and encourage underground utilities	DNS (Coordinating Agency)	Mt. Cuba Center, RCVSB Management Committee, Delaware Center for Horticulture (DCH), DelDOT	Year 2-3	Organizational Funding, State, County, WILMAPCO, Foundation Support
Objective 2-2 Compile a photolog of the scenic, natural and historic resources of the Byway.				
Management Strategy				
2-2.1 Provide a "virtual tour" through photographs, maps and text on DNS website. Consider producing a video tour.	DNS (Coordinating Agency)	RCVSB Management Committee	Year 1-2	Organizational Funding, State, WILMAPCO, County, Foundation Support, Private Donations Staff support: 25 hrs. for website
2-2.2 Prepare hardcopy of photolog for public outreach	DNS (Coordinating Agency)	RCVSB Management Committee	Complete (part of plan)	Organizational Funding, State, WILMAPCO, County, Foundation Support

Goal 3 – Encourage Context Sensitive Design	Responsible Parties		Time Frame/ Schedule	Funding Options/ Resource Needs
	Principal	Secondary		
Objective 3-1 Work with New Castle County on context sensitive design issues.				
Management Strategy				
3-1.1 Initiate dialogue with NCC (scenic corridor stds., resource protection, Conservation Design, tree protection, TDR); consider MOU w/ NCC	DNS (Coordinating Agency)	NCC, RCVSB Management Committee	Year 1; Ongoing	Organizational Funding, State, WILMAPCO, County, Foundation Support Staff support: 35 hrs. - yr. 1
3-1.2 Coordinate with NCC, DelDOT and others regarding watershed and site hydrology; MOU w/ DelDOT, re: context-sensitive design, road improvements/maintenance, etc.	DNS (Coordinating Agency)	NCC, DelDOT, RCVSB Management Committee	Year 1 (also part of plan); Ongoing thereafter	Organizational Funding, State, WILMAPCO, County, Foundation Support Staff support: 45 hrs. - yr. 1
Objective 3-2 Ensure County and State comprehensive plans adequately recognize the Red Clay Valley Scenic Byway.				
Management Strategy				
3-2.1 Initiate a dialogue with the state and county on planning activities	DNS (Coordinating Agency)	NCC, DelDOT, RCVSB Management Committee	Year 1; Ongoing	Organizational Funding, State, County, Foundation Support Staff support: 20 hrs. - yr. 1
3-2.2 Encourage continued research and documentation of the Valley's resources and biodiversity by county and state agencies	DNS (Coordinating Agency)	NCC, DelDOT, DNREC, Mt. Cuba Center, DE Natural Heritage Program	Year 2-3; Ongoing	Organizational Funding, State, WILMAPCO, County, Foundation Support

Goal 4 – Encourage Restoration And Enhancement	Responsible Parties		Time Frame/ Schedule	Funding Options/ Resource Needs
	Principal	Secondary		
Objective 4-1 Work with NCC to restore and enhance the Byway’s intrinsic qualities as part of the development process.				
Management Strategy				
4-1.1 Initiate dialogue with NCC (general UDC revisions, context sensitive design, pre-exploratory plan review)(see 3-1.1)	DNS (Coordinating Agency)	NCC, RCVSB Management Committee	Year 1; Ongoing	Organizational Funding, State, WILMAPCO, County, Foundation Support Staff support: 20 hrs. ~ yr. 1
4-1.2 Review and offer suggestions for revised code language in the UDC (see 4-1.1 & 3-1.1)	DNS (Coordinating Agency)	NCC, RCVSB Management Committee	Year 1; Ongoing	Organizational Funding, County, Foundation Support Staff support: see 3-1.1
4-1.3 Promote efforts to maintain watershed hydrology	DNS (Coordinating Agency)	NCC, RCVSB Management Committee	Year 1; Ongoing	Organizational Funding, State, WILMAPCO, County, Foundation Support Staff support: 10 hrs. ~ yr. 1
Objective 4-2 Seek support and funding to assist with restoration and enhancement of the intrinsic qualities of the Byway.				
Management Strategy				
4-2.1 Seek funding and encourage the creation of matching grant programs for restoration and enhancement	DNS (Coordinating Agency)	RCVSB Management Committee	Year 3-5	Organizational Funding, State & County Support, EPA Watershed Initiative Grant Program, the NRCS Conservation Partnership Initiative (CPI), Conservation Reserve Enhancement Program (CREP), FHWA (TE or SB funds)
4-2.2 Encourage sensitive redevelopment (including “Brownfields”)	RCVSB Management Committee & DNS	State of Delaware, NCC	Year 3-5; Ongoing	Organizational Funding, State & County Support, “Brownfield” program incentives, FHWA (TE or SB funds)
4-2.3 Consider a small matching grant program or revolving fund to provide funds for landscaping, façade improvements, and streetscaping on private lands.	RCVSB Management Committee	DNS	Year 3-5	Government grants – FHWA (TE funds), Foundation grants, Event-based fund raising activities, Speaking honorariums, etc.
Objective 4-3 Encourage volunteer maintenance and planting programs; promote the Adopt-a-Highway Program.				
Management Strategy				
4-3.1 Establish a Scenic Byway Landscape Committee	RCVSB Management Committee & DNS	DNS, Mt. Cuba Center	Year 2-3	Organizational Funding, Foundation Support, Private Donations
4-3.2 Establish recognition program for enhancement and restoration	RCVSB Management Committee	DNS	Year 3-5	Organizational Funding, Foundation Support, Private Donations

Goal 5 – Balance Transportation and Safety Needs While Respecting Intrinsic Qualities.	Responsible Parties		Time Frame/ Schedule	Funding Options/ Resource Needs
	Principal	Secondary		
Objective 5-1 Use traffic enforcement procedures and traffic calming techniques.				
Management Strategy				
5-1.1 Maintain road characteristics: reduce speed limits as needed; enforce speed limits, use of signage	DeIDOT	State Police, DNS, RCVSB Management Committee	Year 3-5; Ongoing thereafter	Organizational Funding, State, WILMAPCO Support, FHWA (TE or SB funds)
5-1.2 Maintain the scenic integrity of the rural roadways when improving or maintaining roads	DeIDOT	DNS, RCVSB Management Committee	Year 1; Ongoing (also part of Plan)	Organizational Funding, State, WILMAPCO Support, FHWA (TE or SB funds) Staff support: 25 hrs. – yr. 1; see also 3-1.2
5-1.3 Coordinate safety and public access issues within the Red Clay Valley Scenic Byway	DeIDOT	DNS, RCVSB Management Committee, Delaware Greenways, the Delaware Bicycle Council, WILMAPCO	Year 2-3; Ongoing thereafter	Organizational Funding, State, WILMAPCO Support, Foundation Support, FHWA (TE or SB funds)
Objective 5-2 Consolidate the number and guide the placement of traffic and byway signs along the Byway.				
Management Strategy				
5-2.1 Inventory existing roadside signs and consolidate, remove, and consider appropriate signage	DNS	DeIDOT, RCVSB Management Committee	Year 3-5	Organizational Funding, State, WILMAPCO Support, Foundation Support
5-2.2 Encourage the continued use of a complementary direction and distance-oriented signage system so as to reduce off-premises signs	RCVSB Management Committee & DNS	DeIDOT	Year 3-5; Ongoing thereafter	Organizational Funding, State, WILMAPCO Support, Foundation Support, Private Donations
5-2.3 Limit the number, placement and size of Byway identification signs	RCVSB Management Committee	DNS	Year 1	Organizational Funding, State Support Staff support: 10 hrs. – yr. 1
5-2.4 Consider delisting Route 82 as a state highway	DeIDOT	DNS, RCVSB Management Committee	Year 1 (also part of plan)	Organizational Funding, State, WILMAPCO Support Staff support: 10 hrs. – yr. 1

Goal 6 – Help Guide Future Transportation And Land Use Decisions By Government Agencies	Responsible Parties		Time Frame/ Schedule	Funding Options/ Resource Needs
	Principal	Secondary		
Objective 6-1 Establish a cooperative approach with DeIDOT and other state agencies to address future transportation projects in the Byway.				
Management Strategy				
6-1.1 Implement the Memorandum of Understanding (MOU) between DNS and DeIDOT	DNS (Coordinating Agency)	DeIDOT, RCVSB Management Committee	Year 1; Ongoing (also part of Plan)	Organizational Funding, County & State Support Staff support: see 3-1.2
Objective 6-2 Work with DeIDOT to develop context-sensitive design guidelines sensitive to individual roads in the Byway.				
Management Strategy				
6-2.1 Work with DeIDOT as it prepares context-sensitive design guidelines and make available plan appendix	DNS (Coordinating Agency)	DeIDOT, RCVSB Management Committee	Year 1 (also part of Plan)	Organizational Funding, County & State Support Staff support: 45 hrs.

Goal 7 – Inspire The Public Through Education On The Intrinsic Qualities Of The Byway	Responsible Parties		Time Frame/ Schedule	Funding Options/ Resource Needs
	Principal	Secondary		
Objective 7-1 Prepare an educational display and/or lecture program for use at DNS and elsewhere.				
Management Strategy				
7-1.1 Assemble a working group of plan sponsors and partners to develop an interpretive thematic exhibit	DNS (Coordinating Agency)	RCVSB Management Committee, RCVA, Center for the Creative Arts, The Yorklyn Planning Group, The Chesapeake Bay Girl Scouts Council, Historic Red Clay, Inc., Mt Cuba Center	Year 2-3	Organizational Funding, County, WILMAPCO & State Support, Foundation Support, FHWA (SB funds)
7-1.2 Develop curriculum materials for DNS, local schools, etc.	DNS (Coordinating Agency)	RCVSB Management Committee, RCVA, Center for the Creative Arts, The Yorklyn Planning Group, The Chesapeake Bay Girl Scouts Council, Historic Red Clay, Inc.	Year 3-5; Ongoing thereafter	Organizational Funding, County & State Support, Foundation Support, Private Donations
7-1.3 Consider coordinated education programs among primary area institutions; share staff resources	DNS (Coordinating Agency)	DelDOT, RCVSB Management Committee, RCVA, Center for the Creative Arts, The Yorklyn Planning Group, The Chesapeake Bay Girl Scouts Council, Historic Red Clay, Inc., Mt. Cuba Center	Year 2-3; Ongoing thereafter	Organizational Funding, County & State Support, Foundation Support, Private Donations

Goal 8 – Instill In The Public The Need For Stewardship Of The Byway’s Intrinsic Qualities	Responsible Parties		Time Frame/ Schedule	Funding Options/ Resource Needs
	Principal	Secondary		
Objective 8-1 Develop a brochure that provides an overview of the Byway and the region’s vast resources.				
Management Strategy				
8-1.1 Assemble a working group of plan sponsors and partners to develop a brochure. (see 7-1.1)	DNS (Coordinating Agency)	DelDOT, RCVSB Management Committee, RCVA, Center for the Creative Arts, The Yorklyn Planning Group, The Chesapeake Bay Girl Scouts Council, Historic Red Clay, Inc., Mt. Cuba Center	Year 1-2	Organizational Funding, County & State Support, Foundation Support, FHWA (SB funds), Private Donations Staff support: 25 hrs., plus design and printing services – yr. 1
Objective 8-2 Develop a multi-media internet website to share information about the Byway.				
Management Strategy				
8-2.1 Develop a multi-media internet website to share information about the Byway (see also 2-2.1)	DNS (Coordinating Agency)	RCVSB Management Committee	Year 1-2	Organizational Funding, County & State Support, Foundation Support, FHWA (SB funds), Private Donations Staff support: see 2-2.1

Goal 9 – Prepare A Corridor Management Plan Acceptable To Stakeholders And Suitable For Future Funding	Responsible Parties		Time Frame/ Schedule	Funding Options/ Resource Needs
	Principal	Secondary		
Management Strategy 9-1 Consult Plan often and update periodically	DNS (Coordinating Agency)	RCVSB Management Committee	Ongoing	Organizational Funding, County, WILMAPCO & State Support, Foundation Support, Private Donations

Goal 10 – Create Incentives To Achieve The Plan’s Mission	Responsible Parties		Time Frame/ Schedule	Funding Options/ Resource Needs
	Principal	Secondary		
Objective 10-1 Establish outreach efforts and new planning initiatives linked to the implementation and public outreach.				
Management Strategy 10-1.1 Establish and maintain mutually beneficial relationships among the stakeholders of the Byway	DNS (Coordinating Agency)	RCVSB Management Committee, RCVA, Center for the Creative Arts, The Yorklyn Planning Group, The Chesapeake Bay Girl Scouts Council, Historic Red Clay, Inc., Mt. Cuba Center	Ongoing	Organizational Funding, County & State Support, Foundation Support, Private Donations
10-1.2 Consider opportunities to celebrate and protect the Byway (public forums, educational programs, open houses)	DNS (Coordinating Agency)	RCVSB Management Committee, RCVA, Center for the Creative Arts, The Yorklyn Planning Group, The Chesapeake Bay Girl Scouts Council, Historic Red Clay, Inc., Mt. Cuba Center	Year 1-2	Organizational Funding, County & State Support, Foundation Support, Private Donations Staff support: 35 hrs. – yr. 1

Goal 11 – Implement The Corridor Management Plan In A Cooperative Fashion	Responsible Parties		Time Frame/ Schedule	Funding Options/ Resource Needs
	Principal	Secondary		
Objective 11-1 Explore ways in which the DNS can remain the coordinating agency.				
Management Strategy 11-1.1 Officially designate DNS as Coordinating Agency	DNS	RCVSB Management Committee	Year 1 (also part of plan)	Organizational Funding, County, Foundation Support Staff support: 40 hrs. – yr. 1
Objective 11-2 Transition the Steering Committee for this plan into a management entity.				
Management Strategy 11-2.1 Secure commitments for Management Committee membership and hold periodic meetings	RCVSB Management Committee	DNS	Year 1, Ongoing thereafter	Organizational Funding, Foundation Support, Private Donations Staff support: 20 hrs. – yr. 1
Objective 11-3 Continue to reach out and encourage the involvement of stakeholders in implementation.				
Management Strategy 11-3.1 Hold community workshops to review the final plan; introduce the plan to the broader public; hold periodic public meetings regarding implementation activities	DNS (Coordinating Agency)	DelDOT, RCVSB Management Committee	Upon completion of draft plan; Ongoing thereafter	Organizational Funding, State, WILMAPCO, County, Foundation Support, Private Donations
Objective 11-4 Work within the framework of existing plans and programs to achieve Byways goals.				
Management Strategy 11-4.1 Maintain ongoing working relationships with organizations working in the Byway	DNS (Coordinating Agency)	RCVSB Management Committee, State & County Agencies, RCVA, Center for the Creative Arts, The Yorklyn Planning Group, The Chesapeake Bay Girl Scouts Council, Historic Red Clay, Inc, Red Clay Reservation, Wilmington And Western Railroad, Preservation DE, Mt. Cuba Center, DE Greenways, PA communities, Scenic America	Ongoing	Organizational Funding, State, WILMAPCO, County, Foundation Support, Private Donations
Objective 11-5 Establish a process with DelDOT for early communication on improvement and safety projects/ maintenance.				
Management Strategy 11-5.1 Update and re-execute yearly the MOU with DelDOT (see Goal 6)	DNS (Coordinating Agency)	RCVSB Management Committee	Ongoing	Organizational Funding, State, WILMAPCO, County, Foundation Support

**Part 2 - Implementation Phasing Schedule:
Ongoing Activities and Years 1-5**

Ongoing Activities (including completed activities)	Responsible Parties		Time Frame/ Schedule	Funding Options/ Resource Needs
	Principal	Secondary		
Management Strategy 1-3.3 Refine resource inventories to reflect State Resource Areas and Natural Areas programs	DNS (Coordinating Agency)	BC, NLT, INC, RCVSB Management Committee	Complete, Ongoing	Organizational Funding, State, WILMAPCO, County, Foundation Support
2-1.1 Develop a landscape management component for this plan	DNS (Coordinating Agency)	Mt. Cuba Center, RCVSB Management Committee, DeDOT	Complete (part of plan)	Organizational Funding, County Support
2-2.2 Prepare hardcopy of photolog for public outreach	DNS (Coordinating Agency)	RCVSB Management Committee	Complete (part of plan)	Organizational Funding, State, WILMAPCO, County, Foundation Support
9-1 Consult Plan often and update periodically	DNS (Coordinating Agency)	RCVSB Management Committee	Ongoing	Organizational Funding, County, WILMAPCO & State Support, Foundation Support, Private Donations
10-1.1 Establish and maintain mutually beneficial relationships among the stakeholders of the Byway	DNS (Coordinating Agency)	RCVSB Management Committee, RCVA, Center for the Creative Arts, The Yorklyn Planning Group, The Chesapeake Bay Girl Scouts Council, Historic Red Clay, Inc., Mt. Cuba Center	Ongoing	Organizational Funding, County & State Support, Foundation Support, Private Donations
11-3.1 Hold community workshops to review the final plan; introduce the plan to the broader public; hold periodic public meetings regarding implementation activities	DNS (Coordinating Agency)	DeDOT, RCVSB Management Committee	Upon completion of draft plan; Ongoing thereafter	Organizational Funding, State, WILMAPCO, County, Foundation Support, Private Donations
11-4.1 Maintain ongoing working relationships with organizations working in the Byway	DNS (Coordinating Agency)	RCVSB Management Committee, State & County Agencies, RCVA, Center for the Creative Arts, The Yorklyn Planning Group, The Chesapeake Bay Girl Scouts Council, Historic Red Clay, Inc, Red Clay Reservation, Wilmington And Western Railroad, Preservation DE, Mt. Cuba Center, DE Greenways, PA communities, Scenic America	Ongoing	Organizational Funding, State, WILMAPCO, County, Foundation Support, Private Donations
11-5.1 Update and re-execute yearly the MOU with DeDOT (see Goal 6)	DNS (Coordinating Agency)	RCVSB Management Committee	Ongoing	Organizational Funding, State, WILMAPCO, County, Foundation Support

Year 1 Strategies (including Year 1-2 activities)	Responsible Parties		Time Frame/ Schedule	Funding Options/ Resource Needs
	Principal	Secondary		
Management Strategy 1-1.2 Coordinate local land trusts and develop priority list of properties for protection	DNS (Coordinating Agency, Monitor)	BC, NLT, TNC, DNREC, Red Clay Valley Association (RCVA)	Year 1; Ongoing thereafter	Organizational Funding, Foundation Support Staff support: 20 hrs. - yr. 1
1-3.2 Encourage developers to set-aside lands to interconnect open space	DNS (Coordinating Agency)	BC, NLT, TNC, RCVSB Management Committee	Year 1; Ongoing	Organizational Funding, Foundation Support, Private Donations (time, \$) Staff support: 15 hrs. - yr. 1
2-2.1 Provide a "virtual tour" through photographs, maps and text on DNS website. Consider producing a video tour.	DNS (Coordinating Agency)	RCVSB Management Committee	Year 1-2	Organizational Funding, State, WILMAPCO, County, Foundation Support, Private Donations Staff support: 25 hrs. for website
3-1.1 Initiate dialogue with NCC (scenic corridor stds., resource protection, Conservation Design, tree protection, TDR); consider MOU w/ NCC	DNS (Coordinating Agency)	NCC, RCVSB Management Committee	Year 1; Ongoing	Organizational Funding, State, WILMAPCO, County, Foundation Support Staff support: 35 hrs. - yr. 1
3-1.2 Coordinate with NCC, DelDOT and others regarding watershed and site hydrology; MOU w/ DelDOT, re: context-sensitive design, road improvements/maintenance, etc.	DNS (Coordinating Agency)	NCC, DelDOT, RCVSB Management Committee	Year 1 (also part of plan); Ongoing thereafter	Organizational Funding, State, WILMAPCO, County, Foundation Support Staff support: 45 hrs. - yr. 1
3-2.1 Initiate a dialogue with the state and county on planning activities	DNS (Coordinating Agency)	NCC, DelDOT, RCVSB Management Committee	Year 1; Ongoing	Organizational Funding, State, County, Foundation Support Staff support: 20 hrs. - yr. 1
4-1.1 Initiate dialogue with NCC (general UDC revisions, context sensitive design, pre-exploratory plan review)(see 3-1.1)	DNS (Coordinating Agency)	NCC, RCVSB Management Committee	Year 1; Ongoing	Organizational Funding, State, WILMAPCO, County, Foundation Support Staff support: 20 hrs. - yr. 1
4-1.2 Review and offer suggestions for revised code language in the UDC (see 4-1.1 & 3-1.1)	DNS (Coordinating Agency)	NCC, RCVSB Management Committee	Year 1; Ongoing	Organizational Funding, County, Foundation Support Staff support: see 3-1.1
4-1.3 Promote efforts to maintain watershed hydrology	DNS (Coordinating Agency)	NCC, RCVSB Management Committee	Year 1; Ongoing	Organizational Funding, State, WILMAPCO, County, Foundation Support Staff support: 10 hrs. - yr. 1
5-1.2 Maintain the scenic integrity of the rural roadways when improving or maintaining roads	DelDOT	DNS, RCVSB Management Committee	Year 1; Ongoing (also part of Plan)	Organizational Funding, State, WILMAPCO Support, FHWA (TE or SB funds) Staff support: 25 hrs. - yr. 1; see also 3-1.2

Year 1 Strategies cont. (including Year 1-2 activities)	Responsible Parties		Time Frame/ Schedule	Funding Options/ Resource Needs
	Principal	Secondary		
Management Strategy 5-2.3 Limit the number, placement and size of Byway identification signs	RCVSB Management Committee	DNS	Year 1	Organizational Funding, State Support Staff support: 10 hrs. – yr. 1
5-2.4 Consider delisting Route 82 as a state highway	DelDOT	DNS, RCVSB Management Committee	Year 1 (also part of plan)	Organizational Funding, State, WILMAPCO Support Staff support: 10 hrs. – yr. 1
6-1.1 Implement the Memorandum of Understanding (MOU) between DNS and DelDOT	DNS (Coordinating Agency)	DelDOT, RCVSB Management Committee	Year 1; Ongoing (also part of Plan)	Organizational Funding, County & State Support Staff support: see 3-1.2
6-2.1 Work with DelDOT as it prepares context-sensitive design guidelines and make available plan appendix	DNS (Coordinating Agency)	DelDOT, RCVSB Management Committee	Year 1 (also part of Plan)	Organizational Funding, County & State Support Staff support: 45 hrs.
8-1.1 Assemble a working group of plan sponsors and partners to develop a brochure. (see 7-1.1)	DNS (Coordinating Agency)	DelDOT, RCVSB Management Committee, RCVA, Center for the Creative Arts, The Yorklyn Planning Group, The Chesapeake Bay Girl Scouts Council, Historic Red Clay, Inc., Mt. Cuba Center	Year 1-2	Organizational Funding, County & State Support, Foundation Support, FHWA (SB funds), Private Donations Staff support: 25 hrs., plus design and printing services – yr. 1
8-2.1 Develop a multi-media internet website to share information about the Byway (see also 2-2.1)	DNS (Coordinating Agency)	RCVSB Management Committee	Year 1-2	Organizational Funding, County & State Support, Foundation Support, FHWA (SB funds), Private Donations Staff support: see 2-2.1
10-1.2 Consider opportunities to celebrate and protect the Byway (public forums, educational programs, open houses)	DNS (Coordinating Agency)	RCVSB Management Committee, RCVA, Center for the Creative Arts, The Yorklyn Planning Group, The Chesapeake Bay Girl Scouts Council, Historic Red Clay, Inc., Mt. Cuba Center	Year 1-2	Organizational Funding, County & State Support, Foundation Support, Private Donations Staff support: 35 hrs. – yr. 1
11-1.1 Officially designate DNS as Coordinating Agency	DNS	RCVSB Management Committee	Year 1 (also part of plan)	Organizational Funding, County, Foundation Support Staff support: 40 hrs. – yr. 1
11-2.1 Secure commitments for Management Committee membership and hold periodic meetings	RCVSB Management Committee	DNS	Year 1, Ongoing thereafter	Organizational Funding, Foundation Support, Private Donations Staff support: 20 hrs. – yr. 1

Years 2-3 Strategies	Responsible Parties		Time Frame/ Schedule	Funding Options/ Resource Needs
	Principal	Secondary		
Management Strategy 1-1.1 Develop range of easement options (historic house façade easements, scenic corridor easements, voluntary protection agreements) and model easement language; (200 ft. corridor easements, where feasible)	DNS (Coordinating Agency, Monitor, Easement Holder)	Brandywine Conservancy (BC), Natural Lands Trust (NLT), The Nature Conservancy (TNC), RCVSB Management Committee	Year 2-3	Organizational Funding, State, WILMAPCO, County, Foundation Support
1-1.3 Monitor intrinsic qualities; educate landowners; prepare easement brochure and schedule events for landowners	DNS	BC, NLT, TNC, DNREC, RCVA, RCVSB Management Committee	Year 2-3; Ongoing thereafter	Organizational Funding, State, WILMAPCO, Foundation Support
1-2.1 Initiate dialogue with funding agencies for umbrella purchase program	DNS (Coordinating Agency)	BC, NLT, TNC	Year 2-3	Organizational Funding, State, WILMAPCO, County, Foundation Support
1-2.3 Further examine funding options	DNS (Coordinating Agency)	BC, NLT, TNC, DNREC, RCVSB Management Committee	Year 2-3; Ongoing thereafter	Organizational Funding, State, WILMAPCO, County, Foundation Support
1-3.1 Determine availability of funding from private foundations	DNS (Coordinating Agency)	BC, NLT, TNC, RCVSB Management Committee	Year 2-3; Ongoing thereafter	Organizational Funding
2-1.2 Undertake outreach efforts to utility providers and encourage underground utilities	DNS (Coordinating Agency)	Mt. Cuba Center, RCVSB Management Committee, Delaware Center for Horticulture (DCH), DelDOT	Year 2-3	Organizational Funding, State, County, WILMAPCO, Foundation Support
3-2.2 Encourage continued research and documentation of the Valley's resources and biodiversity by county and state agencies	DNS (Coordinating Agency)	NCC, DelDOT, DNREC, Mt. Cuba Center, DE Natural Heritage Program	Year 2-3; Ongoing	Organizational Funding, State, WILMAPCO, County, Foundation Support
4-3.1 Establish a Scenic Byway Landscape Committee	RCVSB Management Committee & DNS	DNS, Mt. Cuba Center	Year 2-3	Organizational Funding, Foundation Support, Private Donations
5-1.3 Coordinate safety and public access issues within the Red Clay Valley Scenic Byway	DelDOT	DNS, RCVSB Management Committee, Delaware Greenways, the Delaware Bicycle Council, WILMAPCO	Year 2-3; Ongoing thereafter	Organizational Funding, State, WILMAPCO Support, Foundation Support, FHWA (TE or SB funds)
7-1.1 Assemble a working group of plan sponsors and partners to develop an interpretive thematic exhibit	DNS (Coordinating Agency)	RCVSB Management Committee, RCVA, Center for the Creative Arts, The Yorklyn Planning Group, The Chesapeake Bay Girl Scouts Council, Historic Red Clay, Inc., Mt. Cuba Center	Year 2-3	Organizational Funding, County, WILMAPCO & State Support, Foundation Support, FHWA (SB funds)
7-1.3 Consider coordinated education programs among primary area institutions; share staff resources	DNS (Coordinating Agency)	DelDOT, RCVSB Management Committee, RCVA, Center for the Creative Arts, The Yorklyn Planning Group, The	Year 2-3; Ongoing thereafter	Organizational Funding, County & State Support, Foundation Support, Private Donations

Years 3-5 Strategies	Responsible Parties		Time Frame/ Schedule	Funding Options/ Resource Needs
	Principal	Secondary		
Management Strategy 1-2.2 Create a revolving fund for land preservation	DNS (Coordinating Agency)	BC, NLT, TNC, DNREC	Year 3-5	Delaware Open Space Council, Delaware and New Castle County farmland preservation programs, Preservation Delaware's Revolving Fund, Reinvested Funds, etc.
1-4.1 Develop flexible recognition program that respects privacy	DNS (Coordinating Agency) & RCVSB Management Committee	BC, NLT, TNC, DNREC, De Ag. Pres. Foundation, DE OS Council, NCC, Preservation Delaware, etc.	Year 3-5	Organizational Funding, State, County, Foundation Support, Private Donations
4-2.1 Seek funding and encourage the creation of matching grant programs for restoration and enhancement	DNS (Coordinating Agency)	RCVSB Management Committee	Year 3-5	Organizational Funding, State & County Support, EPA Watershed Initiative Grant Program, the NRCS Conservation Partnership Initiative (CPI), Conservation Reserve Enhancement Program (CREP), FHWA (TE or SB funds)
4-2.2 Encourage sensitive redevelopment (including "Brownfields")	RCVSB Management Committee & DNS	State of Delaware, NCC	Year 3-5; Ongoing	Organizational Funding, State & County Support, "Brownfield" program incentives, FHWA (TE or SB funds)
4-2.3 Consider a small matching grant program or revolving fund to provide funds for landscaping, façade improvements, and streetscaping on private lands.	RCVSB Management Committee	DNS	Year 3-5	Government grants – FHWA (TE funds), Foundation grants, Event-based fund raising activities, Speaking honorariums, etc.
4-3.2 Establish recognition program for enhancement and restoration	RCVSB Management Committee	DNS	Year 3-5	Organizational Funding, Foundation Support, Private Donations
5-1.1 Maintain road characteristics; reduce speed limits as needed; enforce speed limits; use of signage	DelDOT	State Police, DNS, RCVSB Management Committee	Year 3-5; Ongoing thereafter	Organizational Funding, State, WILMAPCO Support, FHWA (TE or SB funds)
5-2.1 Inventory existing roadside signs and consolidate, remove, and consider appropriate signage	DNS	DelDOT, RCVSB Management Committee	Year 3-5	Organizational Funding, State, WILMAPCO Support, Foundation Support
5-2.2 Encourage the continued use of a complementary direction and distance-oriented signage system so as to reduce off-premises signs	RCVSB Management Committee & DNS	DelDOT	Year 3-5, Ongoing thereafter	Organizational Funding, State, WILMAPCO Support, Foundation Support, Private Donations
7-1.2 Develop curriculum materials for DNS, local schools, etc.	DNS (Coordinating Agency)	RCVSB Management Committee, RCVA, Center for the Creative Arts, The Yorklyn Planning Group, The Chesapeake Bay Girl Scouts Council, Historic Red Clay, Inc.	Year 3-5; Ongoing thereafter	Organizational Funding, County & State Support, Foundation Support, Private Donations



Appendix 1

**Resource Inventory Maps
(Intrinsic Quality Mapping and
Land Use)**



Appendix 2

Inventory of the Scenic and Historic Byways of the Red Clay Valley

This inventory lists the roads for inclusion in the Red Clay Valley Scenic Byway. Each road is referred to by number since some numbered roads go by multiple names and in some cases several numbered roads are combined together to form a single named road. For example: *Roads 244 and 247* are two sections of Snuff Mill Road. Road numbers are listed in *italic* to minimize confusion with route numbers such as Route 52 or 41. The inventory includes a description sheet for each road, including a summary of the intrinsic qualities found on each road. Delaware Route 82 is not listed as a separate road in the inventory since it is made up of a combination of the following different road numbers, *242, 247, 261, 262, and 262A* (which extends from the Delaware/Pennsylvania state line to the Kennett Pike—Route 52).

The second part of this inventory includes a summary of the information originally compiled for the *New Castle County Scenic River and Highway Study*.

ROAD 238

BURNT MILL ROAD

ROAD NUMBER: 238

ROAD NAMES: Burnt Mill Road

STARTING
LOCATION: DE/PA State Line

ENDING
LOCATION: 9 - Kennett Pike (Rt. 52)

INTRINSIC QUALITIES:

Scenic: Visual Accents #19

Natural: Moderate slopes

Historic Properties:

N315 Oberod, 400 Burnt Mill Road with Gate Houses (N317 and N7694 on Kennett Pike)
N1132 T. Harlin Farm, 904 Burnt Mill Road

New Castle County Scenic River and Highway Study (2):

RD 238 (Burnt Mill Road)—from DE Rt. 52 along border of Pennsylvania and Delaware;
relatively narrow road, expanses of open land; applicable criteria*: 1, 2, 3, 5.

*Applicable Criteria for Natural Beauty, Historic, and Cultural Value (2):

- (1) scale of road (size, dimension, etc.),
- (2) characteristics of roads (topology, winds, changes with terrain, etc.)
- (3) scenic accents and/or vistas along roads,
- (5) natural resources and/or ecosystems in close proximity to roads (watercourses, wetlands, rock outcrops, and other geologic formations, woodlands, wildlife habitat, etc.)

ROAD 239

PYLES FORD ROAD

ROAD NUMBER: 239

ROAD NAMES: Pyles Ford Road

STARTING

LOCATION: 262 - New London Road (Rt. 82)

ENDING

LOCATION: 9 - Kennett Pike (Rt. 52)

INTRINSIC QUALITIES:

Scenic: Visual Accents #39, #55, #56, #70

Natural: Steep and moderate slopes, forest

Historic Properties:

N304 O. Vernon House, 5715 Pyles Ford Road

N 540 W. Peters Farm, 5300 Kennett Pike just north of Pyles Ford Road

N 7679 “Windbeam,” the F.W. Pickard Estate on the North side of Rt. 82 at Campbell Road

N 7692 “Montmorenci, Rt. 82 (New London Rd) and Pyles Ford Road

New Castle County Scenic River and Highway Study (2):

RD 239 (Pyles Ford Road)—scenic between DE Rt. 52 and RD 262; large expanses of open land, undulating topography; applicable criteria*: 1, 2, 3, 5.

*Applicable Criteria for Natural Beauty, Historic, and Cultural Value (2):

(1) scale of road (size, dimension, etc.),

(2) characteristics of roads (topology, winds, changes with terrain, etc.)

(3) scenic accents and/or vistas along roads,

(5) natural resources and/or ecosystems in close proximity to roads (watercourses, wetlands, rock outcrops, and other geologic formations, woodlands, wildlife habitat, etc.)

ROAD 240

OWLS NEST ROAD

ROAD NUMBER: 240

ROAD NAMES: Owls Nest Road

STARTING

LOCATION: 242 - Campbell Road (Rt. 82)

ENDING

LOCATION: 9 - Kennett Pike (Rt. 52)

INTRINSIC QUALITIES:

Scenic: Visual Accents #33, #35, #39, #42, #43

Natural: Forest, moderate slopes, drainageways, stream tributaries

Historic Properties:

N 305 J. Commons House (Vic Mead Hunt Club), west side between Old Kennett Road and Pyles Ford Road

N 308 School No. 25, Walnut Green, NW corner of Rt. 82 and Owls Nest Road

N 511 Eugene duPont Estate Mansion (Greenville Country Club)

N 512 William L. Dilworth Farm, 101 Owls Nest Road

N 6186 Centerville Historic District at intersection with Rt. 52 (Kennett Pike)

New Castle County Scenic River and Highway Study (2):

RD 240 (Owls Nest Road)—between DE Rts. 82 and 52; undulating road surface, large expanses of open land; applicable criteria*: 1, 2, 3, 4, 5.

*Applicable Criteria for Natural Beauty, Historic, and Cultural Value (2):

- (1) scale of road (size, dimension, etc.),
- (2) characteristics of roads (topology, winds, changes with terrain, etc.)
- (3) scenic accents and/or vistas along roads,
- (4) historic characteristics of, or along, roads, (covered bridges, stone bridges, historic houses, etc.),
- (5) natural resources and/or ecosystems in close proximity to roads (watercourses, wetlands, rock outcrops, and other geologic formations, woodlands, wildlife habitat, etc.)

ROAD 241

WAY ROAD

ROAD NUMBER: 241

ROAD NAMES: Way Road

STARTING

LOCATION: 261 - Creek Road (Rt. 82)

ENDING

LOCATION: 243 - Old Kennett Road

INTRINSIC QUALITIES:

Scenic: Visual Accents #29, #30, #31, #32, #36, #37, #38, #40, #41;
2 Vista Points (includes the Delaware Nature Society's Burrows Run Preserve scenic viewscape easement)

Natural: Steep and moderate slopes, stream tributaries, forest

Historic Properties:

N 312 Samual Armstrong House, 135 Way Road
N 1116/N 4082 Hollingsworth/Armstrong Farm
N 5005 Graves Mill Historic District at Burrows Run

New Castle County Scenic River and Highway Study (2):

RD 241 (Graves Road–Way Road)—between DE Rt. 82 and RD 243, beautiful accents, numerous vista, narrow road that hugs the topography; applicable criteria*: 1, 2, 3, 4, 5.

*Applicable Criteria for Natural Beauty, Historic, and Cultural Value (2):

- (1) scale of road (size, dimension, etc.),
- (2) characteristics of roads (topology, winds, changes with terrain, etc.)
- (3) scenic accents and/or vistas along roads,
- (4) historic characteristics of, or along, roads, (covered bridges, stone bridges, historic houses, etc.),
- (5) natural resources and/or ecosystems in close proximity to roads (watercourses, wetlands, rock outcrops, and other geologic formations, woodlands, wildlife habitat, etc.)

ROAD 242

CAMPBELL ROAD

ROAD NUMBER: 242

ROAD NAMES: Campbell Road (Rt. 82)
Walnut Green Road

**STARTING
LOCATION:** 239 - Pyles Ford Road

**ENDING
LOCATION:** 9 - Kennett Pike (Rt. 52)

INTRINSIC QUALITIES:

Scenic: Visual Accents #42, #43, #44, #45; 1 Vista Point

Natural: Steep and moderate slopes, forest, lake (Hoopes reservoir)

Historic Properties:

- N 308 School No 25, Walnut Green, NW corner of Rt. 82 and Owl's Nest Road
- N 309 C. S. Way Farm, Walnut Green, Rt. 82 and Owls Nest Road
- N 513 Evelina duPont Estate Carriage House, 101 Campbell Road
- N 516 William Dixon House, N. side of Campbell Road on west side of Hoopes Reservoir
- N 7692 Montmorenci, Inter. of Rt. 82 and Pyles Ford Road, accessed off of Walnut Green Road

New Castle County Scenic River and Highway Study (2):

RD 242 (Walnut Green Road – Dean Road)—between DE Rt. 82 and RDS 262/240 intersection; expanses of open land, undulating road surface, portions of road unpaved; applicable criteria*: 1, 2, 5.

*Applicable Criteria for Natural Beauty, Historic, and Cultural Value (2):

- (1) scale of road (size, dimension, etc.),
- (2) characteristics of roads (topology, winds, changes with terrain, etc.)
- (3) scenic accents and/or vistas along roads,
- (4) historic characteristics of, or along, roads, (covered bridges, stone bridges, historic houses, etc.),
- (5) natural resources and/or ecosystems in close proximity to roads (watercourses, wetlands, rock outcrops, and other geologic formations, woodlands, wildlife habitat, etc.)

ROAD 243

OLD KENNETT ROAD

ROAD NUMBER: 243

ROAD NAMES: Old Kennett Road

STARTING

LOCATION: DE/PA State Line

ENDING

LOCATION: 9 - Kennett Pike (Rt. 52)

INTRINSIC QUALITIES:

Scenic: Visual Accents #12, #14, #15, #23, #24, #25, #26, #27, #28, #34

1 Vista Point (includes the Delaware Nature Society's Burrows Run Preserve scenic viewscape easement)

Natural: Steep and moderate slopes, stream tributaries, critical natural area, forest

Historic Properties:

N 538 Lower Brandywine Presbyterian Church and Manse, 101 Old Kennett Road

N 1113 Harlan Cloud House, 2202 Old Kennett Road

N 1115 J. C. Philips House, 800 Old Kennett Road

N 4079 D. W. Taylor Farm, at Ashland-Clinton School Road

N 7653 M. Kane House, 1225 Snuff Mill Road at Snuff Mill Road

N 7680 E. M. Nichols House, 301 Old Kennett Rd, between Snuff Mill and Owls Nest Rds.

N 7693 Greenewalt Estate, 900 Old Kennett Road

New Castle County Scenic River and Highway Study (2):

RD 243 (Old Kennett Road)—from DE Rt. 52 north-west; beautiful cross roads throughout corridor; improvements which distract from scenic quality - newly constructed concrete bridges with aluminum guard rails and aluminum conduits; applicable criteria*: 2, 3, 4, 5.

*Applicable Criteria for Natural Beauty, Historic, and Cultural Value (2):

- (1) scale of road (size, dimension, etc.),
- (2) characteristics of roads (topology, winds, changes with terrain, etc.)
- (3) scenic accents and/or vistas along roads,
- (4) historic characteristics of, or along, roads, (covered bridges, stone bridges, historic houses, etc.),
- (5) natural resources and/or ecosystems in close proximity to roads (watercourses, wetlands, rock outcrops, and other geologic formations, woodlands, wildlife habitat, etc.)

ROAD 244

SNUFF MILL ROAD (Upper)

ROAD NUMBER: 244

ROAD NAMES: Snuff Mill Road

STARTING

LOCATION: 243 - Old Kennett Road

ENDING

LOCATION: 9 - Kennett Pike (Rt. 52)

INTRINSIC QUALITIES:

Scenic: Visual Accents #14, #16, #17, #18, #21

Natural: Stream tributaries, forest, steep and moderate slopes

Historic Properties:

N 316 S.G. Clement Farm, 301 Snuff Mill Road

N 1133 H. Brown House, 1207 Snuff Mill Road

N 7653 M. Kane House, 1225 Snuff Mill Road at Old Kennett Road

Bridge 88 Snuff Mill, Steel Girder Bridge

New Castle County Scenic River and Highway Study (2):

RD 244/247 (Snuff Mill Road)—between DE Rt. 82 and DE Rt. 52; undulating road surface, picturesque views, highly scenic vistas; applicable criteria*: 1, 2, 3, 4, 5.

*Applicable Criteria for Natural Beauty, Historic, and Cultural Value (2):

- (1) scale of road (size, dimension, etc.),
- (2) characteristics of roads (topology, winds, changes with terrain, etc.)
- (3) scenic accents and/or vistas along roads,
- (4) historic characteristics of, or along, roads, (covered bridges, stone bridges, historic houses, etc.),
- (5) natural resources and/or ecosystems in close proximity to roads (watercourses, wetlands, rock outcrops, and other geologic formations, woodlands, wildlife habitat, etc.)

ROAD 246/248

CENTER MILL ROAD

ROADNUMBER: 246/248

ROAD NAMES: Center Mill Road

STARTING

LOCATION: DE/PA State Line

ENDING

LOCATION: 287 - Ashland-Clinton School Rd

INTRINSIC QUALITIES:

Scenic: Visual Accents #8, #10,

Natural: Forest, steep and moderate slopes

Historic Properties:

N 280 Hutchison House, 132 Center Mill Road, at Ashland-Clinton School Road

N 1119 J. Klair House, NW corner with Snuff Mill Road

New Castle County Scenic River and Highway Study (2):

RD 246/248 (Center Mill Road)—from RD 287 to DE/PA state line; crisscrosses large land holding of scenic quality, expanses of open land; applicable criteria*: 1, 2, 3, 4.

*Applicable Criteria for Natural Beauty, Historic, and Cultural Value (2):

- (1) scale of road (size, dimension, etc.),
- (2) characteristics of roads (topology, winds, changes with terrain, etc.)
- (3) scenic accents and/or vistas along roads,
- (4) historic characteristics of, or along, roads, (covered bridges, stone bridges, historic houses, etc.)

ROAD 247

SNUFF MILL ROAD (Lower)

ROAD NUMBER: 247

ROAD NAMES: Snuff Mill Road
Creek Road (Rt. 82)

STARTING
LOCATION: DE/PA State Line

ENDING
LOCATION: 243 - Old Kennett Road

INTRINSIC QUALITIES:

Scenic: Visual Accent #1, #2, #7, #86, #87, #88; 1 Vista Point

Natural: Stream tributaries, forest, steep and moderate slopes

Historic Properties:

N 1119 J. Klair House, NW corner with Center Mill Road

N 1127 S. M Green Farm, on south side of road

N 5003 Auburn Mills historic District at intersection of Benge Road and Rt. 82

New Castle County Scenic River and Highway Study (2):

RD 244/247 (Snuff Mill Road)—between DE Rt. 82 and DE Rt. 52; undulating road surface, picturesque views, highly scenic vistas; applicable criteria*: 1, 2, 3, 4, 5.

*Applicable Criteria for Natural Beauty, Historic, and Cultural Value (2):

- (1) scale of road (size, dimension, etc.),
- (2) characteristics of roads (topology, winds, changes with terrain, etc.)
- (3) scenic accents and/or vistas along roads,
- (4) historic characteristics of, or along, roads, (covered bridges, stone bridges, historic houses, etc.),
- (5) natural resources and/or ecosystems in close proximity to roads (watercourses, wetlands, rock outcrops, and other geologic formations, woodlands, wildlife habitat, etc.)

ROAD 250

UPPER SNUFF MILL ROW

ROAD NUMBER: 250

ROAD NAMES: Upper Snuff Mill Row
Lower Snuff Mill Row

*STARTING
LOCATION:* 247 - Creek Road (Rt. 82)

*ENDING
LOCATION:* 247 - Snuff Mill Road

INTRINSIC QUALITIES:

Scenic: Visual Accents #3, #4

Natural: Floodplain, moderate slopes, Cockeysville Formation (WRPA)

Historic Properties:

N 4098 Garrett Snuff Mill Historic District

ROAD 251

SHARPLESS ROAD

ROAD NUMBER: 251

ROAD NAMES: Sharpless Road

STARTING

LOCATION: 261 - Creek Road (Rt. 82)

ENDING

LOCATION: 275 - Old Wilmington Road

INTRINSIC QUALITIES:

Scenic: Visual Accent #82

Natural: Red Clay Creek and tributary, floodplain, forest, steep and moderate slopes

Historic Properties:

N 4087 James Wilson Farm, 947 Sharpless Road

New Castle County Scenic River and Highway Study (2):

RD 251 (Sharpless Road)—between DE Rt. 82 and Woodview Drive; borders scenic Red Clay Reservation land, forested undulating road surface; applicable criteria*: 1, 2, 3, 4, 5, 6.

*Applicable Criteria for Natural Beauty, Historic, and Cultural Value (2):

- (1) scale of road (size, dimension, etc.),
- (2) characteristics of roads (topology, winds, changes with terrain, etc.)
- (3) scenic accents and/or vistas along roads,
- (4) historic characteristics of, or along, roads, (covered bridges, stone bridges, historic houses, etc.),
- (5) natural resources and/or ecosystems in close proximity to roads (watercourses, wetlands, rock outcrops, and other geologic formations, woodlands, wildlife habitat, etc.)
- (6) recreational activities along or adjacent to the roads. A brief description of each road, its, positive or negative qualities, and the criteria that apply to it follow.

ROAD 252

AUBURN MILL ROAD

ROAD NUMBER: 252

ROAD NAMES: Auburn Mill Road

STARTING

LOCATION: 253 - Old Public Road

ENDING

LOCATION: 254 - Lee Road

INTRINSIC QUALITIES:

Scenic: Visual Accent #89

Natural: Red Clay Creek, floodplain, forest

Historic Properties:

N 5004 Auburn Mills Supervisor's House, at Benge Road

New Castle County Scenic River and Highway Study (2):

RD 252 (Auburn Mill Road)—between DE 253 (Benge Road) and Rd 254 (Lee Road); Creek ecosystem, forested; applicable criteria*: 1, 2, 3, 4, 5.

*Applicable Criteria for Natural Beauty, Historic, and Cultural Value (2):

- (1) scale of road (size, dimension, etc.),
- (2) characteristics of roads (topology, winds, changes with terrain, etc.)
- (3) scenic accents and/or vistas along roads,
- (4) historic characteristics of, or along, roads, (covered bridges, stone bridges, historic houses, etc.),
- (5) natural resources and/or ecosystems in close proximity to roads (watercourses, wetlands, rock outcrops, and other geologic formations, woodlands, wildlife habitat, etc.).

ROAD 253/255

OLD PUBLIC ROAD

ROAD NUMBER: 253/255

ROAD NAMES: Old Public Road
Benge Road

STARTING
LOCATION: 247 - Creek Road (Rt. 82)

ENDING
LOCATION: Dead End

INTRINSIC QUALITIES:

Scenic: Visual Accent #88, general character, forest and slope components

Natural: Red Clay Creek, floodplain, forest, steep and moderate slopes, wooded stand

Historic Properties:

N 5003 Auburn Mills Historic District

N 5004 Auburn Mills Supervisor's House, at Benge Road

ROAD 256

NINE GATES ROAD

ROAD NUMBER: 256

ROAD NAMES: Nine Gates Road
Cloud Road

**STARTING
LOCATION:** DE/PA State Line

**ENDING
LOCATION:** 250 - Upper Snuff Mill Row

INTRINSIC QUALITIES:

Scenic: Visual Accent #5; 1 Vista Point

Natural: Forest, steep and moderate slope, Cockeysville Formation (WRPA)

Historic Properties:

N 1121 Cloud Farm (S. Jackson), 732 Nine Gates Road
N 1122 Cloud Farm, 740 Nine Gates Road
N 4098 Garrett Snuff Mill Historic District

New Castle County Scenic River and Highway Study (2):

256 (Clouds Road)—from RD 250 to DE/PA state line; borders large scenic, open lands, woodlands; applicable criteria*: 1, 2, 3, 4, 5.

*Applicable Criteria for Natural Beauty, Historic, and Cultural Value (2):

- (1) scale of road (size, dimension, etc.),
- (2) characteristics of roads (topology, winds, changes with terrain, etc.)
- (3) scenic accents and/or vistas along roads,
- (4) historic characteristics of, or along, roads, (covered bridges, stone bridges, historic houses, etc.),
- (5) natural resources and/or ecosystems in close proximity to roads (watercourses, wetlands, rock outcrops, and other geologic formations, woodlands, wildlife habitat, etc.)

ROAD 257

YORKLYN ROAD

ROAD NUMBER: 257

ROAD NAMES: Yorklyn Road

*STARTING
LOCATION:* 247 - Creek Road (Rt. 82)

*ENDING
LOCATION:* 275 - Old Wilmington Road

INTRINSIC QUALITIES:

Scenic: General character, forest and village components

Natural: Red Clay Creek, floodplain, steep and moderate slopes, Cockeysville Formation (WRPA)

Historic Properties:

N 4054 Metal Truss Bridge, Bridge # 112

ROAD 258/258A

BARLEY MILL ROAD

ROAD NUMBER: 258/258A

ROAD NAMES: Barley Mill Road, Wooddale Road

STARTING

LOCATION: 261 - Creek Road (Rt. 82)

ENDING

LOCATION: 263 - Rolling Mill Road

INTRINSIC QUALITIES:

Scenic: Visual Accents #63, #64, #65, #66, #67, #77, #79, #90, #91, #92, #93, #94; 1 Vista Point

Natural: Forest, Red Clay Creek and tributaries, floodplain, steep and moderate slopes, Critical Natural Areas

Historic Properties:

N 331 Ashland Covered Bridge over Red Clay Creek

N 1129 Philips House, 82 Barley Mill Road

N 1130 J. Sharpless/P. Mullen House, 2374 Creek Road

N 4069 G. Montgomery House, 3127 Barley Mill Road

N 4071 J. Armstrong House

N 4072 S. P. Dixon Farm

N 4076 John Bishop Farm, 100 Westward Road near intersection with Mt. Cuba Road

Other A. Sharpless House (DNS Ashland Nature Center), between Creek Road and Brackenville Road

Other Mt. Cuba Estate

New Castle County Scenic River and Highway Study (2):

RD 258 (Wooddale Drive)—from RD 274 S.E., connects with RD 259 (Barley Mill road; road follows land contours, creek ecosystem, expanses of open land, highly picturesque, forested; applicable criteria*: 1, 2, 3, 4, 5.

*Applicable Criteria for Natural Beauty, Historic, and Cultural Value (2):

(1) scale of road (size, dimension, etc.),

(2) characteristics of roads (topology, winds, changes with terrain, etc.)

(3) scenic accents and/or vistas along roads,

(4) historic characteristics of, or along, roads, (covered bridges, stone bridges, historic houses, etc.),

(5) natural resources and/or ecosystems in close proximity to roads (watercourses, wetlands, rock outcrops, and other geologic formations, woodlands, wildlife habitat, etc.)

ROAD 259

BARLEY MILL ROAD

ROAD NUMBER: 259

ROAD NAMES: Barley Mill Road

STARTING

LOCATION: 263 - Rolling Mill Road

ENDING

LOCATION: Delaware Rt. 141

INTRINSIC QUALITIES:

Scenic: Visual Accents #49, #59, general character, forest components

Natural: Forest, stream tributary, moderate slopes, Critical Natural Areas, several stands of trees

Historic Properties:

N 4066 J. B. Barker House, 2936 Barley Mill Road at Mt. Cuba Road

N 510 Thomas Lynam Farm

New Castle County Scenic River and Highway Study (2):

RD 259 (Barley Mill road)—from connection with RD 258 (Wooddale Road) S.E. – E to DE Rt. 141; rural character covered bridge, scattered houses; residential development close to DE Rt. 141; applicable criteria*: 1, 2, 3, 4, 5.

*Applicable Criteria for Natural Beauty, Historic, and Cultural Value (2):

- (1) scale of road (size, dimension, etc.),
- (2) characteristics of roads (topology, winds, changes with terrain, etc.)
- (3) scenic accents and/or vistas along roads,
- (4) historic characteristics of, or along, roads, (covered bridges, stone bridges, historic houses, etc.),
- (5) natural resources and/or ecosystems in close proximity to roads (watercourses, wetlands, rock outcrops, and other geologic formations, woodlands, wildlife habitat, etc.)

ROAD 261

MT. CUBA ROAD

ROAD NUMBER: 261

ROAD NAMES: Mt. Cuba Road
Creek Road (Rt. 82)

**STARTING
LOCATION:** 247 - Snuff Mill Road

**ENDING
LOCATION:** 258 - Barley Mill Road

INTRINSIC QUALITIES:

Scenic: Visual Accents #68, #69, #71, #72, #73, #74, #75, #76, #78, #79, #80, #83, #84, #85;
1 Vista Point

Natural: Red Clay Creek, floodplain, forest, steep and moderate slopes

Historic Properties:

N 750 William Gregg House at Ashland-Clinton School Road
N 1127 S. M. Green Farm, between Creek and Snuff Mill Roads
N 1129 Philips House, 82 Barley Mill Road at Barley Mill Road
N 1130 J. Sharpless/P/ Mullen House, 2374 Creek Road
N 4277 Concrete Arch Bridge (Bridge # 120), east of Ashland
N 5001 Mt. Cuba Historic District, between Creek and Hillside Mill Roads
N 1091 J. Mason Farm, SW side of Rt. 82 across from intersection with Way Road
Bridge 119 Steel Girder Bridge over the Red Clay Creek at Mt. Cuba

New Castle County Scenic River and Highway Study:

RD 261 (MT. Cuba Road)—parallels Red Clay Creek, connects with DE Rt. 82; highly picturesque, creek ecosystem, undulating road surface, forested; applicable criteria*: 1, 2, 3, 4, 5.

*Applicable Criteria for Natural Beauty, Historic, and Cultural Value (2):

- (1) scale of road (size, dimension, etc.),
- (2) characteristics of roads (topology, winds, changes with terrain, etc.)
- (3) scenic accents and/or vistas along roads,
- (4) historic characteristics of, or along, roads, (covered bridges, stone bridges, historic houses, etc.),
- (5) natural resources and/or ecosystems in close proximity to roads (watercourses, wetlands, rock outcrops, and other geologic formations, woodlands, wildlife habitat, etc.)

ROAD 262

NEW LONDON ROAD

ROAD NUMBER: 262

ROAD NAMES: New London Road (Rt. 82)
Pyles Ford Road (Rt. 82)

STARTING
LOCATION: 261 - Mt. Cuba Road

ENDING
LOCATION: 242 - Campbell Road

INTRINSIC QUALITIES:

Scenic: Visual Accents #52, #56

Natural: Forest, stream tributary, moderate slope

Historic Properties:

N 7692 Montmorenci, Rt. 82 and Pyles Ford Road

New Castle County Scenic River and Highway Study (2):

RD 262 (New London Road)—between RD 239 and DE Rt. 82; undulating road surface, forested, partial view of Hoopes Reservoir; applicable criteria*: 1, 2, 3, 4, 5.

*Applicable Criteria for Natural Beauty, Historic, and Cultural Value (2):

- (1) scale of road (size, dimension, etc.),
- (2) characteristics of roads (topology, winds, changes with terrain, etc.)
- (3) scenic accents and/or vistas along roads,
- (4) historic characteristics of, or along, roads, (covered bridges, stone bridges, historic houses, etc.),
- (5) natural resources and/or ecosystems in close proximity to roads (watercourses, wetlands, rock outcrops, and other geologic formations, woodlands, wildlife habitat, etc.)

ROAD 262A

CREEK ROAD

ROAD NUMBER: 262A

ROAD NAMES: Creek Road (Rt. 82)

*STARTING
LOCATION:* 261 - Mt. Cuba Road

*ENDING
LOCATION:* 239 - Pyles Ford Road

INTRINSIC QUALITIES:

Scenic: Visual Accents #69, #70

Natural: Red Clay Creek, floodplain, forest, steep and moderate slopes, Critical Natural Areas

Historic Properties:

Wilmington and Western Railroad corridor

ROAD 263

ROLLING MILL ROAD

ROAD NUMBER: 263

ROAD NAMES: Rolling Mill Road

STARTING

LOCATION: 237 - Lancaster Pike (Rt. 48)

ENDING

LOCATION: 258/259 - Barley Mill Road

INTRINSIC QUALITIES:

Scenic: Visual Accents #59, #60, #61, #62

Natural: Red Clay Creek, floodplain, forest, steep and moderate slopes, Critical Natural Areas

Historic Properties:

N 296 Wooddale Covered Bridge on Fox Hill Lane

N 4096 Wooddale Historic District on Wooddale Road

New Castle County Scenic River and Highway Study (2):

RD 263 (Rolling Mill Road)—Barley Mill, Wooddale Rds. to DE Rt. 48; steep, undulating road surface covered bridge, mill ruins, creek ecosystem; applicable criteria*: 1, 2, 3, 4, 5.

*Applicable Criteria for Natural Beauty, Historic, and Cultural Value (2):

- (1) scale of road (size, dimension, etc.),
- (2) characteristics of roads (topology, winds, changes with terrain, etc.)
- (3) scenic accents and/or vistas along roads,
- (4) historic characteristics of, or along, roads, (covered bridges, stone bridges, historic houses, etc.),
- (5) natural resources and/or ecosystems in close proximity to roads (watercourses, wetlands, rock outcrops, and other geologic formations, woodlands, wildlife habitat, etc.)

ROAD 264

HILLSIDE ROAD

ROAD NUMBER: 264

ROAD NAMES: Hillside Road

STARTING

LOCATION: 273 - Centerville Road

ENDING

LOCATION: 9 - Kennett Pike (Rt. 52)

INTRINSIC QUALITIES:

Scenic: Visual Accents #47, #50, #51

Natural: Forest, tributaries, moderate slopes

Historic Properties:

N 515 Randalia, off southwest side Hillside Road near Valley Green Road

N 519 Robert Morrow House, 301 Hillside Road

N 521 Westbrae, northeast side Hillside Road

N 524 William Dickson House, west side Centerville Road at Hillside Road

New Castle County Scenic River and Highway Study (2):

RD 264 (Hillside Road)—between RD 273 and DE Rt. 52; large estate homes, gently rolling scenery, expanses of land on north side of road; applicable criteria*: 2, 3, 4, 5.

*Applicable Criteria for Natural Beauty, Historic, and Cultural Value (2):

(2) characteristics of roads (topology, winds, changes with terrain, etc.)

(3) scenic accents and/or vistas along roads,

(4) historic characteristics of, or along, roads, (covered bridges, stone bridges, historic houses, etc.),

(5) natural resources and/or ecosystems in close proximity to roads (watercourses, wetlands, rock outcrops, and other geologic formations, woodlands, wildlife habitat, etc.)

ROAD 269

HILLSIDE MILL ROAD

ROAD NUMBER: 269

ROAD NAMES: Hillside Mill Road

STARTING

LOCATION: 262 - New London Road (Rt. 82)

ENDING

LOCATION: 261 - Mt. Cuba Road

INTRINSIC QUALITIES:

Scenic: Visual Accents #52, #53, #57, #58

Natural: Red Clay Creek and tributary, floodplain, forest, lake (Hoopes reservoir), moderate slopes

Historic Properties:

N 297 James Leach House, North side between Red Clay Creek and Papel Place

N 298 M. Concannoy Farm, North side at junction with Popel Place

New Castle County Scenic River and Highway Study (2):

RD 269 (Hillside Mill Road)—between RD 262 and RD 261; runs along Hoopes Reservoir, highly picturesque, forested; applicable criteria*: 1, 2, 3, 4, 5.

*Applicable Criteria for Natural Beauty, Historic, and Cultural Value (2):

- (1) scale of road (size, dimension, etc.),
- (2) characteristics of roads (topology, winds, changes with terrain, etc.)
- (3) scenic accents and/or vistas along roads,
- (4) historic characteristics of, or along, roads, (covered bridges, stone bridges, historic houses, etc.),
- (5) natural resources and/or ecosystems in close proximity to roads (watercourses, wetlands, rock outcrops, and other geologic formations, woodlands, wildlife habitat, etc.)

ROAD 273

CENTERVILLE ROAD

ROAD NUMBER: 273

ROAD NAMES: Centerville Road

STARTING

LOCATION: 242 - Campbell Road (Rt. 82)

ENDING

LOCATION: 237 - Lancaster Pike (Rt. 48)

INTRINSIC QUALITIES:

Scenic: Visual Accents #46, #48, and #54, general character, forest components

Natural: Stream tributaries, floodplain, forest, lake (Hoopes reservoir), steep and moderate slopes, several stands of roadside trees

Historic Properties:

N 521 Westbrae, north side of Hillside Road just off Centerville Road

N 524 William Dickson House, west side at Hillside Road

N 525 B. Hartley House, 3701 Centerville Road

N 526 William Lawter Farm, 3401 Centerville Road

New Castle County Scenic River and Highway Study (2):

RD 273 (Centerville Road)—extremely scenic between Rt. 48 and DE Rt. 82; large estate homes, view of Hoopes reservoir, forested, winding road; applicable criteria*: 1, 2, 3, 4, 5, 6.

*Applicable Criteria for Natural Beauty, Historic, and Cultural Value:

- (1) scale of road (size, dimension, etc.),
- (2) characteristics of roads (topology, winds, changes with terrain, etc.)
- (3) scenic accents and/or vistas along roads,
- (4) historic characteristics of, or along, roads, (covered bridges, stone bridges, historic houses, etc.),
- (5) natural resources and/or ecosystems in close proximity to roads (watercourses, wetlands, rock outcrops, and other geologic formations, woodlands, wildlife habitat, etc.)
- (6) recreational activities along or adjacent to the roads. A brief description of each road, its, positive or negative qualities, and the criteria that apply to it follow.

ROAD 274

BRACKENVILLE ROAD

ROAD NUMBER: 274

ROAD NAMES: Brackenville Road
Brackenville Mill Road

**STARTING
LOCATION:** 275 - Old Wilmington Road

**ENDING
LOCATION:** 258 - Barley Mill Road

INTRINSIC QUALITIES:

Scenic: Visual Accent #80; General character, forest, slope, and village components

Natural: Forest, steep and moderate slopes

Historic Properties (2):

No structures or houses listed

New Castle County Scenic River and Highway Study (2):

RD 274 (Brackenville Mill Road)—between RD 275 (Old Wilmington Road) and Ashland; borders lands of the Red Clay Reservation; applicable criteria*: 1, 2, 3, 5, 6.

*Applicable Criteria for Natural Beauty, Historic, and Cultural Value (2):

- (1) scale of road (size, dimension, etc.),
- (2) characteristics of roads (topology, winds, changes with terrain, etc.)
- (3) scenic accents and/or vistas along roads,
- (5) natural resources and/or ecosystems in close proximity to roads (watercourses, wetlands, rock outcrops, and other geologic formations, woodlands, wildlife habitat, etc.)
- (6) recreational activities along or adjacent to the roads. A brief description of each road, its, positive or negative qualities, and the criteria that apply to it follow.

ROAD 275

OLD WILMINGTON ROAD

ROAD NUMBER: 275

ROAD NAMES: Old Wilmington Road

*STARTING
LOCATION:* 276 - Loveville Road

*ENDING
LOCATION:* 257 - Yorklyn Road

INTRINSIC QUALITIES:

Scenic: General character, slope components

Natural: Stream tributary, moderate slopes

Historic Properties:

N 4058 Mt. Pleasant Inn

N 10909 A. Armstrong Farm, northeast side between Brackenville and Sharpless Roads

ROAD 287

ASHLAND-CLINTON SCHOOL ROAD

ROAD NUMBER: 287

ROAD NAMES: Ashland-Clinton School Rd
Ashland Road
Ashland School Road

**STARTING
LOCATION:** 261 - Creek Road (Rt. 82)

**ENDING
LOCATION:** 243 - Old Kennett Road

INTRINSIC QUALITIES:

Scenic: Visual Accents #6, #9, #10, #11, #12, #81; 3 Vista Points

Natural: Forest, moderate slopes, Critical Natural Areas

Historic Properties:

N 280 Hutchison House, 132 Center Mill Road at Ashland-Clinton School Road
N 750 William Gregg House, at Creek Road
N 1117 Armstrong House, 134 Ashland-Clinton School Road
N 4079 D.W. Taylor Farm, at Old Kennett Road

New Castle County Scenic River and Highway Study (2):

RD 287 (Ashland – Clinton School Road)—between DE Rt. 82 and RD 243; beautiful open fields, scenic land forms, tree lined; applicable criteria*: 1, 2, 3, 4.

*Applicable Criteria for Natural Beauty, Historic, and Cultural Value (2):

- (1) scale of road (size, dimension, etc.),
- (2) characteristics of roads (topology, winds, changes with terrain, etc.)
- (3) scenic accents and/or vistas along roads,
- (4) historic characteristics of, or along, roads, (covered bridges, stone bridges, historic houses, etc.)

Summary of the New Castle County Scenic River and Highway Study

As described in the NCC study, scenic roads are defined as roads having a high degree of natural beauty and historic or cultural value. Criteria used for selection (taken in part from the FHWA publication, Scenic Byways [July, 1988] included combinations of the following:

- (1) scale of road (size, dimension, etc.);
- (2) characteristics of roads (topology, winds, changes with terrain, etc.);
- (3) scenic accents and/or vistas along roads;
- (4) historic characteristics of, or along, roads, (covered bridges, stone bridges, historic houses, etc.);
- (5) natural resources and/or ecosystems in close proximity to roads (watercourses, wetlands, rock outcrops, and other geologic formations, woodlands, wildlife habitat, etc.); and
- (6) recreational activities along or adjacent to the roads. A brief description of each road, its, positive or negative qualities, and the criteria that apply to it follow.

Below are listed the roadways nominated for scenic byway status and the applicable criteria used in the NCC study.

ROAD NUMBER	ROAD NAMES	APPLICABLE CRITERIA					
238	Burnt Mill Road	1	2	3	-	5	-
239	Pyles Ford Road	1	2	3	-	5	-
240	Owls Nest Road	1	2	3	4	5	-
241	Way Road	1	2	3	4	5	-
242	Campbell Road (Rt. 82), Walnut Green Road	1	2	-	-	5	-
243	Old Kennett Road	-	2	3	4	5	-
244	Snuff Mill Road	1	2	3	4	5	-
246/248	Center Mill Road	1	2	3	4	-	-
247	Snuff Mill Road, Creek Road (Rt. 82)	1	2	3	4	5	-
250	Upper Snuff Mill Row, Lower Snuff Mill Row	Not rated					
251	Sharpless Road	1	2	3	4	5	6
252	Auburn Mill Road	1	2	3	4	5	-
253/255	Old Public Road, Bengé Road	Not rated					
256	Nine Gates Road, Cloud Road	1	2	3	4	5	-
257	Yorklyn Road	Not rated					
258/258A	Barley Mill Road, Wooddale Road	1	2	3	4	5	-
259	Barley Mill Road	1	2	3	4	5	-
261	Mt. Cuba Road, Creek Road (Rt. 82)	1	2	3	4	5	-
262	New London Road (Rt. 82), Pyles Ford Road	1	2	3	4	5	-
262A	Creek Road (Rt. 82)	Not rated					
263	Rolling Mill Road	1	2	3	4	5	-
264	Hillside Road	-	2	3	4	5	-
269	Hillside Mill Road	1	2	3	4	5	-
273	Centerville Road	1	2	3	4	5	6
274	Brackenville Road, Brackenville Mill Road	1	2	3	-	5	6
275	Old Wilmington Road	Not rated					
287	Ashland-Clinton School Rd, Ashland Road Ashland School Road	1	2	3	4	-	-

Although Route 82 is not listed separately in the inventory, the NCC study (2) provided the following summary for the state route: DE Rt. 82 (Creek Mill Road – New London Road – Campbell Road)—beautiful, winding road which serves as the spine of the scenic corridor; laced with stone walls, dams, mature hardwood forest; closed bridge between Brackenville Mill Road and Ashland – Clinton School road; applicable criteria: 1, 2, 3, 4, 5, 6.



Appendix 3

Visual Accents and Vista Points

Visual accents include visually significant landscapes and landforms that serve as indicators of natural or historic processes, contain multiple resources that together form visually significant groups, or are clear examples of superior features or characteristics.

Vista points designate broad, expansive views, the scenic boundary of which are primarily defined by forest cover.

A graphic illustration of visual accents and vista points is contained on the Scenic Landscapes map in Appendix 1.



VA 1



VA 2



VA 3

Visual Accents

NO.	VISUAL ACCENT	LOCATION
1	Mill race with sluice gates; dense mountain laurel understory	Rt. 82 (Snuff Mill Road) at the PA state line
2	Stone barn ruin	Yorklyn: 400 ft. N.W. of Rt. 82
3	Two stone bridges (#126)	Yorklyn: Upper Snuff Mill Row
4	Village	Yorklyn: Upper Snuff Mill Row
5	Stone farmhouse and barn	Nine Gates Road: 400 ft. W. of road
6	Stone farm complex (house and barn)	Ashland-Clinton School Road: in field S.E. of road, N. of Rt. 82 intersection
7	Stone building ruin and springhouse	Snuff Mill Road: N. side of road, 1600 ft. S.W. of Center Mill Road intersection
8	Stone barn	In field 2000 ft. W. of Center Mill Road
9	Victorian farmhouse and wood frame barn	Ashland-Clinton School Road: 400 ft. E. of road, 1000 ft. S. of Center Mill Road intersection



VA 4



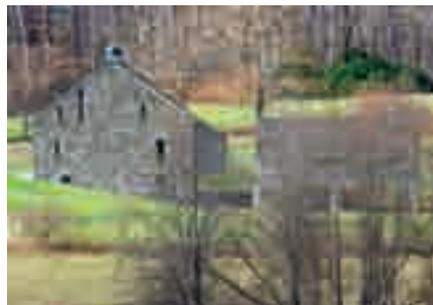
VA 5



VA 6



VA 7



VA 8



VA 9

NO.	VISUAL ACCENT	LOCATION
10	Stuccoed stone farmhouse and stone springhouse	In field 400 ft. W. of Center Mill Road and Ashland-Clinton School Road intersection
11	Stone and wood frame farmhouse (Note: Accent no longer exists)	Ashland-Clinton School Road: E. side of road, 300 ft. N. of Center Mill Road intersection
12	Stone farmhouse, barn, retaining wall, ruins and spruce	Ashland-Clinton School Road: N. of road, 400 ft. S.W. of Old Kennett Road intersection
13	40" D.B.H. tulip poplar and sycamores (Note: Accent no longer exists)	Center Mill Road: s.e. side of road
14	Building complex, stream and wall	Intersection of Snuff Mill Road and Old Kennett Road
15	Stone retaining wall	Intersection of Old Kennett Road and Ashland-Clinton School Road
16	Stone mill building and stone bridge (#088)	Unnamed road 500 ft. N. of Snuff Mill Road
17	Stone gate house and stone bridge (#089)	Snuff Mill Road: n. side of road, 600 ft. N.E. of Old Kennett Road intersection
18	Row of white pines	Snuff Mill Road: along N. side of road
19	Row of white pines	Burnt Mill Road: along S. side of road
20	48" d.b.h. beech (Note: Accent no longer exists)	Burnt Mill Road: S. side of road, 1000 ft. from Rt. 52 intersection
21	Farm complex with stone barn	In field, 600 ft. N. of Snuff Mill Road
22	Row of white pines and red cedars	Along W. side of Rt. 52
23	Rock outcrop	Old Kennett Road: N. side, 600 ft. E. of Ashland-Clinton School Road intersection
24	White oaks, red oaks and tulip poplars	Old Kennett Road: N. side, 600 ft. E. of Ashland-Clinton School Road
25	Scenic landform	Old Kennett Road: N. side, 1200 ft. E. of Ashland-Clinton School Road intersection
26	Rock outcrops (both side of road)	Old Kennett Road
27	Farm complex ruin with stone springhouse and retaining wall	Old Kennett Road: S. side, 2000 ft. W. of Way Road intersection



VA 10



VA 12



VA 14



VA 15



VA 16



VA 17



VA 18



VA 19



VA 21



VA 22



VA 23



VA 24



VA 25



VA 26



VA 27

NO.	VISUAL ACCENT	LOCATION
28	Two stone bridges (#096 and #097)	Old Kennett Road: 200 ft. W. of Way Road intersection
29	White oak, red oak and oak-beech grove	Way Road: 500 ft. S.W. of Old Kennett Pike intersection
30	Lane with red oak allee and stone piers	Way Road: private land N.W. of road
31	Stone and wood frame barn	Way Road: S. side of road
32	Farmhouse and 40" D.B.H. silver maple	Way Road: N. side of road
33	Row of sycamores along road	Owl's Nest Road: W. side of road
34	Brick church, cemetery and grove of oaks	Intersection of Old Kennett Road at Rt. 52
35	Lane with red oak allee	Owl's Nest Road: private drive W. of road
36	Brick farm complex (whitewashed)	Way Road: 200 ft. S.E. of road
37	Stone building ruin	Way Road: N.W. of road
38	Stone barn foundation and sycamore	Way Road: N.W. of road, 1700 ft. from Rt. 82 intersection
39	52" D.B.H. tulip poplar	Intersection of Owl's Nest Road and Pyles Ford Road
40	Stone building ruin, ash and large red cedars	Way Road: 100 ft. S.E. of road
41	Stone barn ruin	Way Road: S. of road, 800 ft. from Rt. 82 intersection
42	Stone farmhouse, walls and allee of maples	In field, 1000 ft. N.E. of Owl's Nest Road and Campbell Road intersection



VA 28



VA 29



VA 30



VA 31



VA 32



VA 33



VA 34



VA 35



VA 36



VA 37



VA 38



VA 39



VA 40



VA 41



VA 42

NO.	VISUAL ACCENT	LOCATION
43	Walnut Green schoolhouse, row of sycamores and 3 - 36" D.B.H. walnut trees	Intersection of Owl's Nest Road and Campbell Road
44	Rock outcrop and dogwood understory	Campbell Road: N. side of road, 300 ft. E. of Centerville Road
45	Stone house	Campbell Road: S. side of road (Valley Garden Park)
46	Stone bridge, pond and flowering cherry	Centerville Road: E. side of road, 1200 ft. E. of Campbell Road intersection
47	Stone gates	Hillside Road: N. side of road
48	Stone springhouse	Centerville Road: 200 ft. E. of road
49	2 - 40" D.B.H. white oaks	Barley Mill Road: N. side of road, 4000 ft. E. of Centerville Road intersection
50	Stone wall and 2 - 40" D.B.H. sycamores	Hillside Road: S. side of road, 4500 ft. N. of Rt. 52
51	2 - 40" D.B.H. sycamores	Hillside Road: E. side of road, 1400 ft. S.E. of Centerville Road intersection
52	Arborvitae hedge along road	New London Road: along much of the length of the road
53	48" D.B.H. silver maple	Hillside Mill Road: S.E. of road, 900 ft. S. of New London Road intersection
54	Farm with wooden barn, stone springhouse and sycamore	Centerville Road: W. of road, 1400 ft. N. of Barley Mill Road intersection
55	Stone building ruin	Pyles Ford Road: 200 ft. W. of road, N. of New London Road intersection
56	Stone retaining wall	New London Road: N. side of road, S.W. of Pyles Ford Road intersection
57	Wood frame barn	Hillside Mill Road: N. side of road, 1600 E. of Mt. Cuba Road intersection



VA 43



VA 44



VA 45



VA 46



VA 47



VA 48



VA 49



VA 50



VA 51



VA 52



VA 53



VA 54



VA 55



VA 56



VA 57

NO.	VISUAL ACCENT	LOCATION
58	Farm complex w/ stone walls, spring-house and 24" sycamore; rock outcrop and mountain laurel	Hillside Mill Road: N. side of road, 1000 E. of Mt. Cuba Road intersection
59	Small spruce and hemlock forest, 40" D.B.H. white oak	Intersection of Barley Mill Road and Rolling Mill Road
60	Dense mountain laurel understory	Rolling Mill Road: E. of road, near Wooddale Road
61	Railroad trestle (flooded out), rock outcrops and rock gorge (railroad cut)	Rolling Mill Road: N.W. of road, near Wooddale Road, off Rolling Mill Road
62	Small river settlement	Wooddale Road: off Rolling Mill Road - state-designated Red Clay Natural Area
63	Dam (waterfall) and sluice gate	Barley Mill Road: W. of road, 1200 ft. N.W. of Rolling Mill intersection
64	Quarry, rock outcrop and mountain laurel understory	Barley Mill Road: 600 ft. W. of road
65	Rock outcrops along road	Barley Mill Road: N.E. of road
66	Hoopes Reservoir dam	Barley Mill Road: 1200 ft. N.E. of road
67	Farm complex (house, barn, spring-house, stone wall, and silver maple)	Barley Mill Road: in field, 400 ft. W. of road
68	40" D.B.H. white oak and black oak	Mt. Cuba Road: E. of road, 1200 ft. N.E. of Barley Mill Road intersection
69	Rock outcrops (cave-like)	Creek Rd/Mt. Cuba Rd: E. of road, 800 ft. N. of Hillside Mill Road intersection
70	Small farm settlement (stuccoed stone house wooden Victorian house)	Intersection of Mt. Cuba Road and New London Road
71	Stone retaining walls along both sides of road	Intersection of Mt. Cuba Road and Rt. 82 (Mt. Cuba/ Creek Rds.)
72	Spectacular rock outcrop	Rt. 82 (Mt. Cuba/ Creek Rds.): S.W. of road, across Red Clay Creek



VA 58



VA 59



VA 60



VA 61



VA 62



VA 63



VA 64



VA 65



VA 66



VA 67



VA 68



VA 69



VA 70



VA 71



VA 72

NO.	VISUAL ACCENT	LOCATION
73	Rock outcrops and wildflowers	Rt. 82 (Mt. Cuba/ Creek Rds.): along E. side of road
74	Stone farm complex (house, barn and bridge - #121)	Rt. 82 (Mt. Cuba/ Creek Rds.): S.W. of road, across Red Clay Creek, near Way Road intersection
75	Rock outcrops along road	Rt. 82 (Mt. Cuba/ Creek Rds.): E. side of road, 400 ft. N.W. of Way Road intersec.
76	Concrete arch bridge (#120) and rock outcrop	Rt. 82 (Mt. Cuba/ Creek Rds.): 1400 ft. E. of Ashland Village
77	Stone house and barn	Barley Mill Road: 500 ft. S. of Brackenville Road intersection
78	Steel truss railroad bridge (damaged) and concrete road bridge (#119)	Rt. 82 (Mt. Cuba/ Creek Rds.): S. of road, 500 ft. E. of Ashland Village
79	Covered bridge (#118)	Ashland: Barley Mill Road
80	Farm complex (Ashland Nature Center)	Ashland: 500 ft. E. of Brackenville Road (Mt. Cuba/ Creek Rds.)
81	Brick house, stone barn, wooden bridge and 48" D.B.H. silver maple	Ashland: intersection of Rt. 82 and Ashland-Clinton School Road
82	Stone dam (waterfall)	Sharpless Road, near Rt. 82 intersection
83	Rock outcrops and mountain laurel understory	Rt. 82 (Mt. Cuba/ Creek Rds.): E. side of road, 700 ft. N. of Sharpless Road intersection
84	Stone retaining wall along road	Rt. 82 (Mt. Cuba/ Creek Rds.): E. side of road, 800 ft. S. of Clouds Road intersection
85	Dam (waterfall)	Rt. 82 (Mt. Cuba/ Creek Rds.): in stream bed, W. of road
86	Rock outcrops along road	Rt. 82 (Snuff Mill Road): N. side of road, 600 ft. W. of Clouds Road intersection
87	Brick mill complex, mill races, stone walls and dam (waterfall)	Yorklyn: near intersection of Rt. 82 (Snuff Mill Road) and Yorklyn Road



VA 73



VA 74



VA 75



VA 76



VA 77



VA 78



VA 79



VA 80



VA 81



VA 82



VA 83



VA 84



VA 85



VA 86



VA 87

NO.	VISUAL ACCENT	LOCATION
88	Stone house (Victorian style)	Yorklyn: near intersection of Old Public Road and Rt. 82 (Snuff Mill Road)
89	Rock outcrop along road	Auburn Mill Road: N. side of road
90	Stone farmhouse	Barley Mill Road: W. side of road
91	White pine forest	Barley Mill Road: E. side of road
92	Steel truss bridge with stone embankments (#132P)	Barley Mill Road: overpass across road
93	Two stone springhouses and grove of norway spruce (24"+ D.B.H.)	Barley Mill Road: E. side of road, 1000 ft. N. of Ramsey Road intersection
94	Stone springhouse and retaining wall	Barley Mill Road: W. side of road, 500 ft. N. of Ramsey Road intersection



VA 88



VA 89



VA 90



VA 91



VA 92



VA 93



VA 94

Vista Points

(places from which extensive views open up over the landscape)

- 1. Intersection of Clouds Road and Nine Gates Road (view: W. - N.N.W.)
- 2. Snuff Mill Road: 1200 ft. N.W. of Clouds Road intersection (view: W. - N.W.)
- 3. Ashland-Clinton School Road: 1/4 mile N.E. of Rt. 82 intersection (view: S.S.W. - S.W.)
- 4. Ashland-Clinton School Road: 1600 ft. S.W. of Center Mill Road intersection (view: S.S.W. - S.W.)
- 5. Ashland-Clinton School Road: 600 ft. N.W. of Center Mill Road intersection (view: S.S.W. - S.W.)
- 6. Way Road (view: S.W. - W.)
- 7. Way Road (view: W.N.W. - N.W.)
- 8. Campbell Road: on causeway over Hoopes Reservoir (view: S.S.W. - S.W.)
- 9. Mt. Cuba Road: 1100 ft. N.E. of Barley Mill Road intersection (view: E.S.E. - S.)
- 10. Barley Mill Road: 1600 ft. S. of Brackenville Road intersection (views: N.W. - N.N.W and N.E. - E.N.E.)
- 11. Old Kennett Road (view: W.)



VP 1



VP 2



VP 3



VP 4



VP 5



VP 6



VP 7



VP 8



VP 9



VP 10



VP 11



Appendix 4

Historic Resource Inventory

Appendix 4 - Historic Resource Inventory

PARCEL ID	NAME	OTHER NAME	STATE INV.	STATUS	MAP KEY
0800640038	A ARMSTRONG FARM		N-10909		1
0801300064	A CHANDLER HOUSE		N-10062		2
0803830386	A LOBER HOUSE		N-0025700	NR	3
0704620068	A WHITEMAN HOUSE		N-369		4
0703210033	ARMOR (JAMES) HOUSE		N-506	NR	5
0701100002	ARMSTRONG HOUSE		N-1117		6
0700900001	AUBURN MILLS HISTORIC DISTRICT		N-5003	NR	7
0700900002	AUBURN MILLS HISTORIC DISTRICT		N-5003	NR	7
0700900002	AUBURN MILLS HISTORIC DISTRICT		N-5003	NR	7
0800400043	AUBURN MILLS SUPERVISOR'S HOUSE		N-5004		8
0702500007	B HARTLEY HOUSE		N-525		9
0802100022	BARKER HOUSE SITE 7NC-B38		N-12082	DOE	10
0801500006	BISHOP (D) FARM		N-4075	DOE	11
0801500009	BISHOP (D) FARM		N-4075	DOE	11
0803300008	BRANDYWINE SPRINGS PARK		N-1627		12
0703100007	BREIDABLIK		N-12086		13
0803910002	C JUSTICE HOUSE		N-253		14
0702200021	C S WAY FARM		N-309		15
0700700024	CARPENTER LIPPINCOTT HOUSE (MANSION)		N-541	NR	16
0700700034	CENTREVILLE HISTORIC DISTRICT	TODD (MRS R) HOUSE	N-618601	NR	17
0700700033	CENTREVILLE HISTORIC DISTRICT	CONNORS STORE	N-618601	NR	17
0700700105	CENTREVILLE HISTORIC DISTRICT	CANBY GROVE PARK	N-618601	NR	17
0700700106	CENTREVILLE HISTORIC DISTRICT	FRAME HOUSE	N-618601	NR	17
0700700107	CENTREVILLE HISTORIC DISTRICT	ODD FELLOWS HALL	N-618601	NR	17
0700700018	CENTREVILLE HISTORIC DISTRICT	CHANDLER DIXON HOUSE	N-618601	NR	17
0700700109	CENTREVILLE HISTORIC DISTRICT		N-618601	NR	17
0700700151	CENTREVILLE HISTORIC DISTRICT		N-618601	NR	17
0700700009	CENTREVILLE HISTORIC DISTRICT		N-618600	NR	18
0700700012	CENTREVILLE HISTORIC DISTRICT	STONE HOUSE	N-618600	NR	18
0700700013	CENTREVILLE HISTORIC DISTRICT	STONE HOUSE	N-618600	NR	18
0700700014	CENTREVILLE HISTORIC DISTRICT	MOORE (REV DW) HOUSE	N-618600	NR	18
0700700039	CENTREVILLE HISTORIC DISTRICT	DELAP AINE (JAMES) HOUSE	N-618600	NR	18
0700700029	CENTREVILLE HISTORIC DISTRICT		N-618600	NR	18

PARCEL ID	NAME	OTHER NAME	STATE INV.	STATUS	MAP KEY
0700700028	CENTREVILLE HISTORIC DISTRICT	MODERN HOUSE	N-6'8600	NR	18
0700700158	CENTREVILLE HISTORIC DISTRICT		N-6'8600	NR	18
0700700005	CHANDLER (JOSEPH) HI HOUSE		N-1'44	NR	19
0702800005	CHANDLER HOUSE		N-12080	DOE	20
0702300020	CHEVANNES		N-535		21
0701000056	CLOUO FARM		N-1'2'		22
0802000053	COFFEE RUN MISSION		N-272	NR	23
0802000112	COFFEE RUN MISSION		N-272	NR	23
0702300023	COLONIAL REVIVAL HOUSE		N-348	NR	24
0700500021	D W TAYLOR FARM		N-4079		25
0800900061	DIXON (SP) FARM		N-4072	NR	26
0701200020	E M NICHOLS HOUSE		N-7680		27
0701100052	EUGENE DUPONT ESTATE		N-511		28
0702300017	EVELINA DUPONT ESTATE		N-513		29
0702300018	EVELINA DUPONT ESTATE MAIN HOUSE & SECOND		N-533		30
070240164	F EVANS HOUSE		N-225		31
0704140012	F FLINN HOUSE		N-228		32
0803300001	FELL HISTORIC DISTRICT		N-676000	NR	33
0803300002	FELL HISTORIC DISTRICT		N-676000	NR	33
0803300011	FELL HISTORIC DISTRICT		N-676000	NR	33
0803300015	FELL HISTORIC DISTRICT		N-676000		33
0803300018	FELL HISTORIC DISTRICT		N-676000	NR	33
0803300003	FELL HISTORIC DISTRICT		N-676000	NR	33
0803300005	FELL HISTORIC DISTRICT		N-676000	NR	33
0803300004	FELL HISTORIC DISTRICT		N-676000	NR	33
0803300017	FELL HISTORIC DISTRICT		N-676000	NR	33
0803300007	FELL HISTORIC DISTRICT		N-676000	NR	33
0801400045	G MONTGOMERY HOUSE		N-4069		34
0700900006	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0700900015	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0700900014	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0700900050	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0700900017	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0700900044	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0700900045	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35

PARCEL ID	NAME	OTHER NAME	STATE INV.	STATUS	MAP KEY
0700900046	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0700900018	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0700900047	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0700900048	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0700900049	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0700900040	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0700900039	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0700900038	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0700900013	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0700900012	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0700900011	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0700900035	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0700900019	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0701000003	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0700900010	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0700900036	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0700900009	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0700900008	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0700900007	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0700900034	GARRETT SNUFF MILL HISTORIC DISTRICT	GARRETT HOUSE	N-409800	NR	35
0700900027	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0700900026	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0700900025	GARRETT SNUFF MILL HISTORIC DISTRICT		N-409800	NR	35
0702940015	GLENDEN (MAIN HOUSE)		N-501		36
0701600006	GRAVES MILL HISTORIC DISTRICT		N-5005	NR	37
0701700001	GRAVES MILL HISTORIC DISTRICT		N-5005	NR	37
0803910222	GREENBANK MILL & MILL OWNER'S HOUSE		N-191	NR	38
0803910224	GREENBANK MILL & MILL OWNER'S HOUSE		N-191	NR	38
0803910159	GREENBANK MILL & MILL OWNER'S HOUSE		N-191	NR	38
0803330028	H S MCCOMB HOUSE		N-254		39
0700500006	HARLAN CLOUD HOUSE		N-113		40
0803930010	HERSEY-DUNCAN HOUSE		N-1244	NR	41
0804510094	HICKMAN BLACKSMITH SHOP AND HOUSE	HICKMAN BLACKSMITH SHOP	N-12992	NR	42
0804510093	HICKMAN BLACKSMITH SHOP AND HOUSE	HICKMAN HOUSE	N-12991	NR	43
0703210042	HIGHFIELD		N-60496	DOE	44

PARCEL ID	NAME	OTHER NAME	STATE INV.	STATUS	MAP KEY
0800600076	HOCKESSIN FRIENDS MEETING		N-00330	NR	45
0701100002	HOLLINGSWORTH ARMSTRONG FARM		N 1116		46
0701000049	HUTCHISON HOUSE		N-280		47
0800900049	J ARMSTRONG HOUSE		N-4071		48
0801500004	J B BARKER HOUSE		N-4066		49
0800400027	J C HALL HOUSE		N-4086		50
0701100002	GREENWALT ESTATE		N-7593		51
0701100002	J C PHILLIPS HOUSE		N-1115		52
0701700030	J COMMONS HOUSE/VICMEAD HUNT CLUB		N-305		53
0703740022	J CRANSTON HOUSE		N-227		54
0804430071	J CRANSTON HOUSE		N-1252		55
0701000039	J KI AIR HOUSE		N-1119		56
0704620001	J ROTJWELL HOUSE		N-230		57
0701600003	J SHARPLESS/P MULLEN HOUSE		N-1130		58
0702200032	JAMES LEACH HOUSE		N-297		59
0800820003	JAMES WILSON FARM		N-4087		60
0800720023	JNO SPRINGER HOUSE		N-10265		61
0704110038	JOHNSON WILLIAM JULIUS "JUDY" HOUSE	JUDY JOHNSON HOUSE	N-131600	NR	62
0703220060	LETDOWN		N-1268500	DOE	63
0703220001	LETDOWN	Glendon Carnegie House	N-1268500	DOE	63
0703210055	LIMERICK		N-0050500	DOE	64
0701800005	LOWER BRANDYWINE CHURCH & MANSION		N-538		65
0701200031	LOWER BRANDYWINE PRES CHURCH & MANSION		N-538		65
0702200035	M CONCONNAYN FARM		N-298		66
0702600070	M GREEN HOUSE		N-530		67
0700500016	M KANE HOUSE		N-7653		68
0804510195	MARSHALLTON LIM CHURCH		N-1091000	NR	69
0800900051	MASON (J) FARM		N-1091000	NR	70
0802630223	MCCORMICK (J) FARM		N-0161300	NR	71
0802000057	MILLER ILLWISI HOUSE COMPLEX		N-0407500	DOE	72
0702200021	MONTMORENCI		N-7692		73
0700600040	MOUNT AIRY SCHOOL NO 27		N-0386400	NR	74
0702200027	MOUNT CUBA HISTORIC DISTRICT		N-0500100	NR	75
0702200028	MOUNT CUBA HISTORIC DISTRICT		N-0500100	NR	75
0702200026	MOUNT CURA HISTORIC DISTRICT		N-0500100	NR	75

PARCEL ID	NAME	OTHER NAME	STATE INV.	STATUS	MAP KEY
0702200032	MOUNT CUBA HISTORIC DISTRICT		N-0500100	NR	75
0702200045	MOUNT CUBA HISTORIC DISTRICT		N-0500100	NR	75
0702200029	MOUNT CUBA HISTORIC DISTRICT		N-0500100	NR	75
0702200057	MOUNT CUBA HISTORIC DISTRICT		N-0500100	NR	75
0801400003	MOUNT PLEASANT INN		N-4058		76
0702200010	O VERNON PYLE HOUSE		N-304		77
0700100024	ÖBEROD		N-315		78
0700100021	ÖBEROD GATE HOUSE		N-7694		79
0701800014	PATTERSON HOUSE		N-537		80
0801600092	PHILLIPS HOUSE		N-1129		81
0702600007	RANDALIA		N-515		82
0802600019	RED CLAY CREEK PRESBYTERIAN CHURCH		N-0042600	NR	83
0802600055	RED CLAY CREEK PRESBYTERIAN CHURCH		N-0042600	NR	83
0702600174	ROBERT MORROW HOUSE		N-519		84
0700600021	S G CLEMENT FARM		N-316		85
0701000015	S M GREEN FARM		N-127		86
0701100107	SAMUEL ARMSTRON HOUSE		N-312		87
0805110035	SIMON GRANSTON HOUSE		N-1605		88
0803910218	SPRING HILL		N-0024900	DOE	89
0804510196	SPRINGER GRANSTON HOUSE		N-1293100	NR	90
0703120011	SPRINGER (CHARLES) TAVERN - house		N-0050700	NR	91
0805040047	STANTON ARMS HOTEL SITE		N-015550	NR	92
	STATE BRIDGE NO. 112	RED CLAY CRYORKLYN	N-04054.0	DOE	93
	STATE BRIDGE NO. 118	ASHLAND COVERED BR	N-00331.0	NR	94
	STATE BRIDGE NO. 119	RED CLAY CRIMT CUBA	N-01069.0	DOE	95
	STATE BRIDGE NO. 120	RED CLY CRIMT CUBA RD	N-04277.0	DOE	95
	STATE BRIDGE NO. 137	WOODALE BRIDGE	N-00296.0	NR	97
	STATE BRIDGE NO. 155	RED CLY CR:OLD CAP TR	N-12663.0	DOE	98
	STATE BRIDGE NO. 182	HYUL RNF:AULKND RD	N-12593.0	DOE	99
	STATE BRIDGE NO. 88	RED CLY CR:SNUFF MILL RD	N-12531.0	DOE	100
	STONE ARCH BRIDGE NO. 611		N-517		101
0700600001	T HARLIN FARM	T HARLIN FARM	N-1132	DOE	102
0702900009	THOMAS LYNAM FARM		N-510		103
0701200017	W PETERS FARM		N-540		104
0701200018	W PETERS FARM		N-540		104

PARCEL ID	NAME	OTHER NAME	STATE INV.	STATUS	MAP KEY
0702200018	WALNUT GREEN SCHOOL	DISTRICT SCHOOL NO 25	N-0030800	NR	105
0702500014	WESTBRAE		N-521		106
0703440517	WILLIAM ARMSTRONG HOUSE		N-378		107
0800340008	WILLIAM COX FARM		N-431		108
0702500011	WILLIAM DICKSON HOUSE		N-524		109
0702200019	WILLIAM DIXSON HOUSE		N-516		110
0701600035	WILLIAM GREGG HOUSE		N-750		111
0702800064	WILLIAM LOWTHER FARM		N-526		112
0703710012	WILMINGTON & WESTERN RAILROAD		N-0409100	NR	113
0702300008	WINDBEAM		N-7679		114
0701200032	WINTERTHUR MUSEUM & GARDENS		N-0034800	NR	115
0802100045	WOODDALE HISTORIC DISTRICT		N-0409200	NR	116
0802100021	WOODDALE HISTORIC DISTRICT		N-0409200	NR	116
0802100046	WOODDALE HISTORIC DISTRICT		N-0409200	NR	116
0802100031	WOODDALE HISTORIC DISTRICT		N-0409200	NR	116
0802100017	WOODDALE HISTORIC DISTRICT		N-0409200	NR	116
0802100030	WOODDALE HISTORIC DISTRICT		N-0409200	NR	116
0802100020	WOODDALE HISTORIC DISTRICT		N-0409200	NR	116
0802100029	WOODDALE HISTORIC DISTRICT		N-0409200	NR	116
0802100019	WOODDALE HISTORIC DISTRICT		N-0409200	NR	116
0803610183	Z DERRICKSON HOUSE		N-10149		117

PARCEL ID - New Castle County Parcel Identification Number

NAME/OTHER NAME - Listed and Local Names

STATE INV - Delaware State Inventory Number

STATUS - Status of Resource (NR - National Register Property, DOE - Determination of Eligibility, All Others are Potentially Eligible)

MAP KEY - Corresponds to numbered site on map



Appendix 5

Context Sensitive Design for the Red Clay Valley Scenic Byway

Table of Contents

Introduction

Palette of Design Materials

Bridge Treatments
Preferred Practices & Practices to Avoid

Community Subdivision Entrances
Preferred Practices & Practices to Avoid

Curbing
Preferred Practices & Practices to Avoid

Fencing
Preferred Practices & Practices to Avoid

Guardrails
Preferred Practices & Practices to Avoid

Road Characteristics (cartway width, lining, etc.)
Preferred Practices & Practices to Avoid

Stormwater Management Facilities
Preferred Practices & Practices to Avoid

Utilities
Preferred Practices & Practices to Avoid

Walls/Retaining Walls
Preferred Practices & Practices to Avoid

Resources

Demonstration Projects

Landscape Management Tools

Survey of Roadside Vegetation
Suggested Native Plant List
Resources

Introduction

The underlying intent of the movement towards “context sensitive design” is respect for local surroundings. The term is essentially self-defining: consider the context or physical setting within which you are working and use design approaches and materials that are consistent with local conditions. For example, if typical guardrail along a roadway is steel-reinforced wood, continue to utilize such materials when improvements are made; alternatively, when efforts to slow runoff in a drainage channel necessitate rip-rap, consider the use of native stone rather than stone from other geographic areas. Context sensitive design recognizes local community character and attempts to incorporate elements of such character into future construction projects.

This appendix is intended to provide guidance to those design professionals who do work on or along the road segments of the Red Clay Valley Scenic Byway. The first part of the appendix consists of a palette of design materials or practices that are consistent with the Byway’s community character; such practices are encouraged and should be replicated or expanded as needed. Others are less conducive to the Byway’s community character and should be avoided or replaced. As part of this Corridor Management Plan, a photographic inventory of the Byway’s roadside characteristics, amenities, design features and scenic character was undertaken. Many of these photographs attest to the scenic splendors of the Valley

and provide worthy examples of design practices that should be replicated in the years to come. Others attest to past practices that are less in keeping with the characteristics of the Byway and should be avoided or replaced in future years. In some instances, photographs from outside the Byway are included to represent practices both desirable and undesirable; this was done to give guidance on practices that may not currently exist in the Byway, but may occur in the future. Finally, this section provides a list of resources for additional information.

The second component of this appendix consists of descriptions of demonstration projects that occurred recently or are underway in the Byway. Such descriptions are intended to be instructive in terms of fostering better working relationships among those determined to maintain the character and integrity of the Byway and those undertaking projects in the Byway. As these demonstration projects attest, such relationships need not be confrontational; in fact, working relationships that foster a sense of respect and openness can contribute greatly to a project’s ultimate success.

The third component of this appendix is a description of landscape management tools for the Byway. Included here is a suggested native plant list intended to be used for replacement and enhancement planting efforts in the Byway, a survey of roadside vegetation, and a list of resources for further consultation.

Palette of Design Materials

The following text and photographs are intended to demonstrate both desirable and undesirable design elements. Many of these elements currently exist in the Red Clay Valley and photographs of such features are included here where possible. Other photographs are examples found elsewhere. The practices shown here are not intended to be viewed as good or bad but rather as examples of practices that are generally consistent with or not consistent with the “context” of the Red Clay Scenic Byway. As such, “preferred practices” are those practices that are generally consistent with the character and context of the Valley and should be replicated to promote consistency; conversely, those “practices to avoid” are not consistent with the character of the Valley and should be avoided in the future.

BRIDGE TREATMENTS

Preferred Practices

The bridge treatments shown herein are generally consistent with those currently found in the Byway. In order of preference, stone or stone facing bridge treatments are the number one choice for future bridge construction. Such facing is found throughout the Byway today and is therefore highly desirable. Wooden guardrail and decorative concrete are alternatives to stone, but are not as preferable. Several covered bridges have existed in the Byway through history and this planning effort encourages their maintenance and reconstruction as needed.

1. Stone/stone facing
2. Reinforced Wooden Guardrail
3. Decorative Concrete



Practices to Avoid

Concrete jersey barrier exists only in a few places within the Byway and is considered both unsightly and inconsistent with the local context; furthermore, the appearance of jersey barrier misconstrues what is happening along a roadway: Is construction underway? Will the road be closed or is an alternative traffic pattern anticipated. Is the Road “finished?” Such practices should be avoided in the future.

4. Concrete Jersey Barrier



COMMUNITY SUBDIVISION ENTRANCES

Preferred low-impact entrances

Many housing developments and subdivisions conform well to the landscape, neither compromising the scenic, natural and historic integrity of scenic byways or detracting from the houses contained therein. Within the Scenic Byway it is highly desirable to reduce the overall impact of subdivision entrances.



Practices to Avoid - high-impact entrances

The subdivision entrances shown herein are considered high-impact entrances and are not encouraged in the Byway. Typical of such entrances are large stone, brick or stucco walls, lighting, and signs intended to promote and “advertise” the community.

Furthermore, it is the intent of this effort to limit the type and size of signage and minimize the use of “welcome to” signs found in other parts of New Castle County.



CURBING

Preferred Practices

In general, curbing is recommended along Byway road segments only when specifically needed for public safety. Where curbing is specifically warranted, several kinds of curbing materials are available which lessen their visual impact and minimize disturbance; among them are granite curb, dyed concrete curb, and rolled macadam curb.

1. Granite curb
2. Dyed concrete curb
3. Rolled macadam curb



Practices to Avoid

The least sightly of the curbing materials available is undyed concrete curb. Concrete curb tends to stand out and can draw the eye away from other aspects of the road.

4. Concrete curb



FENCING

Preferred Practices

Many styles of fencing exist and it is difficult to present a comprehensive list of the various styles and materials available. It is strongly recommended that fencing be visually transparent as transparent fencing helps maintain the scenic quality of the Byway (such as the scenic vistas and accents found throughout the Byway). The most widely used style of fencing in the Byway today is post and rail.

1. Post and rail

1



Practices to Avoid

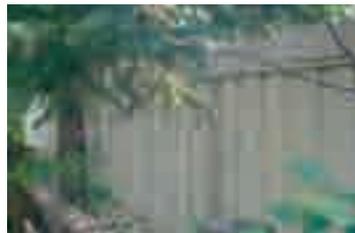
Certain styles of fencing lend themselves more to urban and industrial settings. Such is often the perception garnered by chain link fence or similar “barrier” fences that are intended to strictly limit access. Solid fencing, while not necessarily unsightly, prohibits visual access. Where filtering or opacity is important, it is recommended that vegetative screens be used in conjunction with transparent fencing.

2. Chain link fence
3. Solid landscape fence

2



3



GUARDRAILS

Preferred Practices

In general, the use of guardrail is only recommended along Byway road segments when specifically needed for safety. While guardrail exists in several locations throughout the Byway, there is little consistency to the style and type of guardrail used. This planning effort undertook a comprehensive evaluation of the guardrail of the Byway. It is recommended that a consistent approach be taken when replacing or installing guardrail in the future. The practices listed herein are currently found in the Byway and are recommended for future applications when guardrail is required.

1. Reinforced Wooden Guardrail
2. Concrete/stone faced Guardrail
3. Weathering Steel Beam Guardrail

1



2



3



Practices to Avoid

Although several of the guardrails shown below exist in the Byway today, they are not recommended for use in the future. In general, these practices are not consistent with the overall character of the Byway.

4. Concrete Jersey Barrier
5. Steel Beam Guardrail
6. Epoxy coated Steel Beam Guardrail

4



5



6



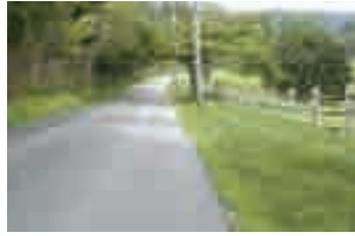
ROAD CHARACTERISTICS (cartway width, lining, etc.)

Preferred Practices

While many of the roads of the Byway are narrow and unlined, others are much wider and striped accordingly. This character contributes both to the overall sense of the Byway and to the “feel” of individual roads. Although traffic volume and safety certainly play a role in roadway width and striping, this planning effort encourages DelDOT to maintain existing cartway widths on all roads in the Byway to the extent feasible. Furthermore, it is hoped that road striping not be overused. Past experience indicates that striping, while intended to promote safety and convey the rules of the road, often contributes to excessive driving speed; conversely, maintaining the rural characteristics of roads often contributes to lower driving speeds.

1. Maintain existing cartway widths
2. No striping
3. Single line striping

1



2



3



SIGNAGE

Preferred Practices

In general, this planning effort encourages the use of signage that respects the character of the Byway, neither detracting from the intrinsic qualities of the Byway nor contributing to scenic blight. In particular, this refers to the desire to encourage signage that utilizes natural components (such as wood and stone) and contributes to the physical surroundings of which it is a part.

1



Practices to Avoid

The use of brightly colored and/or inappropriately lighted signs is distracting. Furthermore, the use of excessive signage, such as the neighborhood “welcome to” signs found elsewhere in New Castle County, is visually distracting and takes away from the character of the Byway. The corridor management plan indicates that a survey of roadway signs will be undertaken and conveyed to DelDOT for future action. In addition, meetings with both DelDOT and New Castle County will be scheduled to discuss sign regulations and placement.

2



STORMWATER MANAGEMENT FACILITIES

Preferred Practices

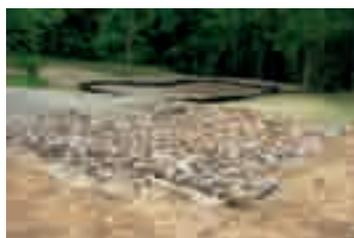
In general, it is the objective of this Plan to encourage the use of green technology best management practices (BMPs) throughout the watershed. Such practices have obvious advantages, such as recharging groundwater and addressing runoff volumes, as well as some less obvious advantages, such as using vegetated practices and natural materials that blend into the landscape and contribute to community character. The practices shown below are but a few of the many “non-structural” BMPs available for use within the Byway.

1. Vegetated Practices
2. Natural stone rip rap

1



2



Practices to Avoid

Many of the “structural” facilities shown below are inconsistent with the character of the Byway for several reasons: they utilize materials not found in the valley, they are often unsightly, and they generally only partially address the stormwater management requirements of permitting agencies (infiltration, volume control, peak rate control, etc.). The examples shown below, while for illustrative purposes only, indicate the kinds of practices that should be avoided.

3. Stormwater Basin
4. Rip Rap composed of stone not consistent with that found in the Valley
5. Concrete Swales
6. Outlet Structure

3



5



UTILITIES

Adequate public utilities are a necessity of modern life and this effort in no way encourages reductions in services or changes that will lead to service failures. On the contrary, this effort wishes to assure that adequate public facilities be maintained and expanded as needed to serve the residents and businesses of the Valley. That said, it is of paramount importance that the provision of public infrastructure not compromise the resources of the Valley this planning effort strives to preserve. The practices shown below are intended to demonstrate sensitive approaches to the provision of services; conversely, practices to be avoided are documented as well.

For example, cell phones towers can be “camouflaged” to lessen their visual impact. Transformers can be screened to reduce their often unsightly appearance. Sensitive pruning practices can achieve multiple objectives, including: reducing the potential for power outages, buffering power lines from scenic viewsheds, and ensuring the health and longevity of the trees themselves. Also listed here are native plant species appropriate under or near power lines. Finally, lighting practices are available that can illuminate in a manner that does not detract from the Byway.

Preferred Practices

1. Cell phone towers
2. Lighting
3. Pruning practices

Practices to Avoid

4. Cell phone towers
5. Lighting
6. Pruning practices
7. Transformers (undesirable, no screening)



EXAMPLES OF NATIVE PLANT SPECIES APPROPRIATE UNDER OR NEAR POWER LINES

While sensitive pruning practices are extremely important, careful consideration must also be given to planting new vegetation near power lines. In general, it is not recommended that plants be placed directly under power lines; however, in those instances where plants are to be located under or near power lines, the following species native to Delaware are considered compatible. The trees are listed by their common name followed by their scientific name in parenthesis.

Compatible Trees for Planting Under or Near Power Lines:

- Cherry, Choke (*Prunus virginiana*)
- Crabapple, Flowering (*Malus coronaria*)*
- Dogwood, Flowering (*Cornus florida*)
- Dogwood, Gray (*Cornus racemosa*)
- Fringe Tree (*Chionanthus virginicus*)
- Hawthorn, Cockspur (*Crataegus crus-galli*)
- Hawthorn, Dotted (*Crataegus punctata*)
- Redbud, Eastern (*Cercis canadensis*)

Evergreens For Screens:

- Redcedar, Eastern (*Juniperus virginiana*)

* *Malus coronaria* is the only species of flowering crabapple native to the Delaware Piedmont

WALLS/RETAINING WALLS

Preferred Practices

Historically, the walls of the Red Clay Valley were made from field stone typically found in the area (and often removed to permit the planting of field crops). Many such walls remain today and contribute significantly to the character of the Byway. Other natural materials, such as wood and brick have also been used in recent years with much success. The practices shown below are encouraged.

1. Native stone
2. Railroad ties

1



2

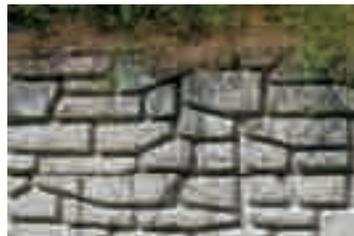


Practices to Avoid

Walls made of material unsuited to the Byway are not encouraged, including those walls made from concrete or concrete forms.

3. Formed concrete

3



RESOURCES – PALETTE OF DESIGN MATERIALS

The resources listed below provide additional information on design materials geared towards contextual sensitivity.

- *Better Models for Development in Delaware*, 2003, prepared by The Conservation Fund in partnership with the Livable Delaware Advisory Council and the Office of State Planning Coordination
- *Conservation Design for Subdivisions*, 1996, prepared by Randall G. Arendt
- Context Sensitive Solutions - www.contextsensitivesolutions.org
- *Context Sensitive Solutions for Work on Scenic Byways*, 2005, prepared by Oldham Historic Properties, Inc. for Maryland State Highway Administration
- *Conserving Our Treasured Places: Managing Visual Quality on Scenic Byways*, prepared by Scenic America for the America's Byways Resource Center
- *A Guide for Achieving Flexibility in Highway Design*, 2004, prepared by the American Association of State Highway and Transportation Officials
- *Outdoor Lighting Code Handbook*, 2000, prepared by the International Dark Sky Association
- *Scenic Solutions: Designs and Methods to Save America the Beautiful*, 2003, prepared by Scenic America and the USDA Natural Resources Conservation Service

DEMONSTRATION PROJECTS

The demonstration projects described below involve both prospective road work and road work undertaken in the past within the Red Clay Valley Scenic Byway. Both projects involved careful negotiations with DelDOT and others and are seen as beneficial examples of the value of citizen action and involvement in road construction projects.

Brackenville Road Improvements A Case Study

Background

Well before the designation of Brackenville Road as one of the twenty-eight road segments that compose the Red Clay Valley Scenic Byway, the Delaware Nature Society had a strong interest in preserving the corridor. Since 1976, the Delaware Nature Society's headquarters, Ashland Nature Center, has been located on land owned by the Red Clay Reservation that lies immediately adjacent to the intersection of Brackenville and Barley Mill Roads. The wooded riparian corridor, open meadow, and Indian Rill stream (a tributary of the Red Clay Creek) have been utilized for hands-on natural history and environmental education programming for Delaware Nature Society members, school groups, and public groups, such as girl and boy scouts.

Delaware Nature Society staff, residents along Brackenville Road, and other interested individuals participated in a DelDOT working group from the Spring of 2005 to the Spring of 2007 to help identify suitable solutions to address the ongoing drainage and safety concerns along the roadway. Ultimately the working group was discontinued and DelDOT initiated the construction design process.

Proposed Project

On July 26, 2005, DelDOT representatives met with Delaware Nature Society staff to discuss their preliminary plans for the "Ashland Curve" section of the roadway. On the north side, the "Ashland Curve" is bordered by trees, a steep slope, and the Indian Rill stream and associated floodplain; a steep, wooded slope borders the road on the south side. The road in this area has been

plagued with drainage concerns, improper road profile and slope, and severe erosion/undercutting of the roadbed by the adjacent stream. The preliminary plan included:

- limiting disturbance to the north side of the road, protecting the steep, wooded slope on the south;
- correcting the super-elevation of the roadbed;
- installing curb to tie-in the steep slope on the south side of the road;
- installing catch basins to eliminate water from the road surface;
- discharging stormwater from the road directly to the stream and utilizing rip rap for scour protection at the outfalls;
- installing guardrail on the north side of the road and creating a 1:1 slope behind the guardrail;
- removing the majority of trees on the north slope; and
- relocating and restoring sections of the Indian Rill stream.

During the initial July meeting, Delaware Nature Society staff alerted the DelDOT project representatives that Brackenville Road was part of the Red Clay Valley Scenic Byway designated earlier that year and that a Steering Committee had been formed to draft the Corridor Management Plan for the Byway. Delaware Nature Society staff requested that DelDOT review the project with the Steering Committee and that jointly the groups explore context sensitive solutions.

Marc Cote and Shante Hastings, Squad Managers, and Joe Hofstee, Project Engineer, met with Delaware Nature Society staff and Steering Committee members on September 14, 2005 to review the preliminary plans. The Steering Committee raised many questions/concerns, particularly regarding:

- road width – the Steering Committee preferred no expansion of the cartway widths;
- guardrail – the Steering Committee’s first preference was for no guardrail; reinforced wooden guardrail was the Committee’s second choice and weathering steel guardrail was the third;
- curbing – the Steering Committee’s first preference was for no curb; if needed, 2” curb was preferred over 8” curb and dyed concrete curb was encouraged;

- tree removal/replacement – the Steering Committee encouraged limited tree disturbance and requested a list of all trees (location and species) slated for removal; the Committee insisted all replacement species be native;
- stormwater management – the Steering Committee encouraged DelDOT to explore alternatives to traditional stormwater management structures and utilize indigenous stone rather than rip rap; and
- stream restoration – the Steering Committee was pleased to learn that Rosgen methodology would be utilized for the stream relocation and restoration; the Committee encouraged DelDOT to contact DNREC regarding the recent Pike Creek project; many concerns were expressed about the stream impacts, particularly given the limited detail of the plans at that time.

DelDOT agreed to review the Steering Committee’s concerns/suggestions and report back on any changes. Delaware Nature Society staff maintained regular contact with DelDOT.

On May 9, 2006, DelDOT representatives and consultants from Oasis Design Group participated in a site walk of Brackenville Road with Delaware Nature Society staff and members of the Steering Committee to review the updated version of the construction plans and discuss the context sensitive design issues raised by the Committee. While some progress had been made, many of the Committee’s initial concerns remained.

Delaware Nature Society staff and members of the Steering Committee again met with DelDOT representatives on March 2, 2007. The purpose of the meeting was to review the most recent plan updates and discuss what would be presented at the public workshop the following month. The following decisions were reached regarding the issues originally raised by the Steering Committee:

- road width – the existing cartway width would be maintained;
- guardrail – DelDOT determined that guardrail was essential for safety reasons; the reinforced wooden guardrail could not be utilized because of the slope and it did not have acceptable end treatment options, so weathering steel guardrail would be installed;
- curbing – DelDOT determined that an 8” curb was needed to prevent impacts to the southern

slopes during tie-in; dyed concrete would be used for the curb – the public would be presented with three color choices recommended by the Committee for selection at the public workshop;

- tree removal/replacement – Oasis Design Group conducted an inventory of the existing roadside vegetation and identified those trees that would be preserved and those that would be removed – the removal was considered tree by tree rather than bulk clearing – a draft list of native species for mitigation was proposed;
- stormwater management – limited changes were made to the stormwater management structures, with the possible exception of the use of swales at the outfalls; and
- stream restoration – DelDOT utilized the expertise of DNREC staff regarding the stream restoration project – overall the Committee’s concerns were satisfied.

Delaware Nature Society staff and members of the Steering Committee participated in the public workshop for the Brackenville Road Improvement Project held at the Ashland Nature Center on April 11, 2007. The feedback from the public and members of the Steering Committee was generally positive, particularly in relationship to the context sensitive solutions that were proposed.

DelDOT is now pursuing right-of-way acquisition for the project and anticipates completing final plans for Brackenville Road by October 2007. Construction is scheduled to begin in Spring 2008.

Lessons Learned

The Brackenville Road improvements will be the first major construction project to occur on a Red Clay Valley Scenic Byway road since the designation in April 2005. The project could set a precedent for future road improvement efforts.

The Steering Committee was in the early process of developing the Corridor Management Plan for the Byway when preliminary discussions about the Brackenville Road project began. Ultimately, this project and negotiations with DelDOT regarding context sensitive solutions framed much of the thinking about the goals, objectives, and strategies outlined in the Corridor Management Plan and the accompanying appendices, and fostered the Steering Committee’s

desire to enter into a Memorandum of Understanding with DelDOT.

Final plans are not yet complete and construction is still several months away, so the ultimate outcome of the Brackenville Road project remains to be seen. The Steering Committee was able to negotiate some compromises with DelDOT regarding context sensitive solutions, although not successful in meeting all of the initial goals.

The communication process with DelDOT was generally satisfactory and should be enhanced through the Memorandum of Understanding. Scenic Byway designation should be included and play a prominent role in DelDOT road design efforts (including the use of context sensitive design), public notices and workshops for future projects along designated road segments.

Mt. Cuba Road Improvements *A Case Study*

Background

This DelDOT project involved road improvements along Mt. Cuba Road with a commensurate condemnation action that had been filed as part of the planning process. At the time of community involvement, construction and right of way plans had already been drawn. Although some outreach to the public had been attempted, such negotiations had been limited and non-productive.

The road improvement project involved taking of land around an existing bridge over a stream and through fenced pasture land. There was a vegetative cover on the bank of the stream made up largely of native trees, some of which were to be affected or removed to accommodate construction.

Negotiations

The first need identified was to establish a formal contact with DelDOT and build a working relationship. An initial meeting allowed for a full discussion of the project and allowed those involved to obtain copies of the current construction and right of way plans. This in turn allowed an independent evaluation of the proposed taking and a determination as to whether the taking was excessive for the needs of the project. Although a review of the DelDOT drawings by independent legal experts, engineers and plant experts did not

indicate any objections to the plans themselves, such advisors indicated that the proposed extent of the taking was not necessary. As such, tentative revisions to the planning documents were prepared in-house in advance of a second meeting with DelDOT.

The second meeting with DelDOT was held on-site. At this meeting, the concerned parties first established the dimensions of the project in the field and discussed the tentative revisions. Staff of the Mt. Cuba Center were able to point out those trees and other significant vegetation within the project area that should be preserved. After some discussion, DelDOT agreed to the changes identified. In order to facilitate protection of vegetation, it was also agreed by all parties that the plan changes would necessitate continued contact with the DelDOT field superintendent located in the construction trailer.

Lessons Learned

In this case, the existence of a condemnation action became an advantage. Not only did the action result in property owner notification, but once an agreement had been reached regarding preservation and operational details during construction, it was incorporated as conditions to the Order of Possession entered by the Superior Court.

In addition, Mt. Cuba staff were able to negotiate a substitution program for plants that had to be removed. As to those that remained, a system of marking was established to facilitate monitoring of the site by both parties.

Frequent visits to the site were essential. The contractor and DelDOT supervisors on-site responded well to monitoring and remained cordial throughout the construction process, despite the need for occasional visits to the construction office to ensure enforcement of the agreements made. Throughout the process, it was important to be familiar with and respect DelDOT constraints and project time schedules. Mutual respect was a key to successful field negotiations.

The end results were road improvements everyone supported. For their part, DelDOT responded positively to the ideas generated by the concerned parties, even when they did not agree. One of the most important lessons learned is the need to become involved in the process as early as possible; early involvement allows for a thorough discussion of the greatest number of options.

A Selected List of New Castle County, Delaware Native Plants for Use in Context Sensitive Design Applications

Every region has its own unique assemblage of native plants—often referred to as its “flora”. These plants have inhabited the land for millennia and provide the qualities that humans associate with the forest’s natural character. The Red Clay Valley in northern New Castle County, Delaware is no exception and contains a rich and diverse array of native plants.

The following list contains a subset of the native plants found in northern New Castle County as determined by the Delaware Natural Heritage Program. It is intended to be a guide for assisting natural areas professionals, developers, homeowners’ associations, landscapers, gardeners, and others in the plant selection process to retain the context sensitive character of the Red Clay Valley Scenic Byway through landscape development, restoration or maintenance activities.

A Selected List of New Castle County, Delaware Native Plants for Use in Context Sensitive Design Applications

SCIENTIFIC NAME	COMMON NAME	WETLAND INDICATOR STATUS	HABITAT	SEASON(S) OF INTEREST
SHRUBS				
<i>Alnus incana</i>	smooth alder	OBI	Tree and river banks, floodplains	Summer foliage
<i>Aronia arbutifolia</i>	red chokeberry	IACW	Swamps and wet woods	Spring flowers, autumn foliage, color and fruit
<i>Aronia melanocarpa</i>	black chokeberry	IAC	Moist woods	Spring flowers, autumn foliage, color and fruit
<i>Aronia prunifolia</i>	purple chokeberry	IACW	Thickets, old fields, edge-	Spring flowers, autumn foliage, color and fruit
<i>Azogone distachya</i>	poaew	IACU	Moist woods	Spring flowers, autumn foliage,...
<i>Ceanothus americanus</i>	New Jersey tea	OBI	Dry, fertile soils	Summer foliage and flowers
<i>C. glaberrimus</i>	buttonbush	OBI	Wet meadows	Summer foliage and flowers
<i>C. rugosus</i>	sweet fern	OBI	Dry, sandy soils	Summer foliage
<i>C. ovatus</i>	alternate-leaf dogwood	OBI	Rich woods along streams	Spring flowers, summer foliage and fruit
<i>Cornus alternifolia</i>	dogwood	IACW	Swamps, wet meadows, marshes	Summer flowers, autumn fruit
<i>Cornus florida</i>	flowering dogwood	IACW	Woods	Spring flowers, autumn foliage and fruit
<i>Cornus canadensis</i>	staff dogwood	IAC	Open low to dry woods and thickets	Spring flowers, summer foliage and fruit
<i>Cornus coccinea</i>	red-ostler dogwood	IACW	Swamps, stream banks, wet meadows	Spring flowers, autumn fruit, year round bark color
<i>Cornus amomifolia</i>	American hazelnut	IACU	Woods	Spring flowers, autumn fruit
<i>Cornus rugosa</i>	weak hazelnut	IACU	Rocky woods	Spring flowers, autumn fruit
<i>Cornus leucocarpa</i>	cockspur hawthorn	IACU	Thicket, low ground, floodplains	Spring flowers, autumn fruit
<i>Diospyros virginiana</i>	spotted bush, persimmon, persimble	OBI	Rich rocky woods	Summer flowers
<i>Diospyros lotus</i>	eastern hollyhock	OBI	Rich rocky woods	Spring flowers, winter habit
<i>Eriogonum fasciculatum</i>	fruiting albatrus	OBI	Dry, steep, wooded slopes	Spring flowers, year-round foliage
<i>Fraxinus americana</i>	strawberry bush	IAC	Woods	Autumn fruit, year-round bark color
<i>Fraxinus pennsylvanica</i>	eastern white	IACU	Moist woods and slopes	Autumn fruit
<i>Gaillardia pinnatifida</i>	trillberry	IACU	Moist to dry, sandy woodlands	Spring flowers, autumn and winter fruit, year-round foliage

SCIENTIFIC NAME	COMMON NAME	WETLAND INDICATOR STATUS	HABITAT	SEASON(S) OF INTEREST
SHRUBS (cont'd.)				
<i>Fraxinus bicolor</i>	black hickberry	FAC	Dry sandy woods	Spring flowers, autumn foliage
<i>Fraxinus pennsylvanica</i>	hemplock	FAC	Mead in dry sandy woods	Spring flowers, autumn fruit
<i>Himantoxis fragrans</i>	American witch-hazel	FAC	Woods	Autumn flowers and foliage
<i>Hicoria arborea</i>	wild hickory	FAC	Rich rocky swamps and streambanks	Summer flowers
<i>Hicoria spongiosa</i>	hickory	UI	Dry sandy soils	Summer flowers
<i>Ilex cornuta</i>	winterberry	FACW	Moist woods and swamps	Autumn fruit
<i>Kalmia latifolia</i>	mountain laurel	FAC	Mead in dry woods and slopes	Spring flowers, year-round foliage
<i>Condalia sanguinea</i>	spicebush	FACW	Moist woods and swamps	Spring flowers, autumn foliage, and fruit
<i>Lyonia ligustrina</i>	blueberry	FACW	Swamps and wet thickets	Summer flowers, autumn foliage
<i>Myrica pensylvanica</i>	northern bayberry	FAC	Sandy woods	Summer foliage, autumn and winter fruit
<i>Physalis peruviana</i>	eastern totem pole	FACW	Stream banks	Summer flowers, autumn foliage
<i>Quercus alba</i>	white oak	UI	Open sterile soils	Autumn foliage
<i>Quercus laevis</i>	dwarf chinquapin oak	UI	Open sterile soils, serpentine soils	Autumn foliage
<i>Rhus glabra</i>	smooth sumac	FAC	Woods	Spring flowers, autumn foliage
<i>Rhus typhina</i>	winged sumac	FAC	Fields, old fields, edges	Summer flowers, autumn foliage and fruit
<i>Rhus copallina</i>	smooth sumac	UI	Fields, old fields, edges	Summer flowers, autumn foliage and fruit
<i>Rhus typhina</i>	winged sumac	UI	Fields, old fields, edges	Summer flowers, autumn foliage and fruit, year-round bark
<i>Rosa carolina</i>	Carolina rose	UI	Sandy pine lands and swampy ground	Summer flowers
<i>Rosa virginiana</i>	Virginia rose	UI	Sandy soils	Summer flowers
<i>Rubus odoratus</i>	purple flowering raspberry	UI	Rocky woods	Summer foliage and flowers
<i>Sally divaricata</i>	pussey willow	FACW	Humid moist wooded slopes	Spring flowers
<i>Sally humilis</i>	willow	UI	Dry rocky, sterile soils, edges	Spring flowers
<i>Sally humilis var. tenuis</i>	dwarf willow	UI	Dry rocky, sterile soils, edges	Spring flowers
<i>Sambucus racemosa</i>	common elderberry	FACW	Open swamps and seeps	Summer flowers, autumn fruit
<i>Spiraea alba</i>	halloweal	FACW	Seepage meadow	Spring flowers
<i>Spiraea alba var. latifolia</i>	northern meadow-sweet	FAC	Seepage meadows	Spring flowers
<i>Spiraea praeifolia</i>	American halloweal	FAC	Rich woods	Spring flowers

SCIENTIFIC NAME	COMMON NAME	WETLAND INDICATOR STATES	HABITAT	SEASON(S) OF INTEREST
TREES				
<i>Lonicera caerulea</i>	late hawthorn	I-A, I-1	Humid woods and clearings	Spring flowers, autumn fruit
<i>Lonicera xylosteum</i>	high bush huckleberry	I-A, I-1, I-2	Swamps and wet woods	Spring flowers, summer fruit, autumn foliage
<i>Lonicera canadensis</i>	early hawthorn	I-1, I-2	Dry slopes and sandy woods	Spring flowers, autumn fruit
<i>Lonicera canadensis</i>	sourwood huckleberry	I-A, I-1	Sandy woods	Spring flowers, autumn fruit
<i>Lonicera canadensis</i>	maple leaf huckleberry	I-1, I-2	Woods	Spring flowers, autumn foliage and fruit
<i>Lonicera canadensis</i>	southern arrowwood	I-A, I-1	Moist woods and swamps	Spring, autumn
<i>Lonicera canadensis</i>	possum-haw huckleberry	I-1, I-2	Swamps	Spring, autumn
<i>Lonicera canadensis</i>	ground huckleberry	I-A, I-1	Rich woods, thickets, edges	Spring, autumn
<i>Lonicera canadensis</i>	northern prickly ash	I-A, I-1	Rocky wooded slopes	Summer, autumn
<i>Lonicera canadensis</i>	box elder	I-A, I-1	Floodplains of rivers and creeks	Summer foliage
<i>Lonicera canadensis</i>	red maple	I-A, I-1	Lowlands and low ground	Autumn foliage
<i>Lonicera canadensis</i>	silver maple	I-A, I-1	Floodplains of rivers and creeks	Summer foliage
<i>Lonicera canadensis</i>	sugar maple	I-1, I-2	Rich woods	Autumn foliage
<i>Lonicera canadensis</i>	downy dogwood	I-A, I-1	Moist woods and slopes	Spring flowers, autumn foliage
<i>Lonicera canadensis</i>	smooth shadbush	I-1, I-2	Moist woods, fields, edges	Spring flowers, autumn foliage
<i>Lonicera canadensis</i>	sweet birch	I-A, I-1	Dry and moist woods	Autumn foliage, year-round bark color
<i>Lonicera canadensis</i>	gray birch	I-A, I-1	Floodplains of rivers and creeks	Summer foliage, year-round bark color
<i>Myrica asplenifolia</i>	gray birch	I-1, I-2	Edges of woods and thickets	Summer foliage, year-round bark color
<i>Quercus alba</i>	northern	I-A, I-1	Woods, banks of creeks and streams	Autumn foliage, year-round bark
<i>Quercus alba</i>	mockernut hickory	I-1, I-2	Woods	Autumn foliage
<i>Quercus alba</i>	bitternut hickory	I-A, I-1	Woods	Autumn foliage
<i>Quercus alba</i>	prairie hickory	I-A, I-1	Woods	Autumn foliage
<i>Quercus alba</i>	small-leaved hickory	I-1, I-2	Woods	Autumn foliage
<i>Quercus alba</i>	sharp bark hickory	I-A, I-1	Rich woods	Autumn foliage, year-round bark
<i>Quercus alba</i>	American chestnut	I-1, I-2	Woods	Summer foliage and flowers
<i>Quercus alba</i>	common hickory	I-A, I-1	Sandy woods	Summer foliage
<i>Quercus alba</i>	river redhead	I-A, I-1	Rich woods	Spring flowers, autumn foliage

SCIENTIFIC NAME	COMMON NAME	WETLAND INDICATOR STATUS	HABITAT	SEASON(S) OF INTEREST
TREES (cont'd)				
<i>Thuja occidentalis</i>	Thuja tree	FAC	Moist woods	Spring flowers, autumn foliage and fruit
<i>Taxus canadensis</i>	Eastern hemlock	FAC	Wet and dry woods, thickets, fields	Autumn fruit, year-round bark
<i>Taxus gracilistylis</i>	American beech	FACU	Woods	Autumn foliage, year-round bark
<i>Taxus americana</i>	White ash	FACU	Woods	Autumn foliage
<i>Taxus nigra</i>	Black ash	FACW	Seepage swamps	Summer foliage
<i>Taxus pennsylvanica</i>	Green ash	FACW	Moist woods and swamps	Summer foliage
<i>Taxus spicata</i>	American holly	FACU	Moist sandy woods and swamps	Autumn and winter fruit, year-round foliage
<i>Tilia cordata</i>	Water lily	FACU	Moist woods, edges and floodplains	Summer foliage, autumn fruit
<i>Tilia americana</i>	Black walnut	FACU	Moist woods, floodplains, edges	Summer foliage, autumn fruit
<i>Tilia americana</i>	Red cedar	IPU	Old fields, edges, sterile soils	Autumn and winter fruit, year-round foliage
<i>Ulmus americana</i>	Sweet gum	FAC	Swamps and moist woods	Autumn foliage
<i>Ulmus americana</i>	Sulphur	FACU	Rich woods	Spring flowers, autumn foliage
<i>Ulmus americana</i>	Sweet sapling	IPU	Old fields, thickets, tree banks	Spring flowers
<i>Ulmus americana</i>	Red mulberry	FACU	Rich woods, thickets and edges	Summer foliage and fruit
<i>Ulmus americana</i>	Black gum	FACU	Woods	Autumn foliage
<i>Ulmus americana</i>	Eastern hop hornbeam	FACU	Rich woods and slopes	Autumn foliage and fruit, year-round bark
<i>Ulmus americana</i>	Pitch pine	FACU	Dry sandy soils	Spring, summer, autumn, winter
<i>Ulmus americana</i>	Virginia pine	IPU	Sandy woods, edges, old fields	Spring, summer, autumn, winter
<i>Ulmus americana</i>	Large leaf hickory	FACU	Woods, thickets and low prairie	Summer foliage
<i>Ulmus americana</i>	Wild black cherry	FACU	Woods, gallery, old fields	Spring flowers
<i>Ulmus americana</i>	White oak	FACU	Woods	Autumn foliage
<i>Ulmus americana</i>	Scarlet oak	IPU	Woods	Autumn foliage
<i>Ulmus americana</i>	American red oak	FACU	Dry sandy woods	Autumn foliage
<i>Ulmus americana</i>	Black oak	IPU	UP, sandy soils	Autumn foliage
<i>Ulmus americana</i>	Pin oak	FACW	Swamps and wet woods	Autumn foliage
<i>Ulmus americana</i>	Live oak	IPU	Dry, steep, rounded ledge	Autumn foliage
<i>Ulmus americana</i>	Northern red oak	FACU	Rich woods	Autumn foliage
<i>Ulmus americana</i>	Post oak	IPU	Sandy woods	Autumn foliage

SCIENTIFIC NAME	COMMON NAME	WETLAND INDICATOR STATUS	HABITAT	SEASON(S) OF INTEREST
TREES (round leaf)				
<i>Quercus bicolor</i>	black oak	CPC	Woods	Autumn foliage
<i>Salix nigra</i>	black willow	LCUW	Marshes, wet meadows, ditches	Spring thicket
<i>Nyctaginia alba</i>	swamp tree	LCUW	Woods, grassy fields	Autumn foliage
<i>Alnus incana</i>	American hickory	CPC	Rocky woods and stream banks	Summer and autumn foliage
<i>Fraxinus americana</i>	white hickory	LCUW	Unpopulated to Pinelands	Year-round foliage
BIRDS				
<i>Abutilon triflorum</i>	roundleaf-geranium	CPC	Rocky woods	Summer foliage
<i>Lythrum spicata</i>	spiky spikerush	LCUW	Moist woods, open fields, rock walls	Year-round foliage
<i>Lythrum hyssopifolium</i>	walking fern spikerush	CPC	Rocky wooded slopes	Year-round foliage
<i>Agrostis scabra</i>	roundleaf spikerush	CPC	Rocky areas	Summer foliage
<i>Utricularia flexuosa</i>	northern lady fern	LCUW	Moist woods and floodplains	Summer foliage
<i>Utricularia flexuosa</i>	southern lady fern	LCUW	Moist woods and floodplains	Summer foliage
<i>Chimaphila maculata</i>	leafy plantain	CPC	Rocky wooded slopes	Summer foliage
<i>Desmodium illinoense</i>	leaf-scattered fern	CPC	Dry woods and slopes	Summer and autumn foliage
<i>Desmodium illinoense</i>	spike-of-wind fern	LCUW	Rocky woods, swamps, floodplains	Summer and autumn foliage
<i>Desmodium illinoense</i>	leaf-wind fern	LCUW	Swampy woods	Summer and autumn foliage

SCIENTIFIC NAME	COMMON NAME	WETLAND INDICATOR STATUS	HABITAT	SEASON(S) OF INTEREST
FERNS (continued)				
<i>Dryopteris crassirhiza</i>	crested wood fern	I-ACW	Scrubby swamps	Summer foliage
<i>Dryopteris gulfiana</i>	lady's wood fern	I-AC	Moist rich woods	Year-round foliage
<i>Dryopteris fragrans</i>	resurrection wood fern	I-ACU	Moist woods, swamps and floodplains	Summer foliage
<i>Dryopteris marginalis</i>	marginal wood fern	I-ACU	Steep slopes and rocky woods	Year-round foliage
<i>Dryopteris scolopendria</i>	Sensative fern	I-ACW	Swamps, floodplains, wet meadows	Summer foliage, winter fertile fronds
<i>Onocrotium canadense</i>	canadian fern	I-ACW	Swamps, thickets, wet woods	Spring to late trends, summer and autumn foliage
<i>Onocrotium nuttallii</i>	nutcracker fern	I-ACU	Rich woods and slopes	Spring and summer foliage
<i>Onocrotium virginicum</i>	royal fern	I-ACU	Swamps and thickets	Spring leaflets, fronds, summer and autumn foliage
<i>Polystichum acrostichoides</i>	Christmas fern	I-ACU	Rich woods and slopes	Year-round foliage
<i>Polystichum moniliforme</i>	New York fern	I-AC	Moist woods, swamps and floodplains	Summer foliage
<i>Polystichum puberulum</i>	marsh fern	I-ACW	Floodplains, wet meadows, marshes	Summer foliage
HERBACEOUS PERENNIALS				
<i>Achillea millefolium</i>	white yarrow	I-PI	Rocky woods and slopes	Spring flowers, summer foliage, autumn fruit
<i>Alopecurus pratensis</i>	fly poison	I-PI	Dry to moist wooded slopes, swamps	Summer foliage and flowers
<i>Alopecurus pratensis</i>	wood sorrel	I-ACU	Moist woods, streambanks, floodplains	Spring flowers
<i>Alopecurus pratensis</i>	Virginia alfalfa	I-ACU	Woods and edges	Spring flowers
<i>Alopecurus pratensis</i>	gillyflower	I-PI	Rich woods and slopes	Winter foliage, summer flowers
<i>Alopecurus pratensis</i>	wild columbine	I-PI	Rich woods	Spring flowers
<i>Alopecurus pratensis</i>	wild sarsaparilla	I-ACU	Woods	Summer foliage and flowers
<i>Alopecurus pratensis</i>	American stinkard	I-PI	Rich woods	Summer foliage, autumn fruit
<i>Alopecurus pratensis</i>	green dragon	I-ACW	Rich floodplain woods	Spring flowers, autumn fruit
<i>Alopecurus pratensis</i>	swamp black-mulla	I-ACW	Woods	Spring flowers, autumn fruit
<i>Alopecurus pratensis</i>	Virginia snake-pot	I-PI	Rich woods	Summer flowers
<i>Alopecurus pratensis</i>	Canada wild-cucumber	I-ACU	Rich woods and floodplains	Summer foliage
<i>Alopecurus pratensis</i>	four-leaved milkweed	I-PI	Dry to moist wooded slopes	Summer flowers
<i>Alopecurus pratensis</i>	red milkweed	I-PI	Swamps and wet woods	Summer flowers
<i>Alopecurus pratensis</i>	Common milkweed	I-ACU	Upland fields, thickets, roadsides	Summer flowers

SCIENTIFIC NAME	COMMON NAME	WETLAND INDICATOR STATUS	HABITAT	SEASON(S) OF INTEREST
HERBACEOUS PERENNIALS (cont'd.)				
<i>Atriplex deboreae</i>	burning netweed	I-PI	Dry sandy soils	Summer flowers
<i>Atriplex canescens</i>	white milkweed	I-PI	Rich woods	Summer flowers
<i>Atriplex verticillata</i>	whorled milkweed	I-PI	Scrubbing and dry sandy soils	Summer foliage and flowers Autumn foliage
<i>Asclepias tuberosa</i>	green milkweed	I-PI	Dry sandy soils	Summer flowers
<i>Asclepias tuberosa</i>	heart-leaf aster	I-PI	Woods, meadows, roadsides	Autumn flowers
<i>Asclepias tuberosa</i>	various blue aster	I-PI	Dry woods and open places	Autumn flowers
<i>Asclepias tuberosa</i>	eastern blue aster	I-AC-W	Ditches and meadows	Autumn flowers
<i>Asclepias tuberosa</i>	globe aster	I-AC-W	Roadsides and meadows	Autumn flowers
<i>Asclepias tuberosa</i>	New England aster	I-AC	Marshes, wet meadows	Autumn flowers
<i>Asclepias tuberosa</i>	late purple aster	I-PI	Dry soils	Autumn flowers
<i>Asclepias tuberosa</i>	smooth leaf aster	I-AC-W	Ditches, open woody roadsides	Autumn flowers
<i>Asclepias tuberosa</i>	hairy leaf aster	I-PI	Fields, open woody roadsides	Autumn flowers
<i>Asclepias tuberosa</i>	hooked-stem aster	I-PI	Moist wooded slopes and meadows	Autumn flowers
<i>Asclepias tuberosa</i>	bristly aster	OBI	Marshes, wet meadows	Autumn flowers
<i>Asclepias tuberosa</i>	Schreber's aster	I-PI	Rich rocky woods	Autumn flowers
<i>Asclepias tuberosa</i>	clasp-leaf aster	I-PI	Dry sandy woods	Autumn flowers
<i>Asclepias tuberosa</i>	amigo bush	I-PI	Dry sandy soils	Summer foliage and flowers
<i>Asclepias tuberosa</i>	marsh marigold	OBI	Scraggy swamps and wet meadows	Spring flowers
<i>Asclepias tuberosa</i>	slender swallowtail	I-AC-U	Rich woods	Spring flowers
<i>Asclepias tuberosa</i>	ancient toothwort	I-AC-I	Rich woods	Spring flowers
<i>Asclepias tuberosa</i>	blue cutwash	I-PI	Rich rocky woods	Spring flowers, summer foliage Autumn fruit
<i>Chamaecrista nuttalliana</i>	devil's-bit	I-PI	Rich open woods	Summer flowers
<i>Chamaecrista nuttalliana</i>	white milkweed	OBI	Swamps and seeps	Summer flowers
<i>Chamaecrista nuttalliana</i>	spotted sunflower	I-PI	Dry to moist sandy woods	Spring flowers, autumn foliage
<i>Chamaecrista nuttalliana</i>	Maryland golden aster	I-PI	Dry sandy soils	Summer flowers
<i>Chamaecrista nuttalliana</i>	black begonia	I-PI	Rich woods and slopes	Summer flowers
<i>Chamaecrista nuttalliana</i>	narrow-leaf spurge, sunny	I-AC	Moist woods and stream banks	Summer flowers
<i>Chamaecrista nuttalliana</i>	Carolina house plant	I-AC	Rich woods	Summer flowers
<i>Chamaecrista nuttalliana</i>	common daisy	I-PI	Open sandy woods	Autumn flowers
<i>Chamaecrista nuttalliana</i>	large yellow lady's-slipper	I-PI	Rich woods and seeps	Spring flowers
<i>Chamaecrista nuttalliana</i>	Douglas's breeches	I-PI	Rich woods	Spring flowers

SCIENTIFIC NAME	COMMON NAME	WETLAND INDICATOR STATUS	HABITAT	SEASON(S) OF INTEREST
HERBACEOUS PERENNIALS (cont'd.)				
<i>Desmodium illinoense</i>	coral-leaf aster	I-PI	Dry open woods	Autumn flowers
<i>Dioscorea alata</i>	flat-top white aster	I-ACW	Edges of swamps and low ground	Autumn flowers
<i>Eupatorium angustifolium</i>	purple ironweed	I-PI	Clearings and disturbed ground	Summer flowers
<i>Eupatorium americanum</i>	yellow iron-leaf	I-PI	Rich woods and floodplains	Spring flowers and foliage
<i>Eupatorium alatum</i>	Joe-pye thronchwort	I-ALW	Swamps, stream banks, wet meadows	Summer flowers
<i>Eupatorium fistulosum</i>	snail-lee-pye weed	I-ACW	Swamps, stream banks, wet meadows	Summer foliage and flowers
<i>Eupatorium purpureum</i>	sweet Joe-pye weed	I-PI	Rich woods	Summer foliage and flowers
<i>Eupatorium verticillatum</i>	round-leafed ironwort	I-AC	Dry sandy soils	Summer flowers
<i>Eupatorium scaberrimum</i>	upland boneset	I-PI	Rich woods	Summer flowers
<i>Euphorbia corollata</i>	flowering spurge	I-PI	Fields, roadsides, ditches	Summer flowers
<i>Euphorbia maculata</i>	lady's-ear	I-AC	Rich wet swamps and swamps	Summer foliage
<i>Phytolacca americana</i>	whorl-weed aster	I-PI	Rich woods	Autumn flowers
<i>Rubus odoratus</i>	cruscan goldenrod	I-AC	Moist swales and wet meadows	Summer foliage, autumn flowers
<i>Rudbeckia speciosa</i>	Nuttall's grass leaf goldenrod	I-AL	Fields and meadows	Summer foliage, autumn flowers
<i>Coarctata uniflora</i>	fringe-top bottle gentian	I-ALW	Margins, seeps, edges of woods	Autumn flowers
<i>Coarctata uniflora</i>	straggled gentian	I-PI	Moist woods, stream banks	Autumn flowers
<i>Coarctata uniflora</i>	wild geranium	I-AC	Rich woods	Spring flowers
<i>Helenium flexuosum</i>	marble-headed sneezeweed	I-AC	Moist roadsides, wet meadows	Autumn flowers
<i>Hesperis matronalis</i>	night-blooming cerise	I-AC	Rich woods, floodplains and ditches	Autumn flowers
<i>Hesperis matronalis</i>	woodland snailflower	I-PI	Dry woods	Autumn flowers
<i>Hesperis matronalis</i>	fall snailflower	I-ACW	Wet meadows, tidal marshes	Autumn flowers
<i>Hesperis matronalis</i>	pale-leaf snailflower	I-PI	Rocky woods, ditches	Autumn flowers
<i>Hesperis matronalis</i>	ox-eye	I-PI	Fields and meadows	Summer flowers
<i>Hesperis matronalis</i>	round-lobed hepatica	I-PI	Rich woods	Spring flowers
<i>Hesperis matronalis</i>	American clamshell	I-AC	Moist to dry slopes and woods	Spring foliage and flowers
<i>Hesperis matronalis</i>	bluet	I-AC	Marshes, roadsides	Summer and autumn foliage
<i>Hesperis matronalis</i>	purple bluet	I-PI	Rich woods	Spring foliage
<i>Hesperis matronalis</i>	green violet	I-AL	Rich rocky woods	Autumn flowers
<i>Hesperis matronalis</i>	golden-violet	I-PI	Rich woods	Summer flowers
<i>Hesperis matronalis</i>	variegated violet	I-AC	Rich floodplain woods	Spring flowers, summer fruit
<i>Hesperis matronalis</i>	green yellow star grass	I-AC	Upland woods	Summer flowers, autumn foliage
<i>Hesperis matronalis</i>				Spring flower

SCIENTIFIC NAME	COMMON NAME	WETLAND INDICATOR STATUS	HABITAT	SEASON(S) OF INTEREST
HERBACEOUS PERENNIALS (cont'd.)				
<i>Eleocharis baldwiniana</i>	Blackhead aster	I-PI	Dry sandy soils	Summer foliage, autumn flowers
<i>Erigeron phillyriae</i>	Blue Fagaria	DEI	Fresh water marshes and swamps	Spring flowers
<i>Erigeron affinis var. robustus</i>	Smooth rush	DEI	Wet meadows and swales	Summer foliage
<i>Euthyis canadensis</i>	Four-head gay feather	I-PI	Dry open woods	Autumn flowers
<i>Euthyis spicata</i>	Blazing star	I-PI	Fields and roadsides	Summer flowers
<i>Euthyis spicata var. glabra</i>	Smooth blazing star	I-PI	Dry open woods	Summer flowers
<i>Euthyis canadensis var. angusta</i>	Small lily	I-PI	Rich woods, fields and swampy edges	Summer flowers
<i>Eupatorium altissimum</i>	Wood lily	I-ACU	Dry open woods	Summer flowers
<i>Eupatorium spicatum</i>	Turk's cap lily	I-ACW	Moist woods and swamps	Summer flowers
<i>Euphorbia corollata</i>	Kissin' flower	I-ACW	Swamps and freshwater marshes	Autumn flowers
<i>Euphorbia palustris</i>	Moist lobelia	I-PI	Roadsides, open woods, wet meadows	Autumn flowers
<i>Euphorbia corollata</i>	Great blue lobelia	I-ACW	Wet meadows, stream banks, swamps	Autumn flowers
<i>Geranium macranthum</i>	Canada May flower	I-AC	Rich woods and floodplain edges	Spring flowers, summer fruit
<i>Geranium macranthum var. canadense</i>	Socumoni's plant	I-ACU	Moist woods	Spring flowers, summer foliage, autumn fruit
<i>Geranium virginicum</i>	Indian cucumber root	I-PI	Moist woods	Spring flowers, summer fruit
<i>Geranium carolinianum</i>	Brodiaea	I-ACU	Rich rocky woods	Summer flowers, autumn fruit
<i>Geranium sanguineum</i>	Virginia blackbell	I-ACW	Rich woods and floodplains	Spring flowers
<i>Geranium sanguineum var. angustifolium</i>	Partridge berry	I-ACU	Woods and slopes, swamps	Leaf-stem foliage and fruits
<i>Geranium sanguineum var. angustifolium</i>	Two-leaf bishop's cap	I-ACU	Rich woods and seepage slopes	Spring flowers
<i>Geranium sanguineum var. angustifolium</i>	Four-leaf bishop's cap	I-ACU	Moist to dry open woods and ditches	Summer flowers
<i>Geranium sanguineum var. angustifolium</i>	Wild bergamot	I-PI	Dry open soils	Summer flowers
<i>Geranium sanguineum var. angustifolium</i>	Narrow-leaf sandhogs	I-PI	Open woods and fields	Summer flowers
<i>Geranium sanguineum var. angustifolium</i>	Strawberry sandhogs	I-PI	Open woods and fields	Summer flowers
<i>Geranium sanguineum var. angustifolium</i>	Widely wood-scutel	I-PI	Rich woods	Spring flowers
<i>Geranium sanguineum var. angustifolium</i>	American ginseng	I-PI	Rich woods and swamps	Autumn fruit
<i>Geranium sanguineum var. angustifolium</i>	Swart ginseng	I-PI	Moist woodlands usually along streams	Spring flowers, summer foliage
<i>Geranium sanguineum var. angustifolium</i>	Yellow beard-tongue	I-ACU	Moist woods, roadsides	Summer flowers
<i>Geranium sanguineum var. angustifolium</i>	Yellow beard-tongue	I-PI	Open woods, meadows, roadsides	Summer flowers
<i>Geranium sanguineum var. angustifolium</i>	Spotted phlox	I-ACU	Wet meadows	Summer flowers
<i>Geranium sanguineum var. angustifolium</i>	Downy phlox	I-PI	Scrubby soils, open woods	Spring flowers
<i>Geranium sanguineum var. angustifolium</i>	Greek valerian	I-ACU	Rich woods and floodplains	Spring flowers

SCIENTIFIC NAME	COMMON NAME	WETLAND INDICATOR STATUS	HABITAT	SEASONS OF INTEREST
HERBACEOUS PERENNIALS (cont'd.)				
<i>Pringlea patens</i>	gay-cwine milkweed	I-AC I	Rich rocky woods and slopes	Spring flowers
<i>Pulsatilla patens</i>	common Solomon's seal	U-PI	Moist or dry woodlands	Spring flowers, summer foliage, autumn fruit
<i>Pulsatilla nuttalliana</i>	great Solomon's seal	I-AC I	Rich woods	Spring flowers, summer foliage, autumn fruit
<i>Pulsatilla patens</i>	lowly Solomon's seal	U-PI	Rich woods	Spring flowers, summer foliage, autumn fruit
<i>Pulsatilla nuttalliana</i>	king-of-the-pines	U-PI	Rich woods	Spring flowers
<i>Rudbeckia hirtella</i>	purple coneflower	U-PI	Dry to low meadows	Summer flowers
<i>Rudbeckia hirtella</i>	black-eyed Susan	U-PI	Old fields, roadside edges	Summer flowers
<i>Rudbeckia laciniata</i>	gully yellow	I-AC W	Floodplains and stream banks	Autumn flowers
<i>Rudbeckia laciniata</i>	blackfoot	U-PI	Rich woods	Spring flowers
<i>Sarcocolla purpurea</i>	purple pig's-foot	OB I	Wet, white cedar swamps	Summer flowers, autumn foliage
<i>Sarcocolla purpurea</i>	lizard's tail	OB I	Swamps and marshes	Summer flowers
<i>Saxifraga aizoides</i>	liverwort	I-AC W	Dry to moist fields and clearings	Summer flowers
<i>Saxifraga aizoides</i>	roadside skullcap	I-AC W	Old fields and meadows	Summer flowers
<i>Saxifraga aizoides</i>	wand stonecrop	U-PI	Rich woods and floodplains	Spring flowers, year-round foliage
<i>Saxifraga aizoides</i>	Small's rigwort	U-PI	Serpentine soils	Summer flowers
<i>Saxifraga aizoides</i>	golden rigwort	I-AC W	Rich woods and floodplains	Spring flowers
<i>Saxifraga aizoides</i>	wild serum	I-AC	Roadside banks and woods	Summer flowers
<i>Saxifraga aizoides</i>	self-heal	U-PI	Dry woods and ditches	Autumn flowers
<i>Saxifraga aizoides</i>	marooned aster	U-PI	Dry open yards, thicket edges	Autumn flowers
<i>Saxifraga aizoides</i>	star's catchfly	U-PI	Open sandy woods	Spring flowers
<i>Saxifraga aizoides</i>	pinked blue-eyed grass	I-AC W	Old fields and meadows	Spring flowers
<i>Saxifraga aizoides</i>	bluestem goldenrod	I-AC I	Rich woods	Autumn flowers
<i>Saxifraga aizoides</i>	heavenly goldenrod	I-AC I	Rich woods, slopes and floodplains	Autumn flowers
<i>Saxifraga aizoides</i>	rosby aster	U-PI	Old fields, road sides, edges	Autumn flowers
<i>Saxifraga aizoides</i>	round leafed lance-flower	U-PI	Serpentine soils	Autumn flowers
<i>Saxifraga aizoides</i>	self-heal	U-PI	Dry, sandy soils	Summer flowers
<i>Saxifraga aizoides</i>	early meadow-rue	U-PI	Rich rocky woods	Summer flowers
<i>Saxifraga aizoides</i>	late meadow-rue	I-AC W	Swamps, floodplains and stream banks	Summer flowers
<i>Saxifraga aizoides</i>	waxleaf meadow-rue	U-PI	Rich woods	Summer flowers

SCIENTIFIC NAME	COMMON NAME	WET AND INDICATOR STATUS	HABITAT	SEASON(S) OF INTEREST
HERBACEOUS PERENNIALS (continued)				
<i>Diakroton thalictroides</i>	meadow	FAC1	Rich woods	Spring flowers
<i>Sagittaria spaldingii</i>	spotted spalding	FAC1	Rich open woods, floodplains edges	Spring flowers
<i>Lythrum virginicum</i>	lydding allium	FACW	Moist rich woods, seeps/edges	Spring flowers
<i>Lythrum virginicum</i>	lydding allium	FAC1	Rich woods	Spring flowers
<i>Proscopium angustifolium</i>	yellow-leaf tinker's-weed	UPI	Humid rich woods and thickets	Spring flowers, autumn fruit
<i>Proscopium angustifolium</i>	red tinker's-weed	UPI	Rich woods and seeps	Spring flowers, autumn fruit
<i>Proscopium angustifolium</i>	perfoliate tinker's-weed	UPI	Rich woods	Spring flowers, autumn fruit
<i>Proscopium angustifolium</i>	perfoliate bellwort	FAC3	Rich woods	Spring flowers
<i>Proscopium angustifolium</i>	perfoliate bellwort	FAC3	Moist rich woods	Spring flowers
<i>Proscopium angustifolium</i>	perfoliate bellwort	UPI	Wet rich and dry woods, edges	Autumn flowers
<i>Proscopium angustifolium</i>	perfoliate bellwort	FACW	Wet meadows, marshes, seeps	Autumn flowers
<i>Proscopium angustifolium</i>	perfoliate bellwort	FAC1	Dry, well-drained, moist meadows, thickets	Autumn flowers
<i>Proscopium angustifolium</i>	perfoliate bellwort	UPI	Rich rocky woods, edges of seeps	Spring flowers
<i>Proscopium angustifolium</i>	perfoliate bellwort	UPI	Dry open woods and fields	Spring flowers
<i>Proscopium angustifolium</i>	perfoliate bellwort	UPI	Rich rocky upper woods and edges	Spring flowers
<i>Proscopium angustifolium</i>	perfoliate bellwort	UPI	Moist rich woods, floodplains	Spring flowers
GRASSES AND SEDGES				
<i>Andropogon furcatus</i>	big bluestem	UPI	Sandy soils, rich fields, edges	Autumn and winter foliage
<i>Andropogon furcatus</i>	big bluestem	FACW	Wet open swales	Autumn and winter foliage
<i>Andropogon furcatus</i>	big bluestem	UPI	Dry fields, roadsides, edges, dry soils	Autumn and winter foliage
<i>Andropogon furcatus</i>	big bluestem	UPI	Rich woods	Summer and autumn foliage
<i>Andropogon furcatus</i>	big bluestem	UPI	Rich woods	Spring, summer and autumn foliage
<i>Andropogon furcatus</i>	big bluestem	UPI	Rich woods	Year-round foliage
<i>Andropogon furcatus</i>	big bluestem	FAC1	Rich woods	Spring, summer and autumn foliage
<i>Andropogon furcatus</i>	big bluestem	UPI	Dry, acidic soils	Spring, summer and autumn foliage
<i>Andropogon furcatus</i>	big bluestem	FAC1	Moist soils, forest woods and edges	Summer and autumn foliage
<i>Andropogon furcatus</i>	big bluestem	FAC	Moist woods	Winter fruit
<i>Andropogon furcatus</i>	big bluestem	UPI	Rich woods and floodplains	Summer and autumn foliage and fruit
<i>Andropogon furcatus</i>	big bluestem	UPI	Rich woods and floodplains	Summer and autumn foliage

SCIENTIFIC NAME	COMMON NAME	WETLAND INDICATOR STATUS	HABITAT	SEASONS OF INTEREST
GRASSES AND SEDGES (continued)				
<i>Lygodesmia ovifolia</i>	purple lovegrass	UPL	Dry sandy soils	Summer foliage, autumn flowers, winter fruit
<i>Microberberis canadensis</i>	long-awn hairgrass	RACU	Rocky woods	summer, autumn and winter foliage and fruit
<i>Solidago rigida var. serotina</i>	Irish haresnip	UPL	Dry open soils, dunes, sandy soils	Autumn and spring foliage
<i>Sorghastrum nutans</i>	yellow Indian-grass	UPL	Meadows and pastures	Summer of autumn foliage and flowers, winter fruit
<i>Andropogon furcatus</i>	purple-top	RACU	Meadows, road fields, roadsides	Summer foliage, autumn fruit
VINES				
<i>Clematis canadensis</i>	rampet creeper	UACU	Clearings, firm woods, edges	Summer flowers
<i>Clematis verticillata</i>	climbing butterwort	RACU	Creeper gaps in forest woods	Summer flowers, autumn fruit
<i>Clematis integrifolia</i>	purple clematis	UPL	Rocky woods	Summer flowers
<i>Clematis vitalba</i>	woody clematis flower	UPL	Rocky woods and slopes	Summer flowers
<i>Clematis recta</i>	Virginia virgin's-bower	UACU	Firm woods, thickets, roadsides	Autumn flowers
<i>Lonicera sempervirens</i>	trumpet honeysuckle	UPL	Creeper gaps in moist and dry woods	Spring flowers, summer fruit
<i>Paeonia officinalis var. moutanensis</i>	Virginia creeper	RACU	Woods	Spring and autumn foliage

Wetland Indicator Codes

Indicator Code	Wetland Type	Description
OBW	Obligate Wetland	Occurs almost always (estimated probability 99% or under natural conditions) in wetlands.
FACW	Facultative Wetland	Usually occurs in wetlands (estimated probability 67% to 99%), but occasionally found in non-wetlands.
FAC	Facultative	Usually likely to occur in wetlands or non-wetlands (estimated probability 34% to 66%).
FAU	Facultative Upland	Usually occurs in non-wetlands (estimated probability 67% to 99%), but occasionally found in wetlands (estimated probability 1% to 33%).
UPL	Obligate Upland	Occurs in wetlands in another region, but occurs almost always (estimated probability 99% or under natural conditions) in non-wetlands in the regions specified. If a species does not occur in wetlands in any region, it is not on the National List.

The **Wetland Indicator Codes** reflect the range of estimated probabilities expressed as a frequency of occurrence of a species occurring in wetlands versus non-wetland across the entire distribution of the species. A frequency, for example, of 67% to 99% (Facultative Wetland) means that 67% to 99% of sample plots containing the species randomly selected across the range of the species would be wetland. A positive (+) or negative (-) sign was used with the Facultative Indicator categories to more specifically define the regional frequency of occurrence in wetlands. The positive sign indicates a frequency toward the higher end of the category (more frequently found in wetlands), and a negative sign indicates a frequency toward the lower end of the category (less frequently found in wetlands).

SURVEY OF ROADSIDE VEGETATION

Note: The following inventory identified and mapped the existing vegetation communities within the Scenic Byway Corridor (defined as a 200 foot buffer from the edge of each road). Although the communities identified include non-native plant species, this inventory should in no way be interpreted to suggest that such species are appropriate components of the Scenic Byway Corridor. In fact, several of the goals and objectives of this plan speak to the desire to encourage the replacement of non-native plant species with appropriate native plant species over time.

RED CLAY CREEK SCENIC BYWAY
Final Report on Vegetation Community Survey: 2007

Submitted to:

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The Department of Natural Resources and Environmental Control is committed to affirmative action, equal opportunity and the diversity of its workforce.

Table of Contents

ACKNOWLEDGEMENTS	V
EXECUTIVE SUMMARY	VI
INTRODUCTION	1
METHODS.....	3
RESULTS AND DISCUSSION	3
VEGETATION COMMUNITY DESCRIPTIONS	4
FORESTED COMMUNITIES	5
<i>BOX ELDER FOREST</i>	<i>5</i>
<i>CHESTNUT OAK-BEECH FOREST</i>	<i>7</i>
<i>LOWER NEW ENGLAND SLOPE CHESTNUT OAK FOREST.....</i>	<i>11</i>
<i>MESIC PIEDMONT MIXED HARDWOOD FOREST.....</i>	<i>13</i>
<i>RIVERINE FLOODPLAIN FOREST (Early Successional Type).....</i>	<i>15</i>
<i>SOUTHERN NEW ENGLAND RED MAPLE SEEPAGE SWAMP.....</i>	<i>17</i>
<i>TULIPTREE FOREST.....</i>	<i>19</i>
HERBACEOUS COMMUNITIES	21
<i>EASTERN CATTAIL MARSH</i>	<i>21</i>
<i>EASTERN REED MARSH.....</i>	<i>21</i>
ANTHROPOGENIC COMMUNITIES AND LAND COVERS	22
<i>AGRICULTURAL FIELD</i>	<i>22</i>
<i>BUILDING</i>	<i>22</i>
<i>FARM POND/ARTIFICIAL POND</i>	<i>22</i>
<i>GOLDEN BAMBOO SHRUBLAND.....</i>	<i>22</i>
<i>LAKE.....</i>	<i>23</i>
<i>NORTHEASTERN MODIFIED SUCCESSIONAL FOREST</i>	<i>23</i>
<i>NORTHEASTERN OLD FIELD.....</i>	<i>24</i>
<i>NORTHEASTERN SUCCESSIONAL SHRUBLAND</i>	<i>25</i>
<i>NORWAY SPRUCE PLANTED FOREST</i>	<i>25</i>
<i>OPEN LAWN</i>	<i>26</i>
<i>PARKING LOT</i>	<i>26</i>
<i>RED PINE PLANTED FOREST</i>	<i>26</i>
<i>RED SPRUCE PLANTED FOREST</i>	<i>27</i>
<i>ROAD.....</i>	<i>27</i>
<i>WATER.....</i>	<i>27</i>
<i>WATER RECHARGE BASIN</i>	<i>27</i>
<i>WHITE PINE PLANTED FOREST.....</i>	<i>28</i>
<i>WOODED LAWN.....</i>	<i>29</i>
VEGETATION COMMUNITIES BY ROAD SEGMENT	30

Table of Figures

Figure 1. Location of Red Clay Creek Watershed, New Castle County, Delaware	2
Figure 2. Ashland-Clinton School Road Vegetation Communities.....	30
Figure 3. Auburn Mill Road Vegetation Communities	32
Figure 4. Barley Mill Road Vegetation Communities.....	33
Figure 5. Brackenville Road Vegetation Communities	35
Figure 6. Burnt Mill Road Vegetation Communities.....	36
Figure 7. Campbell Road Vegetation Communities.....	37
Figure 8. Center Mill Road Vegetation Communities.....	38
Figure 9. Centerville Road Vegetation Communities.....	39
Figure 10. Creek Road Vegetation Communities.....	40
Figure 11. Hillside Mill Vegetation Communities	42
Figure 12. Hillside Road Vegetation Communities.....	43
Figure 13. New London Road Vegetation Communities.....	44
Figure 14. Nine Gates Road Vegetation Communities.....	45
Figure 15. Old Kennett Road Vegetation Communities.....	46
Figure 16. Old Wilmington Road Vegetation Communities	47
Figure 17. Owl’s Nest Road Vegetation Communities	48
Figure 18. Pyles Ford Road Vegetation Communities	49
Figure 19. Rolling Mill Road Vegetation Communities.....	50
Figure 20. Sharpless Road Vegetation Communities	51
Figure 21. Snuff Mill Road Vegetation Communities.....	52
Figure 22. Walnut Green Road Vegetation Communities	53
Figure 23. Way Road Vegetation Communities	54
Figure 24. Yorklyn Road Vegetation Communities	55

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EXECUTIVE SUMMARY

In 2007 the Delaware Natural Heritage Program undertook an inventory of the vegetation communities along the Red Clay Creek Scenic Byway Corridor, which is defined as 200 feet from either side of the road and is located in northern New Castle County, Delaware. This effort represents the first significant effort to map the vegetation communities of any part of the Red Clay Creek Watershed. Red Clay Creek watershed is located in the northern Delaware and covers 13,558 acres in northern New Castle County.

On its winding path south through Delaware, Red Clay Creek flows from 160 feet to near sea level. For most of the way the creek is paralleled by the Wilmington and Western Railroad and also Barley Mill and Creek Roads.

Twenty-eight land types were identified within the Red Clay Scenic Byway Corridor. The Northeastern Old Field is the largest vegetation community in the corridor, and the Golden Bamboo Shrubland is the smallest.

INTRODUCTION

In 2007, work was begun by the Delaware Natural Heritage Program to survey the vegetation communities along the Red Clay Creek Scenic Byway, located in mostly the Red Clay Creek watershed (Figure 1) of northern New Castle County, Delaware but also going slightly into the Brandywine Creek, Christina River and White Clay Creek watersheds. The Byway represents 36.2 miles of road. Red Clay Creek is the second watershed in the state to be mapped to Delaware Community and National Vegetation Classification alliance and association and eventually it is hoped that all watersheds the state will be mapped to this level.

Mapping of vegetation communities began in early 2007 and were completed in the fall of 2007. This report summarizes the results of these surveys. Maps depicting the vegetation communities found along the Byway by road segment are found in Figures 2 through 24. These roads include:

1. Ashland-Clinton School Road
2. Auburn Mill Road
3. Barley Mill Road
4. Brackenville Road
5. Burnt Mill Road
6. Campbell Road
7. Center Mill Road
8. Centerville Road
9. Creek Road
10. Hillside Mill Road
11. Hillside Road
12. New London Road
13. Nine Gates Road
14. Old Kennett Road
15. Old Wilmington Road
16. Owl's Nest Road

- 17. Pyle's Ford Road
- 18. Rolling Mill Road
- 19. Sharpless Road
- 20. Snuff Mill Road
- 21. Walnut Green Road
- 22. Way Road
- 23. Yorklyn Road



Figure 1. Location of Red Clay Creek Watershed, New Castle County, Delaware

METHODS

Mapping of vegetation communities along the Red Clay Creek Scenic Byway began in the spring of 2007 and were completed in the fall of 2007. Delineations were obtained through existing data, interpretation of 2002 color infrared aerial photography and fieldwork performed during the 2007 field season. Vegetation communities were determined by qualitative analysis and were located using GIS mapping and 2002 aerial photography. These communities were then classified to both the Guide to Delaware Vegetation Communities (GDVC) and the National Vegetation Classification (NVC) System. The NVC classifies vegetation on a national scale for the United States and is linked to the international vegetation classification. The NVC helps provide a uniform name and description of vegetation communities found throughout the country and helps determine relative rarity.

The Scenic Byway Corridor is defined as a 200 foot buffer from the edge of each road. Vegetation communities within this corridor were identified and mapped to type. There is a variance of how far you see in a given season. In the summer you cannot see as far because of leaves but in the winter you can see further since leaves are off. In many cases you cannot see much of the corridor in the summer because of shrub lines (Northeastern Successional Shrubland) along the roads.

RESULTS AND DISCUSSION

Twenty-eight land covers (including vegetation and anthropogenic communities, water, Farm Pond/Artificial Pond, Water Recharge Basin and Lake) were identified (Appendix I). Some of the more unique communities found along the Red Clay Scenic Byway include the Green Ash-Mixed Hardwood Floodplain Forest, the Southern New England Red Maple Seepage Swamp, Golden Bamboo Shrubland and the Red Pine Planted Forest. All of these communities are not common in the Piedmont and some which are planted are not commonly found.

VEGETATION COMMUNITY DESCRIPTIONS

Found below are descriptions of the vegetation communities identified and mapped along the Red Clay Scenic Byway. The community name (e.g. Mesic Piedmont Mixed Hardwood Forest) used in the GDVC, which is the State of Delaware's community classification, is followed by the NVC alliance and association number and name (e.g. A.229-*Fagus grandifolia-Quercus rubra-Quercus alba* Forest Alliance; CEG006921- *Fagus grandifolia-Betula lenta-Quercus (alba, rubra)/Carpinus caroliniana* Forest). The NVC classifies vegetation on a national scale for the United States and is linked to the international vegetation classification. The NVC helps provide a uniform name and description of vegetation communities throughout the country and helps determine their relative rarity. Descriptions and statewide distribution information are given for each community.

The vegetation community descriptions that follow are organized by Natural Communities (Forest and Herbaceous), Anthropogenic Communities and land covers related to development (building, parking lot and road). A forest community contains 60% to 100% tree cover and has a closed canopy. A shrubland community is dominated by shrubs or small trees (Note: both shrubland communities in the byway are described Anthropogenic Communities). Herbaceous communities are dominated by herbaceous, broad-leaf plants and have less than 10% tree or shrub cover. Anthropogenic communities are created by human intervention and planting. There were no woodland communities present in the Byway corridor. Each community description also includes associated plant species that were found during this survey.

Successional fields, shrublands and forests are grouped in the Northeastern Old Field, Northeastern Successional Shrubland and Northeastern Modified Successional Forest categories respectively and are listed under the anthropogenic communities because they typically result from the abandonment of agricultural fields or other man-made disturbances. The Northeastern Successional Shrubland and Northeastern Modified Successional Forest are often dominated by exotic invasive plants and are often considered to be exotic communities and do not function as native communities. Planted Forests are placed in this category as well since they result from human activity.

FORESTED COMMUNITIES

BOX ELDER FOREST

A.278-*Acer negundo* Temporarily Flooded Forest Alliance CEGL005033-*Acer negundo* Forest



Community Description: Box Elder Forests are found on the larger floodplains along Red Clay Creek generally upstream of where the Green Ash-Mixed Hardwood Forests are found. Canopy associates include box elder (*Acer negundo*), silver maple (*Acer saccharinum*) and tuliptree (*Liriodendron tulipifera*). The understory is mostly spicebush (*Lindera benzoin*) and with lesser amounts of green ash (*Fraxinus pennsylvanica*), white walnut (*Juglans cinerea*), bladdernut (*Staphylea trifoliata*) and bitternut hickory (*Carya cordiformis*). Common shrubs include elderberry (*Sambucus canadensis*), multiflora rose (*Rosa multiflora*), winged euonymous (*Euonymus alatus*) and morrow's honeysuckle (*Lonicera morrowii*). Virginia bluebell (*Mertensia virginica*), lesser celandine (*Ranunculus ficaria*), jacob's ladder (*Polemonium reptans*), blue cohosh (*Caulophyllum thalictroides*), jumpseed (*Polygonum virginianum*), broad-leaf goldenrod (*Solidago flexicaulis*) and garlic mustard (*Alliaria petiolata*) compose the dense herbaceous layer. Some examples may have nearly impenetrable stinging nettle (*Urtica dioica*).

Diagnostic Features: This community is distinguished by the dominance of box elder and the absence or small amount of silver maple (*Acer saccharinum*).

Geology and Environmental Features: This community is often found on naturally disturbed floodplains in the Piedmont.

Statewide Distribution: In Delaware this community is generally found on the larger streams in the Piedmont.

CHESTNUT OAK-BEECH FOREST

A.229-*Fagus grandifolia*-*Quercus rubra*-*Quercus alba* Forest Alliance
CEGL006919-*Quercus prinus*-*Quercus velutina*-*Fagus grandifolia*/*Kalmia latifolia* Forest



Community Description: One Chestnut Oak-Beech Forest is located on a steep west-facing slope on the east side of Hoopes Reservoir by Centerville Road. The canopy is co-dominated by both chestnut oak (*Quercus prinus*) and American beech (*Fagus grandifolia*) and associated by white oak (*Quercus alba*), tuliptree (*Liriodendron tulipifera*) and red maple (*Acer rubrum*). The understory is composed of the canopy dominants plus flowering dogwood (*Cornus florida*). Scattered individuals of Mountain laurel (*Kalmia latifolia*) are present in the shrub layer. Common herbs include rattlesnake weed (*Hieracium venosum*), yellow eyed grass (*Hypoxis hirsuta*) and common wood rush (*Luzula multiflora*) and Pennsylvania sedge (*Carex pennsylvanica*).

Diagnostic Features: This community is distinguished by the co-dominance of chestnut oak and American beech on mesic to dry slopes in the Piedmont.

Geology and Environmental Features: This community is often found on steep mesic to dry slopes.

Statewide Distribution: In Delaware this community is generally found in the Piedmont.

GREEN ASH-MIXED HARDWOOD FOREST

A.356-*Fraxinus pennsylvanica*-*Acer rubrum*-*Ulmus americana* Tidal Forest Alliance
CEGL006575-*Fraxinus pennsylvanica*-(*Juglans nigra*, *Platanus occidentalis*) Forest



Community Description: Green Ash-Mixed Hardwood Forests are found on the larger floodplains of Red Clay Creek just upstream from Barley Mill Road and in a bend in the creek by Creek Road. The canopy is co-dominated by red maple (*Acer rubrum*), green ash (*Fraxinus pennsylvanica*) and associated by tuliptree (*Liriodendron tulipifera*). The understory is composed of spicebush (*Lindera benzoin*), black cherry (*Prunus serotina*) and box-elder (*Acer negundo*). Exotic species such as multiflora rose (*Rosa multiflora*), Siebold's viburnum (*Viburnum sieboldii*) and Chinese privet (*Ligustrum sinense*) generally compose the shrub layer. Common herbs include garlic mustard (*Alliaria petiolata*), enchanter's nightshade (*Circaea lutetiana*), jack-in-the-pulpit (*Arisaema triphyllum*), stinging nettle (*Urtica dioica*) and sensitive fern (*Onoclea sensibilis*).

Diagnostic Features: This community is defined by the co-dominance of green ash (*Fraxinus pennsylvanica*) with black walnut (*Juglans nigra*) or sycamore (*Platanus occidentalis*).

Geology and Environmental Features: This community is found on soils derived from Wissahickon Gneiss and often has large outcrops present within.

Statewide Distribution: This community is currently only known from the Red Clay Creek Watershed in Delaware.

LOWER NEW ENGLAND SLOPE CHESTNUT OAK FOREST

A.248-*Quercus prinus*-(*Quercus coccinea*, *Q. velutina*) Forest Alliance
CEGL006282-*Quercus prinus*-*Quercus (rubra, velutina)*/*Vaccinium angustifolium* Forest Alliance



Community Description: The Lower New England Slope Chestnut Oak Forest is found on steeper slopes primarily around the Hoopes Reservoir area. All of the examples in the Red Clay Creek watershed are mature and contain a well-defined understory. This community is the only one in the Red Clay Creek watershed that has a large amount of black birch (*Betula lenta*) contained within it. Common canopy species in this forest include chestnut oak (*Quercus prinus*), northern red oak (*Quercus rubra*), red maple (*Acer rubrum*), black birch and American beech (*Fagus grandifolia*). The understory is composed of witch-hazel (*Hamamelis virginiana*), eastern hop-hornbeam (*Ostrya virginiana*) and American serviceberry (*Amelanchier arborea*). A dense shrub layer of mountain laurel (*Kalmia latifolia*) is often located near the upper slopes. Common herbs include solomon's seal (*Polygonatum biflorum*), white wood aster (*Eurybia divaricata*), false solomon's seal (*Maianthemum racemosum*), jack-in-the-pulpit (*Arisaema triphyllum*) and (*Carex digitalis*).

Diagnostic Features: The co-dominance of chestnut oak and black birch distinguishes this community from others in the Red Clay Creek watershed.

Geology and Environmental Features: This community is often located on xeric upper slopes and ridgetops that have acidic and infertile soils.

Statewide Distribution: This community has been noted from only a few locations in the Brandywine and Red Clay Creek watersheds and is restricted to the Piedmont in Delaware.

MESIC PIEDMONT MIXED HARDWOOD FOREST

A.229-*Fagus grandifolia*-*Quercus rubra*-*Quercus alba* Forest Alliance
CEGL006921-*Fagus grandifolia*-*Betula lenta*-*Quercus (alba, rubra)*/*Carpinus caroliniana*
Forest



Community Description: Mesic Piedmont Mixed Hardwood Forest is the most common forested community in the Red Clay Creek watershed and is likely the most common in the Piedmont of Delaware. Mixed hardwood forests are characterized by a mixture of hardwoods including American beech (*Fagus grandifolia*), tuliptree (*Liriodendron tulipifera*), red maple (*Acer rubrum*), northern red oak (*Quercus rubra*), white oak (*Quercus alba*) and black oak (*Quercus velutina*) in the canopy. Flowering dogwood (*Cornus florida*), black gum (*Nyssa sylvatica*) and smaller members of the canopy are found in the understory. Maple-leaf viburnum (*Viburnum acerifolium*), low-bush blueberry (*Vaccinium pallidum*), deciduous azalea (*Rhododendron periclymenoides*) and spicebush (*Lindera benzoin*) compose the shrub layer. Common herbs include garlic mustard (*Alliaria petiolata*), woodland goldenrod (*Solidago caesia*), common blue violet (*Viola sororia*), white wood aster (*Eurybia divaricata*) and Christmas fern (*Polystichum acrostichoides*).

Diagnostic Features: A high amount of American beech and not much tuliptree as well as mixture of other hardwoods and its location in the Piedmont define this community.

Geology and Environmental Features: This community is often found on mesic soils that are gently sloping and are underlaid by Wissahickon or Brandywine Blue Gneiss.

Statewide Distribution: Mesic Piedmont Mixed Hardwood Forests are restricted to the Piedmont and are likely the most common forested community in the province. It has a Coastal Plain analogue which is called the Mesic Coastal Plain Mixed Hardwood Forest and contains sweetgum (*Liquidambar styraciflua*) as a common associate.

RIVERINE FLOODPLAIN FOREST (Early Successional Type)

A.288-*Platanus occidentalis*-(*Fraxinus pennsylvanica*, *Celtis laevigata*, *Acer saccharinum*)

Temporarily Flooded Forest Alliance

CEGL006036-*Platanus occidentalis*-*Fraxinus pennsylvanica* Forest



Community Description: Riverine Floodplain Forests are found on floodplains of the lower sections of Red Clay Creek primarily around Rolling Mill Road, Barley Mill Road and Creek Road and are intermixed the Green Ash-Mixed Hardwood Forests. The canopy has a large amount of sycamore (*Platanus occidentalis*) and green ash (*Fraxinus pennsylvanica*) and is associated by black walnut (*Juglans nigra*), box-elder (*Acer negundo*) and tuliptree (*Liriodendron tulipifera*). Box-elder (*Acer negundo*), spicebush (*Lindera benzoin*), witch-hazel (*Hamamelis virginiana*) and slippery elm (*Ulmus rubra*) make up the understory. A small shrub and vine layer of multiflora rose (*Rosa multiflora*), poison ivy (*Toxicodendron radicans*) and summer grape (*Vitis aestivalis*) is present underneath. Common herbs include skunk cabbage (*Symplocarpus foetidus*), Japanese stiltgrass (*Microstegium vimineum*), enchanter's nightshade (*Circaea lutetiana*), jumpseed (*Polygonum virginianum*) and mayapple (*Podophyllum peltatum*).

Diagnostic Features: The co-dominance of sycamore (*Platanus occidentalis*) and green ash (*Fraxinus pennsylvanica*) with an understory of box-elder (*Acer negundo*) is diagnostic of this community.

Geology and Environmental Features: This community is often found on sandy islands and floodplains of the larger streams in the Piedmont.

Statewide Distribution: This community is common in the Piedmont and adjacent Coastal Plain of Delaware.

SOUTHERN NEW ENGLAND RED MAPLE SEEPAGE SWAMP
A.316-*Acer rubrum*-*Fraxinus pennsylvanica* Seasonally Flooded Forest Alliance
CEGL006406-*Acer rubrum*-*Fraxinus (pennsylvanica, americana)*/*Lindera benzoin*/*Symplocarpus foetidus* Forest



Community Description: This community is typified by a seepage area or wetland that is dominated by red maple (*Acer rubrum*). Other associates may include green ash (*Fraxinus pennsylvanica*), tuliptree (*Liriodendron tulipifera*) and white oak (*Quercus alba*). The understory is composed of spicebush (*Lindera benzoin*). Typical herbaceous species include skunk cabbage (*Symplocarpus foetidus*), cinnamon fern (*Osmunda cinnamomea*) and orange-spotted jewelweed (*Impatiens capensis*).

Diagnostic Features: The dominance of red maple in a seepage or wetland situation in the Piedmont of Delaware is diagnostic of this community. The seepages may be dominated by skunk cabbage and is another identifying feature.

Geology and Environmental Features: This community is found in shallow to moderately deep mucks over mineral soils.

Statewide Distribution: This community is known only from the Piedmont of Delaware and is located in both the Red Clay Creek and the Brandywine Creek watersheds.

TULIPTREE FOREST

A.236-*Liriodendron tulipifera* Forest Alliance

CEGL006186- *Liriodendron tulipifera*-*Quercus rubra*-*Fraxinus americana*-*Asimina triloba*-*Actaea racemosa*-*Uvularia perfoliata* Forest



Community Description: The Tuliptree Forest is the most herb rich forest community in the Red Clay Creek Watershed. These communities produce a rich display of wildflowers in the spring. The weathering of amphibolite often provides a high amount of nutrients and these communities are sometimes called “rich forests”. Unfortunately the ample nutrients are attractive to invasive species and these places are often the scene of massive tangles of exotic invasive species. Tuliptree Forests that are in a natural state, meaning they are without invasive species, are hard to find in the watershed. The most invaded examples are often classed in the Northeastern Modified Successional Forest.

Tuliptree (*Liriodendron tulipifera*) is the most common canopy species and is often joined by American beech (*Fagus grandifolia*), sycamore (*Platanus occidentalis*), white oak (*Quercus alba*), northern red oak (*Quercus rubra*) and in the Red Clay Creek example black birch (*Betula lenta*). The understory contains bitternut hickory (*Carya cordiformis*), black gum (*Nyssa sylvatica*), witch-hazel (*Hamamelis virginiana*), red maple (*Acer rubrum*) and bladdernut

(*Staphylea trifoliata*). Arrow-wood (*Viburnum dentatum*), greenbrier (*Smilax rotundifolia*), oriental bittersweet (*Celastrus orbiculatus*) and Japanese barberry (*Berberis thunbergii*) make up the shrub/vine layer. There are many herbs in this forest but some of the common ones are broad beech fern (*Phegopteris hexagonoptera*), spinulose wood fern (*Dryopteris carthusiana*), garlic mustard (*Alliaria petiolata*) and blue cohosh (*Thalictrum dioicum*).

Diagnostic Features: This community is typified by the dominance of tuliptree (*Liriodendron tulipifera*) in the canopy.

Geology and Environmental Features: The substrate of this community is high in nutrients and is often underlaid by amphibolite.

Statewide Distribution: This community is known from the Piedmont of Delaware and has a Coastal Plain analogue called the Mesic Rich Forest.

HERBACEOUS COMMUNITIES

EASTERN CATTAIL MARSH

A.1436-*Typha (angustifolia, latifolia)*-(*Schoenoplectus* spp.) Semipermanently Flooded Herbaceous Alliance

CEGL006153-*Typha (angustifolia, latifolia)*-(*Schoenoplectus* spp.) Eastern Herbaceous Vegetation

Community Description: This community is a marsh that is dominated by wide-leaf cattail (*Typha latifolia*) often to the exclusion of all other species. In the Red Clay Creek Scenic Byway area this community is found in small depressions that are wet near roadsides and are associated with either Northeastern Old Fields or Open Lawn.

Diagnostic Features: The dominance of wide-leaf cattail in a wetland is diagnostic of this community.

Geology and Environmental Features: This community is found in places where there is a muck bottom and often has standing water.

Statewide Distribution: This community is found through Delaware in various wet areas.

EASTERN REED MARSH

**A.1431-*Phragmites australis* Semipermanently Flooded Herbaceous Alliance
CEGL004141-*Phragmites australis* Eastern North America Temperate Semi-Natural Herbaceous Vegetation**

Community Description: Eastern Reed Marshes are dominated by eastern reed (*Phragmites australis*) often to the exclusion of all other species. In the Red Clay Creek Scenic Byway area this community, like the Eastern Cattail Marsh, is found in small depressions that are wet and are associated with either Northeastern Old Fields or Open Lawns. One large example can be found near the intersection of Pyles Ford and Creek Roads and a smaller example is present near Yorklyn Road.

Diagnostic Features: The dominance of eastern reed in a non-tidal wetland is diagnostic of this community.

Geology and Environmental Features: This community is found in places where there is a muck bottom and often has standing water.

Statewide Distribution: This community is found through Delaware in various wet areas that are non-tidal.

ANTHROPOGENIC COMMUNITIES and LAND COVERS

AGRICULTURAL FIELD

(No crosswalk to NVC)

Description: This anthropogenic community is characterized by a monoculture of an agricultural crop. In the Red Clay Creek Scenic Byway area the main crop is corn.

Statewide Distribution: This land cover type is the largest in Delaware accounting for about 500,000 acres statewide.

BUILDING

(No crosswalk to NVC)

Description: This land cover denotes those areas comprised of some form of human-made structure including a building (residential or commercial structure) and structures associated with them including driveways and/or tennis courts.

FARM POND/ARTIFICIAL POND

(No crosswalk to NVC)

Description: This land cover includes artificially maintained water bodies that are less than 5 acres in size.

GOLDEN BAMBOO SHRUBLAND

A.2010-*Phyllostachys aurea* Shrubland Alliance

CEGL008560-*Phyllostachys aurea* Shrubland

Description: This community composes a small hedgerow near the eastern end of Barley Mill Road just west of its intersection with Centerville Road. It is characterized by the dominance of golden bamboo (*Phyllostachys aurea*).

Diagnostic Features: The total dominance of golden bamboo (*Phyllostachys aurea*) in a dense thicket is diagnostic of this community.

Geology and Environmental Features: This community is not attributable to any geological or environmental feature.

Statewide Distribution: This community is known from the Brandywine Creek watershed and this small occurrence in the Red Clay Creek watershed. It is likely to be found in small amounts throughout the state.

LAKE

(No crosswalk to NVC)

Description: This land cover includes artificially maintained water bodies that are more than 5 acres in size. In the Red Clay Creek Scenic Byway this includes Hoopes Reservoir.

NORTHEASTERN MODIFIED SUCCESSIONAL FOREST

A.237-*Prunus serotina*-*Acer rubrum*-*Amelanchier canadensis*-*Quercus* spp. Forest Alliance

CEGL006599-*Prunus serotina*-*Liriodendron tulipifera*-*Acer rubrum*-*Fraxinus americana* Forest

Community Description: This community is one of the more common communities throughout the Red Clay Creek watershed. Most often this community is a degraded example of a Tuliptree Forest that has been invaded by exotic invasive plant species. In other cases it is a forest that has regenerated from an abandoned field and has been invaded by exotic plant species as a result of the disturbance.

Even though some these communities have increased the amount of forest area in the watershed since the early 1900's they do not provide as much wildlife value when compared to a natural forest that is without the invasive exotic plant species. In addition there is little, if any, regeneration of the canopy. In most cases the community is in a static situation where the exotic species compete with one another for dominance in the lower layers and prevent any sort of native forest type from forming.

In most cases the canopy of these forests are dominated by tuliptree (*Liriodendron tulipifera*), red maple (*Acer rubrum*), black walnut (*Juglans nigra*) and black locust (*Robinia pseudoacacia*). The understory usually has smaller members of the canopy, sassafras (*Sassafras albidum*), black cherry (*Prunus serotina*) and spicebush (*Lindera benzoin*). The shrub and vine layers can be quite dense and include multiflora rose (*Rosa multiflora*), oriental bittersweet (*Celastrus orbiculatus*), Chinese privet (*Ligustrum sinense*) and Japanese honeysuckle (*Lonicera japonica*). Common herbs include garlic mustard (*Alliaria petiolata*) and Japanese stiltgrass (*Microstegium vimineum*).

Diagnostic Features: A vegetation community that has a tree canopy of mostly native species and is invaded by exotic plant species in the understory and lower layers is diagnostic of this type.

Geology and Environmental Features: These forests are often found in places where there is an ample supply of nutrients such as places that are underlaid by amphibolite.

Statewide Distribution: This community is found throughout the Piedmont and Coastal Plain of Delaware.

NORTHEASTERN OLD FIELD

A.1190-*Dactylis glomerata*-*Rumex acetosella* Herbaceous Alliance
CEGL006107-*Dactylis glomerata*-*Phleum pratense*-*Festuca* spp.-*Solidago* spp. Herbaceous
Vegetation



Community Description: This community originates from fields that were previously in agriculture or are hayed by annual mowing. In the Red Clay Creek watershed most of these communities are maintained perpetually by annual mowing and/or haying. Kentucky fescue (*Festuca arundinacea*) is the typical dominant species of this community. Other associates may be white clover (*Trifolium pratense*), Queen Anne's lace (*Daucus carota*), sweet vernal grass (*Anthoxanthum odoratum*), orchard grass (*Dactylis glomerata*), common velvet grass (*Holcus lanatus*) and redbtop panicgrass (*Panicum agrostoides*).

This community is the most common field community in the watershed and can be found in large expanses especially along Ashland-Clinton School Road, Snuff Mill Road, Way Road and Barley Mill Road near Mount Cuba. In some places this community can be hard to differentiate from Open Lawn, but lawns are mowed more frequently than once a year, whereas Northeastern Old Fields are mowed only once a year or not at all.

Diagnostic Features: A grassland dominated by Kentucky fescue or other grasses is diagnostic of this community.

Geology and Environmental Features: This community appears to have a preference for those soils that have a high amount of nutrients as compared to the Little Bluestem Old Field which prefers more nutrient poor places.

Statewide Distribution: This community is known throughout the state of Delaware but more study needs to be done to determine true distribution. The best examples so far are known from the Piedmont.

NORTHEASTERN SUCCESSIONAL SHRUBLAND

A.3558-*Cornus drummondii* Shrubland Alliance

CEGL006451-*Elaeagnus umbellata*-*Cornus racemosa*-*Rosa multiflora*-*Juniperus virginiana* Shrubland

Community Description: Northeastern Successional Shrublands are similar to the Northeastern Modified Successional Forest but lack the tree canopy. They contain a similar assortment of species in both the shrub and herb layers. In the summer this community can often block the view from the road of other communities located behind it.

Diagnostic Features: This shrubland, as expressed in the Red Clay Creek watershed, is composed of invasive plant species both native and exotic and can be quite dense.

Geology and Environmental Features: This community does not appear favor a particular geological type.

Statewide Distribution: This community is known statewide in Delaware and like the Northeastern Modified Successional Forest it has varying species compositions depending on the location.

NORWAY SPRUCE PLANTED FOREST

A.91-*Picea abies* Planted Forest Alliance

CEGL007167-*Picea abies* Planted Forest

Community Description: Norway Spruce Planted Forests are often composed of only Norway spruce (*Picea abies*) but can be joined by other species coniferous species. In Red Clay Creek as in most places in Delaware they are found as residential plantings and very small in size.

Diagnostic Features: The dominance of Norway spruce defines this community in the watershed.

Geology and Environmental Features: This community is planted and is not specific to a geologic type.

Statewide Distribution: This community in Delaware is known from scattered locations in the state but is most common in the Piedmont.

OPEN LAWN

(No crosswalk to NVC)

Description: This community is composed of grasslands that are mowed more frequently than once a year, which separates it from the Northeastern Old Field. This community also contains less 60% coverage of woody species. Most open lawns are around houses or other structures and in the Red Clay Creek watershed and can be quite large.

PARKING LOT

(No crosswalk to NVC)

Description: Parking lots are scattered around the Scenic Byway and are concentrated around old manufacturing mills and places of business.

RED PINE PLANTED FOREST

A.97-*Pinus resinosa* Planted Forest Alliance
CEGL007177-*Pinus resinosa* Planted Forest

Community Description: One Red Pine Planted Forest is located just northwest of the intersection of Owls Nest and Old Kennett Roads. As the name of the community would infer it is composed of a monoculture of red pine (*Pinus resinosa*). The community in Red Clay Creek is in a residential setting and the trees are not planted in rows.

Diagnostic Features: A near monoculture of red pine readily identifies this community.

Geology and Environmental Features: This community is not known to have a geological relationship and is a planted community.

Statewide Distribution: This community located mostly in the northern parts of New Castle County and is often associated with residential development.

RED SPRUCE PLANTED FOREST

A.92-*Picea rubens* Planted Forest Alliance CEGL004758-*Picea rubens* Planted Forest

Community Description: Red Spruce Planted Forests are found occasionally throughout the scenic byway area. Red spruce (*Picea rubens*) is generally the only species present. Often they are planted with other species of spruce such as blue spruce (*Picea pungens*) or Norway spruce (*Picea abies*).

Diagnostic Features: This community is defined by the dominance or near total dominance of red spruce (*Picea rubens*).

Geology and Environmental Features: This community is anthropogenic and does have an affinity for a particular geologic type.

Statewide Distribution: This community found primarily in the Piedmont of Delaware and in scattered locations in the northern Coastal Plain.

ROAD

(No crosswalk to NVC)

Description: The land cover includes the pavement of the roads going through the watershed and the adjacent shoulder.

WATER

(No crosswalk to NVC)

Description: This land cover includes the water surface of Red Clay Creek.

WATER RECHARGE BASIN

(No crosswalk to NVC)

Description: This land cover includes impoundments that are designed to catch nutrients from development.

WHITE PINE PLANTED FOREST
A.98-*Pinus strobus* Planted Forest Alliance
CEGL007178-*Pinus strobus* Planted Forest



Community Description: A few large examples of this community are found near Hoopes Reservoir and many smaller examples occur in wooded lawns and Northeastern Old Fields throughout the watershed. White pine (*Pinus strobus*) is typically the only species in this community due to the acidity of the needles although in the Red Clay Creek watershed this community may be joined by other conifer species such as red spruce (*Picea rubens*), white spruce (*Picea alba*) and Norway spruce (*Picea abies*). Occasionally species of oaks (*Quercus* spp.) may be present.

Diagnostic Features: The dominance of white pine (*Pinus strobus*) defines this community.

Geology and Environmental Features: This community is anthropogenic in Delaware and appears to have no particular affinity for a geological type.

Statewide Distribution: This community is found throughout the state but is most common in the Piedmont.

WOODED LAWN

(No crosswalk to NVC)

Description: This community is similar to the Open Lawn but is more than 60% shaded by trees or shrubs. A lot of these communities contain some of the largest examples of oaks (*Quercus* spp.) and maples (*Acer spp.*) and other tree species found in the watershed. Most examples are place where a house has been built in a Mesic Piedmont Hardwood Forest, a lawn was developed and underneath and the overlying canopy was not removed.

VEGETATION COMMUNITIES BY ROAD SEGMENT

Ashland-Clinton School Road

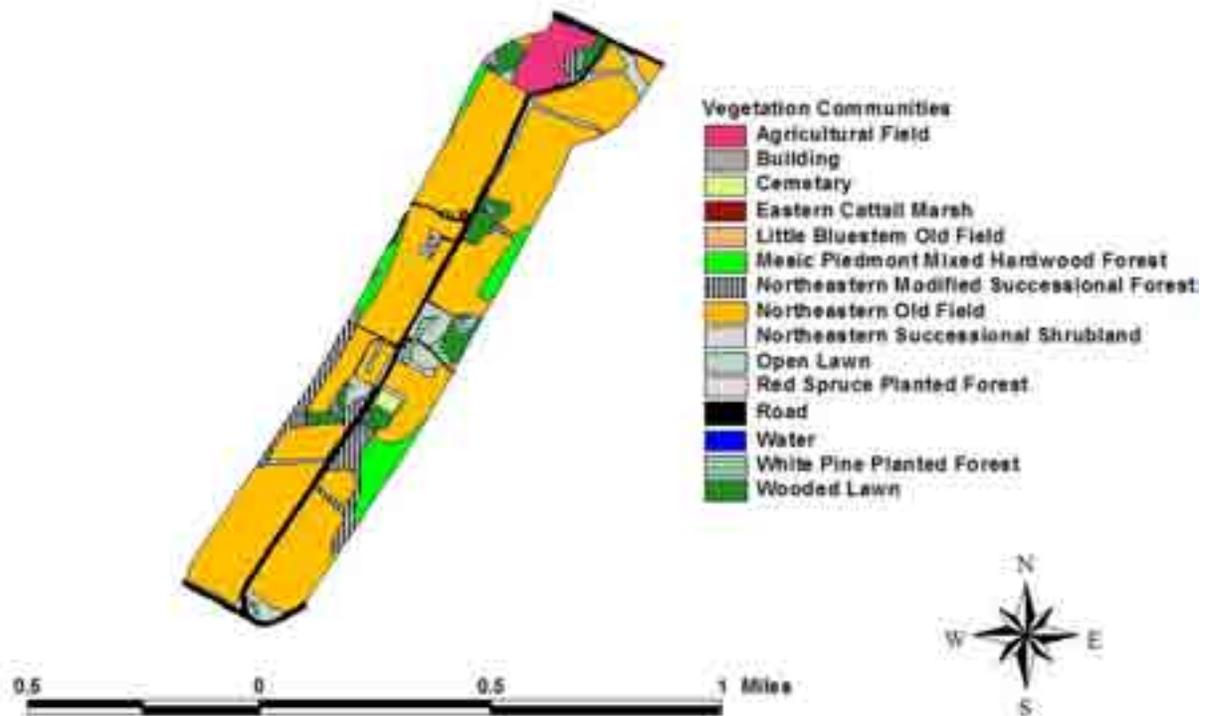


Figure 2. Ashland-Clinton School Road Vegetation Communities

Ashland-Clinton School Road goes from Old Kennett Road south to Creek Road and is about 1.5 miles long. Ten vegetation communities are found on it. This road is lined with large expanses of Northeastern Old Field, the most common community type, with scattered stretches of Northeastern Successional Shrubland which lines the road. Other communities here include:

1. Agricultural Field
2. Eastern Cattail Marsh
3. Mesic Piedmont Mixed Hardwood Forest
4. Northeastern Modified Successional Forest
5. Open Lawn
6. Red Spruce Planted Forest

7. White Pine Planted Forest
8. Wooded Lawn

Auburn Mill Road

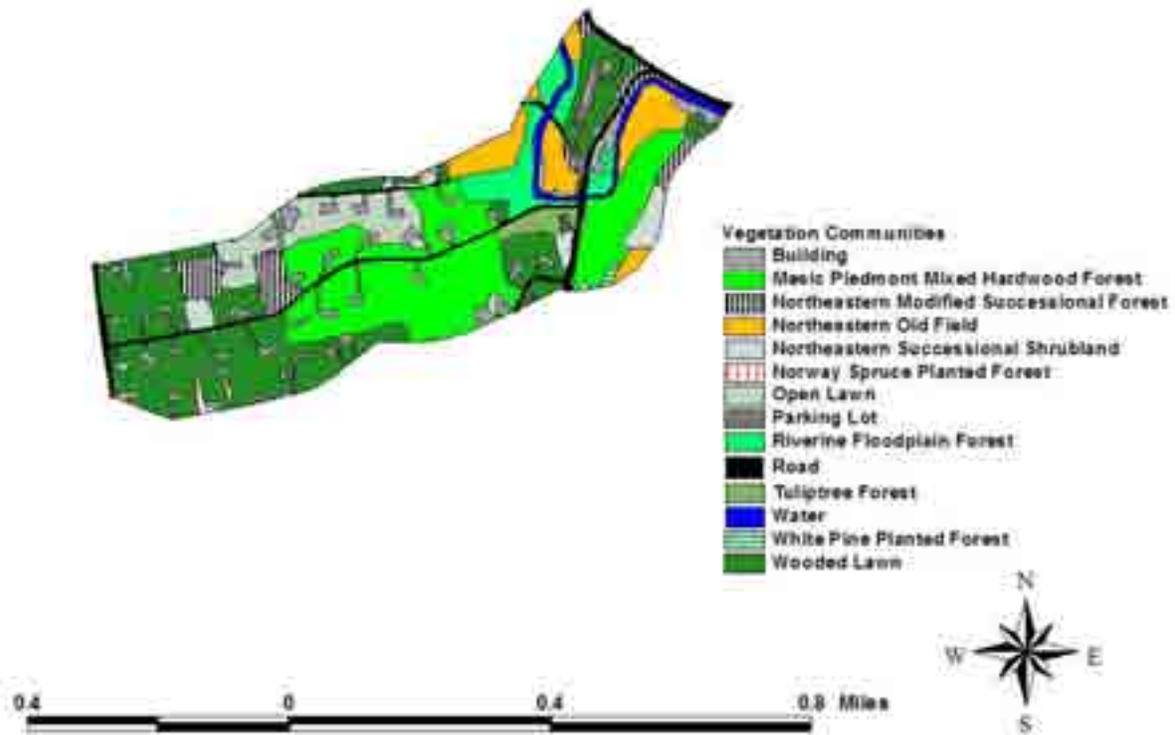


Figure 3. Auburn Mill Road Vegetation Communities

Auburn Mill Road roughly goes east to west from Creek Road to the state line. Auburn Mill Road is about 1.0 mile long and contains twelve vegetation communities. Wooded lawn intersperses with Mesic Piedmont Mixed Hardwood Forest along most of the road. Other communities on Auburn Mill Road include:

1. Box Elder Forest
2. Northeastern Modified Successional Forest
3. Northeastern Old Field
4. Northeastern Successional Shrubland
5. Norway Spruce Planted Forest
6. Open Lawn
7. Riverine Floodplain Forest
8. Tuliptree Forest
9. White Pine Planted Forest
10. Wooded Lawn

Barley Mill Road

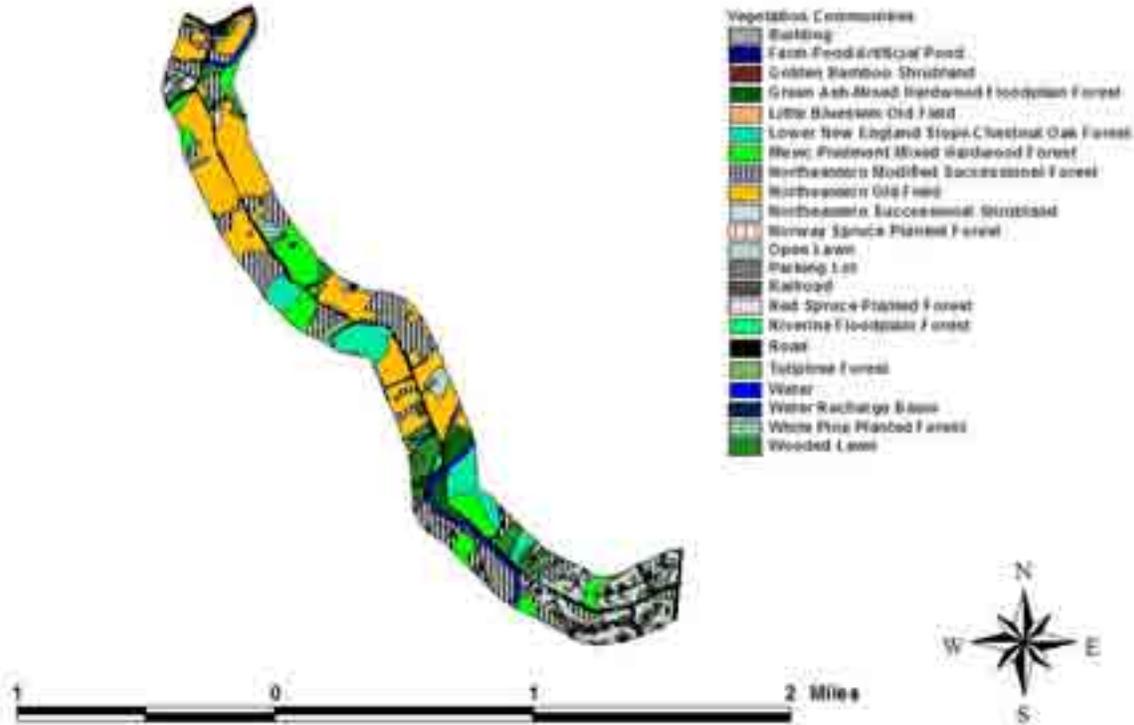


Figure 4. Barley Mill Road Vegetation Communities

Barley Mill Road goes roughly north to south and is the second longest road on the Byway at 3.4 miles in length but contains the second highest amount of vegetation communities with fourteen. Northeastern Old Field is the most common community on the road. Due to disturbance, though, Northeastern Modified Successional Forest is the next most common community. In spite of the disturbance considerable amounts of the more “natural” type communities including Mesic Piedmont Mixed Hardwood Forest and Lower New England Chestnut Oak Forest. At the eastern end of the road is a small stand of Golden Bamboo Shrubland, which is the only occurrence within the Byway. Other communities present on Barley Mill Road include:

1. Green Ash-Mixed Hardwood Forest
2. Northeastern Successional Shrubland
3. Norway Spruce Planted Forest
4. Open Lawn
5. Red Spruce Planted Forest
6. Riverine Floodplain Forest

7. Tuliptree Forest
8. White Pine Planted Forest
9. Wooded Lawn

Brackenville Road

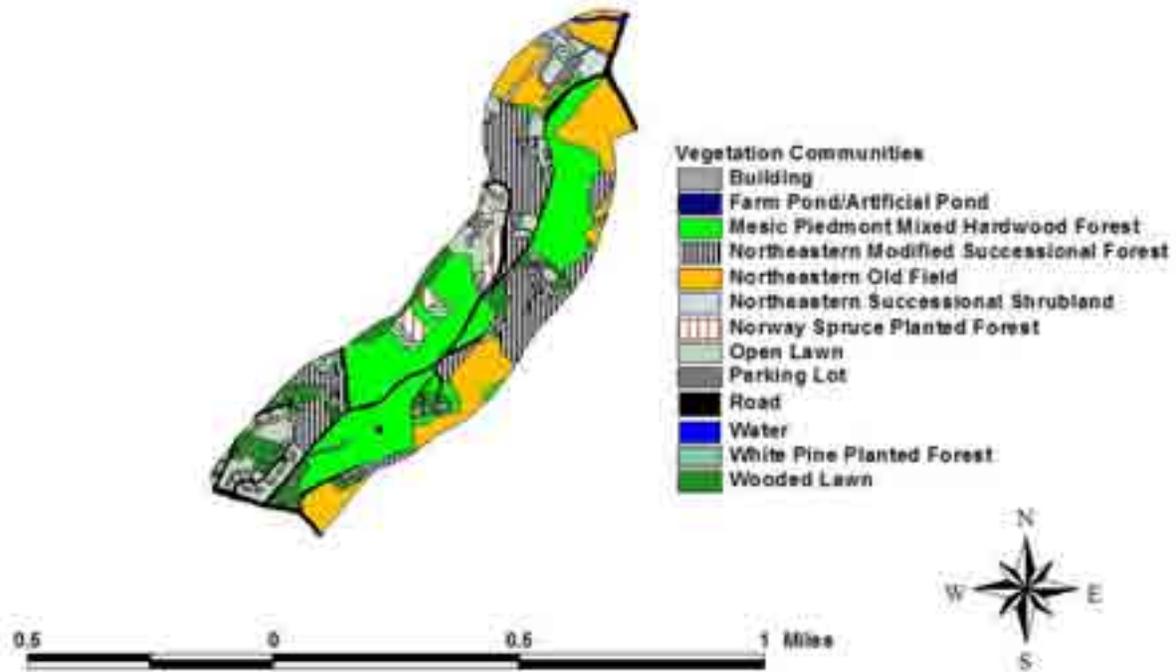


Figure 5. Brackenville Road Vegetation Communities

Brackenville Road runs in a northeast to southwest direction and is 1.2 miles long. Brackenville Road goes through a Mesic Piedmont Mixed Hardwood Forest interspersed with a few areas of Northeastern Modified Successional Forest with Northeastern Old Fields being seen at the edges of the corridor. The western ends of the road have a lot of wooded lawn with the presence of suburban developments. Other communities that can be seen include:

1. Northeastern Successional Shrubland
2. Norway Spruce Planted Forest
3. Open Lawn
4. White Pine Planted Forest

Burnt Mill Road

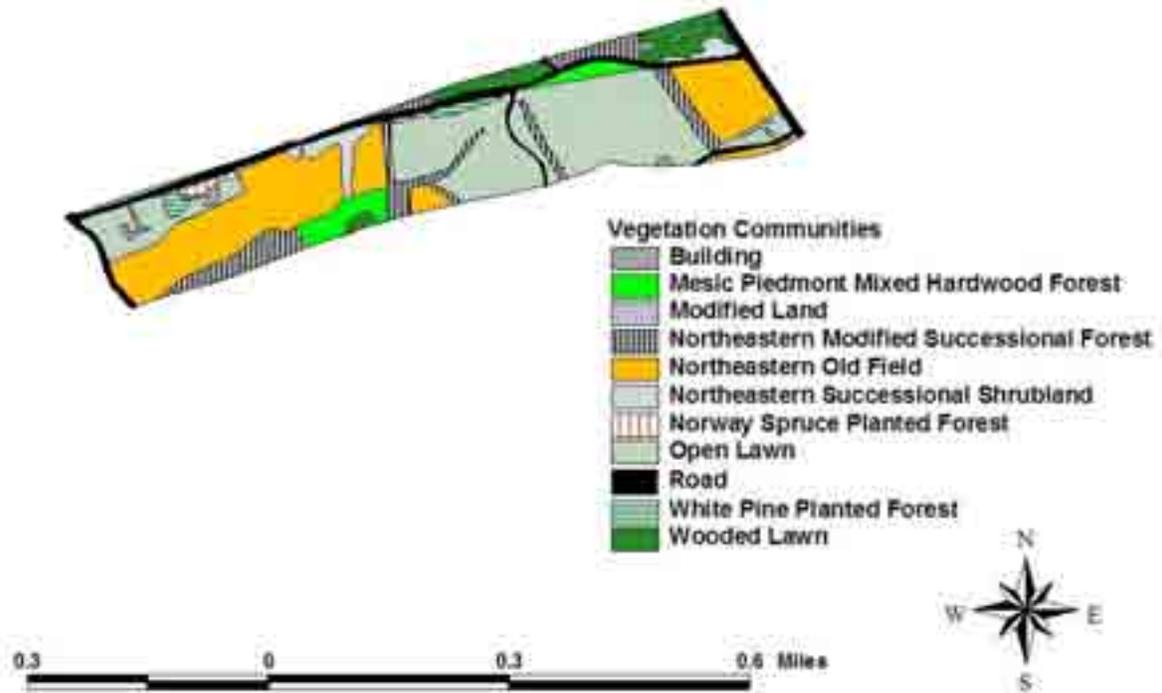


Figure 6. Burnt Mill Road Vegetation Communities

Burnt Mill Road straddles the state line of Delaware and Pennsylvania going between Delaware Route 52 and eventually heading north to the state line. Burnt Mill Road is about 0.9 miles in length before crossing the state line. There are eight vegetation communities, the most prominent of which are Open Lawn and Northeastern Old Field. Other communities include:

1. Mesic Piedmont Mixed Hardwood Forest
2. Northeastern Modified Successional Forest
3. Northeastern Successional Shrubland
4. Norway Spruce Planted Forest
5. White Pine Planted Forest

Campbell Road

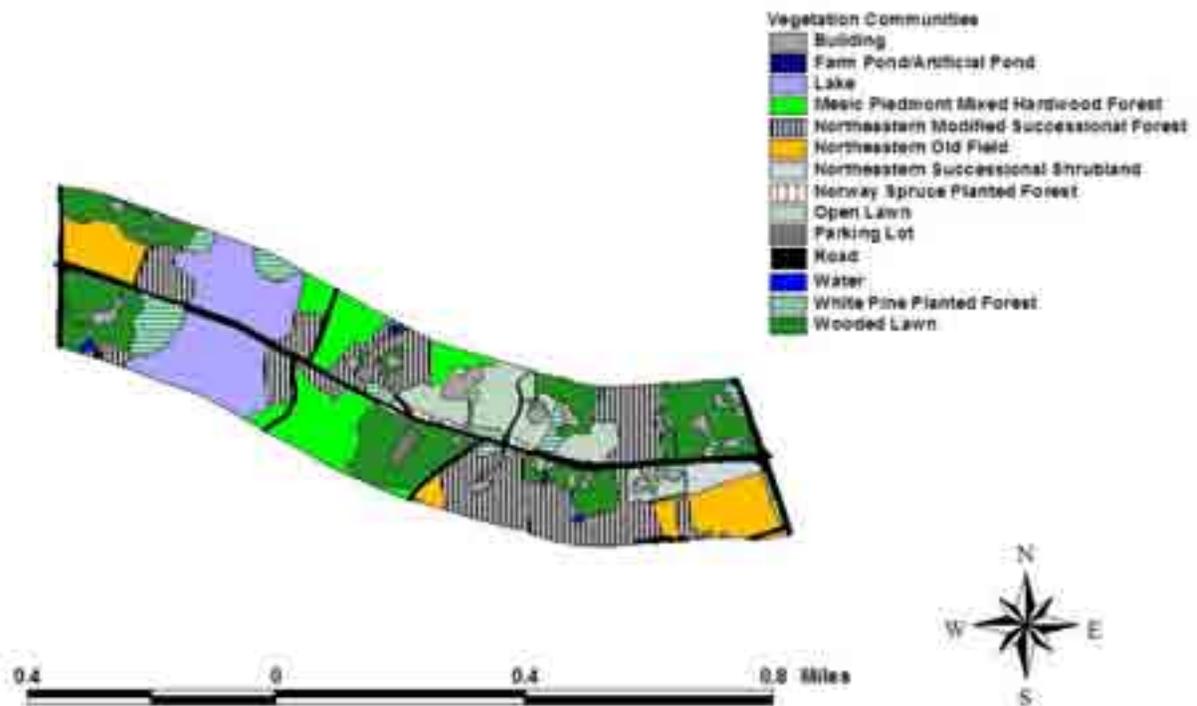


Figure 7. Campbell Road Vegetation Communities

Campbell Road goes west to east and passes between Delaware Route 52 on the east and the intersection of Owls Nest Road and New London Road on the west. Campbell Road is 1.2 miles long. This segment includes a crossing of Hoopes Reservoir which is the largest lake in the Piedmont of Delaware. Wooded lawns associated with houses in the area and Northeastern Modified Successional Forest are the most prominent communities on this route. Other communities include:

1. Mesic Piedmont Mixed Hardwood Forest
2. Northeastern Old Field
3. Northeastern Successional Shrubland
4. Norway Spruce Planted Forest
5. Open Lawn
6. White Pine Planted Forest
7. Wooded Lawn

Center Mill Road

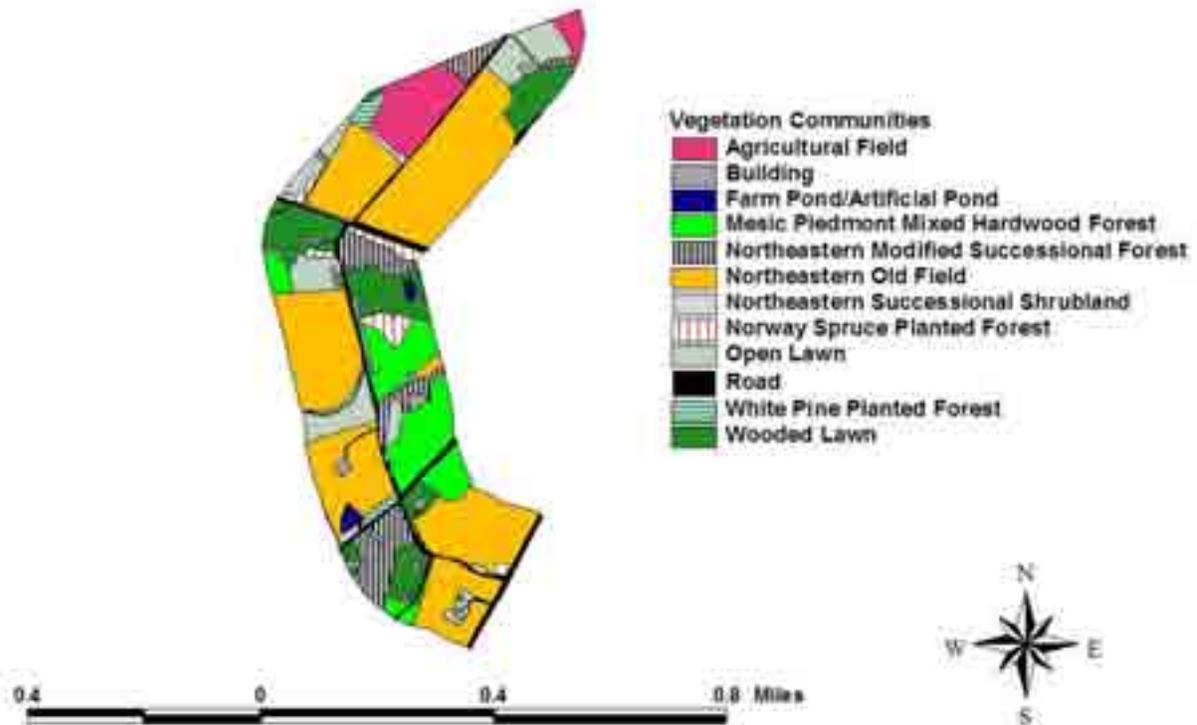


Figure 8. Center Mill Road Vegetation Communities

Center Mill Road runs south from the state line to Snuff Mill Road with a few curves. Center Mill Road is 1.2 miles long and crosses Old Kennett Road in the middle. Northeastern Old Field is the predominant vegetation community out of ten on the road. This road is also one of the few in the watershed with a large Agricultural Field. Other communities on Center Mill Road include:

1. Eastern Cattail Marsh
2. Mesic Piedmont Mixed Hardwood Forest
3. Northeastern Modified Successional Forest
4. Northeastern Successional Shrubland
5. Norway Spruce Planted Forest
6. Open Lawn
7. White Pine Planted Forest
8. Wooded Lawn

Centerville Road

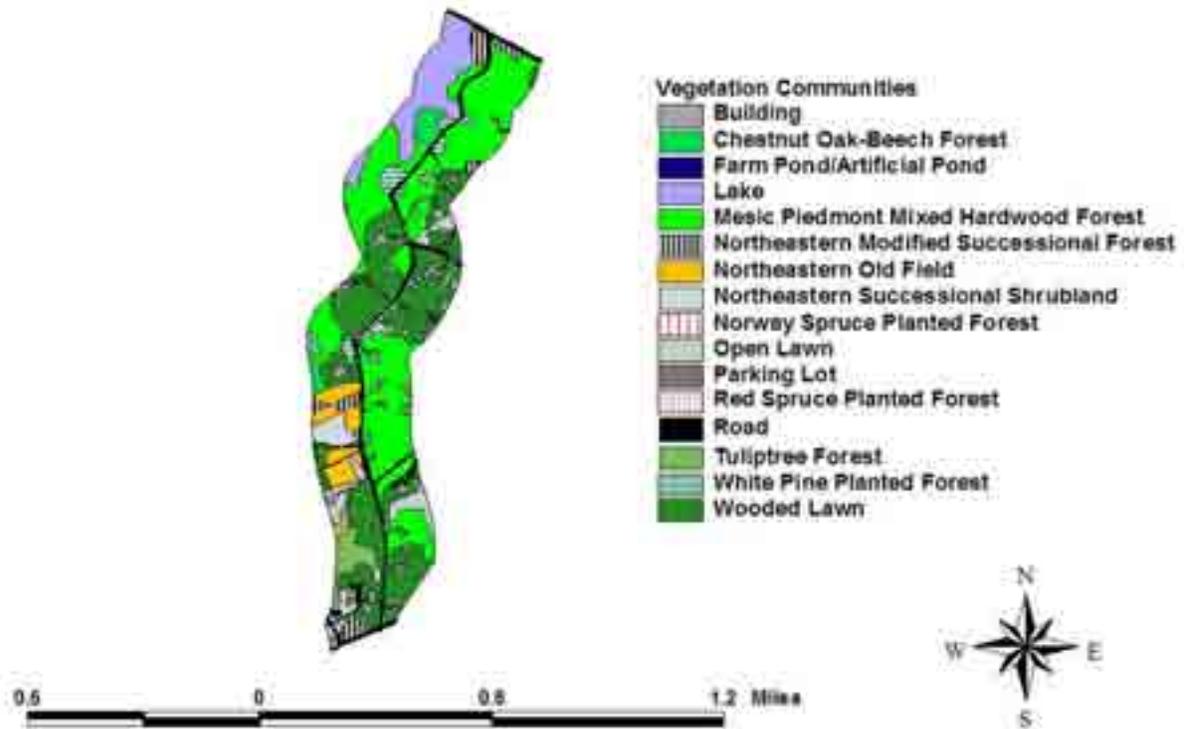


Figure 9. Centerville Road Vegetation Communities

Centerville Road runs from Barley Mill Road north 1.7 miles to Campbell Road to the east of Hoopes Reservoir. Wooded lawn is the most common vegetation community seconded by Mesic Piedmont Mixed Hardwood Forest. A total of ten communities are on this road. This road contains the only example of a Chestnut Oak-Beach Forest on the Byway. Other communities that can be seen include:

1. Northeastern Modified Successional Forest
2. Northeastern Old Field
3. Northeastern Successional Shrubland
4. Norway Spruce Planted Forest
5. Open Lawn
6. Red Spruce Planted Forest
7. Tuliptree Forest
8. White Pine Planted Forest

Creek Road

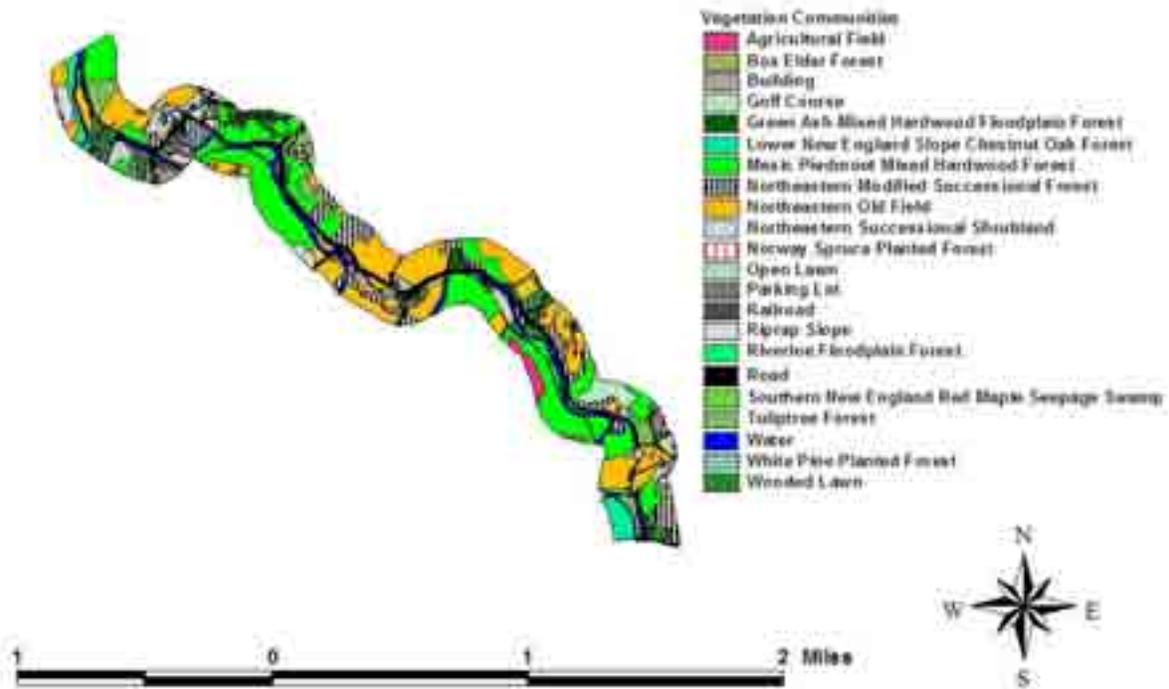


Figure 10. Creek Road Vegetation Communities

Creek Road parallels Red Clay Creek from most of its 3.6 mile length and goes from the state line south to Hillside Mill Road. Creek Road is the longest road in the Byway and contains the most vegetation communities at sixteen. Mesic Piedmont Mixed Hardwood Forest is the prominent vegetation community followed by Northeastern Old Field. Other communities include:

1. Agricultural Field
2. Box Elder Forest
3. Eastern Reed Marsh
4. Green Ash-Mixed Hardwood Forest
5. Lower New England Slope Chestnut Oak Forest
6. Northeastern Modified Successional Forest
7. Northeastern Successional Shrubland
8. Norway Spruce Planted Forest
9. Open Lawn
10. Riverine Floodplain Forest
11. Southern New England Red Maple Seepage Swamp

12. Tuliptree Forest
13. White Pine Planted Forest
14. Wooded Lawn

Hillside Mill Road

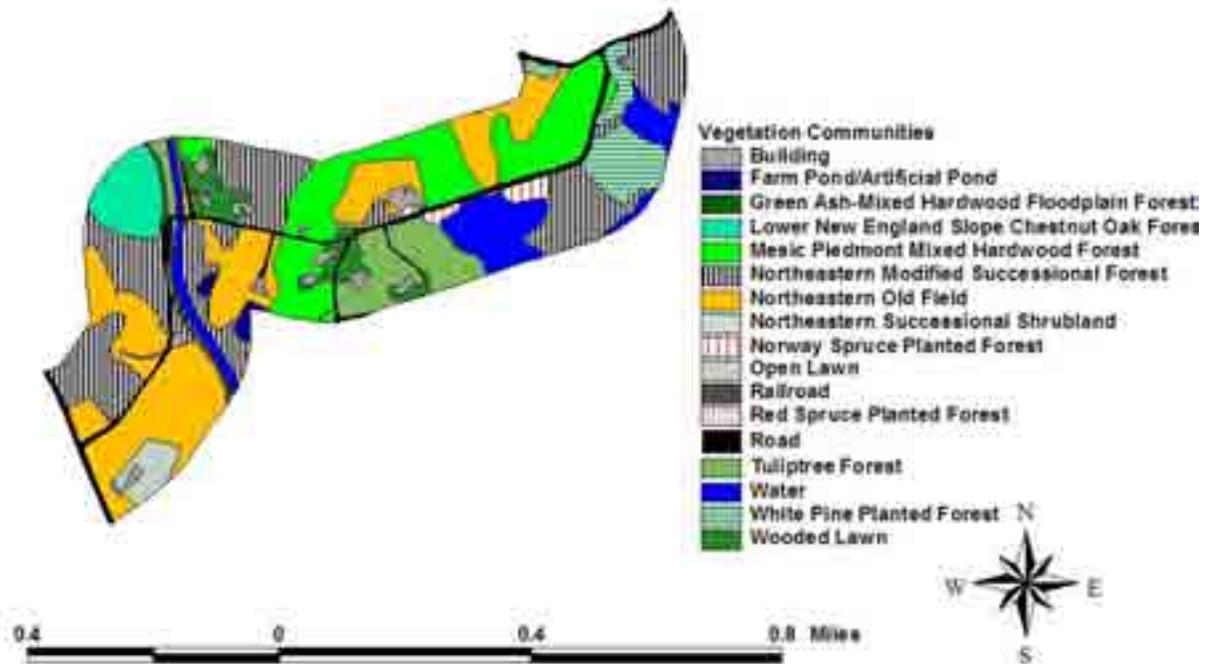


Figure 11. Hillside Mill Vegetation Communities

Hillside Mill Road goes from Pyles Ford Road southwest to Barley Mill Road. Hillside Mill Road is 1.3 miles in length and crosses Red Clay Creek roughly in the middle. Northeastern Modified Successional Forest and Northeastern Old Field are the most prominent vegetation communities. There is also a large amount of Mesic Piedmont Mixed Hardwood Forest among the twelve total communities. Other vegetation communities that can be seen include:

1. Green Ash-Mixed Hardwood Forest
2. Lower New England Slope Chestnut Oak Forest
3. Northeastern Successional Shrubland
4. Norway Spruce Planted Forest
5. Open Lawn
6. Red Spruce Planted Forest
7. Tuliptree Forest
8. White Pine Planted Forest
9. Wooded Lawn

Hillside Road

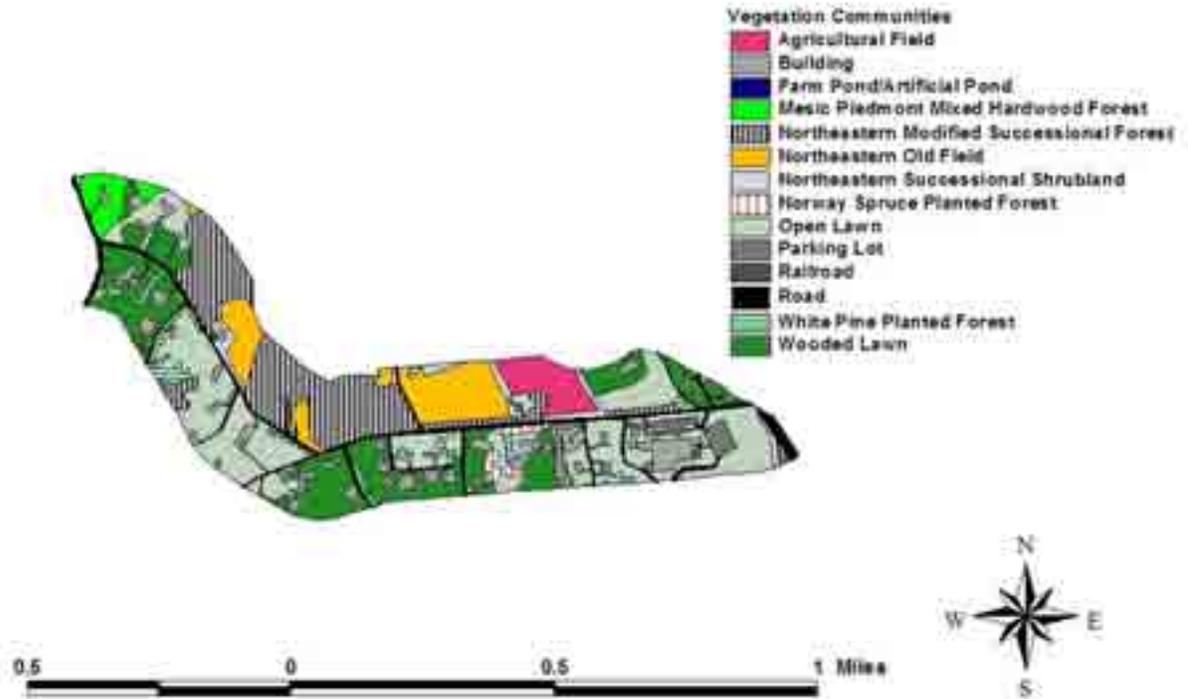


Figure 12. Hillside Road Vegetation Communities

Hillside Road is located in two watersheds, Red Clay Creek and the Christina River, and goes from Greenville Road west to Centerville Road. Hillside Road is 1.5 miles long and contains nine total vegetation communities. Due to development and disturbance Open Lawn and Northeastern Modified Successional Forest are the most common vegetation communities. Falling in a close third is Wooded Lawn. Other vegetation communities include:

1. Agricultural Field
2. Mesic Piedmont Mixed Hardwood Forest
3. Northeastern Old Field
4. Northeastern Successional Shrubland
5. Norway Spruce Planted Forest
6. White Pine Planted Forest

New London Road

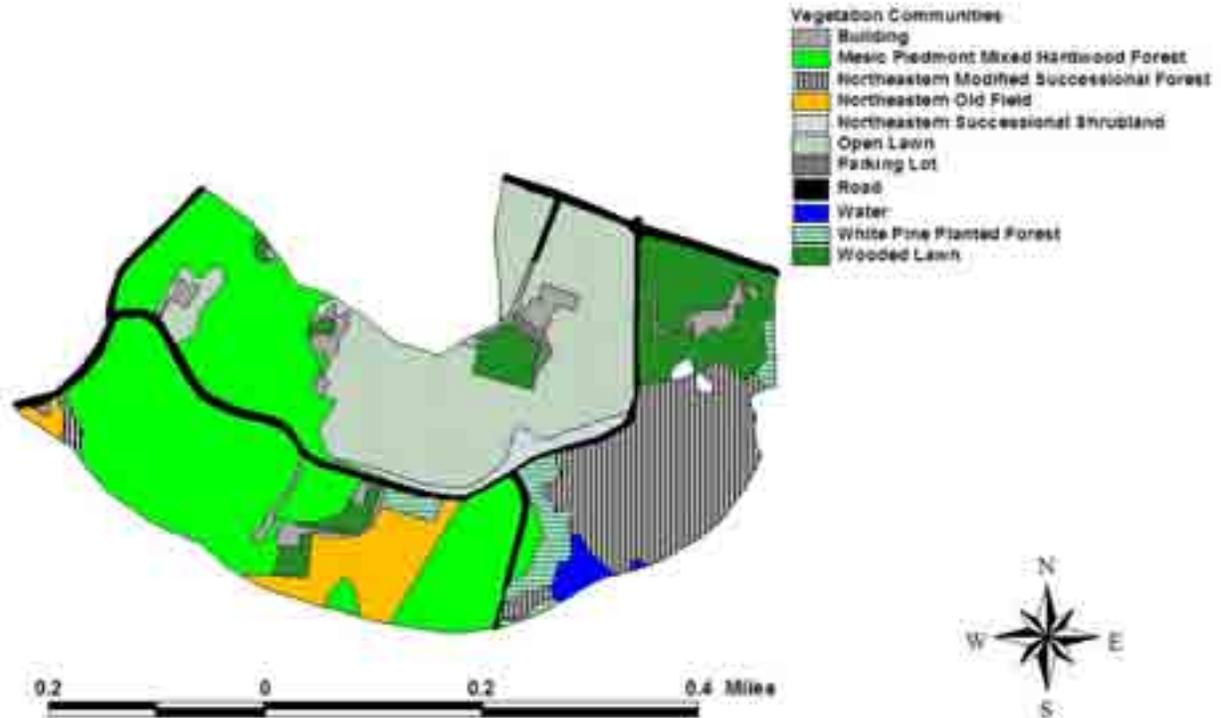


Figure 13. New London Road Vegetation Communities

New London Road goes from Campbell Road roughly south and west to Pyles Ford Road. New London Road is 0.75 miles long and contains seven vegetation communities. Mesic Piedmont Mixed Hardwood Forest is the most prominent vegetation community followed by Open Lawn. Other vegetation communities include:

1. Northeastern Modified Successional Forest
2. Northeastern Old Field
3. Northeastern Successional Shrubland
4. White Pine Planted Forest
5. Wooded Lawn

Nine Gates Road

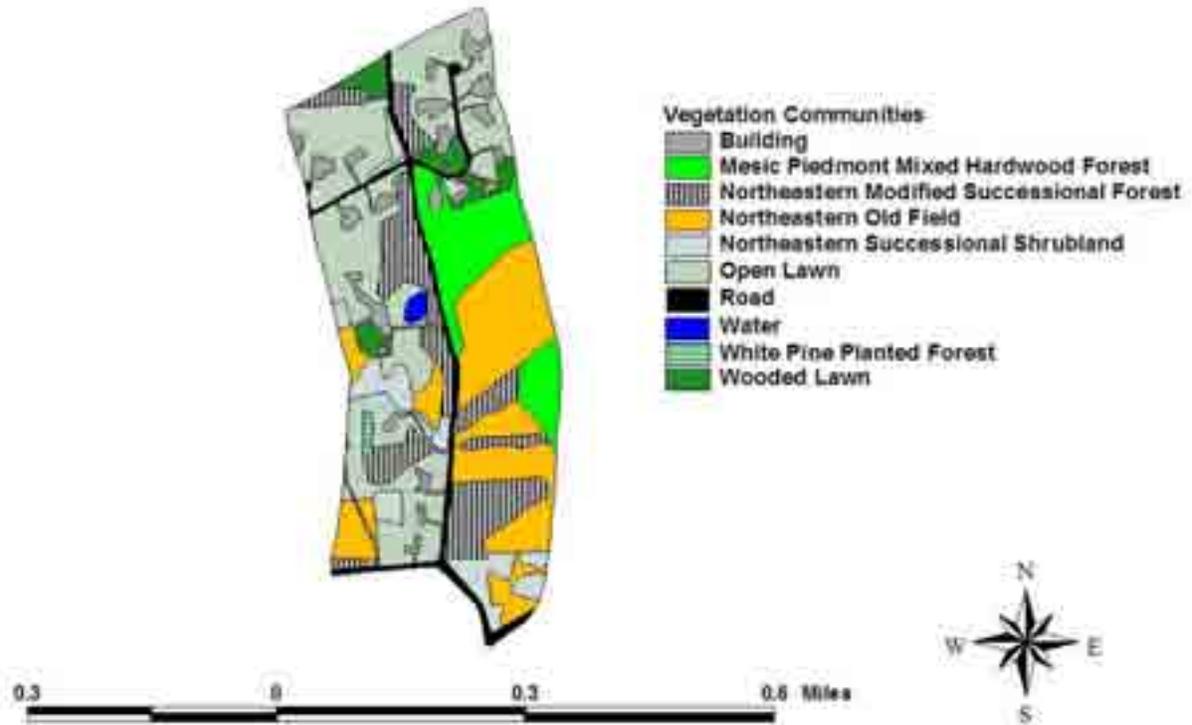


Figure 14. Nine Gates Road Vegetation Communities

Nine Gates Road goes from Snuff Mill Road north for 0.6 miles to the state line. Many residences are present making Open Lawn the most common vegetation community out of a total of seven. Other vegetation communities that can be seen include:

1. Mesic Piedmont Mixed Hardwood Forest (6.4 acres)
2. Northeastern Modified Successional Forest (17.2 acres)
3. Northeastern Old Field (22.3 acres)
4. Northeastern Successional Shrubland (7.1 acres)
5. White Pine Planted Forest (0.4 acres)
6. Wooded Lawn (4 acres)

Old Kennett Road

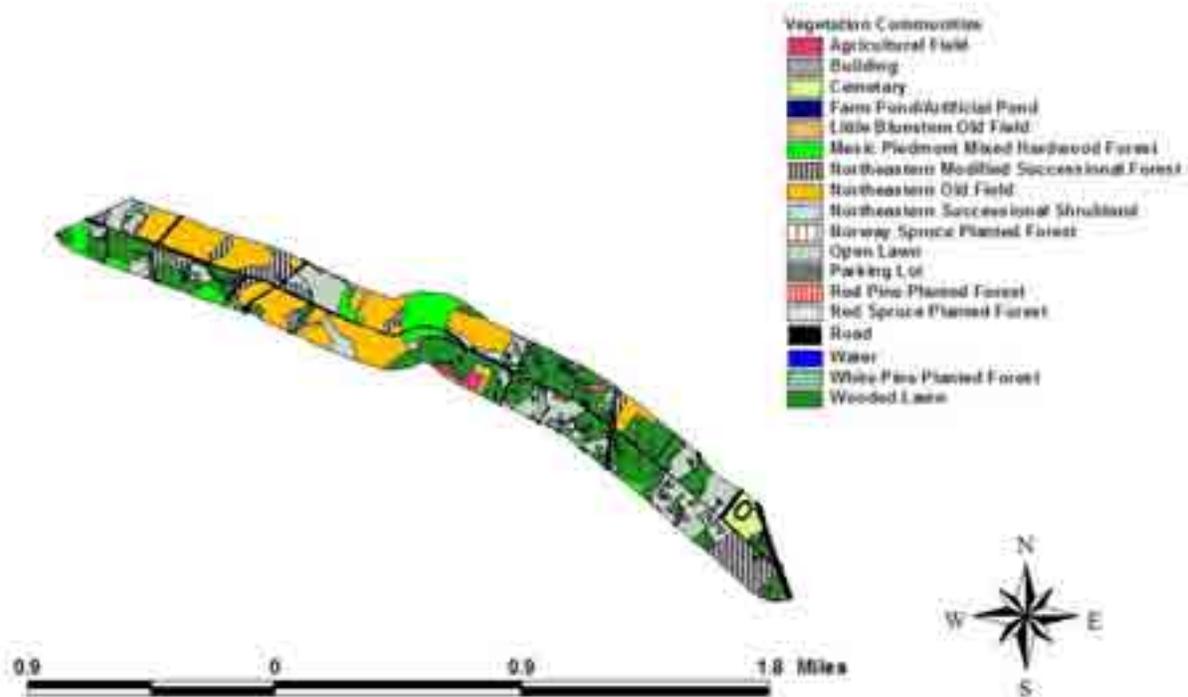


Figure 15. Old Kennett Road Vegetation Communities

Old Kennett Road is one of the longer roads in the Byway and goes from the state line east to Greenville Road. It is 2.9 miles long and contains eleven vegetation communities. Many residences are present along this road making Wooded Lawn the most common vegetation community interspersed with Northeastern Old Fields. Open Lawn is also present in a lot of areas on this road. Other vegetation communities include:

1. Agricultural Field (4 acres)
2. Mesic Piedmont Mixed Hardwood Forest
3. Northeastern Modified Successional Forest
4. Northeastern Successional Shrubland
5. Norway Spruce Planted Forest
6. Red Pine Planted Forest
7. Red Spruce Planted Forest
8. White Pine Planted Forest

Old Wilmington Road

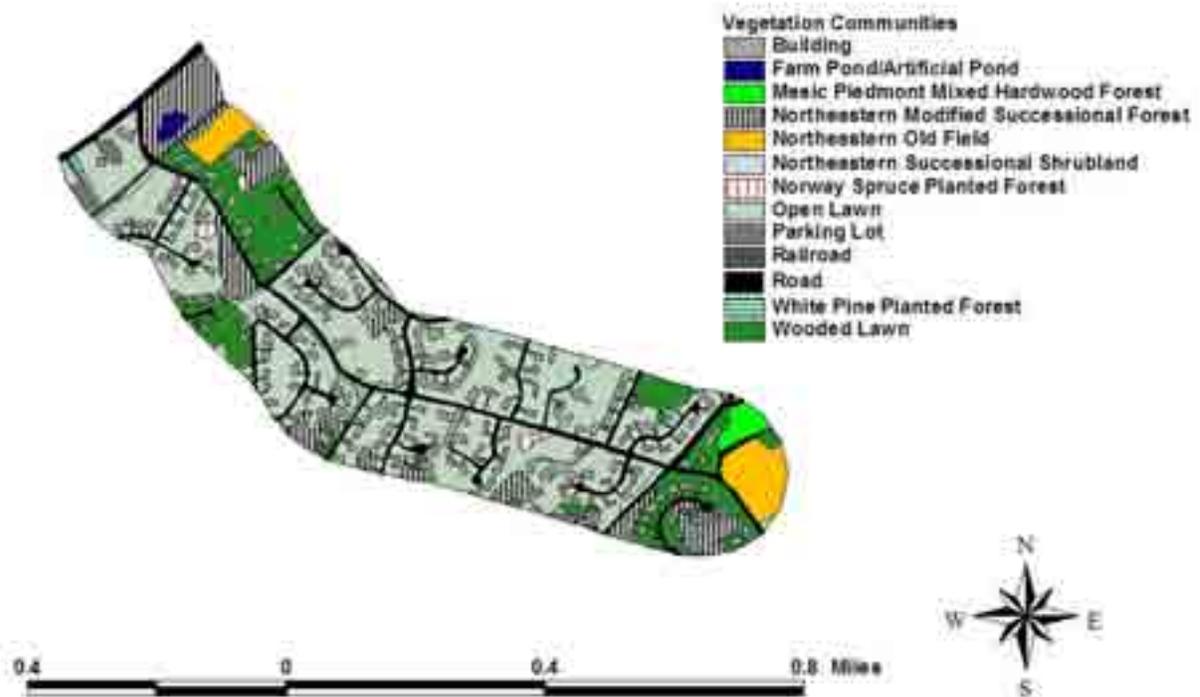


Figure 16. Old Wilmington Road Vegetation Communities

Old Wilmington Road goes from Yorklyn Road southeast to just past Brackenville Road and follows the dividing ridge between Red Clay Creek and White Clay Creek. Old Wilmington Road is 1.25 miles long in the Byway and contains eight vegetation communities. Residential development in the area makes Open Lawn the most prominent vegetation community on this stretch of road. Other communities here include:

1. Mesic Piedmont Mixed Hardwood Forest
2. Northeastern Modified Successional Forest
3. Northeastern Old Field
4. Northeastern Successional Shrubland
5. Norway Spruce Planted Forest
6. White Pine Planted Forest
7. Wooded Lawn

Owl's Nest Road

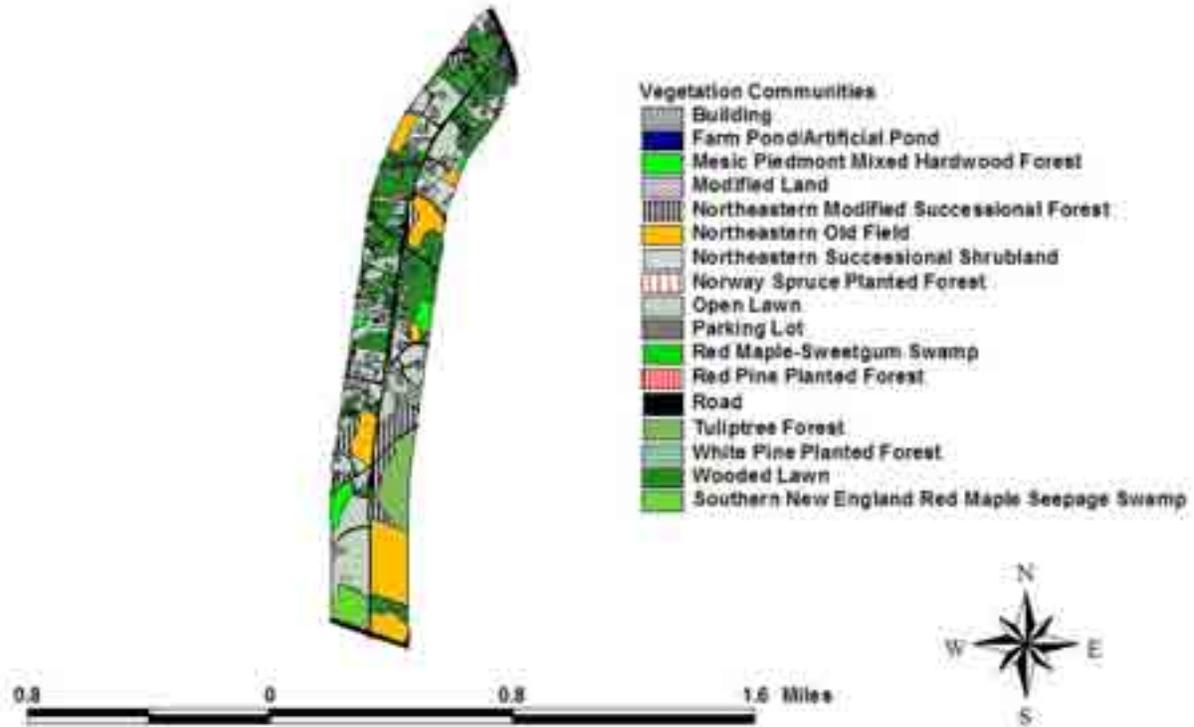


Figure 17. Owl's Nest Road Vegetation Communities

Owl's Nest Road goes south from Greenville Road (Route 52) to the intersection of Campbell Road and Walnut Green Road and is 2.0 miles long. On its way it crosses Old Kennett Road and Pyle's Ford Road. Out of eleven vegetation communities the most common are Wooded Lawn and Open Lawn owing to the fact that there are a lot of large residences on the road. There is also a lot of Northeastern Old Field present along this road. Other communities on Owl's Nest Road include:

1. Mesic Piedmont Mixed Hardwood Forest
2. Northeastern Modified Successional Forest
3. Northeastern Successional Shrubland
4. Norway Spruce Planted Forest
5. Red Pine Planted Forest
6. Southern New England Red Maple Seepage Swamp
7. Tuliptree Forest
8. White Pine Planted Forest

Pyles Ford Road



Figure 18. Pyles Ford Road Vegetation Communities

Pyle's Ford Road goes from Greenville Road (Route 52) southwest to Creek Road and is 2.0 miles long. On its way it crosses Old Kennett Road and Owl's Nest Roads. Ten vegetation communities are present with Mesic Piedmont Mixed Hardwood Forest is the most common community followed closely by the Open Lawn of residences in the area. Other communities along Pyle's Ford Road include:

1. Eastern Reed Marsh
2. Northeastern Modified Successional Forest
3. Northeastern Old Field
4. Northeastern Successional Shrubland
5. Red Spruce Planted Forest
6. Tuliptree Forest
7. White Pine Planted Forest
8. Wooded Lawn

Rolling Mill Road

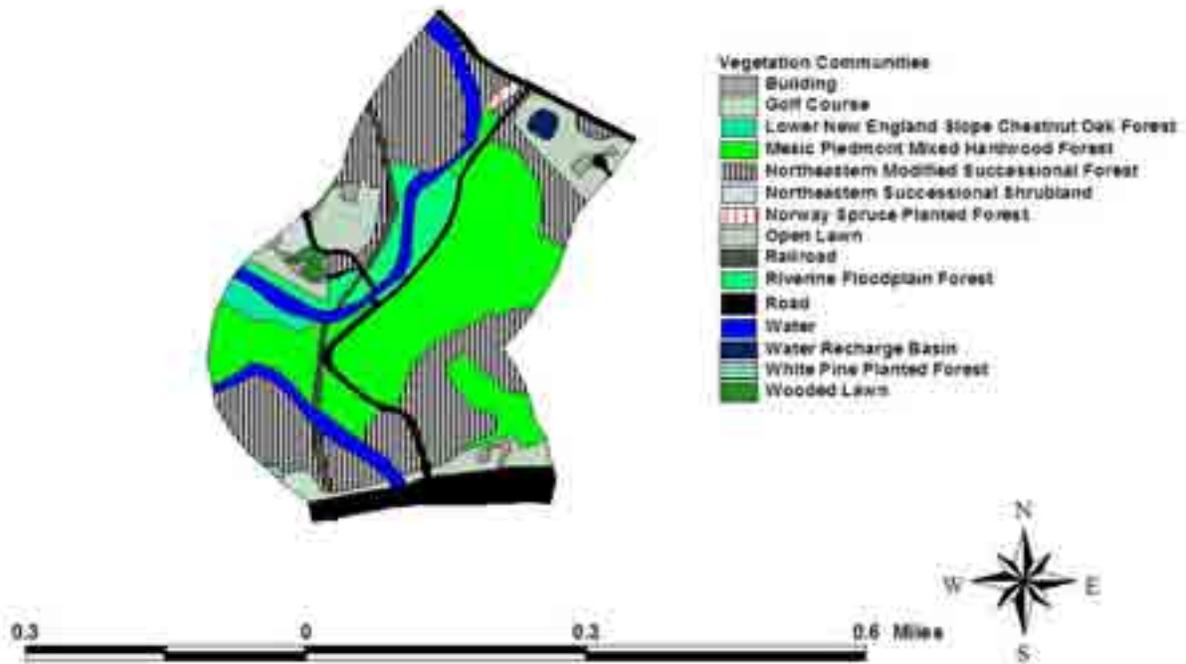


Figure 19. Rolling Mill Road Vegetation Communities

Rolling Mill Road goes from Barley Mill Road south to Route 48. Rolling Mill Road is 0.5 miles long and goes through a mature and perhaps the best example of a Mesic Piedmont Mixed Hardwood Forest on the Byway. The most prominent vegetation community out of eight is Northeastern Modified Successional Forest that is located on the western side of Red Clay Creek and is on the north and south sides of the Mesic Piedmont Mixed Hardwood Forest. Other communities that can be seen here include:

1. Lower New England Slope Chestnut Oak Forest
2. Northeastern Successional Shrubland
3. Norway Spruce Planted Forest
4. Riverine Floodplain Forest
5. White Pine Planted Forest
6. Wooded Lawn

Sharpless Road

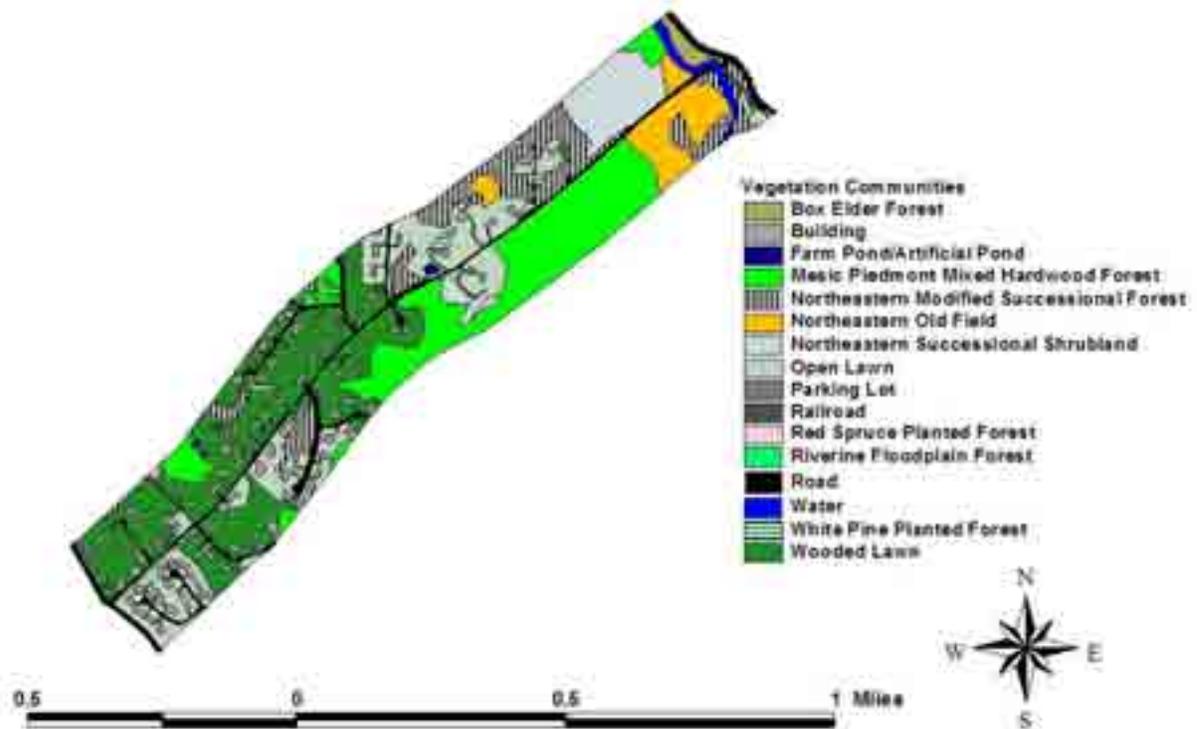


Figure 20. Sharpless Road Vegetation Communities

Sharpless Road goes from Creek Road southwest to Old Wilmington Road and is 1.5 miles long. Wooded Lawn is the most common vegetation community followed by Mesic Piedmont Mixed Hardwood Forest out of ten total communities. Other communities that can be seen on this road include:

1. Box Elder Forest
2. Northeastern Modified Successional Forest
3. Northeastern Old Field
4. Northeastern Successional Shrubland
5. Open Lawn
6. Red Spruce Planted Forest
7. White Pine Planted Forest
8. Wooded Lawn

Snuff Mill Road

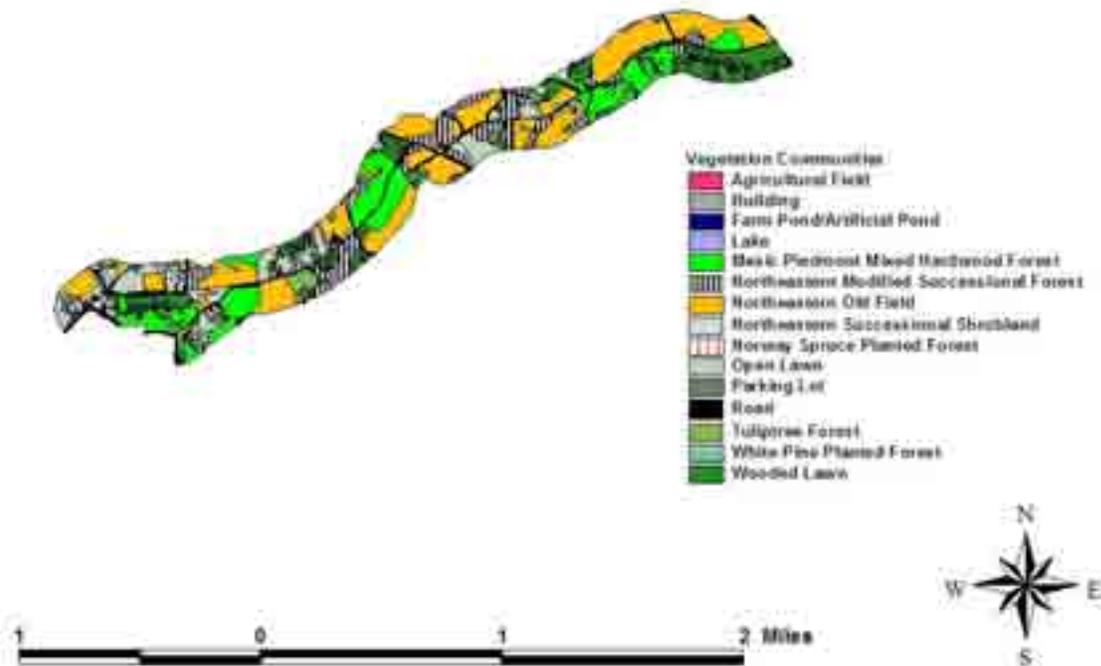


Figure 21. Snuff Mill Road Vegetation Communities

Snuff Mill Road is one of the longer roads on the Byway and goes from Greenville Road (Route 52) southwest to Creek Road. Snuff Mill Road is 2.9 miles long and contains ten vegetation communities. It is similar to Way Road and Ashland-Clinton School Road in that it has Northeastern Old Field as the prominent community type. Mesic Piedmont Mixed Hardwood Forest is next most common community. Other communities that can be seen include:

1. Agricultural Field
2. Northeastern Modified Successional Forest
3. Northeastern Successional Shrubland
4. Norway Spruce Planted Forest
5. Open Lawn
6. Tuliptree Forest
7. White Pine Planted Forest
8. Wooded Lawn

Walnut Green Road

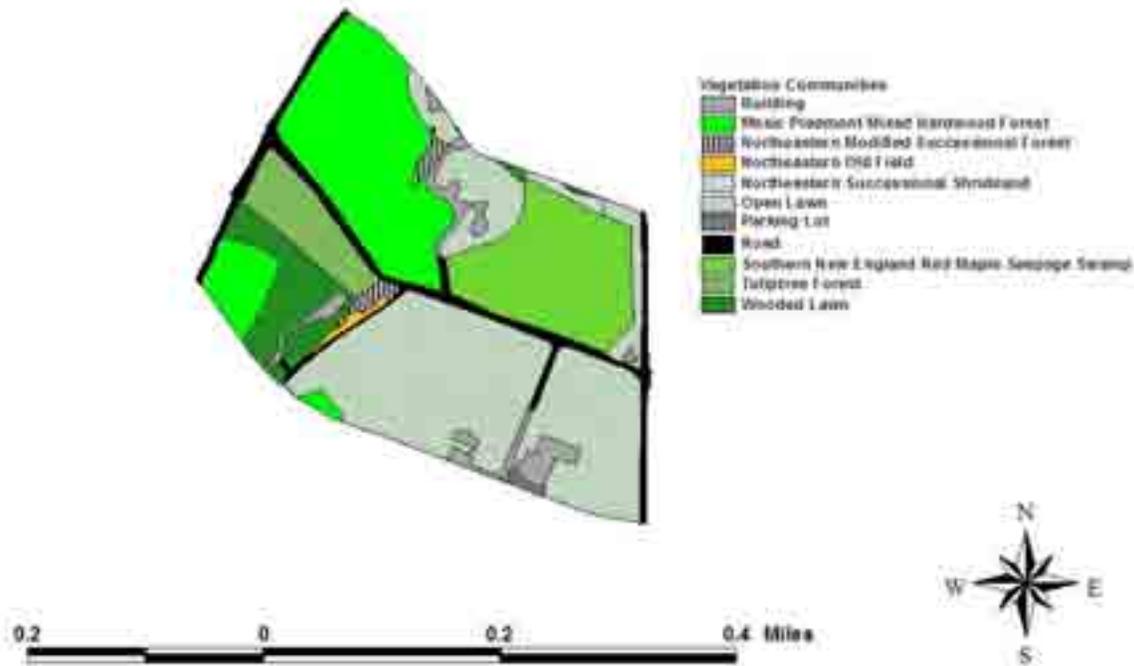


Figure 22. Walnut Green Road Vegetation Communities

Walnut Green Road is a short road that goes from Owls Nest Road west to Pyles Ford Road. Although it is the shortest road in the Byway covering only 0.4, it contains the only example of a Southern New England Red Maple Seepage Swamp. Open Lawn and Mesic Piedmont Mixed Hardwood Forest are the most common communities out of eight. Other communities that can be seen include:

1. Northeastern Modified Successional Forest
2. Northeastern Old Field
3. Northeastern Successional Forest
4. Tuliptree Forest
5. Wooded Lawn

Way Road

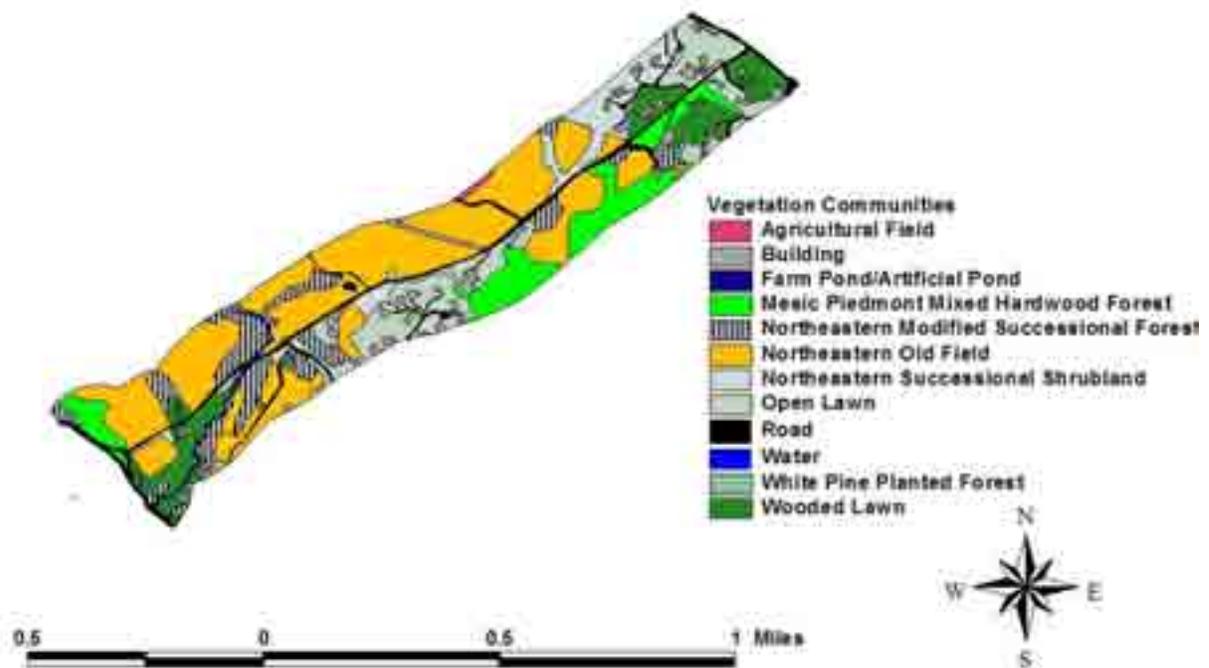


Figure 23. Way Road Vegetation Communities

Way Road goes from Old Kennett Road southwest to Creek Road, is 1.6 miles long and contains eight vegetation communities. It is similar in appearance to Ashland-Clinton School Road and Snuff Mill Road having Northeastern Old Field as the most prominent vegetation community. A small amount of Mesic Piedmont Mixed Hardwood Forest can be seen on this road as well. Other communities present include:

1. Agricultural Field
2. Northeastern Modified Successional Forest
3. Northeastern Successional Shrubland
4. Open Lawn
5. White Pine Planted Forest
6. Wooded Lawn

Yorklyn Road

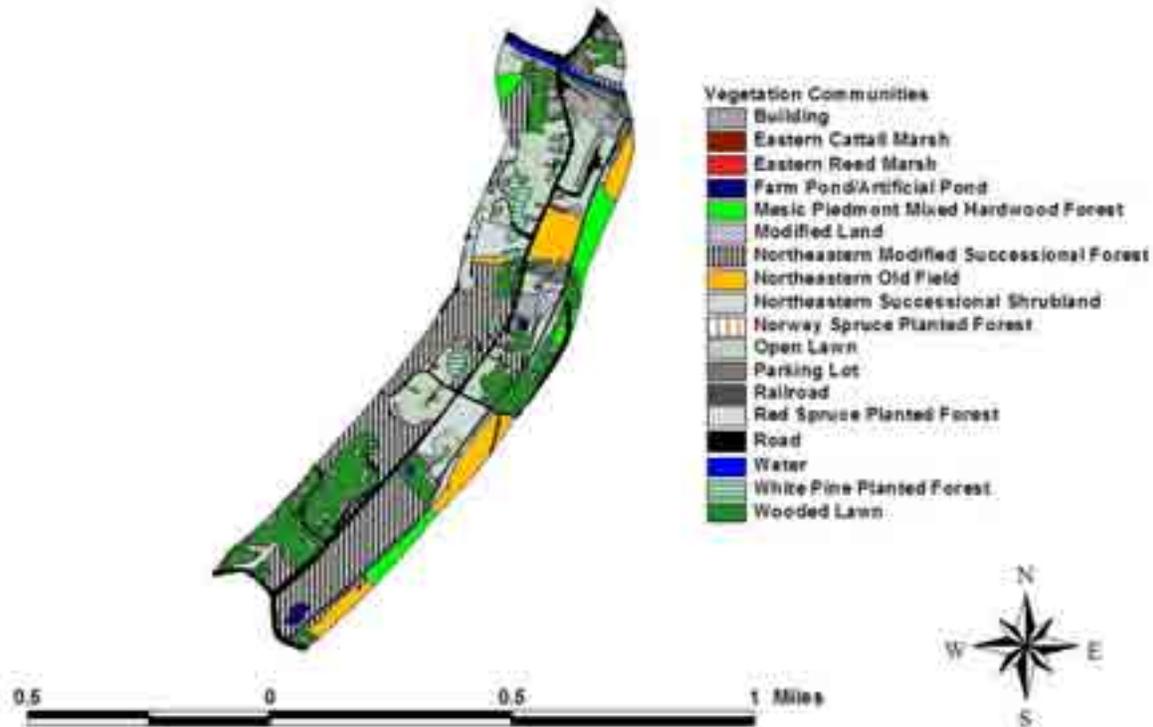


Figure 24. Yorklyn Road Vegetation Communities

Yorklyn Road goes from Creek Road southwest to Old Wilmington Road, is 1.3 miles long and contains eleven vegetation communities. Northeastern Modified Successional Forest the most common vegetation community because of the disturbance around this road. It is followed by Wooded Lawn and Open Lawn. Other communities include:

1. Eastern Cattail Marsh
2. Eastern Reed Marsh
3. Mesic Piedmont Mixed Hardwood Forest
4. Northeastern Old Field
5. Northeastern Successional Shrubland
6. Norway Spruce Planted Forest
7. Red Spruce Planted Forest
8. White Pine Planted Forest

Appendix I: Vegetation communities within the Red Clay Scenic Byway Corridor. The NVC name is presented first followed by the GDVC name in brackets.

Forested communities:

- ◆ C EGL005033-*Acer negundo* Forest [Box Elder Forest]
- ◆ C EGL006036-*Platanus occidentalis-Fraxinus pennsylvanica* Forest [Riverine Floodplain Forest]
- ◆ C EGL006186- *Liriodendron tulipifera-Quercus rubra-Fraxinus americana-Asimina triloba-Actaea racemosa-Uvularia perfoliata* [Tuliptree Forest]
- ◆ C EGL006282-*Quercus prinus-Quercus (rubra, velutina)/Vaccinium angustifolium* Forest [Lower New England Slope Chestnut Oak Forest]
- ◆ C EGL006406-*Acer rubrum-Fraxinus (pennsylvanica, americana)/Lindera benzoin/Symplocarpus foetidus* Forest [Southern New England Red Maple Seepage Swamp]
- ◆ C EGL006575-*Fraxinus pennsylvanica-(Juglans nigra, Platanus occidentalis)* Forest [Green Ash-Mixed Hardwood Floodplain Forest]
- ◆ C EGL006919-*Quercus prinus-Quercus velutina-Fagus grandifolia/Kalmia latifolia* Forest [Chestnut Oak-Beech Forest]
- ◆ C EGL006921-*Fagus grandifolia-Betula lenta-Quercus (alba, rubra)/Carpinus caroliniana* Forest [Mesic Piedmont Mixed Hardwood Forest]

Woodland Communities

- ◆ None

Shrubland communities:

- ◆ C EGL006451-*Elaeagnus umbellata-Cornus racemosa-Rosa multiflora-Juniperus virginiana* Shrubland [Northeastern Successional Shrubland]
- ◆ C EGL008560-*Phyllostachys aurea* Shrubland [Golden Bamboo Shrubland]

Herbaceous communities:

- ◆ C EGL004141-*Phragmites australis* Eastern North America Temperate Semi-Natural Herbaceous Vegetation [Eastern Reed Marsh]
- ◆ C EGL006153-*Typha (angustifolia, latifolia)-(Schoenoplectus spp.)* Eastern Herbaceous Vegetation [Eastern Cattail Marsh]

Anthropogenic communities and land covers

- ◆ Agricultural Field
 - ◆ Building
 - ◆ C EGL004758-*Picea rubens* Planted Forest [Red Spruce Planted Forest]
 - ◆ C EGL006107-*Dactylis glomerata-Phleum pretense-Festuca spp.-Solidago spp.* Herbaceous Vegetation [Northeastern Old Field]
 - ◆ C EGL006451-*Elaeagnus umbellata-Cornus racemosa-Rosa multiflora-Juniperus virginiana* Shrubland [Northeastern Successional Shrubland]
 - ◆ C EGL006599-*Prunus serotina-Liriodendron tulipifera-Acer rubrum-Fraxinus americana* Forest [Northeastern Modified Successional Forest]
 - ◆ C EGL007167-*Picea abies* Planted Forest [Norway Spruce Planted Forest]
-

-
- ◆ C EGL007177-*Pinus resinosa* Planted Forest [Red Pine Planted Forest]

 - ◆ C EGL007178-*Pinus strobus* Planted Forest [White Pine Planted Forest]

 - ◆ C EGL008560-*Phyllostachys aurea* Shrubland [Golden Bamboo Shrubland]

 - ◆ Farm Pond/Artificial Pond

 - ◆ Lake

 - ◆ Open Lawn

 - ◆ Parking Lot

 - ◆ Road

 - ◆ Water

 - ◆ Water Recharge Basin

 - ◆ Wooded Lawn

RESOURCES – LANDSCAPE MANAGEMENT TOOLS

The resources listed below provide additional information on landscape management; numerous references apply to Delaware and are particularly applicable to the Red Clay Valley Piedmont area.

- *Community Spaces, Natural Places: A Guide to Restoration, Management, and Maintenance of Community Open Space*, 2005, prepared Delaware Coastal Programs
- *Controlling Backyard Invaders*, prepared by John Harrod, Delaware Nature Society
- Delmarva Power Vegetation Management - <http://www.delmarva.com/home/emergency/veg/res/>
- *Enhancing Delaware Highways: Roadside Vegetation Concept and Planning Manual*, 2005, prepared by Susan Barton, Rick Darke, and Gary Schwetz for the Delaware Department of Transportation
- *The Flora of Delaware: An Annotated Checklist*, 2001, prepared by William A. McAvoy and Karen A. Bennett
- *Landscaping with Native Plants in the Middle-Atlantic Region*, 2004, prepared by Elizabeth N. du Pont for the Brandywine Conservancy
- *Plants for Livable Delaware*, prepared by Susan Barton and Gary Schwetz
- Tree Line USA Program - <http://www.arbor-day.org/programs/treeLineUSA.cfm>
- Trees and Reliable Electric Service – prepared by Conectiv Power Delivery - http://webapps.delmarva.com/dp/our_environment/veg_mgmt/Trees_and_Reliable_Electric_Service.pdf
- *Trees for Delaware*, prepared by Susan Barton, Gary Schwetz, and Charles Newlon



Appendix 6

**DelDot Plan Approval,
Public Involvement and Support
(including Steering Committee
members and meetings, public
workshops, letters of support,
and news articles)**



STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
800 BAY ROAD
P.O. BOX 778
DOVER, DELAWARE 19903

CAROLANN WICKS, P.E.
SECRETARY

May 13, 2008

Mr. Michael Riska
Executive Director
Delaware Nature Society
P.O. Box 700
Hockessin DE 19707

Dear Mr. Riska:

We are pleased to inform you that DelDOT has approved the Red Clay Valley Scenic Byway Corridor Management Plan submitted by the Delaware Nature Society. Attached is a memorandum, signed by Secretary Carolann Wicks regarding this.

Please accept our congratulations and we look forward to working with you towards the preservation and enhancement of the Red Clay Valley Scenic Byway.

Sincerely,

Maria V. Andaya
Maria V. Andaya
Project Planner

Cc: Jen Gochettair
John Gaadt
Delaware Byways Advisory Board Members





STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
800 BAY ROAD
P.O. BOX 778
DOVER, DELAWARE 19903

CAROLANN WICKS, P.E.
SECRETARY

MEMORANDUM

TO: Carolann Wicks, Secretary
VIA: Ralph Reeb, Director of Planning
VIA: Jeff Niezgodka, Planning Supervisor
FROM: Maria Andaya, Project Planner
DATE: April 30, 2008
SUBJECT: Red Clay Valley Scenic Byway Corridor Management Plan

On behalf of the Delaware Byways Program Evaluation Committee and Advisory Board, this is to recommend that the Red Clay Valley Scenic Byway Corridor Management Plan submitted by the Delaware Nature Society be approved under the Delaware Byways Program. The Red Clay Valley Scenic Byway was designated as a Delaware Byway on April 2002. It is composed of 28 secondary roads that together offer an experience like no other in the State of Delaware because of the unique combination of hills, trees and streams, rock outcroppings and historic structures. The vision for this Byway is to preserve its intrinsic scenic quality.

The corridor management plan is well organized and comprehensive. It was subjected to the rigorous review process required by the law and the adopted Program Guide. The result is a strong endorsement of the corridor management plan by all of the reviewers, which included DelDOT staff and the multi-departmental Program Evaluation Committee and Advisory Board. A copy of the corridor management plan is attached.

Corridor Management Plan Approved



Carolann Wicks, Secretary



Date

cc: Advisory Board Members



Red Clay Valley Scenic Byway Corridor Management Plan Development Timeline

- April 2005** Twenty-eight roads in the Red Clay Valley area were designated as the Red Clay Valley Scenic Byway.
- May 2005-Dec 2007** The Red Clay Valley Scenic Byway Steering Committee, led by the Delaware Nature Society, worked on its Corridor Management Plan. The CMP was pursued through a grant from the New Castle County government. The Steering Committee is composed of Byway residents and stakeholders, local legislators and DelDOT and WiMAPCO staff.
- September 2007** A public workshop was conducted to get public input on the Draft CMP.
- January 2008** The CMP was formally submitted to DelDOT.
- January 29, 2008** As required by the Program Guidelines, the Byways Evaluation Committee met to discuss the Draft CMP. In attendance were Maria Andaya of DelDOT, Robin Krawitz of SHPO, Susan Moerschel of DNREC, and Mike McGrath of DDA. The Evaluation Committee concluded that the Draft CMP is well-organized, comprehensive and even exceeds the requirements of the Program Guidelines.
- February 2008** The Draft CMP was posted on the DelDOT intranet for review by DelDOT staff. The Bridge Section requested that the bridges identified in the CMP as historic resource or vista, include the corresponding bridge number. The comment was forwarded to the Delaware Nature Society for action.
- Mar - Apr 2008** Members of the Byways Advisory Board were given a 4-week opportunity to review the CMP.

**RED CLAY VALLEY SCENIC BYWAY
STEERING COMMITTEE MEMBERS**

NAME	AFFILIATION	EMAIL	PHONE
Carlos Alejandro	Resident	carlos@caphoto.com	302-760-2128
María Andaya	DoDOT	maria.andaya@state.de.us	302-655-5000
Bill Bailey	Mt. Cuba Center/Bayard Firm	wbailey@bayardfirm.com	302-235-0228
Elayne Ben-Bassat	Resident	elaynebb@comcast.net	
Bill Bizjak	Resident	bizjak2@comcast.net	
Gretchen Broadwater	Chesapeake Bay Girl Scouts Council	gbroadwater@mailstation.com	
Gary Burcham	Landscape architect, resident	gburcham@juno.com	
Eileen Butler	DNREC	Eileen.Butler@state.de.us	302-739-9239
Charles Copeland	State Senator	charles.copeland@state.de.us	302-426-0995
Willard Crichton	Center for Creative Arts	crichtonwg@ccarts.org	
Heather Dunigan	Wilmappco	hdunigan@wilmappco.org	302-737-6205
Mary Grace Faniello	New Castle County	mfaniello@co.new-castle.de.us	302-395-5554
John Gaadt	Gaadt Perspectives, project consultant	jgaadt@gaadt.com	610-388-7641
Jen Goehenaur	Delaware Nature Society	jen@delawarenaturesociety.org	302-239-2334
John Herdeg	Red Clay Reservation	jherdeg@dellaw.com	302-655-6500
Deborah Hudson	State Representative	Deborah.Hudson@state.de.us	302-651-9571
John Iwasyk	Wilmington and Western Railroad	iwasyk@attglobal.net	302-998-1930
John Janowski	New Castle County	j.janowski@co.new-castle.de.us	
Jim Jordan	Red Clay Valley Association	jejordan@bva-rcva.org	610-793-1090
Rick Lewandowski	Mt. Cuba Center	rlwandowski@mtcubacenter.org	302-239-4244
Lisa Pertzoff	Resident	wolfhill@comcast.net	
Charles Potter	Resident	cpotter@tainsinstruments.com	
Burt Samuelson	Wilmappco	bsamuelson@wilmappco.org	302-737-6205

**RED CLAY VALLEY SCENIC BYWAY
CONTEXT SENSITIVE DESIGN SUBCOMMITTEE MEMBERS**

NAME	AFFILIATION	EMAIL	PHONE
María Andaya	DelDOT	maria.andaya@state.de.us	302-760-2128
Bill Bailey	Mt. Cuba Center/Bayard Firm	wbailey@bayardfirm.com	302-655-5000
Eileen Butler	DNREC	Eileen.Butler@state.de.us	302-739-9239
John Gaadt	Gaadt Perspectives, project consultant	jgaadt@gaadt.com	610-388-7641
Jen Gocheur	Delaware Nature Society	jen@delawarenaturesociety.org	302-239-2334
Rick Lewandowski	Mt. Cuba Center	rlwandowski@mtcubacenter.org	302-239-4244
Lisa Pertzoff	Resident	wolhill@comcast.net	
Burt Samuelson	Wilmington	bsamuelson@wilmington.org	302-737-6205

**Red Clay Valley Scenic Byway
Steering Committee Meeting
October 3, 2006**

Attendees:

Maria Andaya, DelDOT
Bill Bailey, Mt. Cuba Center
William A. Bizjak, Area Resident
Gary Burcham, Landscape Architect and Resident
Eileen Butler, DNREC Parks & Recreation
Joe Cantalupo, DelDOT
John M. Gaadt, Gaadt Perspectives, Project Consultant
Jen Goehenaar, Delaware Nature Society
John Iwaszk, Delaware Greenways and Historic Red Clay Valley
Lisa Pertzoff, Area Resident
Burt Samuelson, WILMAPCO

Meeting Overview:

• **DelDOT Projects Along Byway Roads**

- **Brackenville Road**

Jen Goehenaar contacted Joe Hofstee at DelDOT for an update on the project. DelDOT's consultant is beginning work on the stream design this month and should be finished in another month or so. With completion of the stream design, the plans should be semi-final and ready for public workshop in November. It was unclear as to whether the Steering Committee would have an opportunity to meet with DelDOT again prior to the public workshop. Oasis will begin work on the landscape plan/tree mitigation following the stream design and should be complete in December (none of the landscaping/tree mitigation will be shown on the semi-final plans). DelDOT will be using the dyed concrete curb as previously discussed, as well as the "rustic" steel guardrail. However, the end treatment of the guardrail has been shortened on the west end of the curve to lessen the visual intrusion.

- **Old Kennett Road**

Jen Goehenaar and Jim White met with DelDOT representatives and Eileen Butler, DNREC Natural Areas Program Manager, regarding the Old Kennett Road project and impacts to the Burnows Run Nature Preserve. The project has been pushed back to the end of 2007 due to the need to coordinate with landowners and receive construction access agreements. The project will have little to no impact on the intrinsic qualities of the Scenic Byway with the possible exception of guardrail. The existing 4 sections of steel guardrail around the bridge will be removed and replaced. Jen requested notification/opportunity to review the proposed guardrail materials within the Byway context.

- **Rolling Mill Road/Woodale Covered Bridge**

Jen Goehenaar received a letter from Rick Lewandowski on behalf of Mt. Cuba Center regarding concerns about lack of DelDOT notification/involvement of the landowner and Byway sponsoring organization. Jen shared the letter with the Steering Committee and a response letter that was sent under Mike Riska's signature to DelDOT Secretary Wicks.

ACTION: Jen Goehenaar will maintain contact with DelDOT regarding these projects. In addition, Jen will follow up with Maria regarding the status of the summary sheet(s) for all projects along designated roadways.

(continued)

- **Communication with DelDOT**
 - The Steering Committee discussed the need for earlier/improved communication with DelDOT, particularly in the context of the road projects mentioned previously. The Scenic Byway program is still quite new and it will take some time to educate all relevant DelDOT staff. In addition, there is significant lag time between approval of the nomination application and completion DelDOT approval of the corridor management plan. Some steps have been initiated (such as GIS mapping and software triggers), but all parties agreed that more work is needed. Maria and Joe agreed to communicate with the project engineering staff working in New Castle County and will also investigate the process/checklist engineers use when beginning projects. Maria and Joe also discussed the possibility of including Scenic Byways as a topic during DelDOT's winter workshop training in January-February.
 - The group also agreed that similar efforts will be needed with New Castle County Department of Land Use, utilities, and possibly DNREC.

ACTION: Maria and/or Joe will provide the Steering Committee with an update on revisions to their internal processes at the December meeting. John Gaadt will continue drafting language for the MOU's.

- **Stewardship of Intrinsic Qualities**
 - The Transportation and Safety section of the document was revisited briefly, regarding research John Gaadt had conducted since the last meeting, namely possibilities for delisting Route 82 and sign inventories. John learned that delisting a roadway has never occurred in Delaware, but DelDOT is open to considering the possibility and they described the process to initiate this effort. John also learned that DelDOT does not conduct regular inventories of roadside signage, but they are open to the Steering Committee conducting the inventory and making recommendations. The Transportation and Safety section will be updated with this new information.
 - The Steering Committee also reviewed the Interpretation and Education text and made no substantive changes.
 - The possibility of simplifying text within the Stewardship of Intrinsic Qualities section was also discussed. John indicated that the text prepared to date is consistent with DelDOT standards; furthermore, a summary/spreadsheet will be created as part of the implementation section. The Steering Committee will also have an opportunity to consider the need for further text revisions when the entire section is compiled.

ACTION: John Gaadt will prepare the final section of the Stewardship of Intrinsic Qualities document (Coordination and Management) for the next meeting. In addition, John will compile all five sections of the document for the next meeting, providing the Steering Committee a final opportunity to review the text in whole.

- **Northern Delaware Heritage Coalition - Red Clay Mill and History Tour**
 - John Iwasyk provided a brief update on the work by the Northern Delaware Heritage Coalition to create scenic driving loops in Northern Delaware and accompanying brochures. The Red Clay Mill and History Tour will share some roads with the Scenic Byway. The tour begins in Newport, travels along Lancaster Pike to Yorklyn Road and then onto Barley Mill and Centerville Roads before connecting back to Lancaster Pike. Points of interest highlighted in the draft brochure include Greenbank Mill, W&W Railroad and Museum, Auburn Heights/Tom Marshall House, Delaware Nature Society Ashland Nature Center, Mt. Cuba Center, and the Historic Village of Marshallton.

ACTION: Delaware Nature Society marketing staff will review the description for Ashland Nature Center in the brochure and provide comment back to John Iwasyk.

Next Meeting:

The next meeting of the Steering Committee is scheduled for **December 5th** from 2:00 – 4:00 p.m., in the Ashland Nature Center Conference room on the bottom floor.

**Red Clay Valley Scenic Byway
Context Sensitive Design Subcommittee Meeting
July 10, 2006**

Attendees:

William D. Bailey, Jr., Mt. Cuba Center
Elayne Ben-Bassat, Area Resident
Eileen Butler, DNREC Division of Parks & Recreation
John M. Gaadt, Gaadt Perspectives, Project Consultant
Jen Goehenaar, Delaware Nature Society
Rick Lewandowski, Mt. Cuba Center and resident
Burt Samuelson, WILMAPCO

Meeting Overview:

The committee primarily focused on the action items from the last meeting progress to date.

Design Materials - Photo Log:

Rick Lewandowski has begun collecting photos of existing materials/conditions throughout the Byway, including fences, bridge treatments, guardrails, and habitats, and provided a few example sheets to the committee for review. **ACTION: Rick will complete the example sheets with labels/brief descriptions and send in pdf format to Jen prior to the next meeting for distribution.**

DelDOT Field Trip:

The committee is still interested in a field trip with DelDOT staff, but has agreed to wait until a draft product is ready to help guide the discussion. **ACTION: Jen will investigate opportunities for a field trip with DelDOT staff when timely.**

Landscape Management Tools:

At the committee's request, Jen Goehenaar contacted Melita Barbour from Delaware Greenways and received a copy of the landscape plan prepared by Jim Klein for the Brandywine Valley Scenic Byway. Upon review with the full steering committee, the group agreed that this type of plan was more detailed and beyond our intentions for the Red Clay Scenic Byway Corridor Management Plan/appendix. Rather than outlining specific designs and plant materials for each section of the Byway, the committee intends to:

- reference published documents, such as *Enhancing Delaware Highways* and *Plants for a Livable Delaware*;
- describe existing roadside vegetative communities;
- create a two tiered plant list to help guide future projects. This document will be composed of: 1) a basic plant list and 2) plants for an improved landscape. The committee also discussed the possibility of having this document peer reviewed.

ACTION: Rick and Jen will begin pulling together existing vegetative surveys.

Memoranda of Understanding:

As also discussed during the full Steering Committee meetings, we are striving to draft Memoranda of Understanding with DelDOT and New Castle County to help outline policies and procedures as they relate to transportation improvements and new development along Red Clay Valley Scenic Byway roads. **ACTION: John Gaadt will begin drafting language for the MOU's.**

(continued)

New Castle County - Jen Gocheaur and John Gaadt met with George Haggerty, Dave Culver, and John Janowski from New Castle County Department of Land Use to provide an update on the development of the corridor management plan and request County feedback/involvement. As a result, John Janowski has joined the full steering committee. In addition, John Gaadt and Jen submitted recommendations for comp plan language (attached).

Demonstration Projects:

All subcommittee members were asked to continue brainstorming ideas for demonstration projects, a description of which will be submitted with the Corridor Management Plan. One suggestion to date has been for the section of Barley Mill Road as it crosses the Red Clay Creek. The Mt. Cuba Road project undertaken several years ago is viewed as a good example of positive negotiation. **ACTION: Bill Bailey** agreed to outline the process he utilized to negotiate with DeDOT on the Mt. Cuba Road project.

Resources

Eileen Butler and Burt Samuelson began reviewing the list of resources identified by the committee to determine which may be helpful for this project. Their findings/recommendations are below:

- www.contextsensitivesolutions.org - somewhat vague, but discussions of a scenic drive in Minnesota and a guardrail design in Washington state may be helpful to our process
- ASHTO publication, "Flexibility in Highway Design" - also somewhat vague, but Chapter 4 Design Controls and Chapter 5 - Horizontal and Vertical Alignment may be helpful
- DeDOT publication, "Enhancing Delaware Highways" - overall a good publication that should be referenced and/or utilized in the creation of plant lists for the Red Clay Byway
- America's Byways Resource Center publication, "Conserving Our Treasured Places: Managing Visual Quality on Scenic Byways" - somewhat vague
- <http://www.marylandroads.com/explore/md/tour/scenicByways/ess-4.pdf> and http://www.marylandroads.com/explore/md/out/scenicByways/mbr-ess_final061104.pdf - the table of contents/outline of the Maryland resources are very comprehensive and could be utilized to help guide our appendix
- DeDOT "Tree Bill" - could have implications for projects along Byway roads; bill passed in 2002, but funding component is unclear

Additional Discussion:

The committee briefly discussed how to handle walking/bike paths along designated roadways. The committee generally agreed to focus on access to existing resources (opportunities for further engaging the community). In addition, it was suggested that we be proactive and develop recommendations for areas appropriate/not appropriate for walking/bike paths.

Rick Lewandowski also inquired about the Brackenville Road project (specifically the stream design) based on some recent discussions. Jen Gocheaur followed up with Joe Hofstee and learned that A.D. Marvel (Marple??) is completing the stream design (has been working on the project for several months). They anticipate completion of the design work within another month or so and then the design will go back to Oasis for further review/recommendations.

Next Meeting:

The next meeting of the Subcommittee is scheduled for **September 11th from 2:30 – 4:30 p.m.**, in the Ashland Nature Center Conference room on the bottom floor.

**Red Clay Valley Scenic Byway
Collaboration with New Castle County**

Discussion topics for June 2, 2016 meeting of

Charles Baker, New Castle County project co-sponsor

John Gault, Gault Perspectives project consultant

Jen Goehmann, Delaware Nature Society project sponsor

Project Update

- o Corridor Management Plan
 - Steering Committee
 - Context Sensitive Design Subcommittee

New Castle County Comprehensive Plan

- o Byway recognition
 - Acknowledge significant public benefit
 - Reinforce conservation purpose for scenic, natural, and historic qualities
- o Proactive identification of other roadways/corridors appropriate for Byway designation

Memorandum of Understanding

- o Policies and procedures for new development/redevelopment along designated roads
- o Communication process

Preservation and Management Strategies

- o Further objectives of conservation design as codified in "Environment First" ordinance
- o Review and update (as needed) scenic corridor standards in Article 4 of UDC
- o Possible expansion of corridor overlay standards
- o Higher protection for trees and other resources along designated roads
- o Utilizing TUR as a protection strategy
- o Resource prioritization (*Red Clay Valley Scenic River and Highway Study*, 1989)
- o Scenic corridor easements

Other Opportunities

- o Future planning activities and/or resource inventories
- o Demonstration/restoration projects
- o Outreach efforts



environmental planning
and consulting

gaadt perspectives, LLC

John M. Gaadt *sicr, Principal*
251 Fairville Road, Chadds Ford PA 19117
t: 610.388.7641 f: 610.388.7642
jgaadt@gaadt.com

MEMORANDUM

July 14, 2006

TO: D.J. Carter, Department of Land Use, New Castle County

FROM: John M. Gaadt, AICP and Jennifer Goehenaar, DNS

RE: Review Comments on NCC Comprehensive Plan sections addressing
"Mobility" and "Combined Resource Protection"

Pursuant to your request, please find attached comments concerning the above-referenced Comprehensive Development Plan sections.

Mobility Section

Implementation Strategies 6 and 7 appear unrelated to the Goal outlined for this section (and the objectives related to this goal). In addition, Strategy 7 is antiquated - revise to recognize that the state's program has been in effect since 2000 (the year the General Assembly created the "Scenic and Historic Highway Program"). We believe the County should consider a second goal addressing Scenic Byway issues. Such a goal would recognize the existence of the state's program, as well as the existence of the state's first two designated Scenic and Historic Highways - the Brandywine Valley Scenic Byway and the Red Clay Valley Scenic Byway. The Brandywine Byway has a corridor management plan that was recently completed and the Red Clay Byway is preparing its corridor management plan. Both planning efforts identify specific management techniques for each byway. At a minimum, the County should recognize these efforts and commit itself to working with the management entities for both byways to achieve the goals and objectives contained in the corridor management plans. Recognition of the unique characteristics of each byway and the need to consider future protection strategies, such as corridor overlay zoning, revised landscaping requirements, higher protection ratios for trees and other resources along scenic road corridors, greater use of TDR along scenic byways, etc., should be referenced. Furthermore, the Red Clay byway would like the County to consider entering into a Memorandum of Understanding (MOU) regarding future recognition of and protection for the Red Clay Valley Scenic Byway.

Combined Resource Protection Section

- .. We have several comments concerning the objectives and various discussion elements included in this section.

Improving air quality -- consider, as we did in the past, the requirement that new development institute ride sharing programs or other transportation management strategies.

TDR -- We believe the state changed this requirement (sending and receiving areas must be in the same planning district). The County should double-check this statement and revise the wording so that other improvements can be made to make TDR more workable.

Infill and brownfields - recognize the state program and consider ways to improve the county's response (last two comp. plans address this)

All resource types - Strategy 3 -- We suggest rewording the following sentence, as we believe the existing wording is misleading. -- Mandatory site design and open space requirements do not always result in the best plan when taking the [specific site characteristics] "regional open space resources" into account. The pre-application meetings do a fairly good job of recognizing site resources within and adjacent to sites. While the County tries to look at each site from a regional perspective, it is sometimes difficult to take a broad perspective into consideration when reviewing individual plans.

All resource types - Strategy 4 -- We agree with this strategy but believe the County should reference the recommendations of the County's Conservation Strategy from the last comp. plan see Section 4 -- The Path Forward, page 68, GIS

All resource types -- Strategy 5 -- We encourage the County to adopt the new SRA maps and work to develop ordinances to protect these resources (much of this is already done through the UDC). The CNA's contained in the UDC are based on the state's natural areas inventory, a subset of the larger SRA's. One approach would be to develop overlay standards for the SRA's (conceivably the existing CNA language would remain the same). This approach could provide some level of additional protection or "buffer" to the CNA's.

Water quality -- Strategy 1 -- shouldn't the forthcoming water management code be recognized?

Biodiversity/Habitat Preservation and Linkages - Strategy 1- The County's Conservation Strategy initiated this process and should be considered a starting point for this effort.

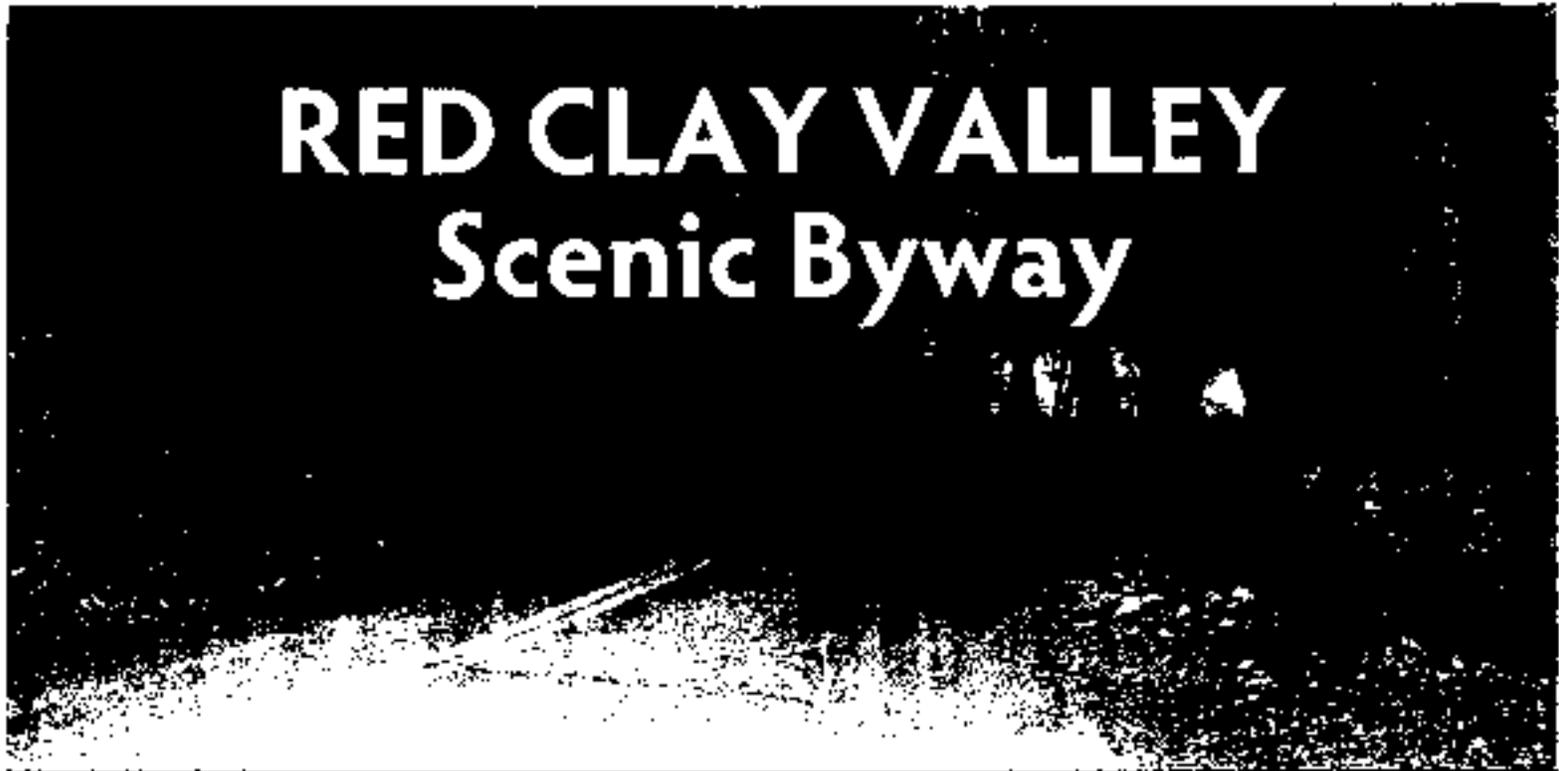
Biodiversity/Habitat Preservation and Linkages -- Strategy 2 -- We are not convinced that an across the board downzoning for SRA's is appropriate, particularly given the potential for other approaches (such as the overlay approach mentioned above). The bottom line is that SRA's need to be recognized and regulated accordingly.

AGRICULTURAL RESOURCES -- We believe the County has identified several creative strategies for agricultural preservation. In addition, the County should review its two TDR studies regarding additional preservation options. Also, reference should be made to the County's

agricultural preservation program (recently revised) that purchases agricultural easements. Note that the County uses LEIS scoring as only one form of assessing easements for purchase. A broader summary of existing programs should be considered, as well as how such programs can be revised and/or modified to assist in preservation. In addition, the County may wish to make reference to the Department of Agriculture's new Forestland Protection Program; this program is only now getting going but has the potential to preserve forestland using the same approach utilized to purchase agricultural easements.

Please do not hesitate to contact me if you need additional information.

RED CLAY VALLEY Scenic Byway



Public Workshop

Thursday, September 27th

4:00 – 7:00 p.m.

Ashland Nature Center auditorium

The Delaware Nature Society's nomination of twenty-eight roads in the Red Clay Valley into the Scenic and Historic Highways program created the State's second designated byway. With the goal of designation achieved, the focus of our staff and our Steering Committee has transitioned to long-term stewardship of the Byway's most valuable qualities.

A Corridor Management Plan, a written document that describes the goals, strategies, and responsibilities for conserving and enhancing the Red Clay Valley Scenic Byway has been drafted and is available for public review prior to submission to DelDOT. The input of residents and visitors to the Byway is a crucial element of this process, particularly given the unique nature of this road network.

Please join us to review maps and photographs of the Byway, discuss preservation goals and strategies, and ask questions/offer comments.



RED CLAY VALLEY SCENIC BYWAY
PUBLIC WORKSHOP
SEPTEMBER 27, 2007
ASHLAND NATURE CENTER

NAME	ADDRESS	PHONE #	EMAIL	ORGANIZATION (if any)
Richard Bernard	191 SKIFFME DRIVE LANDENBERG MD	610-374-3217	rbbernardj@hotnail.com	Hubbards Heights Preserve Chadds Ford Township of Chester
Janet Elbert	1001 Smith Bridge Rd Chadds Ford PH 19317	610-459-6585		
WIS. Loy	PO Box 1480 Chadds Ford PA 19317	803-455-9677	803-652-262	
Elizabeth Nelson	3000 Yorks Dr 1051 S 22nd St Chadds Ford PA 19381	302-234-4590	Elizabeth.Nelson@gmail.com	
Elizabeth Butler	DNREC 500 Cape Road	302-781-6963	elizabeth.butler@state.de.us	
James Weber	WILD DE 19801 500 Hoessensmith Rd Hoochessville DE 19809	302-234-1100	JamesWeber@state.de.us	DNREC / State Parks
Charles Rieisman	WETA 5 Hill Rd, Suite 309, Wm, DE 19866	302-571-9001	charles@wetalp.com	Wildman, Engardt & Assoc.
Jeff Riegner				

RED CLAY VALLEY SCENIC BYWAY
 PUBLIC WORKSHOP
 SEPTEMBER 27, 2007
 ASHLAND NATURE CENTER



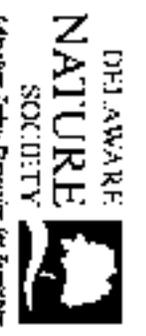
NAME	ADDRESS	PHONE #	EMAIL	ORGANIZATION (if any)
Glenn Benhart	1905 Greenbank Rd	658 4771	None	Committee of the Area
William A. BIZIAK	3701 GOUTERVILLE ROAD	984-1922	BIZIAK2@COMCAST.NET	DELAWARE NATURE SOCIETY
William Ryan	521 Double Hill Rd. ^{Coastal} PA 19381	302 530 8525		Birds & Quiet Preserve
Michael Doherty	1410 Delaware Ave ^{Wilmington} DE 19806	(609) 827-2057	burton200@hotmail.com	
Tonya Baker	Senator Biden's Office	(302) 513-6345		
Sherril Evans- Scott	Brandyswine Passway	610-388-8373	SEVANSSTANTON@brandyswine.org	B.C.
John Iwasyk	101 Oldway Dr.	994 3423	iwasyk@attglobal.net	Del Green way H.R.C. / on the -Homeowner-
Styenne Nagle	1291 Old Wilmington Rd. ^{Wilmington, DE 19709}	239-1425	acornswal@aol.com	
SAVE MICHAEL	^{Christen County Planning Commission} 601 Wolfpen Rd. Site 270 West Chester, Pa 19380	60-399-6285	Michael@cheesecounty.org	County Govt.

RED CLAY VALLEY SCENIC BYWAY
 PUBLIC WORKSHOP
 SEPTEMBER 27, 2007
 ASHLAND NATURE CENTER



NAME	ADDRESS	PHONE #	EMAIL	ORGANIZATION (if any)
MAUREEN TRAYLOR				DELAWARE NATURE SOCIETY
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MARIA ANDAYA	800 S. BAY RD, Dover 19901	302-760-2125	maria.andaya@delaware	DELDOT
Christine Gannon	67 Roads Wood New Castle, DE 19720	302-395-5521	cgannon@nude.org	New Castle County
Linda Shinn	700 Center Mill Rd Wilmington, DE 19807	302-655-9434	wshinn@nude@aol.com	
Guen Robinson	New Castle County 87 Roads Wood Wilmington, DE 19720			New Castle County
Jim Jordan	1760 Underhill-Wanda Rd West Chester, PA 19382	610-793-0090	JimJordan@bucircua.org	Red Clay Valley Association
Corahy Fayton	300 East Rd. Wilmington, DE 19809	302-742-5076	Corahy.Fayton@state.del.us	DE STATE PARKS
Lawrence F. Briggs	P.O. Box 131 Yorklyn, DE 19754	302-334-2060	briggs15b@comcast.net	Yorklyn Planning Board

RED CLAY VALLEY SCENIC BYWAY
 PUBLIC WORKSHOP
 SEPTEMBER 27, 2007
 ASHLAND NATURE CENTER



NAME	ADDRESS	PHONE #	EMAIL	ORGANIZATION (if any)
Ashli D'Amora	105 Lestrade Lane Wilmington, DE 19803	(302) 984-1900	ashli.damora@gmail.com	Retired from DuPont Co.
Beauty D'Amora	376 Coopersville Rd 1905 Delaware Ave #1 Wilm. DE 19808	(302) 984-1934	bd@amora.comcast.net	
Tom Noyes	Wilm. DE 19806	302-652-3241	tomnoyes@gmail.com	

Red Clay Valley Scenic Byway
Corridor Management Plan
Open House and Public Workshop
September 27, 2007

COMMENT FORM

Welcome to the Red Clay Valley Scenic Byway Corridor Management Plan Open House and Public Workshop. The purpose of this evening's event is to share the draft plan prepared by our Steering Committee and to gather feedback from you. Please feel free to ask questions and make comments/suggestions.

Please describe your connection to the Red Clay Valley Scenic Byway (check all that apply):

- I live along or near the Byway.
- I work or have a business along or near the Byway.
- I use the Byway for commuting.
- I enjoy leisurely drives along the Byway.
- I recreate in the Red Clay Valley.
- Other _____

Was this evening's public workshop helpful to you in understanding the Red Clay Valley Scenic Byway and the purpose of its Corridor Management Plan? **YES**

What are your comments, if any, about the Corridor Management Plan?

KEEP UP THE GREAT WORK

Are you interested in volunteer opportunities to help implement the Plan?

YES

Please provide any additional comments/suggestions on the back of this form.

Name **CARLOS ALEJANDRO**

Address **1500 HORSESHOE HILL RD 19707**

Phone/Email **CARLOS @ CAPHOTO.COM**

PLEASE RETURN COMMENT FORMS BY OCTOBER 8, 2007 TO:

Jennifer Goehnaur
Associate Director, Natural Resources Conservation
Delaware Nature Society
P.O. Box 700, Hockessin, DE 19707
jen@delawarenaturesociety.org
302-239-2473 (fax)

For more information, please visit: http://www.delawarenaturesociety.org/red_clay.html

Red Clay Valley Scenic Byway
Corridor Management Plan
Open House and Public Workshop
September 27, 2007

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- I enjoy leisurely drives along the Byway.
- I recreate in the Red Clay Valley.

Other

Was this evening's public workshop helpful to you in understanding the Red Clay Valley Scenic Byway and the purpose of its Corridor Management Plan?

yes!

What are your comments, if any, about the Corridor Management Plan?

Great to realize the organization & communities that are collaborating

Are you interested in volunteer opportunities to help implement the Plan?

yes. Girl Scout service projects could be included as well.

Please provide any additional comments/suggestions on the back of this form.

Name Carlyn Nelson - Country Center Girl Scout Camp

Address 1051 Sharpless Road, Hockessin

Phone/Email 234-4629 CarlynNelson@gmail.com

PLEASE RETURN COMMENT FORMS BY OCTOBER 8, 2007 TO:

Jennifer Goehenaur
Associate Director, Natural Resources Conservation
Delaware Nature Society
P.O. Box 700, Hockessin, DE 19707
jen@delawarenaturesociety.org
302-239-2473 (fax)

For more information, please visit: http://www.delawarenaturesociety.org/red_clay.html

Red Clay Valley Scenic Byway
Corridor Management Plan
Open House and Public Workshop
September 27, 2007

COMMENT FORM

Welcome to the Red Clay Valley Scenic Byway Corridor Management Plan Open House and Public Workshop. The purpose of this evening's event is to share the draft plan prepared by our Steering Committee and to gather feedback from you. Please feel free to ask questions and make comments/suggestions.

Please describe your connection to the Red Clay Valley Scenic Byway (check all that apply):

- I live along or near the Byway.
- I work or have a business along or near the Byway.
- I use the Byway for commuting.
- I enjoy leisurely drives along the Byway.
- I recreate in the Red Clay Valley.
- Other: Active with various Red Clay Valley Preservation Groups

Was this evening's public workshop helpful to you in understanding the Red Clay Valley Scenic Byway and the purpose of its Corridor Management Plan?

Yes

What are your comments, if any, about the Corridor Management Plan?

Strongly Support The Plan

Are you interested in volunteer opportunities to help implement the Plan?

Yes

Please provide any additional comments/suggestions on the back of this form

Name

John Iwaszk

Address

Phone/Email

944 3623

PLEASE RETURN COMMENT FORMS BY OCTOBER 8, 2007 TO:

Jennifer Goehmann
Associate Director, Natural Resources Conservation
Delaware Nature Society
P.O. Box 700, Hockessin, DE 19707
jon@delawarenaturesociety.org
302-239-2473 (fax)

For more information, please visit: http://www.delawarenaturesociety.org/red_clay.html

Red Clay Valley Scenic Byway
Corridor Management Plan
Open House and Public Workshop
September 27, 2007

COMMENT FORM

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Please describe your connection to the Red Clay Valley Scenic Byway (check all that apply):

- I live along or near the Byway.
- I work or have a business along or near the Byway.
- I use the Byway for commuting.
- I enjoy leisurely drives along the Byway.
- I recreate in the Red Clay Valley.
- Other: *Board member & regular volunteer @ Auburn Heights Preserve*

Was this evening's public workshop helpful to you in understanding the Red Clay Valley Scenic Byway and the purpose of its Corridor Management Plan?

Yes - very helpful

What are your comments, if any, about the Corridor Management Plan?

de-listing & preserving historic districts a big +

Are you interested in volunteer opportunities to help implement the Plan?

serve as a rep from Auburn Heights

Please provide any additional comments/suggestions on the back of this form.

Name: *Richard N. Bernard, Jr.*
Address: *131 Skyline Drive, Landenberg, PA 19350*
Phone/Email: *610-274-3217 rbernardjr@hotmail.com*

PLEASE RETURN COMMENT FORMS BY OCTOBER 8, 2007 TO:

Jennifer Goehenaur
Associate Director, Natural Resources Conservation
Delaware Nature Society
P.O. Box 700, Hockessin, DE 19707
jen@delawarenaturesociety.org
302-239-2473 (fax)

For more information, please visit: http://www.delawarenaturesociety.org/red_clay.html

Red Clay Valley Scenic Byway
Corridor Management Plan
Open House and Public Workshop
September 27, 2007

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Please describe your connection to the Red Clay Valley Scenic Byway (check all that apply):

- I live along or near the Byway.
- I work or have a business along or near the Byway.
- I use the Byway for commuting.
- I enjoy leisurely drives along the Byway.
- I recreate in the Red Clay Valley.
- Other _____

Was this evening's public workshop helpful to you in understanding the Red Clay Valley Scenic Byway and the purpose of its Corridor Management Plan?

yes

What are your comments, if any, about the Corridor Management Plan?

Are you interested in volunteer opportunities to help implement the Plan?

Please provide any additional comments/suggestions on the back of this form.

Name Glynnie Nagle

Address 1291 Old Wilmington Rd. Hoekessin, DE 19707

Phone/Email (302) 239-1425

PLEASE RETURN COMMENT FORMS BY OCTOBER 8, 2007 TO:

Jennifer Goehonaur
Associate Director, Natural Resources Conservation
Delaware Nature Society
P.O. Box 700, Hoekessin, DE 19707
jen@delawarenaturesociety.org
302-239-2473 (fax)

For more information, please visit: http://www.delawarenaturesociety.org/red_clay.html

Red Clay Valley Scenic Byway
Corridor Management Plan
Open House and Public Workshop
September 27, 2007

COMMENT FORM

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Please describe your connection to the Red Clay Valley Scenic Byway (check all that apply):

- I live along or near the Byway.
- I work or have a business along or near the Byway.
- I use the Byway for commuting
- I enjoy leisurely drives along the Byway.
- I recreate in the Red Clay Valley.
- Other

Was this evening's public workshop helpful to you in understanding the Red Clay Valley Scenic Byway and the purpose of its Corridor Management Plan?

Yes I think you are doing a great job. Thank You

What are your comments, if any, about the Corridor Management Plan?

I would like to see more utilities underground. Some of the utilities are already underground which is a good start.

Are you interested in volunteer opportunities to help implement the Plan?

Please provide any additional comments/suggestions on the back of this form.

Name Glenn Barshell

Address 1005 Overbrook Rd 19807

Phone/Email None

PLEASE RETURN COMMENT FORMS BY OCTOBER 8, 2007 TO:

Jennifer Goehmann
Associate Director, Natural Resources Conservation
Delaware Nature Society
P.O. Box 700, Hockessin, DE 19707
jeng@delawarenaturesociety.org
302-239-2473 (fax)

For more information, please visit: http://www.delawarenaturesociety.org/red_clay.html

Red Clay Valley Scenic Byway
Corridor Management Plan
Open House and Public Workshop
September 27, 2007

COMMENT FORM

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Please describe your connection to the Red Clay Valley Scenic Byway (check all that apply):

- I live along or near the Byway
- I work or have a business along or near the Byway.
- I use the Byway for commuting.
- I enjoy leisurely drives along the Byway.
- I recreate in the Red Clay Valley.

Other: I do land use planning for the County.

Was this evening's public workshop helpful to you in understanding the Red Clay Valley Scenic Byway and the purpose of its Corridor Management Plan?

Yes

What are your comments, if any, about the Corridor Management Plan?

Route 82 SHOULD NOT be delisted. It's hard enough finding one's way around the area without losing such basic route guidance. If anything, it should be extended eastward a bit, along Kirk Road from Route 52 to Route 100. That would fill the unnumbered road gap between Routes 82/52 and Routes 92/100. I've travelled that way - and risked getting lost at Kirk Road, which is unnumbered. By the way, Route 82 also meanders in Pennsylvania - and likely carries largely local traffic there too.

Please provide any additional comments/suggestions on the back of this form

Name: Owen Robatino
Address: New Castle County Dept. of Land Use
87 Reads Way, New Castle DE 19720
Phone/Email: 302-395-5427 / ocrabatino@nccde.org

PLEASE RETURN COMMENT FORMS BY OCTOBER 8, 2007 TO:

Jennifer Gochenaux
Associate Director, Natural Resources Conservation
Delaware Nature Society
P.O. Box 700, Hockessin, DE 19707
jen@delawarenaturesociety.org
302-239-2473 (fax)

For more information, please visit: http://www.delawarenaturesociety.org/red_clay.html

236 Stone Row
Nine Gates Valley
P.O. Box 232
Yorklyn, Delaware 19736

August 25, 2007

The Honorable Carotann Wicks
Delaware Department of Transportation
P.O. Box 778
Dover, Delaware 19904

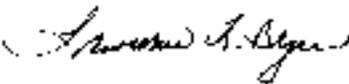
Dear Secretary Wicks:

I am writing to express my support of the Corridor Management Plan for the Red Clay Valley Scenic Byway. As a concerned citizen and owner of an historic home in this unique part of Delaware, I strongly encourage the Delaware Department of Transportation to approve this plan to manage, preserve and enhance the network of beautiful country roads designated as the Red Clay Valley Scenic Byway.

Further, I strongly endorse the provisions of the Corridor Management Plan which provide for the Delaware Nature Society to be the lead organization responsible for the various initiatives. Because of its strong track record in both open space preservation and education, and because its headquarters are at the Ashland Nature Center in the heart of the Red Clay Valley, the Delaware Nature Society is the ideal long-term steward of the Byway.

Thank you for your consideration of this Corridor Management Plan. I believe you will find it to be a serious, well thought out, long-term approach that promises to help protect an irreplaceable part of Delaware's scenic heritage.

Sincerely,


Lawrence F. Bryce



Preservation Delaware, Inc.
1405 Greenhill Ave.
Wilmington, DE 19806
(302) 651-9617
director@preservationde.org

BOARD OF TRUSTEES

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Rebecca Tulloch, Ph.D., Esq.

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H. Wesley Schwandt

STATEWIDE &
LOCAL PARTNERS



NATIONAL TRUST
FOR HISTORIC PRESERVATION

August 27, 2007

The Honorable Carolann D. Wicks
Delaware Department of Transportation
PO Box 778
Dover, DE 19903

Dear Secretary Wicks:

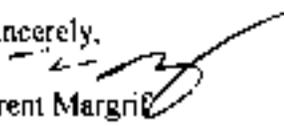
On behalf of Preservation Delaware, Inc., I am writing to express support for the Corridor Management Plan for the Red Clay Valley Scenic Byway as part of the Delaware State Scenic and Historic Highway program. I urge the Delaware Department of Transportation to approve this plan, to assist in the protection and recognition of the Byway's most valuable qualities, scenic and historic.

Preservation Delaware, Inc. is dedicated to the preservation of Delaware's architectural heritage and historic settings. Scenic and historic highway designation is lauded in the preservation community as a tool to encourage increased heritage tourism to historic sites. Preservation is generally most effective on the local level, and advancement of the Red Clay Valley Scenic Byway Corridor Management Plan is an important step forward towards its continued protection.

The vision of this effort to ensure the preservation and conservation of the irreplaceable resources that together form the Red Clay Valley and its Scenic Byway is an important one. The architectural heritage and historic settings in this area are unique; these efforts balance a holistic, long-term view in identification and protection of resources with a watershed-based planning effort.

Preservation Delaware, Inc. fully endorses the Corridor Management Plan submitted by the Delaware Nature Society and the Red Clay Valley Scenic Byway Steering Committee. Thank you for receiving and reviewing our endorsement of this effort.

Sincerely,


Trent Margrie
Executive Director



The Nature Conservancy of Delaware
1000 American Lane, 10th Floor
100 West 10th Street, Suite 1000
Wilmington, DE 19801

tel: (302) 634-4707
fax: (302) 634-1708
nature.org

August 30, 2007

The Honorable Carolann Wicks
Delaware Department of Transportation
P.O. Box 778
Dover, DE 19904

Dear Secretary Wicks:

We support the Corridor Management Plan for the Red Clay Valley Scenic Byway and urge the Delaware Department of Transportation to approve this long-term vision for the protection of the Byway's most valuable qualities.

Most roads designated as state scenic and historic highways involve a single road corridor. The Red Clay Valley Scenic Byway includes twenty-eight secondary roads in northern New Castle County that form an interconnected and interdependent network closely linked to the Red Clay Creek and its watershed area. This watershed-based planning effort is unlike any other scenic byway designation in the United States and puts this region at the forefront of innovative byway and watershed management efforts.

In recognition of the unique nature of this Byway, the Corridor Management Plan balances a holistic, long-term view of the watershed area with the identification of specific strategies for each road segment. Further, the Plan is in keeping with the spirit of the nomination application, emphasizing conservation and preservation. Priority is given to private land stewardship and conservation easements, sensitive land use planning, and context sensitive solutions.

Headquartered at the Ashland Nature Center, the Delaware Nature Society has placed high priority on the permanent preservation of the Red Clay Valley for more than thirty years and is well positioned to oversee the long-term management of this Byway. We fully endorse the corridor Management Plan submitted by the Delaware Nature Society and the Red Clay Valley Scenic Byway Steering Committee.

Thank you for the opportunity to comment and for your consideration of this endorsement.

Regards,

A handwritten signature in black ink that reads "Roger L. Jones, Jr." in a cursive style.

Roger L. Jones, Jr.
State Director

Cc: Mike Riska, DNS

September 4, 2007

The Honorable Carolann Wicks
Delaware Department of Transportation
P.O. Box 778
Dover, DE 19904

Dear Secretary Wicks,

The Department of Land Use supports the Corridor Management Plan for the Red Clay Valley Scenic Byway and urges the Delaware Department of Transportation to approve this long-term vision for the protection of the Byway's most valuable qualities.

Most roads designated as state scenic and historic highways involve a single road corridor. The Red Clay Valley Scenic Byway includes twenty-eight secondary roads in northern New Castle County that form an interconnected and interdependent network closely linked to the Red Clay Creek and its watershed area. This watershed-based planning effort is unlike any other scenic byway designation in the United States and puts this region at the forefront of innovative byway and watershed management efforts.

In recognition of the unique nature of this byway, the Corridor Management Plan balances a holistic, long-term view of the watershed area with the identification of specific strategies for each road segment. Further, the Plan is in keeping with the spirit of the nomination application, emphasizing conservation and preservation. Priority is given to private land stewardship and conservation easements, sensitive land use planning, and context sensitive solutions.

Headquartered at the Ashland Nature Center, the Delaware Nature Society has placed high priority on permanent preservation of the Red Clay Valley for more than 30 years and is well positioned to oversee the long-term management of this Byway. We fully endorsed the Corridor Management Plan submitted by the Delaware Nature Society and the Red Clay Valley Scenic Byway Steering Committee.

Thank you for the opportunity to comment and for your consideration of this endorsement.

Sincerely,

Charles L. Baker
General Manager

Copy: Christopher A. Coons, County Executive



State of Delaware
Department of Natural Resources and Environmental Control
Delaware Division of Parks and Recreation
89 Kings Highway
Dover, Delaware 19901

September 19, 2007

The Honorable Carolann Wicks
Delaware Department of Transportation
P.O. Box 778
Dover, DE 19904

Subject: Red Clay Valley Scenic Byway Corridor Management Plan

Dear Secretary Wicks:

The Division of Parks and Recreation is pleased to support the Corridor Management Plan proposed for the Red Clay Valley Scenic Byway.

The unique approach to corridor preservation espoused in this document encourages passive recreation opportunities within the Red Clay Watershed. As you know, there are a number of State and County parks located within the boundaries of the Scenic Byway that offer both citizens of and visitors to Delaware a chance to experience the glorious scenic, natural, and historic qualities of the area.

In recent years, we have made a significant investment in the Red Clay Valley through the creation and permanent protection of the 310-acre Auburn Heights Preserve. As you know, the Department of Transportation, was integral in the protection of the two parcels that make up this management unit.

The Corridor Plan strengthens our partnership with the sponsoring organizations in providing recreational opportunities within the watershed. We have worked directly with the Delaware Nature Society (DNS) in an effort to permanently preserve lands within the Valley and we believe DNS is well positioned to oversee the long-term management of this Byway.

The Division fully endorses the Corridor Management Plan submitted by the DNS and the Red Clay Valley Scenic Byway Steering Committee. Thank you for the opportunity to comment and for your consideration of this endorsement.

Sincerely,

Charles A. Salkin
Director
Division of Parks and Recreation

 *We're saving a place for you...*

Wilmington Area Planning Council

85C Library Avenue, Suite 100
Newark, Delaware 19711
302-737-6226, Fax 302-737-9584
From Cecil County: 888-858-7035
e-mail: wilmapcc@wilmapcc.org
web site: www.wilmapcc.org

October 1, 2007

WILMAPCO Council

Roger Rungtberg, Chief
Cecil County Transit Corporation,
Mayor

Joseph L. Fagan, Vice Mayor
Mayor of Cecil

James M. Baker
Mayor of Wilmington

Christopher A. Conde
New Castle County
County Executive

Joan F. Kunguier
Mayor of New Castle

Ernie Lockman
Dea County Commissioner

Samuel P. Minville, Jr.
Maryland Dept. of Transportation
District Office of Planning

Lee Ann Whiting
Deputy Chief of the Governor
Policy Advisor for Environment
and Quality of Life Policy

Carolann Wicks
Governor Dept. of Transportation
Secretary

WILMAPCO Executive Director
Toni Pichler

The Honorable Carolann Wicks
Delaware Department of Transportation
P. O. Box 778
Dover, DE 19903

Dear Secretary Wicks:

I am writing to confirm that the Corridor Management Plan for the Red Clay Valley Scenic Byway advances the goals and strategies of the WILMAPCO *Regional Transportation Plan* (RTP).

This project directly supports the RTP objectives to preserve our natural, historic, and cultural resources and to plan and invest to promote the attractiveness of the region. The designation of unique roads in New Castle County such as those identified in the Red Clay Valley, protects our most scenic and historically significant roads, promotes them in such a way as to benefit tourism, and stimulates local economies. The roads that make up the Red Clay Valley Scenic Byway are both beautiful and historically significant; implementing the Corridor Management Plan will effectively link the many special places in and highlight the scenic beauty of the valley in a context sensitive way.

Approving this Plan will allow Delaware Nature Society, in partnership with WILMAPCO, DelDOT and New Castle County, to proceed working with the stakeholders to oversee the long-term management of this Byway to enhance and preserve its special features.

Sincerely,



Heather Dunigan
Principal Planner

WILMAPCO

Partnering with local groups to improve planning

October 1, 2007

The Honorable Carolann Wicks
Delaware Department of Transportation
P.O. Box 778
Dover, DE 19904

Dear Secretary Wicks:

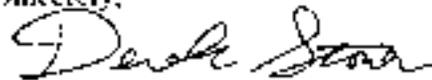
The Delmarva Ornithological Society(DOS) supports the Corridor Management Plan for the Red Clay Valley Scenic Byway and urges the Delaware Department of Transportation to approve the long-term vision for the protection of the Byway's most valuable qualities.

Most roads designated as state scenic and historic highways involve a single road corridor. The Red Clay Valley Scenic Byway includes twenty-eight secondary roads in northern New Castle County that form an interconnected and interdependent network closely linked to the Red Clay Creek and its watershed area. This watershed-based planning effort is unlike any other scenic byway designation in the United States and puts this region at the forefront of innovative byway and watershed management efforts.

The Delmarva Ornithological Society is a non-profit organization dedicated to the enjoyment, appreciation and conservation of the region's birdlife. Many of our members live within the Red Clay watershed, and our monthly meetings are held at the Ashland Nature Center alongside the Red Clay Creek. The whole Red Clay Valley is an excellent location for birdwatching and hundreds of people enjoy the many preserved lands, open spaces, and beautiful roadways throughout this corner of Delaware.

Thank you for the opportunity to comment and for your consideration of this endorsement.

Sincerely,



Derek Stoner
President, Delmarva Ornithological Society

DELAWARE OPEN SPACE COUNCIL
% Delaware Department of Natural Resources
And Environmental Control
89 Kings Highway
Dover, Delaware 19901

September 21, 2007

The Honorable Carolann Wicks
Delaware Department of Transportation
P.O. Box 778
Dover, DE 19901

Dear Secretary Wicks:

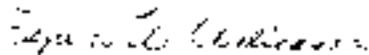
The Delaware Open Space Council supports the Corridor Management Plan for the Red Clay Valley Scenic Byway and urges the Department of Transportation to approve this long-term vision for the protection of the Byway's most valuable qualities.

The Red Clay Valley Scenic Byway is unique in the United States in that it includes twenty-eight secondary roads in the Red Clay Creek watershed. As opposed to the single road corridor concept, this watershed-based planning effort puts this region at the forefront of innovative byway management efforts.

The Corridor Management Plan provides a comprehensive view of the area along with specific strategies for each road segment. Preservation and conservation are emphasized. As the Council that recommends state land acquisitions, our actions are supportive of this concept.

The Open Space Council endorses the Corridor Management Plan submitted by the Delaware Nature Society and the Red Clay Valley Scenic Byway Steering Committee. Thank you for the opportunity to comment and for your consideration of this endorsement.

Sincerely,



Lynn W. Williams, Chair
For the Delaware Open Space Council



STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
800 BAY ROAD
P.O. BOX 778
DOVER DELAWARE 19903

CAROLANN WICKS, P.E.
SECRETARY

September 18, 2007

Ms. Lynn W. Williams
On Behalf of the Delaware Open Space Council
c/o Delaware Department of Natural Resources and Environmental Control
59 Kings Highway
Dover, Delaware 19901

Dear Ms. Williams:

Thank you for writing on behalf of the Delaware Open Space Council, endorsing the approval of the Corridor Management Plan for the Red Clay Valley Scenic Byway. I appreciate the Council's interest in this matter.

It was an honor to designate this network of 26 roads as a state byway in 2005. These roads are certainly worthy of designation having unique and irreplaceable intrinsic qualities, and are a fine example of the program's requirements for scenic, historic, recreational and cultural beauty, as well as representing the natural beauty of the state. We greatly appreciate elected officials like you supporting these nominations. Designations, such as this, will allow us to foster the intrinsic value of the land, promote economic prosperity, and control new development as well as contribute to corridor management, preservation, and ultimately, Governor Minner's Livable Delaware.

We look forward to receiving and reviewing the Corridor Management Plan. We are confident that the plan, as the application for designation, will be detailed and complete. Red Clay Valley is fortunate to have a group of talented, hard-working, and dedicated individuals responsible for putting together the plan.

The Delaware Department of Transportation (DelDOT) shares your vision to properly manage, preserve, and enhance these special roads for future generations to enjoy and we greatly appreciate your support and involvement with Delaware's Historic and Scenic Byways Program.

Sincerely,

Carolann Wicks
Secretary

CW:ds

- cc: Darrel Cole, Director, Public Relations
- Michelle Williams, Manager, Public Relations
- Maria Andaya, Project Planner, Planning
- Dawn Hopkins, Community Relations Officer, Public Relations



November 2, 2007

The Honorable Carolann Wicks
Delaware Department of Transportation
P.O. Box 778
Dover, DE 19903

Dear Secretary Wicks:

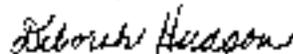
I am writing to offer my full support of the Corridor Management Plan submitted by the Delaware Nature Society and the Red Clay Valley Scenic Byway Steering Committee. The Corridor Management Plan emphasizes conservation and preservation strategies and reflects a shared vision for the long-term stewardship of the Red Clay Valley Scenic Byway.

It is my hope that the Delaware Department of Transportation will approve this Plan in order to help protect the Byway's most valuable qualities.

The Corridor Management Plan balances a long-term outlook for the Red Clay Creek watershed area with the identification of specific strategies for each road segment of the Byway. This watershed-based planning effort is unlike any other scenic byway designation in the nation and puts this region at the forefront of innovative byway and watershed management efforts.

Thank you for carefully considering the Corridor Management Plan and I urge DelDOT to approve the proposal.

Sincerely,



Deborah D. Hudson
State Representative
12th District

LIANE M. SORENSON
Minority Whip
STATE SENATOR
Sixth District



SENATE
STATE OF DELAWARE
LEGISLATIVE HALL
DOVER, DELAWARE 19903

November 7, 2007

COMMITTEES
Family Law Commission, Clean
Ethics
Executive
Health & Social Services
Legislative Council
Veterans Affairs

The Honorable Carolann Wicks
Delaware Department of Transportation
P.O. Box 778
Dover, DE 19903

Dear Secretary Wicks:

I support the Corridor Management Plan for the Red Clay Valley Scenic Byway and urge the Delaware Department of Transportation to approve this long-term vision for the protection of the Byway's most valuable qualities.

Most roads designated as state scenic and historic highways involve a single road corridor. The Red Clay Valley Scenic Byway includes twenty-eight secondary roads in northern New Castle County that form an interconnected and interdependent network closely linked to the Red Clay Creek and its watershed area. This watershed-based planning effort is unlike any other scenic byway designation in the United States and puts this region at the forefront of innovative byway and watershed management efforts.

In recognition of the unique nature of this Byway, the Corridor Management Plan balances a holistic, long-term view of the watershed area with the identification of specific strategies for each road segment. Further, the Plan is in keeping with the spirit of the nomination application, emphasizing conservation and preservation. Priority is given to private land stewardship and conservation easements, sensitive land use planning, and context sensitive solutions.

Headquartered at the Ashland Nature Center, the Delaware Nature Society has placed high priority on the permanent preservation of the Red Clay Valley for more than thirty years and is well positioned to oversee the long-term management of this Byway. I fully endorse the Corridor Management Plan submitted by the Delaware Nature Society and the Red Clay Valley Scenic Byway Steering Committee.

Thank you for the opportunity to comment and for your consideration of this endorsement.

Sincerely,

A handwritten signature in cursive script that reads "Liane".

Liane M. Sorenson
State Senator
Sixth District

LMS/dlc

CHARLES L. COPELAND
Member Emeritus
STATE SENATOR
Fourth District

SENATE
STATE OF DELAWARE
LEGISLATIVE HALL
DOVER, DELAWARE 19903

COMMITTEES
Administrative Services
Education
Energy & Transit
Finance
Environment
Health & Elder Care
Legislative Council
Public Safety
Small Business

November 26, 2007

The Honorable Carolann Wicks
Delaware Department of Transportation
P.O. Box 778
Dover, DE 19903

Dear Secretary Wicks:

I support the Corridor Management Plan for the Red Clay Valley Scenic Byway and urge the Delaware Department of Transportation to approve this long-term vision for the protection of the Byway's most valuable qualities.

Most roads designated as state scenic and historic highways involve a single road corridor. The Red Clay Valley Scenic Byway includes twenty-eight secondary roads in northern New Castle County that form an interconnected and interdependent network closely linked to the Red Clay Creek and its watershed area. This watershed-based planning effort is unlike any other scenic byway designation in the United States and puts this region at the forefront of innovative byway and watershed management efforts.

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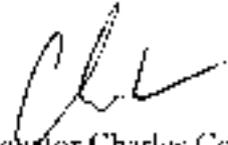
Headquartered at the Ashland Nature Center, the Delaware Nature Society has placed high priority on the permanent preservation of the Red Clay Valley for more than thirty years and is well positioned to oversee the long-term management of this Byway. I fully endorse the Corridor Management Plan submitted by the Delaware Nature Society and the Red Clay Valley Scenic Byway Steering Committee.

100 Rogers Road, Wilmington, Delaware 19801
Home: 302-426-0995 Business: 302-656-4560 Fax: 302-656-4800 Senate Office: 302-877-8716 Fax: 302-577-7204

LEGISLATIVE COUNCIL

Thank you for the opportunity to comment and for your consideration of this endorsement.

Warmest Regards,



Senator Charles Copeland
Senate Minority Leader
State Senate District 4

cc: Jennifer Gocheaur

CHRISTOPHER A. COONS
COUNTY EXECUTIVE



87 READS WAY
NEW CASTLE, DE 19720

February 28, 2008

The Honorable Carolann Wicks
Delaware Department of Transportation
P.O. Box 778
Dover, DE 19903

Dear Secretary Wicks:

Carolann

I support the Corridor Management Plan for the Red Clay Valley Scenic Byway and urge the Delaware Department of Transportation to approve this long-term vision for the protection of the Byway's most valuable qualities.

Most roads designated as state scenic and historic highways involve a single road corridor. The Red Clay Valley Scenic Byway includes twenty-eight secondary roads in northern New Castle County that form an interconnected and interdependent network closely linked to the Red Clay Creek and its watershed area. This watershed-based planning effort is unlike any other scenic byway designation in the United States and puts this region at the forefront of innovative byway and watershed management efforts.

In recognition of the unique nature of this Byway, the Corridor Management Plan balances a holistic, long-term view of the watershed area with the identification of specific strategies for each road segment. Further, the Plan is in keeping with the spirit of the nomination application, emphasizing conservation and preservation. Priority is given to private land stewardship and conservation easements, sensitive land use planning, and context sensitive solutions.

Headquartered at the Ashland Nature Center, the Delaware Nature Society has placed high priority on the permanent preservation of the Red Clay Valley for more than thirty years and is well positioned to oversee the long-term management of this Byway. I fully endorse the Corridor Management Plan submitted by the Delaware Nature Society and the Red Clay Valley Scenic Byway Steering Committee.

Thank you for the opportunity to comment and for your consideration of this endorsement.

Sincerely,

Christopher A. Coons
County Executive

PHONE: 302-395-6102

FAX: 302-395-6268

Email: ccoons@ccu.new-castle.de.us



Kennett Township Land Trust

524 Kennett Pike
Chadds Ford, Pennsylvania 19317

Phone: (610) 388-0347

Fax: (610) 388-0327

The Honorable Carolann Wicks
Delaware Department of Transportation
P.O. Box 778
Dover, DE 19903

October 25, 2007

Dear Secretary Wicks:

The Kennett Township Land Trust would like to acknowledge its support of the Corridor Management Plan for the Red Clay Valley Scenic Byway and urge the Delaware Department of Transportation to approve this long-term vision for the protection of the Byway's most valuable resources and qualities.

This watershed-based planning effort is unique and wonderfully progressive in that the Red Clay Scenic Byway does not just involve a single road corridor, but includes twenty-eight secondary roads in Northern New Castle County, that form a network with interconnected linkages within the Red Clay Creek and the watershed area.

Most endearing to our land trust is the priority that is being given to private land stewardship and conservation easements, sensitive land use planning, and context sensitive solutions. Also, since the Red Clay Creek is also a vital resource to our area of Pennsylvania as well, we commend the Delaware Nature Society's focus on the permanent preservation of the Red Clay Valley for more than thirty years and have absolute confidence that they are well positioned to oversee the long-term management of this Byway.

The Kennett Township Land Trust fully endorses the Corridor Management Plan submitted by the Delaware Nature Society and the Red Clay Valley Scenic Byway Steering Committee and hopes to utilize it as a model one day for our own efforts north along the Red Clay Creek, Route 82 and its offshoots in Pennsylvania.

Respectfully,

A handwritten signature in black ink, appearing to read "Gwen M. Lacy".

Gwen M. Lacy, Esq.
Executive Director
Kennett Township Land Trust

STATEWIDE CAMPAIGN TO IMPROVE PEDESTRIAN SAFETY

The Delaware State Office of Highway Safety has launched a statewide campaign to help improve pedestrian safety.

Did you know that in Delaware most pedestrians who are killed are between 20 and 54?

Did you also know that most pedestrian deaths involve alcohol on the part of the pedestrian?

But motorists also have a responsibility to share the road safely and to be on the lookout for pedestrians.

Do you know the following pedestrian laws and tips?

- o It is illegal to walk under the influence of alcohol and or drugs.
- o It is illegal to hitchhike.
- o Motorists must yield the right of way to pedestrians in crosswalks.
- o Pedestrians must cross at intersections when possible and if they're crossing outside of an intersection, they must yield the right-of-way to motorists.
- o If you can't walk on a sidewalk, you must walk facing traffic and walk as far off the edge as possible.
- o When walking at night you must carry a flashlight or other reflective item.



TODDLER SWING SET IN THE WORKS FOR BABY GROVE PARK

The Centreville Civic Association is currently working with the City of Wilmington, the owner of our community park, to install a new swing set in the playground area. The CCA Board recently approved the proposed toddler swing set, which will compliment the existing swing set designed for older children and adults.

City approval of the addition to the park is expected in the next month. Installation should take place by the end of the year.

The swing set is a minor component of a longer term plan that is being developed by the CCA Board and the City of Wilmington to make a number of playground and park improvements. Funding is being provided by CCA and the City of Wilmington.

The Red Clay Valley Scenic Byway includes twenty-eight secondary roads in northern New Castle County that form an interconnected and interdependent network closely linked to the Red Clay Creek and its watershed area. The network is bounded on the north by the Pennsylvania state line, on the east by Kennett Pike (route 52), on the south by Barley Mill Road and on the south and west by Lancaster Pike (Route 48/41). The roads of the Red Clay Valley are not a simple grid, but a complex network that conforms to the contours of the land and the Red Clay Creek.

Roads through the Centreville area include Owls Nest, Pyles Ford, Old Kennett Pike, Way Road, Ashland-Clinton School Road, Snuff Mill Road, Burnt Mill Road, Nine Gates Road, Creek Road, and Center Mill Road.



According to the Delaware Nature Society website, travelers who take the time to absorb the history and natural beauty of Delaware's Red Clay Valley are impressed by what it offers. The remnants of a nineteenth century grist, snuff, and paper milling industry can be seen at Yorklyn, historically known as Auburn or Auburn Mills. Steam train enthusiasts ride on the Historic Red Clay, Inc. (Wilmington and Western) railway from Greenbank to Hockessin. The mature forest and steep slopes of the Red Clay Ravine Natural Area are partially visible from Route 82 and accessible to Delaware Nature Society program participants. Roads originally traveled by horse and buggy, following the topography of the land, inextricably link these scenic vistas.

A Corridor Management Plan which describes the goals, strategies, and responsibilities for conserving and enhancing the Red Clay Valley Scenic Byway has been drafted and is available for public review on **Thursday, September 27th from 4:00 - 7:00 p.m. at the Ashland Nature Center auditorium.** (Barley Mill and Brackenville Roads Hockessin, DE 19707) The input of residents and visitors to the Byway is a crucial element of the process before the plan is submitted to DelDot. Please consider attending the public workshop to review maps and photographs of the byway, discuss preservation goals and strategies, and ask questions or offer comments.



Legacy Society Created

At the April 2007 Delaware Nature Society annual meeting, Peter Flint, President, announced the creation of a planned giving legacy society for the Delaware Nature Society and thanked the many people who have already made gifts to the Nature Society in their estate plans.

Naming Announcement

In the next year, we will ask those generous individuals to agree to be named as founding members of the society. Additionally, we will ask planned gift donors to identify themselves (if they haven't already) and join the legacy society as founding members. At our annual meeting in 2008, we will announce the formal name of the legacy society, and the founding members will be honored.

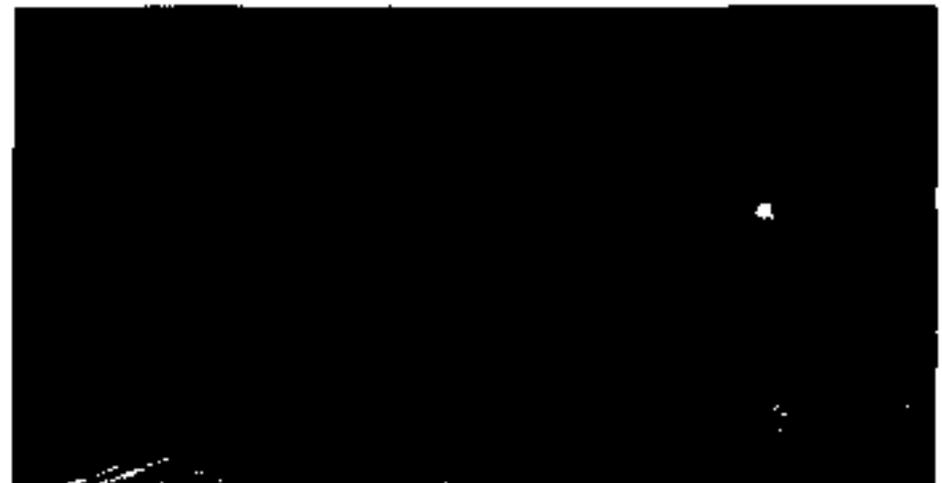
Identify Yourself

We look forward to this formal announcement and to thanking those members publicly. For additional information on planned giving, or to identify yourself as a member of the legacy society, please contact Linda Chambers, Associate Director, Development and Marketing at 302-239-2334, Ext. 103.

Management Plan for Scenic Byway

The Delaware Nature Society's nomination of twenty-eight roads in the Red Clay Valley into the Scenic and Historic Highways program created the state's second designated byway. With the goal of designation achieved, the focus of our staff and our Steering Committee has transitioned to long-term stewardship of the Byway's most valuable qualities, emphasizing conservation and preservation. The input of residents and visitors to the Byway is a crucial element of this process, particularly given the unique nature of this road network.

www.delawarenaturesociety.org



A Unique Byway

Most scenic roads designated as state scenic and historic highways involve a single road corridor. The Red Clay Valley Scenic Byway includes twenty-eight secondary roads in northern New Castle County that form an interconnected and interdependent network closely linked to the Red Clay Creek and its watershed area. This watershed based planning effort is unlike any other scenic byway designation in the United States and puts this region at the forefront of innovative byway and watershed management efforts.

The network is bounded on the north by the Pennsylvania state line, on the east by the Kennett Pike (Route 52), and on the south and west by the Lancaster Pike (Route 464). The roads of the Red Clay Valley are not a simple grid, but a complex network that conforms to the contours of the land and the Red Clay Creek.

Share Your Voice

Please join us for an open public workshop on September 27, 2007, from 4:00 PM to 7:00 PM, at the Delaware Nature Society's Ashland Nature Center to discuss the future of the Red Clay Valley Scenic Byway. Help us create the Byway's Corridor Management Plan.



The Delaware Nature Society, a nonprofit membership organization, fosters understanding, appreciation, and enjoyment of the natural world through education; preserves ecologically significant areas; and advocates the stewardship and conservation of natural resources.

We maintain two nature centers - Abdon's Mill Nature Center (Milford) and Ashland Nature Center (Hockessin) - and manage four nature preserves for biodiversity, research, and educational programs: Burrows Run Preserve, Middle Farm, Hight Woods Preserve, Marvel Farmstead Preserve, and Cedar Hog Preserve. The Nature Society is an affiliate of the National Wildlife Federation, offering input on national issues that concern citizens in our region.

Nature's VOICE

Published by
Delaware Nature Society, Inc.
P.O. Box 700, Hockessin, DE 19707

Peter H. Flint, President
Michael E. Riska, Executive Director

Produced by DNS
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Editor: Connie Hill
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Join Us!
Phone: 302-239-2334
Visit www.delawarenaturesociety.org

*In Loving Memory of
Robert H. Nightengale, Jr.*

RED CLAY VALLEY SCENIC BYWAY

The Delaware Nature Society's nomination of twenty-eight roads into the **Scenic and Historic Highways** program was approved in April 2005, making the Red Clay Valley Scenic Byway the State's second designated byway.

The nomination application received a strong endorsement by the state agency Evaluation Committee and the Scenic and Historic Advisory Board. Members of the Evaluation Committee indicated that "[T]he quality of the remaining natural and scenic resources in this area are extremely significant. Not only the type of landscape but also the large amount of it that exists in its undisturbed state, makes it special and unique to Northern New Castle County and Delaware." And, "[T]he resources identified in this application and both the current and future preservation efforts of those resources, epitomizes what the Scenic Byway Program is all about."

History of Preservation

Since moving its headquarters to Ashland in 1976, the Delaware Nature Society has placed high priority on the permanent preservation of the Red Clay Valley. The valley includes spectacular natural areas first described by the Nature Society in the mid-1970s: Red Clay Ravine, Red Clay Creek, Burrows Run, Coverdale Woods, and Red Clay Reservation, (the Ashland Nature Center is situated on a portion of the latter). These natural areas sustain an abundance of plants and animals and contain some of the richest old growth forest in the Red Clay Creek watershed.

A Unique Byway

Most scenic roads nominated for designation as state scenic and historic highways involve a single road corridor. The Red Clay Valley Scenic Byway includes twenty-eight secondary roads in northern New Castle County that form an interconnected and interdependent network closely linked to the Red Clay Creek and its watershed area. The network is bounded on the north by the Pennsylvania state line, on the east by the *Kinnett Pike* (route 52), on the south by Barley Mill Road and on the south and west by the *Lancaster Pike* (Route 48/41). The roads of the Red Clay Valley are not a simple grid, but a complex network that conforms to the contours of the land and the Red Clay Creek.

Experience the Byway

Travelers who take the time to absorb the history and natural beauty of Delaware's Red Clay Valley are impressed by what it offers. The remnants of a nineteenth century grist, snuff and paper milling industry can be seen at Yorklyn, historically known as Auburn or Azum Mills. Steam train enthusiasts ride on the Historic Red Clay, Inc. (Wilmington and Western) trolley from Greenbank to Hockessin. The mature forest and steep slopes of the Red Clay Ravine Natural Area are partially visible from Route 82 and accessible to Delaware Nature Society program participants. Roads originally traveled by horse and buggy, following the topography of the land, inexorably link these scenic vistas.

Stewardship

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DONATE ONLINE

With the goal of State designation achieved, emphasis is now placed on the long-term stewardship of the Red Clay Valley Scenic Byway's most valuable qualities and ensuring that future generations will have an opportunity to experience this unique resource.

A Corridor Management Plan, a written document that describes the goals, strategies, and responsibilities for conserving and enhancing the Red Clay Valley Scenic Byway has been drafted and is available for public review prior to submission to DelDOT.

Prepared in collaboration with a Steering Committee composed of local organizations, government agencies, businesses, and Byway residents, the Corridor Management Plan emphasizes conservation and preservation strategies and reflects a shared vision for the long-term stewardship of the Red Clay Valley Scenic Byway.

The Delaware Nature Society will be hosting a **public workshop** at the Ashland Nature Center on September 27th from 4:00 - 7:00 p.m. to present the draft Corridor Management Plan and offer interested individuals an opportunity to review maps and photographs, discuss the goals and strategies, and ask questions/offer comments. Please join us!

Download an excerpt from the Corridor Management Plan - **Stewardship of Intrinsic Qualities: Resource Preservation and Management Strategies**. Copies of the entire plan are available upon request.

Partners:

A wide variety of planning partners have provided valuable guidance and technical support for the Red Clay Valley Scenic Byway project, among them:

- New Castle County
- Delaware Department of Transportation (DelDOT)
- Wilmington Area Planning Council (WILMAPCO)
- Delaware Department of Natural Resources and Environmental Control (DNREC)
- Delaware State Office of Historic and Cultural Affairs
- Red Clay Valley Association
- Brandywine Conservancy
- Historic Red Clay, Inc.
- Red Clay Reservation
- Wilmington and Western Railroad
- Mt. Cuba Center
- Preservation Delaware
- Delaware Greenways, Inc.
- Center for the Creative Arts
- The Yorba Planning Group
- The Chesapeake Bay Girl Scouts Council
- Delaware Center for Horticulture

In addition, several individuals, some of whom are Byway residents, have devoted their skills and expertise to this effort.

Download a map of the **Red Clay Valley Scenic Byway**

COMMUNITY PROGRAMS AND SERVICES - Scenic and Historic Highways**Quick Facts**

Length: approximately 27 miles

Date designated a State Scenic & Historic Highway: April 5, 2005

Time required to drive the byway: about 1 hour

Time required to enjoy the points of interest: 1-2 days

Byway Contact:

Jen Gochenaur
Delaware Nature Society
P O Box 700
Hockessin DE 19707
jen@delawarenaturesociety.org
(302)239-2334



The Red Clay Valley Scenic Byway includes 30 secondary roads that form a network closely linked to the Red Clay Creek. Found in the piedmont province, it is characterized by rolling hills, ridges, and valleys that sculpt the surrounding landscape.

*Text taken from the 2004 Nomination Application

Points of Interest**Ashland Nature Center**

Explore four self-guiding nature trails through 81 acres of rolling terrain through meadows, woodlands and marshes. It also features the Butterfly House which provides close-up observation of butterflies in stages from eggs to adults. The Butterfly House is open mid-June to late September. Weekdays 2:00 – 4:00 pm. Saturdays: 10:00 am – 3:00 pm; closed Sundays.

Mt. Cuba Center

A 630-acre estate set in the rolling hills of Northern Delaware that is dedicated to the conservation of the Appalachian Piedmont plants. Guided tours and garden visitation are available. The center is open for spring tours from mid-April through May and for autumn tours from mid-September through October.

Resource Conservation: New Programs Increase Awareness

The Delaware Nature Society's Natural Resources Conservation (NRC) Department includes three well-developed program areas:

- Watershed Stewardship
- Land Preservation
- Advocacy

These programs complement each other to increase protection and restoration of our land and water resources, and the biodiversity within our state. The following items are highlights from our work in 2005.

Delaware's Own Macroinvertebrate

To help raise public awareness about the importance of water quality, the Delaware Nature Society championed State legislation to designate the common stonefly as the State Macroinvertebrate. Delaware State Representative Deborah Hudson was the primary sponsor of the bill, which was signed into law by Governor Ruth Ann Minner on June 14, 2005.

Vital Conservation Issues Explored

Over 110 landowners and professionals attended the Land Conservation Forum presented by the Delaware Nature Society at Bellevue Hall on May 24, 2005. Patrick

F. Noonan, founder and Chairman Emeritus of The Conservation Fund presented an inspiring keynote address, tracking the evolution of the conservation movement, current trends and the leadership roles that states are taking to address the growing public demand for land conservation. Forum participants were also given a primer on land conservation and estate planning with a real life case study involving an owner of a 250-acre farm.



Jennifer Goehner
Associate Director,
Natural Resource
Conservation

The Forum was co-sponsored by the Department of Natural Resources and Environmental Control, The Brandywine Conservancy, The Conservation Fund, The Nature Conservancy in Delaware, The Frederick Academy of Real Estate, The Delaware State Bar Association, and the Delaware Nature Society.

Scenic and Historic Red Clay Valley

At the Delaware Nature Society's 40th Annual Meeting on April 13, 2005 Nathan Hayward, Secretary of the Delaware Department of Transportation, announced official approval of the Nature Society's nomination application designating 29 roads in the Red Clay Valley into the State Scenic and Historic Highways Program. These designated roads will be known as the "Red Clay Valley Scenic Byway."



This designation will help to maintain the character of the Valley by adding another layer of consideration for all proposed projects that may affect the area's resources.

Permanent Funding Achieved

In 2005 DNS and its fellow Preservation Coalition members gained permanent funding for the state's Farmland Preservation Program! There will be a revenue stream of \$10 million a year from the state's Real Estate Transfer Tax as part of the budget agreement for Fiscal Year 2006, announced in Governor Minner's office on June 15, 2005. This will give a much-needed boost to an already successful program and be a boon to the future of Delaware's agricultural industry. It comes at a time when the state's prime farmland is disappearing at a rate of more than 10,000 acres a year, mainly to residential developments.



Red Clay Roads Designated as Scenic Byways

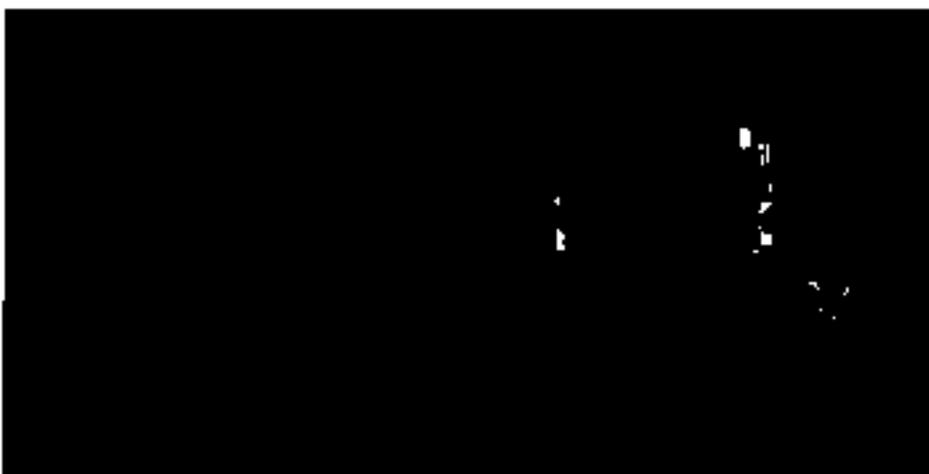


Photo by G. Ozer

At the Delaware Nature Society's 40th Annual Meeting on April 13, 2005, Secretary of Transportation Nathan Hayward announced official approval of the Nature Society's application, admitting 27 roads into the State Scenic and Historic Highways Program. These roads will be known as the "Red Clay Valley Scenic Byway."

The nomination application was strongly endorsed by the state agency Evaluation Committee and the Scenic and Historic Advisory Board. Members of the Evaluation Committee indicated, "The quality of the remaining natural and scenic resources in this area are extremely significant. Not only the type of landscape, but also the large amount of it that exists in its undisturbed state, makes it special and unique to Northern New Castle County and Delaware." According to the statement, "The resources identified in this application and both the current and future preservation efforts of those resources, epitomizes what the Scenic Byway Program is all about."

Now that the nomination application has been approved, the Nature Society is establishing a Steering Committee to assist in developing the Corridor Plan, a document describing the goals, strategies, and responsibilities for conserving and enhancing the scenic and historic highways' most valuable qualities. The

plan will be worked upon collaboratively by the Nature Society, New Castle County, Red Clay Valley Association, Center for the Creative Arts, The Yorklyn Planning Group, The Chesapeake Bay Girls Scouts Council, Mt. Cuba Center, and area residents. It will include both a long-term vision for the Scenic and Historic Highway over time, and also a short-term Action Plan covering the first two years. For additional information or to participate on the Red Clay Valley Scenic Byway Steering Committee, please contact Jennifer Goebennur, Associate Director for Natural Resources Conservation, 302-239-2334, ext. 102, jen@delawarenaturesociety.org.

Farmland Preservation Program Gains Permanent Funding

Delaware's Farmland Preservation Program has received a permanent funding stream thanks to the Preservation Coalition, some 500 organizations, individuals and local governments.

There will be a revenue stream of \$10 million a year from the State's Real Estate Transfer Tax as part of the budget agreement for Fiscal Year 2006, announced in Governor Minner's office on June 15,

2005. This will give a much-needed boost to an already highly successful program and be a boon to the future of Delaware's agricultural industry. It comes at a time when the state's prime farmland is disappearing at a rate of more than 10,000 acres a year, mainly to residential developments.

The Coalition was formed in 1995 to ensure the success of Governor Carper's plan to use \$95 million from an abandoned properties settlement for farmland preservation. Coordinated by the Nature Society, the Coalition's singular mission later became lobbying the General Assembly and the Administration to obtain steady, adequate funding for the work of the state's Open Space Council and the Delaware Agricultural Lands Preservation Foundation.

In 2001 a \$9 million a year, 17-year revenue stream from the Real Estate Transfer Tax was enacted. Added later was \$1 million for greenways expansion. The Coalition's principal focus then became obtaining a revenue stream for farmland preservation. Governor Minner has shared the Coalition's goal and deserves tremendous credit for urging the General Assembly's Leadership Team to enact the farmland preservation revenue stream this year. The bill codifying the revenue stream (Senate Bill 229 sponsored by Senator Nancy Cook and Representative Pam Thornburg, with numerous co-sponsors) passed both Houses on June 30. With this latest success the Coalition's mission is accomplished!

Coalition Co-chairs: Lorraine M. Fleming (Delaware Nature Society); Robert Gately (Agricultural Lands Preservation Foundation); and William Wask (C.A.W. Community Action Program Council)

Action Request: Please e-mail, telephone or personally deliver your thanks to the Governor and your legislator for this action which helps protect our farmlands.

Suburban growth putting pressure on state's northern byways

Keeping Delaware's scenic roads less traveled



Area of Red Clay Valley Nominated

More than 20 scenic, picturesque roads northwest of Wilmington - dotted with hundreds of mansions, farms and historic houses largely unseen by motorists - could be protected for future generations under a state preservation program.

The Delaware Nature Society, a nonprofit group, has nominated the "Red Clay Valley Scenic Byway" for the state's Scenic and Historic Highways Program.

Under the program, the roads would be eligible for planning money, help from experts and some protections, including a ban on billboards.

The nature society, which said the roads already are feeling the pressure of added traffic from the region's housing growth and development, has asked the Delaware Department of Transportation to designate 27 roads from

Horseshoe Bend to Centerville.

Delaware Nature Society spokeswoman Helen Butler calls them Delaware's "roads less traveled."

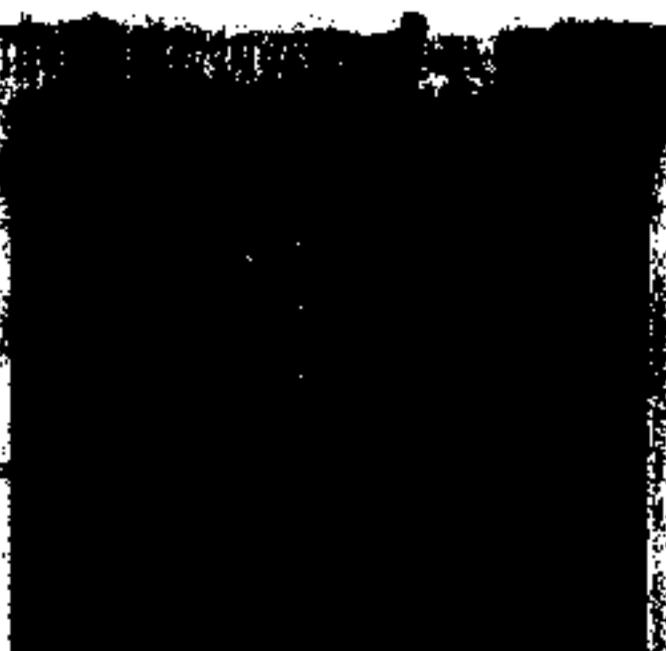
Roads may be nominated for scenic, natural, recreational, historic, cultural or archaeological qualities.

Elizabeth Wagner, who has lived on Snuff Mill Road more than 30 years, said she hopes the road program will help preserve the region's old-fashioned beauty.

"That's the reason that I think all of us who have lived here any length of time are here," said the 74-year-old DuPont Co. retiree. "It's because of that feeling of being out in the country."

Wagner also said she hopes state designation will help slow motorists by reminding them to relax and enjoy the view.

By SCENE — J3



Creek Road (Del. 82), which runs along the Red Clay Valley, is one of 27 roads nominated by the Delaware Nature Society for the state's Scenic and Historic Highways Program.

TO LEARN MORE

To learn more about the state's Scenic and Historic Highways, visit www.delaware.gov/transportation/scenic, or call 1-800-333-3333.

Roads nominated for the state Scenic and Historic Highways Program



- | | | |
|---|---|---|
| 1: Ashland-Carlton School Road | 8: Creek Road (Del. 82) | 18: Pyles Ford Road |
| 2: Auburn Mill Road | 10: Hillside Mill Road | 19: Old Wilmington Road |
| 3: Barley Mill Road to Centerville Road | 11: Hillside Road from Centerville Road to Kennett Pike | 20: Robing Mill Road |
| 4: Brackerville Road from Old Wilmington Road to Barley Mill Road | 12: Lower Snuff Mill Row | 21: Sharpless Road |
| 5: Berge Road | 13: Mount Cuba Road | 22: Snuff Mill Road |
| 6: Summ Mill Road | 14: New London Road | 23: Upper Snuff Mill Row |
| 7: Center Mill Road | 15: Nine Gates Road (Cloud Rd.) | 24: Walnut Green Road/Oberfell Road (Del. 82) |
| 8: Clayville Road from Barley Mill Road to Del. 82 | 16: Old Kennett Road | 25: Way Road |
| | 17: Ours Neel Road | 27: Yorklyn Road |



The News Journal

Scenic: Locals prefer the narrow roads

FROM PAGE A1

The nature society is one of about 30 advisory groups and agencies that review applications for the preservation program and make recommendations to DelDOT. Butler, the society's environmental advocate, said the organization will not be involved in this review because it made the nomination.

The roads - many of them narrow, curvy and without shoulders - traverse the hills of Delaware's chateau country. The former horse-cart roads pass through farms, forests and the countryside of historic Yorklyn. They pass through the Ashland Covered Bridge, one of three covered bridges in the state. They run by streams, wrap Mount Cuba and offer postcard-like views of Hoopes Reservoir.

Delawareans drive the roads in search of blazing fall foliage.

Several of the routes evoke the state's early manufacturing era, when water-powered mills of many kinds dotted the Red Clay Valley region.

"The roots of the Red Clay Valley community date from the early European settlement in the beginning of the 18th century," Butler said. "Not urban, nor suburban, the Red Clay Valley provides a unique rural setting."



Nearly 75 miles of Red Clay Valley roads on Brandywine Road near Old Wilmington Road. Some roads are on the scenic list.

dress pedestrian and bicyclist safety.

If the program boosts bicycle safety awareness and adds bicycle lanes on roads, the fire de-

partment "unquestionably scenic" and noted its many historic sites, such as Wilmington & Western Railroad, Winterthur museum and Mount Cuba.

Another study three years earlier by the nonprofit Brandywine Conservancy called the Red Clay Valley "a place of uncommon beauty and very special significance."

Documentation of the valley's splendor is a plus for the application, as are residents' longtime efforts to preserve the region's character, Butler said.

Over the years, owners of many of the area's historic estates and farmhouses - some only two rooms - have fought to keep the roads from being straightened or widened, out of concern that so-called improvements actually would worsen traffic and aggravate hazards caused by speeding motorists, she said.

"For many communities, getting the scenic and historic highway designation is the start of the preservation process," she said. "But we really saw it as being on the cake for an area that has been in preservation efforts since the 1970s."

Contact Tom Brown at 324-1256 or tobr@delawareonline.com



Red Clay Valley roads

States



Delaware

Wednesday, September 15

Wilmington - Some cancer patients will be eligible for free treatment for up to a year under a new state initiative. Funding for the \$4 million Delaware Cancer Treatment Program is included in the current state budget. It targets patients who don't have insurance and aren't eligible for Medicaid.

More state news from Gannett

► [The Wilmington News Journal](#)

Tuesday, September 14

Little Creek - An estimated 100 friends and relatives gathered at the fire hall for a memorial service for Joseph Cox, 18. The senior at Caesar Rodney High School was gunned down Sept. 1 outside his home in Magnolia. Joseph Bentley, 17, was arrested near Pittsburgh after an 80-mile chase. He's charged with first-degree murder.

Monday, September 13

Wilmington - Bill Lee, the runner-up in the Republican gubernatorial primary four years ago, won this year's primary on Saturday. He faces Gov. Minner, a Democrat, on Nov. 2.

Friday, September 10

Wilmington - More than two dozen picturesque roads northwest of Wilmington could soon be protected by the state. The Delaware Nature Society, a non-profit group, nominated the Red Clay Valley Scenic Byway for the state's Scenic and Historic Highways Program. Under the program, 27 roads would be eligible for planning money, help from experts and protections, including a ban on billboards.

Thursday, September 9

Dover - The Division of Motor Vehicles says the owners of 687 older vehicles were wrongly told that their vehicles failed an emissions test. Many spent hundreds of dollars on unnecessary repairs. Officials blame the error on a software problem. The software vendor will reimburse vehicle owners.

Workshop to give overview of Red Clay Scenic Byway

Plan protects network of picturesque roads

By ROBIN BROWN
The News Journal

A public workshop is set for Thursday on a plan aimed to protect more than two dozen picturesque roads that tumble amid historic mansions, farms, streams and forests northwest of Wilmington.

The network of roads, dubbed the Red Clay Scenic Byway, was nominated by the Delaware Nature Society for protection under a state program.

The informal, open-house-style workshop will run 6-7 p.m. in the auditorium of Ashland Nature Center, with the public invited to drop in at any time, view displays and offer comments, said spokeswoman Jennifer Gochenaux, the Delaware Nature Society's associate director for natural resources conservation.

Gochenaux described the plan as "a road map of how we preserve the best of what's existing ... and maybe even make things a little better."

For example, she said, the plan would have future work on

the roads be consistent with the historical and cultural contexts of the area — meaning small, old-fashioned ones could not be replaced with massive, modern ones.

Most nominations for state scenic and historic highways are for single, main roads or the corridors surrounding them.

The Red Clay Valley Scenic Byway — made up of secondary roads — is bounded on the north by the Pennsylvania state line, on the east by the Kennett Pike (Del. 80) on the south by Barley Mill Road and on the south and west by Lancaster Pike (Del. 40/Del. 41).

The Delaware Nature Society's 2004 nomination of the roads was accepted into the Scenic and Historic Highways by the state's second designated byway in 2005.

Before the Red Clay Scenic Byway nomination was accepted, Elizabeth Wagner, a Stuff Mill Road resident for more than 30 years, told The News Journal she hoped the road program will help preserve the region's old-fashioned beauty.



Auburn Heights in York; offers poster, by one of the many scenic views in the Red Clay Scenic Byway area.

"That's the reason that I think all of us who have lived here any length of time are here," said the DuPont Co. vice president, then 74. "It's because of that feeling of being out in the country."

Designation under the program makes accepted roads eligible for planning funds and some protections, such as a ban on billboards.

Although some area residents feared the designation might lead to overbuilding of roads and promotion of tourism, Gochenaux said the goal is "more conservation and preservation." The steering panel has drafted a management plan, she said.

The workshop gives the public a chance to have input into the plan before its submission

FYI

To learn more about the state's Scenic and Historic Highways, visit www.dnbvt.gov/infomation/pubs_forms/manuals/scenic_hwy01/index.shtml

To view the draft plan for the Red Clay Scenic Byway, visit the Delaware Nature Society site at www.delawarenaturesociety.org/red_clay.htm

to the Department of Transportation, which has 30 days for review.

Panel members will be there to answer questions about the plan and explain the maps, photographs and plans on display.

"Anyone who is interested is invited to come," Gochenaux said, adding that residency in the byway area is not required.

The nature society nominated the 28 roads not as a grid, but a network shaped by the land and contours along Red Clay Creek.

Letters with comments about the draft plan may be brought to the meeting or sent to Jennifer Gochenaux, Box 700, Hockessin, DE 19907.

Contact Robin Brown at 334-3026 or rbrown@newsjournal.com

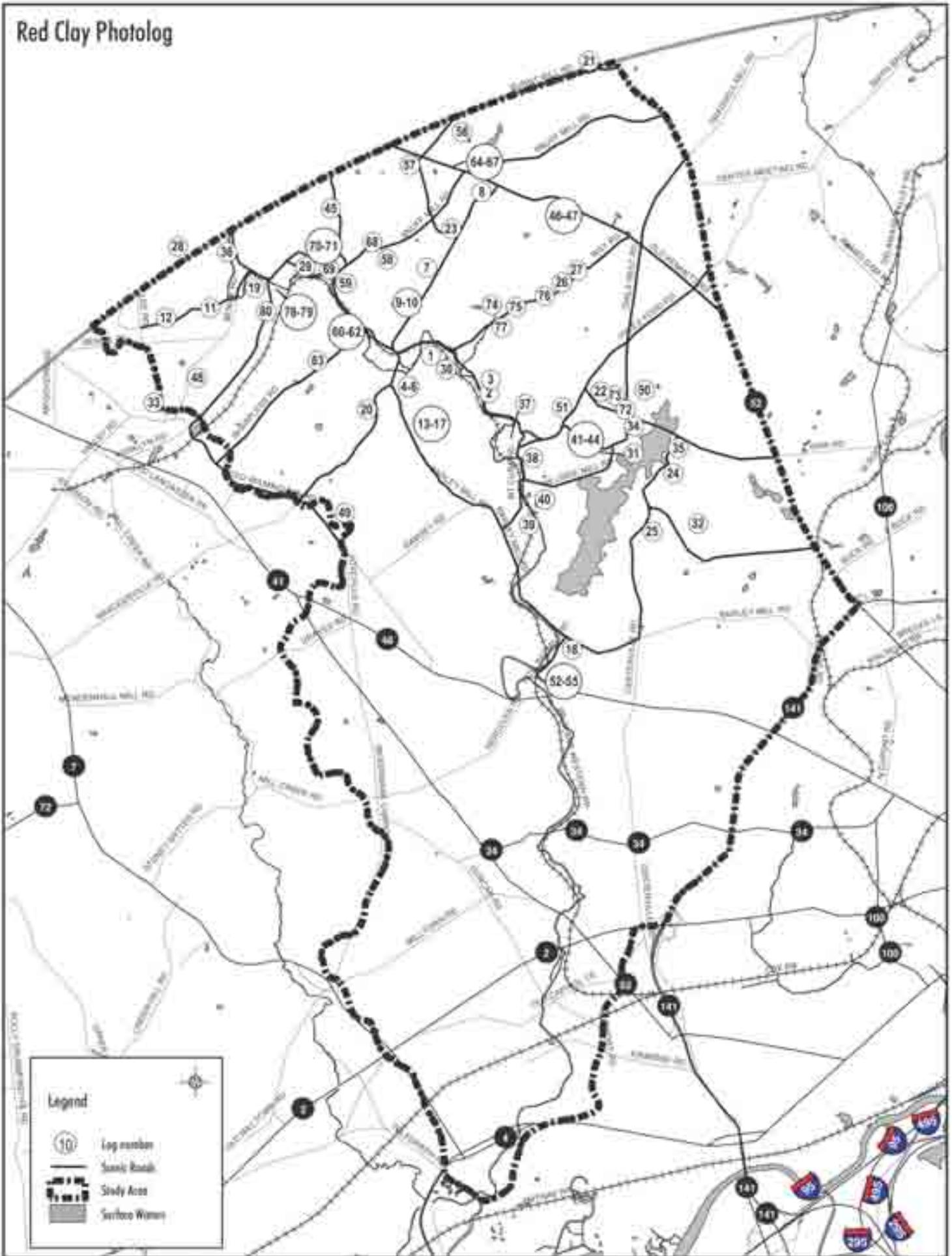
New York Journal
9/26/07



Appendix 7

Photolog

Red Clay Photolog



red clay valley scenic byway

Photolog



1. Mt Cuba Road (Creek Road) Bridge



2. Mt Cuba Road (Creek Road)

3. Mt Cuba Road (Creek Road)



4. Brackenville Road (Ashland Bridge)



Photolog



5. Brackenville Road (Ashland Bridge)



6. Brackenville Road (Ashland Bridge)

7. Ashland-Clinton School Road



8. Ashland-Clinton School Road Victorian





9. Ashland-Clinton School Road Vista
DNS vista easement



10. Ashland-Clinton School Road Vista
DNS vista easement

11. Auburn Mill Road



12. Auburn Mill Road



Photolog



13. Barley Mill Road



14. Barley Mill Road

15. Barley Mill Road

16. Barley Mill Road





17. Barley Mill Road



18. Barley Mill Road at Rolling Mill Road

19. Benge Road

20. Brackenville Road



Photolog



21. Burnt Mill Road



22. Walnut Green Road

23. Center Mill Road



24. Centerville Road Panorama





25. Centerville Road near Hillside Road



26. Way Road (Coverdale Farm entrance)

27. Way Road, DNS vista easement

28. Creek Road



Photolog



29. Creek Road (Garrett Mansion)



30. Creek Road Bridge

31. Hillside Mill Road (*below*)



32. Hillside Road (*right*)





33. Meeting House Road
(Hockessin Friends Meeting)



34. Walnut Green Road (Hoopes Panorama)

35. Walnut Green Road (Hoopes Panorama)



36. Creek Road (Marshall House)



Photolog



37. Mt. Cuba Road



38. Mt. Cuba Road near Rt. 82

39. Mt. Cuba Road railroad crossing



40. Mt. Cuba Road/Barley Mill Road Stables





41. New London Road



42. New London Road

43. New London Road



44. New London Road



Photolog



45. Nine Gates Road



46. Old Kennett Road
Portion of DNS vista easement

47. Old Kennett Road



48. Old Public Road



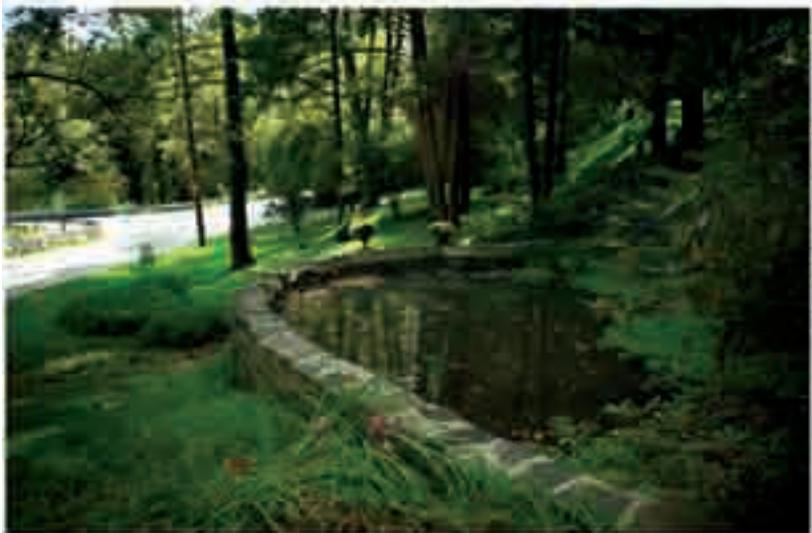


49. Old Wilmington Road



50. Owls Nest Road

51. Pyles Ford Road at Rt. 82



52. Rolling Mill Road



Photolog



53. Rolling Mill Road



54. Rolling Mill Road

55. Rolling Mill Road



56. Center Mill Road





57. Old Kennett Road



58. Snuff Mill Road

59. Snuff Mill Road and Creek Road



60. Sharpless Road and Creek Road



Photolog

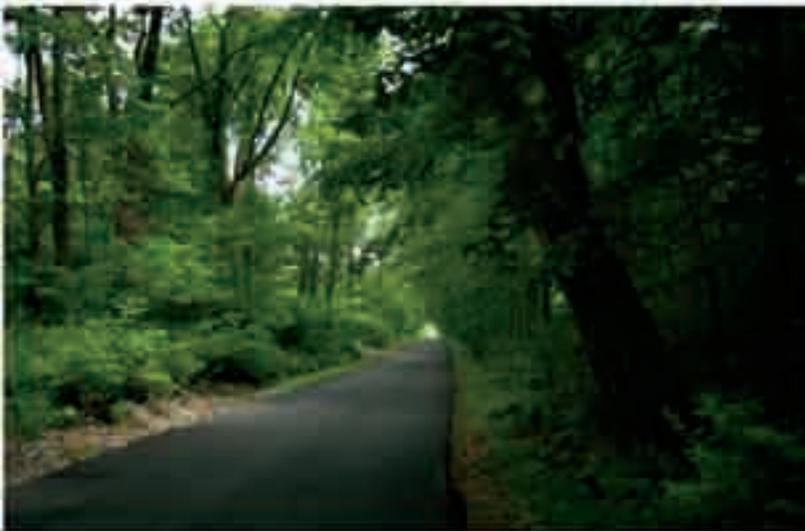


61. Sharpless Road and Creek Road



62. Sharpless Road Bridge

63. Sharpless Road



64. Snuff Mill Road and Old Kennett Road





65. Snuff Mill Road and Old Kennett Road



66. Snuff Mill Road and Old Kennett Road

67. Snuff Mill Road and Old Kennett Road

68. Snuff Mill Road



Photolog



69. Creek Road
(Yorklyn Stone Barn Ruin)



70. Upper Snuff Mill Row

71. Lower Snuff Mill Row



72. Walnut Green Road and Owls Nest Road
(Walnut Green School)





73. Walnut Green Road and Owls Nest Road
(Walnut Green School)



74. Way Road (Willow Way Farm)

75. Way Road



76. Way Road



Photolog



77. Way Road



78. Yorklyn Road and Creek Road

79. Yorklyn Road and Creek Road

80. Yorklyn Road





Appendix 8

Traffic Counts and Road Widths

ROAD WIDTHS

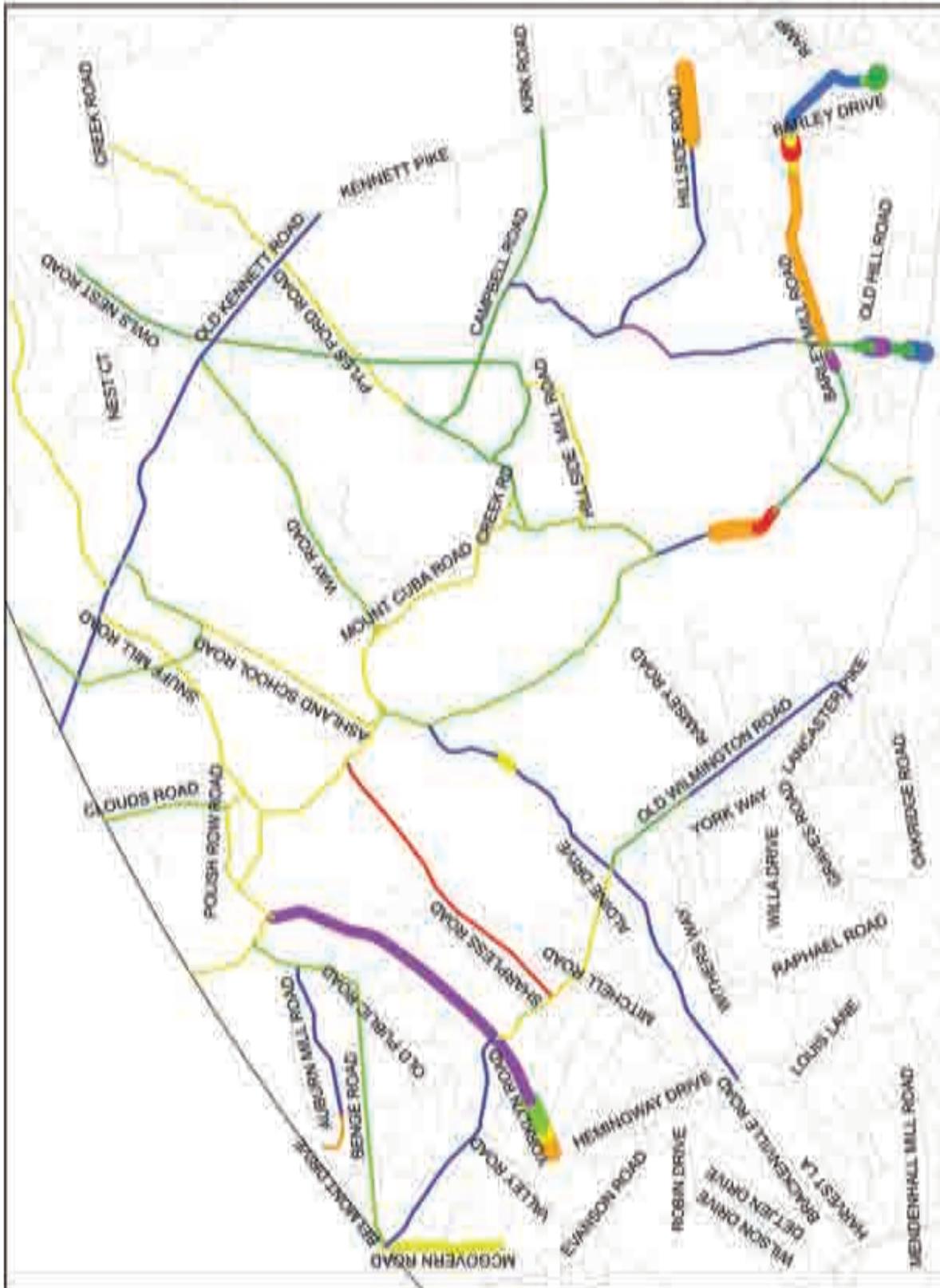
County	Road No	Rdway_ID	Road Name	Beg_MP	End_MP	Road Width (ft.)
1	238	146	BURNT MILL RD	0	0.43	24
1	238	146	BURNT MILL RD	0.43	0.47	24
1	239	147	PYLES FORD RD	0	0.27	24
1	239	147	PYLES FORD RD	0.27	0.35	24
1	239	147	PYLES FORD RD	0.35	0.54	24
1	239	147	PYLES FORD RD	0.54	0.83	20
1	239	147	PYLES FORD RD	0.83	1.2	20
1	239	147	PYLES FORD RD	1.2	1.29	20
1	239	147	PYLES FORD RD	1.29	1.48	20
1	239	147	PYLES FORD RD	1.48	1.64	20
1	239	147	PYLES FORD RD	1.64	1.67	20
1	239	147	PYLES FORD RD	1.67	2.53	20
1	240	148	OWLS NEST RD	0	0.56	24
1	240	148	OWLS NEST RD	0.56	0.87	24
1	240	148	OWLS NEST RD	0.87	1.21	24
1	240	148	OWLS NEST RD	1.21	2.02	24
1	240	148	OWLS NEST RD	2.02	2.06	24
1	241	149	WAY RD	0	0.06	18
1	241	149	WAY RD	0.06	1.6	18
1	241	149	WAY RD	1.6	1.67	18
1	242	151	DEAN RD	0	0.39	24
1	242	151	CAMPBELL RD	0.39	0.77	24
1	242	151	CAMPBELL RD	0.77	0.8	24
1	242	151	CAMPBELL RD	0.8	1.59	24
1	243	152	OLD KENNETT RD	0	0.04	22
1	243	152	OLD KENNETT RD	0.04	0.79	22
1	243	152	OLD KENNETT RD	0.79	1.49	22
1	243	152	OLD KENNETT RD	1.49	2	22
1	243	152	OLD KENNETT RD	2	2.14	22
1	243	152	OLD KENNETT RD	2.14	2.48	22
1	243	152	OLD KENNETT RD	2.48	2.92	22
1	244	153	SNUFF MILL ROAD	0	1.4	20
1	244	153	SNUFF MILL ROAD	1.4	1.41	20
1	244	153	SNUFF MILL ROAD	1.41	1.52	20
1	244	153	SNUFF MILL ROAD	1.52	1.55	20
1	246	155	CENTER MILL RD	0	0.16	18
1	247	156	SNUFF MILL RD	0	0.33	20
1	247	156	SNUFF MILL RD	0.33	0.49	20
1	247	156	SNUFF MILL RD	0.49	0.67	20
1	247	156	SNUFF MILL RD	0.67	0.68	20
1	247	156	SNUFF MILL RD	0.68	0.73	20
1	247	156	SNUFF MILL RD	0.73	0.93	20
1	247	156	SNUFF MILL RD	0.93	1.08	20

County	Road No	Rdway_ID	Road Name	Beg_MP	End_MP	Road Width (ft.)
1	247	156	SNUFF MILL RD	1.08	1.2	20
1	247	156	SNUFF MILL RD	1.2	1.22	20
1	247	156	SNUFF MILL RD	1.22	1.72	20
1	247	156	SNUFF MILL RD	1.72	2.4	20
1	248	157	CENTER MILL RD	0	0.71	18
1	248	157	CENTER MILL RD	0.71	0.75	18
1	250	158	POLISH ROW RD	0	0.11	20
1	250	158	POLISH ROW RD	0.11	0.43	20
1	250	158	POLISH ROW RD	0.43	0.54	20
1	251	159	SHARPLESS RD	0	0.02	16
1	251	159	SHARPLESS RD	0.02	1.55	16
1	252	160	AUBURN MILL ROAD	0	0.06	12
1	252	160	AUBURN MILL ROAD	0.06	0.83	22
1	253	161	MCGOVERN ROAD	0	0.54	30
1	253	161	MCGOVERN ROAD	0.54	0.56	30
1	253	161	BENGE ROAD	0.56	0.57	18
1	253	161	BENGE ROAD	0.57	1.17	18
1	253	161	BENGE ROAD	1.17	1.23	18
1	253	161	BENGE ROAD	1.23	1.85	18
1	253	161	BENGE ROAD	1.85	2.16	18
1	253	161	BENGE ROAD	2.16	2.42	18
1	256	164	CLOUDS RD	0	0.37	18
1	257	165	YORKLYN RD	0	0.1	38
1	257	165	YORKLYN RD	0.1	0.15	43
1	257	165	YORKLYN RD	0.15	0.26	42
1	257	165	YORKLYN RD	0.26	0.38	32
1	257	165	YORKLYN RD	0.38	0.55	32
1	257	165	YORKLYN RD	0.55	0.62	32
1	257	165	YORKLYN RD	0.62	0.64	32
1	257	165	YORKLYN RD	0.64	0.71	32
1	257	165	YORKLYN RD	0.71	0.78	32
1	257	165	YORKLYN RD	0.78	0.96	32
1	257	165	YORKLYN RD	0.96	1.06	32
1	257	165	YORKLYN RD	1.06	1.09	32
1	257	165	YORKLYN RD	1.09	1.19	32
1	257	165	YORKLYN RD	1.19	1.29	32
1	257	165	YORKLYN RD	1.29	1.36	32
1	257	165	YORKLYN RD	1.36	1.42	32
1	257	165	YORKLYN RD	1.42	1.5	32
1	257	165	YORKLYN RD	1.5	1.56	32
1	257	165	YORKLYN RD	1.56	1.92	32
1	257	165	YORKLYN RD	1.92	1.93	20
1	257	165	YORKLYN RD	1.93	1.95	20
1	258	166	BARLEY MILL RD	0	0.31	18
1	258	166	BARLEY MILL RD	0.31	1.46	18
1	258	166	BARLEY MILL RD	1.46	1.57	18

County	Road No	Rdway_ID	Road Name	Beg_MP	End_MP	Road Width (ft.)
1	258	166	BARLEY MILL RD	1.57	1.65	18
1	258	166	BARLEY MILL RD	1.65	1.68	18
1	258	166	BARLEY MILL RD	1.68	1.69	18
1	258	166	BARLEY MILL RD	1.69	1.73	18
1	259	168	BARLEY MILL RD	0	0.32	22
1	259	168	BARLEY MILL RD	0.32	0.4	38
1	259	168	BARLEY MILL RD	0.4	0.41	38
1	259	168	BARLEY MILL RD	0.41	0.42	38
1	259	168	BARLEY MILL RD	0.42	0.43	38
1	259	168	BARLEY MILL RD	0.43	0.52	38
1	259	168	BARLEY MILL RD	0.52	0.64	28
1	259	168	BARLEY MILL RD	0.64	0.85	24
1	259	168	BARLEY MILL RD	0.85	0.88	22
1	259	168	BARLEY MILL RD	0.88	0.9	22
1	259	168	BARLEY MILL RD	0.9	0.97	22
1	259	168	BARLEY MILL RD	0.97	0.99	22
1	259	168	BARLEY MILL RD	0.99	1	22
1	259	168	BARLEY MILL RD	1	1.01	24
1	259	168	BARLEY MILL RD	1.01	1.26	24
1	259	168	BARLEY MILL RD	1.26	1.49	24
1	259	168	BARLEY MILL RD	1.49	1.5	32
1	259	168	BARLEY MILL RD	1.5	1.55	32
1	259	168	BARLEY MILL RD	1.55	1.61	24
1	259	168	BARLEY MILL RD	1.61	1.72	26
1	259	168	BARLEY MILL RD	1.72	2.27	26
1	259	168	BARLEY MILL RD	2.27	2.51	26
1	259	168	BARLEY MILL RD	2.51	2.56	30
1	259	168	BARLEY MILL RD	2.56	2.58	30
1	259	168	BARLEY MILL RD	2.58	2.63	40
1	259	168	BARLEY MILL RD	2.63	2.7	30
1	259	168	BARLEY MILL RD	2.7	2.97	31
1	259	168	BARLEY MILL RD	2.97	3.04	31
1	259	168	BARLEY MILL RD	3.04	3.06	31
1	259	168	BARLEY MILL RD	3.06	3.21	31
1	259	168	BARLEY MILL RD	3.21	3.27	29
1	259	168	BARLEY MILL RD	3.27	3.29	50
1	261	170	MOUNT CUBA ROAD	0	0.44	18
1	261	170	MOUNT CUBA ROAD	0.44	0.57	18
1	261	170	MOUNT CUBA ROAD	0.57	0.87	18
1	261	170	MOUNT CUBA ROAD	0.87	1.31	20
1	261	170	MOUNT CUBA ROAD	1.31	1.68	20
1	261	170	MOUNT CUBA ROAD	1.68	1.8	20
1	261	170	MOUNT CUBA ROAD	1.8	1.9	20
1	261	170	MOUNT CUBA ROAD	1.9	2	20
1	261	170	MOUNT CUBA ROAD	2	2.14	20
1	261	170	MOUNT CUBA ROAD	2.14	2.21	20

County	Road No	Rdway_ID	Road Name	Beg_MP	End_MP	Road Width (ft.)
1	261	170	MOUNT CUBA ROAD	2.21	2.24	20
1	261	170	MOUNT CUBA ROAD	2.24	2.86	20
1	261	170	MOUNT CUBA ROAD	2.86	2.89	20
1	261	170	MOUNT CUBA ROAD	2.89	2.95	20
1	261	170	MOUNT CUBA ROAD	2.95	3.01	20
1	262	171	NEW LONDON RD	0	0.19	18
1	262	171	NEW LONDON RD	0.19	0.37	24
1	262	171	NEW LONDON RD	0.37	0.5	24
1	262	171	NEW LONDON RD	0.5	1.12	24
1	263	173	ROLLING MILL RD	0	0.58	18
1	264	175	HILLSIDE RD	0	0.88	22
1	264	175	HILLSIDE RD	0.88	0.89	22
1	264	175	HILLSIDE RD	0.89	0.9	22
1	264	175	HILLSIDE RD	0.9	1.13	22
1	264	175	HILLSIDE RD	1.13	1.45	38
1	269	181	HILLSIDE MILL RD	0	0.83	20
1	273	185	CENTERVILLE ROAD	0	0.07	47
1	273	185	CENTERVILLE ROAD	0.07	0.21	34
1	273	185	CENTERVILLE ROAD	0.21	0.27	48
1	273	185	CENTERVILLE ROAD	0.27	0.33	34
1	273	185	CENTERVILLE ROAD	0.33	0.49	24
1	273	185	CENTERVILLE ROAD	0.49	0.55	24
1	273	185	CENTERVILLE ROAD	0.55	0.65	24
1	273	185	CENTERVILLE ROAD	0.65	0.76	22
1	273	185	CENTERVILLE ROAD	0.76	0.86	22
1	273	185	CENTERVILLE ROAD	0.86	1.24	22
1	273	185	CENTERVILLE ROAD	1.24	1.25	22
1	273	185	CENTERVILLE ROAD	1.25	1.55	23
1	273	185	CENTERVILLE ROAD	1.55	1.62	22
1	273	185	CENTERVILLE ROAD	1.62	1.67	22
1	273	185	CENTERVILLE ROAD	1.67	1.69	22
1	273	185	CENTERVILLE ROAD	1.69	1.73	22
1	273	185	CENTERVILLE ROAD	1.73	1.76	22
1	273	185	CENTERVILLE ROAD	1.76	1.8	22
1	273	185	CENTERVILLE ROAD	1.8	1.82	22
1	273	185	CENTERVILLE ROAD	1.82	1.85	22
1	273	185	CENTERVILLE ROAD	1.85	1.94	22
1	273	185	CENTERVILLE ROAD	1.94	1.98	22
1	273	185	CENTERVILLE ROAD	1.98	2	22
1	273	185	CENTERVILLE ROAD	2	2.06	22
1	273	185	CENTERVILLE ROAD	2.06	2.08	22
1	273	185	CENTERVILLE ROAD	2.08	2.1	22
1	273	185	CENTERVILLE ROAD	2.1	2.14	22
1	273	185	CENTERVILLE ROAD	2.14	2.17	22
1	273	185	CENTERVILLE ROAD	2.17	2.2	22
1	274	186	BRACKENVILLE RD	0	0.01	22

County	Road No	Rdway_ID	Road Name	Beg_MP	End_MP	Road Width (ft.)
1	274	186	BRACKENVILLE RD	0.01	0.69	22
1	274	186	BRACKENVILLE RD	0.69	0.7	22
1	274	186	BRACKENVILLE RD	0.7	0.88	22
1	274	186	BRACKENVILLE RD	0.88	1.17	22
1	274	186	BRACKENVILLE RD	1.17	1.21	22
1	274	186	BRACKENVILLE RD	1.21	1.22	22
1	274	186	BRACKENVILLE RD	1.22	1.95	22
1	274	186	BRACKENVILLE RD	1.95	2.04	30
1	274	186	BRACKENVILLE RD	2.04	2.42	22
1	275	187	OLD WILMINGTON RD	0	0.77	22
1	275	187	OLD WILMINGTON RD	0.77	1.1	22
1	275	187	OLD WILMINGTON RD	1.1	1.13	22
1	275	187	OLD WILMINGTON RD	1.13	1.54	24
1	275	187	OLD WILMINGTON RD	1.54	1.63	24
1	275	187	OLD WILMINGTON RD	1.63	1.66	24
1	275	187	OLD WILMINGTON RD	1.66	1.67	24
1	275	187	OLD WILMINGTON RD	1.67	1.94	20
1	275	187	OLD WILMINGTON RD	1.94	2.58	20
1	275	187	OLD WILMINGTON RD	2.58	2.75	20
1	275	187	OLD WILMINGTON RD	2.75	2.82	22
1	275	187	OLD WILMINGTON RD	2.82	2.95	22
1	275	187	OLD WILMINGTON RD	2.95	3.17	22
1	275	187	OLD WILMINGTON RD	3.17	3.2	22
1	275	187	OLD WILMINGTON RD	3.2	3.22	22
1	275	187	OLD WILMINGTON RD	3.22	3.34	22
1	275	187	OLD WILMINGTON RD	3.34	3.72	22
1	275	187	OLD WILMINGTON RD	3.72	3.96	22
1	287	199	ASHLAN SCHOOL RD	0	0.06	20
1	287	199	ASHLAN SCHOOL RD	0.06	1	20
1	287	199	ASHLAN SCHOOL RD	1	1.52	18
1	00241A	150	WAY ROAD	0	0.07	12
1	00258A	167	ASHLAND CUTOFF	0	0.07	18
1	00262A	172	CREEK RD	0	0.16	20



CORRIDOR MANAGEMENT PLAN



Appendix 9

**Draft Memorandum of
Understanding (MOU)
with DeIDOT
(including DNS cover letter
and prior correspondence with
DeIDOT)**

January 3, 2007 DRAFT

MEMORANDUM OF UNDERSTANDING
BETWEEN
Delaware Nature Society (DNS) as Coordinating Agency for
the Red Clay Valley Scenic Byway (Byway)
AND
Delaware Department of Transportation (DelDOT)
FOR
Implementation of the Red Clay Valley Scenic Byway Corridor Management Plan

This MEMORANDUM OF UNDERSTANDING is hereby made and entered into by and between the Delaware Nature Society (DNS), as Coordinating Agency for the Red Clay Valley Scenic Byway and the Delaware Department of Transportation (DelDOT).

A. PURPOSE:

The purpose of this MOU is to implement the recommendations of the Red Clay Valley Scenic Byway Corridor Management Plan (Plan), specifically developing and expanding a framework of cooperation between DNS and DelDOT to:

- coordinate traffic and safety improvements in a context-sensitive manner,
- institutionalize a process for communication, and
- develop mutually beneficial programs, projects and activities.

B. STATEMENT OF MUTUAL BENEFIT AND INTERESTS:

DelDOT benefits include an active partnership with DNS to coordinate and communicate transportation issues to the public; obtain assistance in protecting and enhancing the intrinsic qualities of the Byway; and fulfilling its their mission to “showcase the natural beauty and unique features of the state and foster the preservation of natural, cultural and historic resources” (Delaware State Scenic and Historic Highways Program Vision) and “protect and/or enhance State Scenic and Historic Highways and their resources through a coordinated management program while ensuring safe operation of these routes” (Program Goal 2).

The benefits for DNS through this cooperative effort are provided through better communication with DelDOT; creation of a mutual understanding of the importance of resource protection through a coordinated roadway management program; and fulfillment of its mission to foster understanding, appreciation, and enjoyment of the natural world through education, to preserve ecologically significant areas, and to advocate stewardship and conservation of natural resources.

The mutual benefit for both parties is to provide a public service to protect the intrinsic qualities of the Byway while promoting safe roadways.

C. DelDOT AGREES TO THE FOLLOWING:

1. Work with DNS to identify opportunities for roadside vegetative improvements, context sensitive design solutions, education and assistance, etc. and funding thereof and jointly pursue such projects as appropriate to manage the resources and roadways of the Byway.
2. Develop an early notification process and alert DNS of any road improvements, safety projects, or

construction and maintenance activities within the Byway, including the scheduling thereof, opportunities for public input, etc.

3. Make DNS a conduit for disseminating information and coordinating with the Byway Steering Committee/Management Entity regarding road improvements, traffic and safety issues, and construction and maintenance projects within the Byway.
4. Include and utilize DNS and Byway Steering Committee/Management Entity technical expertise in developing transportation programs and solutions that are sensitive to Byway resources.
5. Create procedural guidelines for engineers, designers and planners who work on projects that impact the Byway.
6. Coordinate the creation of the state's context sensitive design guidelines with DNS so that the context sensitive design materials compiled for and germane to the Byway are appropriately referenced.
7. Meet with DNS, Delaware Greenways, the Delaware Bicycle Council and local bicycle and trails organizations as appropriate to coordinate safety and public access issues within the Byway. It is understood that the Plan does not anticipate expanded tourism or recreation, does not encourage bicycle usage on roads other than those designated by DelDOT as having average or above average cycling conditions, and recognizes that pedestrian access will remain limited to public institutions given the predominance of private land.
8. Consider any signage inventories conducted by DNS and its partners intended to improve signage (consolidate, remove, or add) within the Byway.
9. Work with DNS and its partners to assess the viability of delisting Route 82 as a state highway.
10. Review this agreement with DNS no less than annually and modify as necessary to further implement the Plan.

DNS AGREES TO THE FOLLOWING:

1. Work with DelDOT to identify opportunities within the Plan for roadside vegetative improvements, context sensitive design solutions, education and assistance, etc. and funding thereof and jointly pursue such projects as appropriate to manage the resources and roadways of the Byway.
2. Serve as a conduit for disseminating information and coordinating with the Byway Steering Committee/Management Entity regarding road improvements, traffic and safety issues, and construction and maintenance projects within the Byway.
3. Coordinate with the Byway Steering Committee/Management Entity and share their technical expertise with DelDOT in developing transportation programs and solutions that are sensitive to Byway resources.
4. Share the context sensitive design materials compiled for and germane to the Byway with DelDOT so the state can incorporate such materials into its context sensitive design guidelines.
5. Meet with DelDOT, Delaware Greenways, the Delaware Bicycle Council and local bicycle and trails organizations as appropriate to coordinate safety and public access issues within the Byway. It is understood that the Corridor Management Plan does not anticipate expanded tourism or recreation, does not encourage bicycle usage on roads other than those designated by DelDOT as having average or above average cycling conditions, and recognizes that pedestrian access will remain limited to public institutions given the predominance of private land.
6. Share any signage inventories with DelDOT intended to improve signage (consolidate, remove, or add) within the Byway.
7. Work with DelDOT to assess the viability of delisting Route 82 as a state highway.
8. Review this agreement with DelDOT no less than annually and modify as necessary to further implement the Plan.

IT IS MUTUALLY UNDERSTOOD AND AGREED BY AND BETWEEN THE PARTIES THAT:

1. MODIFICATION. Modifications within the scope of the instrument shall be made by mutual consent of the parties, by the issuance of a written modification, signed and dated by all parties, prior to any changes being performed.
2. PARTICIPATION IN SIMILAR ACTIVITIES. This instrument in no way restricts either party from participating in similar activities with other public or private agencies, organizations, and individuals.
3. TERMINATION. Either party may terminate, in writing, the instrument in whole, or in part, at any time before the date of expiration.
4. PRINCIPAL CONTACTS. The principal contacts for this instrument are:

Michael E. Riska
Executive Director
Delaware Nature Society
P.O. Box 700
Hockessin, DE 19707

Carolann Wicks
Secretary
Delaware Department of Transportation
800 Bay Road
P.O. Box 778
Dover, DE 19903
302-760-2128

5. NON-FUND OBLIGATING DOCUMENT. This instrument is neither a fiscal nor a funds obligation document. Any endeavor or transfer of anything of value involving reimbursement or contribution of funds between the parties to this instrument will be handled in accordance with applicable laws, regulations, and procedures including those for State procurement and printing. Such endeavors will be outlined in separate agreements that shall be made in writing by representatives of the parties and shall be independently authorized by appropriate statutory authority. This instrument does not provide such authority. Specifically, this instrument does not establish authority for a noncompetitive award to the cooperator of any contract or other agreement. Any contract or agreement for services must fully comply with all applicable requirements for competition.
6. COMMENCEMENT/EXPIRATION DATE. This instrument is executed as of the date of last signature and is effective for a period of one (1) year from such date at which time it will expire unless extended.

IN WITNESS WHEREOF, the parties hereto have executed this agreement as of the last written date below and agree to actively abide by its terms.

FOR DeIDOT

FOR DNS

DeIDOT Secretary Date

Executive Director Date

ASHLAND
NATURE CENTER
1664 Quaker Run
P.O. Box 700
Hockessin, DE 19707
(302) 209-2334
(302) 209-2371 FAX
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ABBOTT'S MILL
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Milford, DE 19968
(302) 422-0847
(302) 422-1670 FAX

January 3, 2007

The Honorable Carolann Wicks
Delaware Department of Transportation
P.O. Box 778
Dover, DE 19983

EXECUTIVE DIRECTOR
Michael F. Riska

Dear Secretary Wicks:

PRESIDENT

Peter H. Flinn

VICE PRESIDENT

Thomas C. Shea, Jr.

SECRETARY

Richmond L. Williams

TREASURER

David Harrison

I am pleased to report that the Delaware Nature Society and the Red Clay Valley Scenic Byway Steering Committee have passed the midpoint in our work to create the corridor management plan for the 28 roadways designated throughout the watershed. Communication with stakeholders and partners, particularly DelDOT, is central to the success of our implementation strategies. To that end, our Steering Committee has drafted a Memorandum of Understanding (MOU) for DelDOT's consideration. As you will see, the MOU outlines the mutual benefits and interests to our organizations, as well as our respective roles and responsibilities.

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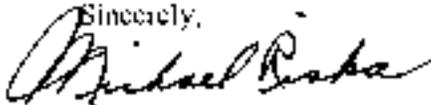
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Richmond L. Williams

Maryann Younger

The Scenic and Historic Highways program is still relatively new to Delaware and the Red Clay Valley Scenic Byway, with its network of 28 roadways, is particularly unique. We believe an agreement, such as this MOU, will help guide our partnership as the Scenic and Historic Highways program evolves and we address the management needs of the Byway.

Thank you for your consideration of the MOU; please do not hesitate to contact me with any questions concerning its content. The Delaware Nature Society looks forward to working cooperatively with DelDOT on the long-term management of the Red Clay Valley Scenic Byway.

Sincerely,

Michael F. Riska
Executive Director

cc: The Honorable Charles L. Copeland, Senator, Delaware General Assembly
The Honorable Deborah D. Hudson, Representative, Delaware General Assembly
Mr. Joseph Cantalupo, Assistant Director, Planning, DelDOT
Ms. Maria Andaya, Scenic Highways Program Manager, DelDOT
Red Clay Valley Scenic Byway Steering Committee

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STATE OF DELAWARE
 DEPARTMENT OF TRANSPORTATION
 806 BAY ROAD
 P.O. BOX 778
 DOVER, DELAWARE 19903

DCI - 10/20/06

October 20, 2006

CAROLANN WICKS, P.E.
 SECRETARY

Michael E. Raska
 Executive Director
 Delaware Nature Society
 P.O. Box 700
 Hockessin, DE 19707

Dear Mike:

Thank you for your letter of September 27, 2006, requesting continued communication with projects or other work that impacts the Red Clay Valley Scenic Byway, or other byways in Delaware.

As you know, we have taken a proactive role in the State Scenic and Historic Highways (SSH) Program and have worked hard to participate and support entities that desire to be included in the process. In addition, we have encouraged others to nominate roadways they believe should be included in the SSH system. We do have an information Web site and have a DelDOT Planner dedicated to the program.

Thanks to you and others, we were able to support the designation of the Brandywine Valley Scenic Byway as a National Scenic Byway in 2005. As we speak, another dedicated group is working toward nominating Route 9 as a scenic highway. In place since 2001, we expect the program to continue to expand.

As to your point about not being notified about projects that occur along or near a SSH, your point is well taken. The program is relatively new and to a certain extent we are still working through all of the issues associated with a new venture. I am sure you know that Joseph Cantalupo and Maria Andaya of our Planning staff have already met with the Red Clay Valley Corridor Management Plan Steering Committee to work through this issue. They generated several good ideas and as a result we are now in the process of modifying several project management databases and software applications to integrate SSH program mapping. We are also working on an internal e-mail notification system. Such improvements, as well as others, that we might consider in the future should increase the level of communication between the department and sponsoring agency.

I hope you find this information helpful. If you have any additional questions or comments, please contact Maria Andaya at 302-760-2128.

Again, thank you for your support of the SSH program.

Sincerely,


 Carolann Wicks
 Secretary

CW:des

cc: Ralph Reeb, Director, Planning
 Darrel Cole, Director, Public Relations
 Joseph Cantalupo, Assistant Director, Planning
 Maria Andaya, Project Planner, Planning
 Michael Williams, Manager, Public Relations



**ASHLAND
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**DELAWARE
NATURE
SOCIETY**



Educating Today, Preserving for Tomorrow

September 27, 2006

The Honorable Carolann Wicks
Delaware Department of Transportation
P.O. Box 778
Dover, DE 19903

Dear Secretary Wicks:

Since the Red Clay Valley Scenic Byway was officially designated and our Steering Committee was convened to begin work on the corridor management plan, the Delaware Nature Society and our partners have been urging DelDOT to institutionalize a process for communicating with sponsoring organizations and the public about construction and major maintenance plans that impact Scenic Byways. To ensure that the intrinsic qualities of the Byway are protected to the greatest extent possible, we believe this communication should occur early in the plan development process.

To that end, a letter was sent to former Secretary Nathan Hayward in November 2005 (*letter and response attached*). Mr. Hayward indicated that DelDOT would begin to address the need for communication through simple measures initially, such as developing the program web site, issuing an internal memo to planners and engineers, and incorporating a GIS layer in the mapping software. A commitment was also made to move to a more formal process if needed.

While we have appreciated the initiation of the measures outlined above, we believe that a more formal communication process is needed, due in part to recent events related to the proposed Wooddale Covered Bridge project along Rolling Mill Road. Neither the Delaware Nature Society (sponsoring organization of the Byway) nor Mt. Cuba Center (landowner) had been notified about the proposed project until recently, although public workshops were held nearly a year ago and the project is now in the final planning stages.

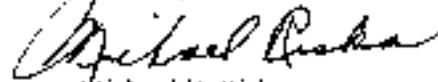
We were pleased to learn that the Wooddale Covered Bridge will be replaced with a new covered bridge to maintain the scenic, historic, and cultural integrity of the area. However, other components of the proposed project raise concerns within the Byway context, such as widening the lanes/addition of paved shoulders and the apparent impacts to the State-designated Red Clay Valley Natural Area, located on either side of Rolling Mill Road.

Although it appears that the public comment period has closed, we request an opportunity for the Steering Committee to meet with DelDOT staff to review the details of the project and explore options to maintain the intrinsic qualities of the Byway. To make certain that we do not find ourselves in a similar situation in the

future, we believe that it is imperative for DelDOT to formalize a communication process for all designated roadways without further delay.

Thank you for your consideration of this request. The Delaware Nature Society looks forward to working cooperatively with DelDOT on the long-term management of the Red Clay Valley Scenic Byway.

Sincerely,



Michael E. Riska
Executive Director

cc: **The Honorable Charles L. Copeland, Senator, Delaware General Assembly**
The Honorable Deborah D. Hudson, Representative, Delaware General Assembly
Ms. Maria Andaya, Scenic Highways Program Manager, DelDOT
Mr. Rick Lewandowski, Executive Director, Mt. Cuba Center
Ms. Eileen Butler, Natural Areas Program Manager, DNREC
Red Clay Valley Scenic Byway Steering Committee



STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION

500 BAY ROAD
P.O. BOX 776
DOVER, DELAWARE 19903

NATHAN HAYWARD III
SECRETARY

December 12, 2005

Mr. Michael F. Riska
Delaware Nature Society
P.O. Box 700
Hockessin, DE 19707

Dear Mr. Riska

Thank you for your letter dated November 10, 2005, requesting that we establish a process that will keep byway management entities informed of Department of Transportation (DelDOT) projects affecting our scenic highways, and develop design guidelines that will aid our planners and engineers in rendering decisions that are context sensitive. We agree that the sustainability of our byways is an urgent concern. After all, the essence of the Scenic and Historic Highways Program is to protect and preserve the unique characteristics of our roadways from the constant threat of over development. Getting a designation is indeed prestigious, but it comes with the immense responsibility of assuming the role of byway stewards. We have the obligation to ensure that the intrinsic qualities of our byways remain intact for future generations to enjoy.

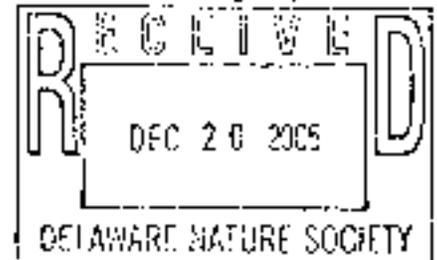
We have been exploring avenues to create awareness inside and outside the department about the existence of our scenic highways. Our program web site is now up and we are working on incorporating a GIS layer in the mapping software that we utilize internally. Along with this, we are issuing a memorandum for our planners and engineers to coordinate projects affecting the scenic highways to the State Coordinator, who in turn, will communicate these matters with you. These measures are of course, in addition to the public workshops and meetings that we typically conduct for our projects. I propose that we start with these simple measures and commit that we will develop a more formal process if needed later on.

As for developing context sensitive design guidelines exclusive to our scenic highways, we have taken the initial steps towards this direction. We are going to apply for a federal grant to develop these guidelines. Our ultimate goal is to have a set of guidelines for each scenic highway that will address design issues related to preservation and enhancement of their unique characteristics without compromising safety. We will be sure to include you when we start this effort.

Rest assured that we share your ardent desire to properly manage our scenic highways and we take pride in partnering with you in this undertaking. We will keep you updated on these matters and if you have further questions or concerns please feel free to contact our State Scenic and Historic Highways Coordinator, Maria Andaya at (302) 760-2128.

Sincerely,

Nathan Hayward III
Secretary



NH:kph

- cc. Guil Van Gilder, Delaware Greenways
- Joe Cantalupo, Assistant Director, Planning
- Maria Andaya, Project Planner, Planning





November 10, 2005

The Honorable Nathan Hayward
Delaware Department of Transportation
P.O. Box 778
Dover, DE 19904

Dear Secretary Hayward:

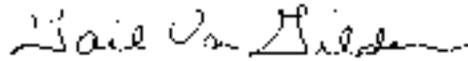
In partnership with the Department of Transportation, we have celebrated the designation of our State's first two Scenic Byways, the Brandywine Valley Scenic Byway and the Red Clay Valley Scenic Byway. As you know, these designated roads epitomize the unique qualities (scenic, historic, natural, cultural, recreational and archeological) that the Scenic and Historic Highways Program was designed to showcase to the citizens of Delaware and elsewhere. We now look forward to working with you to preserve the intrinsic qualities of these roadways for future generations.

You are keenly aware, perhaps more so than anyone, that road improvement projects are very visible to the public. Delaware citizens and those travelling through our state depend on the Department of Transportation for safe, quality, and efficient transportation that is also sensitive to the surrounding environment and the context of neighboring communities. This sensitivity is acutely true for road segments designated as Scenic Byways.

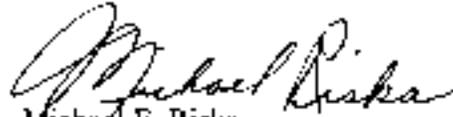
To that end, the Delaware Nature Society and Delaware Greenways would like to suggest that the Department of Transportation institutionalize a process for communicating with sponsoring organizations and the public about construction and major maintenance plans that impact Scenic Byways. This communication should occur early in the plan development process to ensure that design issues are discussed and community feedback is considered and incorporated as appropriate. In addition, we strongly encourage the Department to create procedural guidelines for engineers and design staff who are working on construction/major maintenance projects that impact Scenic Byways. Such guidelines will help to ensure that strong consideration is given to context sensitive design and that the objectives of the corridor management plan for the Byway are met to the greatest extent possible. We believe both suggestions necessitate thoughtful discussion; to the degree we can assist the Department in this effort, we would be happy to meet with you and your staff at your convenience.

The Delaware Nature Society and Delaware Greenways appreciate your consideration of these suggestions and we look forward to partnering with the Delaware Department of Transportation on the long-term management of our State's Scenic Byways.

Sincerely,



Gail Van Gilder
Delaware Greenways
Sponsor, Brandywine Valley Scenic Byway



Michael E. Riska
Delaware Nature Society
Sponsor, Red Clay Valley Scenic Byway

cc: Joe Cantalupo, DelDOT
Maria Andaya, DelDOT



Appendix 10

References

- 1) *The Red Clay Valley Project*, Turtle Creek Design, for the Environmental Management Center, Brandywine Conservancy, 1986.
- 2) Lorraine Fleming, *Delaware's Outstanding Natural Areas and Their Preservation*, Delaware Nature Society, 1978.
- 3) *Natural History and Heritage of the Red Clay Creek*, prepared by the Delaware Nature Education Society for the Division of Water Resources, Delaware Department of Natural Resources and Environmental Control, researched and written by Elizabeth H. Marler, June, 1987.
- 4) *The Red Clay Valley Scenic River and Highway Study*, New Castle County Department of Planning in conjunction with the Environmental Management Center, Brandywine Conservancy, August 1989.
- 5) *Delaware Scenic and Historic Highways – Program Guide*, Delaware Department of Transportation (DelDOT), November 10, 2001.
- 6) *Byway Beginnings: Understanding, Inventorying, and Evaluating a Byway's Intrinsic Qualities*, Federal Highway Administration – National Scenic Byways Program, National Park Service – Rivers, Trails, and Conservation Assistance Program, with Whiteman & Taintor as consultant, 1999.
- 7) Current DelDOT transportation projects within the Red Clay Valley Scenic Byway geographical area, email correspondence with Maria Andaya, DelDOT Staff.
- 8) *Delaware Bicycle Facility Master Plan*, DelDOT & WR&A, October 2005.
- 9) *New Castle County, Delaware Bicycle Map*, DelDOT, 2002.
- 10) Federal Highway Administration (FHWA) National Scenic Byway Grant Application System, www.bywaysonline.org
- 11) J.B. Beers, *Atlas of the State of Delaware*, 1868.
- 12) *Red Clay Valley Scenic Byway – Delaware Scenic and Historic Highway Nomination Application*, Delaware Nature Society, July 2004.

CORRIDOR MANAGEMENT PLAN

red clay valley
scenic byway