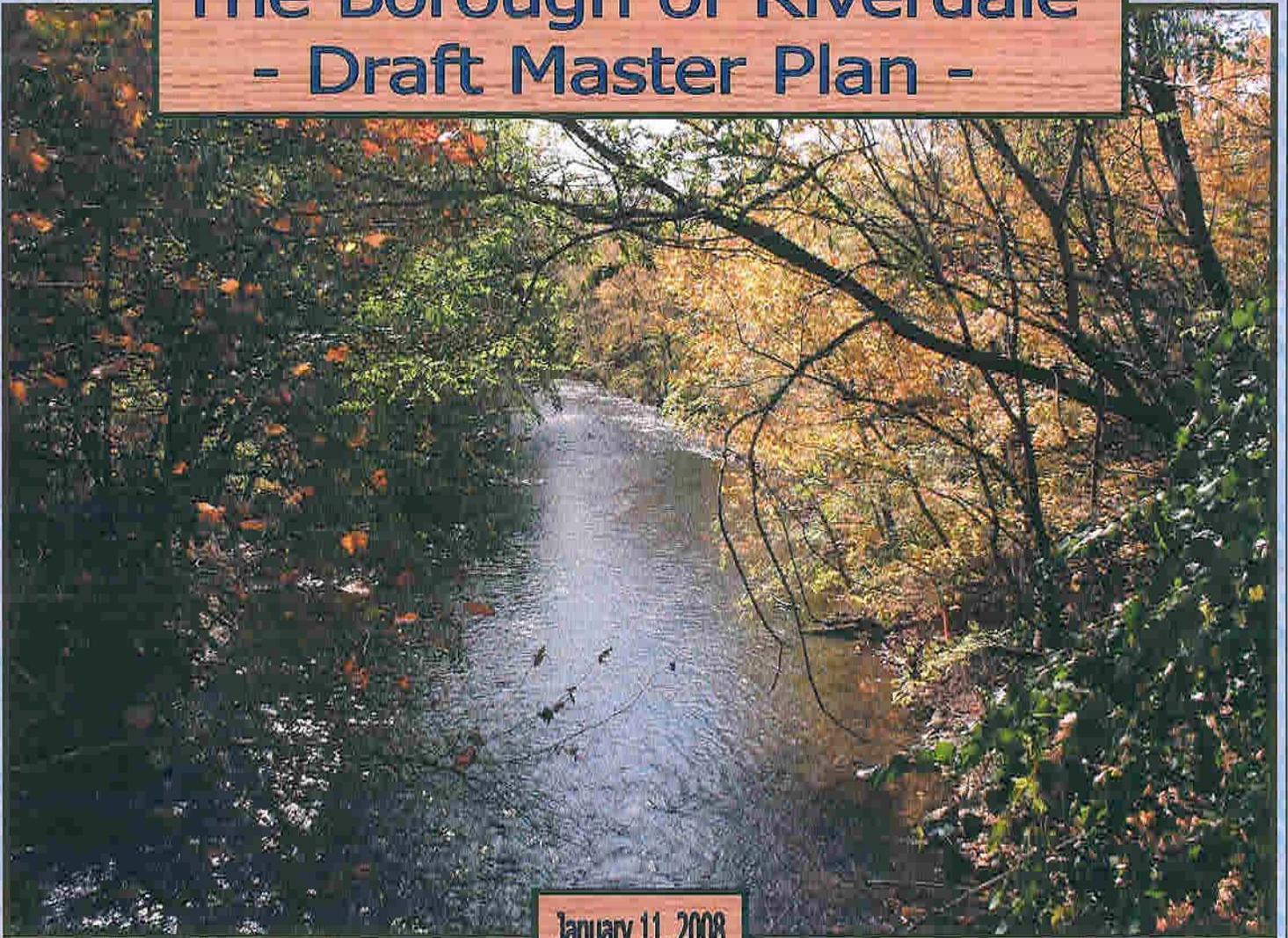


"A place where those who live here want to stay and those who don't wish they did..."



The Borough of Riverdale - Draft Master Plan -



January 11, 2008

Prepared For:



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XI. Historic Element



XI. Historic Element

1.0 INTRODUCTION

In an effort to complement the emphasis placed on community design and retention of community character found throughout this Master Plan, it is the intent of the Borough of Riverdale to prepare a Historic Element highlighting the value of existing historic resources. The purpose of a Historic Element is to identify historic resources that serve as defining symbols of the community. Where practicable, the Borough wishes to preserve these remaining symbols of Riverdale's heritage, which contribute to the community's unique character and identity. Efforts to preserve these resources, such as adaptive reuse, will be investigated and recommendations will be made as to the most appropriate course of action to achieve desired results.

The Borough of Riverdale is waiting to receive a copy of an updated historic resource inventory and corresponding map. Morris County is working with a team of consultants to update the historic resource inventory for the Borough of Riverdale. According to the County, the report is due from the consultants in early January 2008. The County recommended that the Borough reviews the 1986 Acroterion Historic Survey, which is incorporated by reference and is attached in Appendix G. It is the intent of the Borough of Riverdale to update its Historic Element following the County's completion of the Riverdale historic resource inventory.

1.1 Glenburn Estate Preservation Plan

HMR Architects (HMR) of Princeton, New Jersey prepared the Glenburn Estate Preservation Plan (Glenburn Plan) for the Borough of Riverdale. Dated October 22, 2007, the Glenburn Plan documents existing conditions and makes recommendations about preservation treatments.



As described by the New Jersey Historic Preservation Office, the goal of the Preservation Plan is to “assess and guide the effects of a proposed treatment or construction related capital project on the existing fabric of a property.” HMR completed a full interior and exterior investigation of the main house, including an assessment of the mechanical and electrical systems. The on-site investigation and documentation was done to supplement secondary research efforts and establish a chronology of construction based primarily on evidence from the building fabric. HMR also assessed two outbuildings, one of which includes a barn associated with the property. The Glenburn Plan documents existing information about the structures and serves as a planning document that guides decisions affecting the property.

The Borough of Riverdale proposes to rehabilitate the main Glenburn Estate building for use as offices with a large meeting room and a caretaker apartment. The barn will be conserved as a wood shop and the use of the other outbuilding is still undetermined. The Borough of Riverdale Master Plan supports the preservation of the Glenburn Estate and incorporates the Glenburn Estate Preservation Plan by reference. A copy of the Glenburn Plan is provided in Appendix H.



X. Housing Element



X. Housing Element

1.0 INTRODUCTION

On January 25, 2007, the New Jersey Appellate Court issued a decision on an appeal regarding Council on Affordable Housing (COAH) third round rules. The Court affirmed many aspects of the rules, invalidated other parts, and remanded certain issues to COAH for rulemaking. As a result, municipalities whose applications are affected by the decision will not be subject to builder's remedy lawsuits during the process of amending COAH's regulations.

Because the Court has remanded certain issues to COAH for rulemaking, municipalities are unable to perform affordable housing calculations until the new methodology is proposed and accepted. The Court's decision focuses on three aspects of COAH's rules that must be addressed: the calculation of need, the allocation of need, and the permitted compliance mechanisms. To assist COAH in addressing the three aspects, COAH issued a nationwide Request for Proposals (RFP) for consultants to conduct research on topics related to COAH's methodology and rules. On May 4, 2007, COAH hired consultants to help address the three aspects of COAH's rules.

Four days later, on May 8, 2007, COAH filed a motion for extension of the six-month deadline for completion of revised third round rules in order to permit COAH and its consultants sufficient time to undertake the technical, legal and procedural work necessary for completion of the rule-making process. The request states that data will be completed and compiled by August 2007, rule revisions will be completed by October 2007, and rules will be proposed in November 2007 and adopted in February 2008. However, COAH's initial request for an extension until February 2008 was denied. Instead, on June 19, 2007, the Appellate Division ordered that COAH be granted an extension to

adopt and publish in the New Jersey Register revised third round rules no later than December 31, 2007.

As a result of the extension, the Borough of Riverdale has been unable to make definitive calculations to determine Riverdale's fair share affordable housing need. During the spring of 2007, preliminary calculations were made using previous COAH rules and standards. These calculations were prepared by the Borough's consultant, Robert Michaels, and can be found in Appendix F. No additional calculations have been made since the COAH rules and methodology have been in a state of flux and transition.

It is the intent of the Borough of Riverdale to meet its affordable housing needs. The Borough will continue to encourage the development of affordable housing during COAH's rulemaking process. Following any decisions and subsequent confirmation regarding new COAH rules and methodology, the Borough will conduct its affordable housing calculations and will update its housing element to that effect. In the meantime, the Borough incorporates by reference the 2005 Riverdale Housing Element and Fair Plan on file with Morris County. Moreover, through its ongoing planning efforts, the Borough continues to strive to ensure that affordable housing is provided. For instance, the envisioned enhancement of the Riverdale's traditional "main street" along the Paterson-Hamburg Turnpike into a mixed use community based on New Urbanism and Smart Growth planning principles is viewed as an opportunity to possibly include additional affordable housing within this area.



IX. Green Element



IX. Green Element

1.0 INTRODUCTION

The New Jersey State Assembly is considering a proposal to add a Green Element to local master plans. The bill would allow a municipal planning board to include in a municipality's master plan a green buildings and environmental sustainability element. The bill, A-4212, is awaiting general assembly vote after being approved on May 21, 2007 by the Assembly Environment and Solid Waste Committee. The bill states the following:

A green buildings and environmental sustainability plan element, which shall provide for, encourage, and promote the efficient use of natural resources; consider the impact of buildings on the local, regional and global environment; allow ecosystems to function naturally; conserve and reuse water; treat storm water on site; and optimize climatic conditions through site orientation and design.

The Borough of Riverdale has prepared this Green Element consistent with the intent of the proposed legislation.

2.0 WHAT IS "SUSTAINABILITY"?

The New Jersey State Development and Redevelopment Plan identifies a vision for what the state will look like in the year 2020. Referred to as the *2020 Vision: Livable Communities and Natural Landscapes*, the vision states, in part, the following:

Livable communities are not just ideal communities. They are thoughtfully planned, wisely managed and carefully nurtured communities that emerge from the everyday

decisions of concerned citizens and public officials at every level of government. They are sustainable communities that grow and change without sacrificing their future quality of life. Livable communities in New Jersey will give us vital urban areas, reasonably priced housing and public services, a clean environment and a strong economy that benefits all the state's citizens. They do not just happen. They are the result of planning ahead, investing public resources strategically, and cooperating with other governments to achieve shared goals.

As such, the State Development and Redevelopment Plan's *2020 Vision* defines sustainability as "*communities that grow and change without sacrificing their future quality of life.*" Because issues related to land use, environment, transportation, housing, cultural resources, open space, recreation, and the economy are not mutually exclusive, the Green Element identifies opportunities to connect all aspects of Riverdale's Master Plan into a cohesive plan that when implemented, guides decisions towards a sustainable future. As such, it is the intent for all elements of the Master Plan to work together to support sustainable development and improve the quality of life of all residents within Riverdale consistent with the State's *2020 Vision*.

3.0 GREEN IMPLEMENTATION

The concept of sustainable development first emerged in the early 1980's. The 1990's and early 21st Century brought concepts for the design and construction of green/sustainable projects such as the U.S. Green Building Council's (Council) Leadership in Energy Design (LEED) certification.

The Council defines sustainability as "reducing product, which if practiced enough can preserve resources for future generations." The Council establishes LEED certification that promotes "Green Building" practices for new buildings and structures. A discussion outlining LEED certification based on the Green Building Rating System is presented below.

The Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ is the nationally accepted benchmark for the design, construction, and operation of high performance green buildings. LEED gives building owners and operators the tools they need to have an immediate and measurable impact on their buildings'

performance. LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality.

Each category of LEED certification requires a certain amount of points be earned to be considered certified. A certified project must obtain between 26-32 points before moving on to the next certification level. Subsequent certification levels are silver (33-38 points), gold (39-51 points) and platinum (52-69 points). According to the Council, a platinum building may have more than 70% energy efficiency compared to a conventional building.

In addition, to the Green Building Rating System, the U.S. Green Building Council also establishes LEED criteria for Neighborhood Development.

The LEED for Neighborhood Development Rating System integrates the principles of smart growth, New Urbanism, and green building into the first national standard for neighborhood design. LEED certification provides independent, third-party verification that a development's location and design meet accepted high standards for environmentally responsible, sustainable, development.

Still in its infancy, LEED for Neighborhood Development is undergoing changes to the rating system. The Council plans to officially launch the program in 2009.

3.1 Case Studies in Green Development Practices

Today, many cities are turning to sustainable development practices to protect the environment for future generations. Large, complex communities implementing sustainable practices provide insight into a variety of successful programs that serve as examples for smaller communities. The Borough could pick and choose programs that suit their needs and modify them as appropriate to address their specific challenges. Examples of how some communities across the United States are achieving sustainable practices are presented below.

City of Syracuse, NY

Syracuse, NY recently passed legislation in 2007 that establishes a policy requiring the City to develop and maintain municipal facilities and buildings in compliance with LEED standards whenever practicable. This will lower energy costs and create a more environmentally safe place to live. The legislation indirectly supports job growth and has financial incentives associated with it through the New York State Energy Research and Development Authority. Whenever feasible, all new municipal buildings and renovations are required to meet the Silver standard under LEED certification as described above. Syracuse is in the beginning phase of its efforts to become a sustainable community.

City of Madison, WI

Madison, WI has been using sustainability tools for a number of years. The City is a well developed sustainable community and requires their municipal projects to be LEED certified. The City purchases hybrid public transportation vehicles, develops walkable communities, participates in emissions studies, has incentives for shared commuting, and buys and produces renewable energy. For more information on Madison's participation in becoming a well developed sustainable community please visit their website at www.cityofmadison.com.

Wisconsin Partners for Sustainability

Wisconsin Partners for Sustainability is an organization that is committed to sustainability in Wisconsin. This organization has a network of businesses that are working together on sustainability in Madison, WI and other cities throughout the state. The organization encourages companies to become involved in sponsoring conferences and classes based around sustainability. This promotes interaction among companies allowing them to brainstorm new ideas on how to become more sustainable.

Wisconsin Partners for Sustainability also offers opportunities for the public to get involved through different volunteer opportunities. The organization's website promotes community volunteerism around sustainable efforts, offers different forums where people can discuss sustainability topics, offers opportunities to send donations, and provides various awards as incentives for training. The website is easily accessed by the public and effectively communicates different events happening throughout the area.

City of Portland, OR

Portland, OR has implemented sustainable practices for years and is considered a leader in the use of sustainability tools. In 2000, Portland established their Office of Sustainable Development by combining the Solid Waste & Recycling division with the Energy Office. This resulted in programs that provide solutions for issues concerning energy efficiency, waste reduction and recycling, education for employees and the public, and developments using LEED standards. Portland Businesses have experienced a lower carbon footprint, which helps to promote their public image.

Portland offers classes to the public and City employees. The classes vary in topic and may include taking a tour of a green building or training for LEED Accredited Professional certification. Classes are usually inexpensive and can offer a great range of valuable experience.

Portland believes that informing the public of the different projects developing in the City and encouraging them to become actively involved is very important to achieving sustainability. Portland offers tours to the public, seminars, and distributes monthly publications on new and future projects. The City believes that active public involvement will help influence sustainable policy and thus lead to sustainable practices by the government and the public.

Please refer to the Appendix D, for an informational guide outlining Portland, OR's sustainable growth initiative.

3.2 Going Green - Sustainability in Riverdale

The Borough of Riverdale Master Plan promotes a phased approach to achieving sustainability, and supports the following planning initiatives, concepts, and best management practices.

Protect the Pequannock River – Downtown Development Scenario

The Pequannock River is a wild trout stream that offers habitat to sensitive wildlife species. It is aesthetically pleasing and a valuable natural resource to surrounding ecological communities. In order to protect the Pequannock River from degradation of water quality and quantity caused by adjacent land uses, the Borough discourages further development within its buffer zones and

floodplains. Residential and commercial development should be discouraged within these areas and open space along the river should be protected by establishing more parkland and open space buffers and/or by leaving it in its natural state whenever possible. The redevelopment of the Hamburg Turnpike corridor area with an open space riverfront buffer and a possible waterfront promenade with public access points to the river for recreation supports more sustainable principles than have existed in the past. Please see the Downtown Development Scenario illustrated plan in Appendix A for further details on what is envisioned for the area along the Hamburg Turnpike.

The Pequannock River Coalition prepared a Natural Resource Inventory that documents natural resources in the Borough of Riverdale. The Inventory provides information to assist the Borough with planning decisions and with future updating of its zoning ordinance. The Inventory also provides information about the Pequannock River, local soils, topography, wetlands and wildlife in and around the Borough. The Borough has considered this document while planning for future development adjacent to the River and elsewhere in the community. A full version of the Borough's Natural Resource Inventory can be found in Appendix E.

The Borough also supports the establishment and preservation of "green infrastructure". According to Planning and Urban Design Standards written by the American Planning Association (APA) in 2006, green infrastructure is defined as "an interconnected network of protected land and water that supports native species, maintains ecological processes, sustains air and water resources, and contributes to the health and quality of life for communities and people." The APA also states that green infrastructure should be planned according to the same principles that are followed on built infrastructure and that it should be the first step in land-use planning. Green infrastructure is considered to be trees, wetlands, greenways, porous pavement, native landscaping, etc. As such, the Borough of Riverdale supports the development of green infrastructure, through envisioned projects such as the proposed waterfront natural buffer and promenade along the Pequannock River and other similar projects being considered along the entire length of the River in the Borough.

Reclaiming Land and Open Space – Quarry Development Scenario

Following its anticipated closure in approximately 2014, it is the Borough's expectation that the Riverdale Quarry area may be appropriate for some form of a major transformation in land use from past industrial use to a combination of open space and multiple use development as conceptually

illustrated in Appendix A. A variety of economic and market forces will ultimately decide the future reuse potential of the quarry area, but it remains the hope of the Borough that the area can become a highly productive asset to the community that continues to contribute to a sustainable economy in Riverdale, but in a different form of land use from its recent past.

This Master Plan encourages the reclamation of the Riverdale Quarry into a multiple use development containing such uses as specialty retail, entertainment, government, outdoor recreation, public greens, possibly a hotel and conference center, and a passenger rail station, which would promote a more transit-oriented type of development opportunity. As presently envisioned approximately one-half of the reclaimed quarry could be preserved as open space or for a combination of active and passive recreational uses. The remaining developed areas could be some combination of uses that have been envisioned by this master planning process and described elsewhere in this document.

A multi-modal transportation system (automobile, bus, pedestrian and rail) would ensure greater public access to the Riverdale area for local and regional users. A goal of including more public transit opportunities to the area would help lessen concerns over aggravating an already traffic congested situation that presently exists along surrounding roadways. A quarry-based theme could also be incorporated into the design of the area through the use of the quarry walls as a dramatic backdrop to the buildings. Structures may also incorporate stone from the quarry into their building design and materials. Reclaiming the Riverdale Quarry following its anticipated closure for both open space and multiple uses and redevelopment of the traditional downtown area supports sustainable growth principles by better utilizing what may otherwise become vacated and underutilized areas into a more sustainable economic engine for the community consistent with the intent of this section of the Master Plan.

Stormwater Prevention

Impervious surfaces should be kept at a minimum because they produce runoff and pollution during storm events. Whenever practicable, porous surfaces should be used instead of impervious surfaces to promote greater environmental sustainability, however it is acknowledged that this is no easy task in a mostly built-out community. Nevertheless limiting impervious surfaces in new development and redevelopment will decrease runoff and pollution potential from entering surrounding natural areas.

Also, pervious surfaces allow for groundwater recharge and improved water quality through soil filtration that is important to replenishing local well water supplies.

Trees also help reduce the effects of stormwater such as runoff and erosion and negate some of the effects of impervious surfaces. Trees are aesthetically pleasing and provide food and habitat for local wildlife such as birds and squirrels and other species described in the Natural Resources Inventory. Trees are relatively inexpensive and keep ambient temperatures down by providing shade for buildings and surrounding areas and are a critical component to effective site design and development. The Borough supports following better stormwater management practices in all future development and redevelopment within the community and encourages greater protection of remaining naturally forested and open space areas within the community for better stormwater management and erosion control.

The Borough also supports greater use of native species in landscaping for all future development and redevelopment projects and will encourage this through its municipal project review and approval processes. The Borough also supports greater use of tree and shrub planting practices utilizing native tree planting programs throughout the community for beautification purposes and to establish more sustainable vegetation in order to achieve the many physical, wildlife and aesthetic benefits such natural vegetation creates in the community.

LEED Certification

Where new buildings are anticipated, the Borough will encourage their development consistent with LEED certification, New Urbanism and Smart Growth principles. LEED certification is a growing market and should be considered when developing new projects such as opportunities for future development of the Riverdale Quarry or in the restoration or adaptive reuse of historic buildings. LEED certified buildings will save money by reducing energy use and generated waste. Moreover, the Borough should consider implementing LEED standards for Neighborhood Development, when these standards become available in 2009. Through such initiatives, the Borough will move towards achieving greater environmental sustainability.

Although it costs approximately 5% more initially to develop a “green” building rather than a “regular” building, the long-term result is realized in money that is saved due to reduced energy and

other resource consumption costs. Green building design practices can have significant positive effects on improving air and water quality, reduce operating and maintenance costs as well as enhancing employee and tenant comfort and health.

Promote Walkability

The Borough supports greater walkability between neighborhoods and nearby communities and envisions doing so in part by developing a waterfront buffer area and promenade along the Pequannock River north of the Hamburg Turnpike. This envisioned buffer and trail system would connect the Borough's traditional downtown "main street" areas with surrounding neighborhoods as well as the envisioned Riverdale Quarry redevelopment area.

The envisioned bike/walking trails system described elsewhere in this Master Plan will use the sidewalk and bike lane opportunities that exist in the community and supplement that existing infrastructure with new connections as public and/or privately-funded infrastructure that supports greater bike and pedestrian uses. As a long-term goal of the community it is a priority to encourage less reliance on motorized vehicle use through maintenance and provision, as resources allow, of existing and new non-motorized trails, bike and pedestrian infrastructure to encourage people to use alternative forms of transportation. The Borough also supports any efforts that may be available to reduce traffic congestion in the community by encouraging alternative forms of public transportation such as busses or as a long-term goal establishing some form of passenger rail service in the community.

Waste Reduction

The Borough will encourage practices aimed at reducing all forms of man-made waste by adapting the "Three R's Policy" (Reduce, Reuse, and Recycle). Citizens and businesses in the Borough are encouraged to reduce the amount of waste they produce, reuse items that can be repaired and recycle as much as possible through its present or expanded recycling program. Practicing and encouraging the "Three R's" to a greater extent is a big step towards sustainability. The Borough, in partnership with other public agencies and private organizations, needs to better educate the community as it continues its campaign to become a sustainable community. More about the Three R's can be found at the Environmental Protection Agency's website at www.epa.gov.

The Borough can also reduce waste through greater recycling of existing building and construction materials. According to the EPA, construction and demolition waste add up to approximately 58 million tons per year (www.epa.gov). The Master Plan encourages the renovation of existing buildings using recycled materials. Materials that may be re-used are such things as appliances, cabinets, railings, wood beams, bricks, doors, windows and so on. Materials that are otherwise fully functional and acceptable, but that might otherwise be disposed of during a typical redevelopment project could be donated to meet the needs of low and moderate income residents, community-based organizations or other groups perhaps through donation to such programs as Habitat for Humanity and other similar organizations that can put used building materials to better use. Recycling and reuse of construction and demolition materials will result in less need for landfilling and lead to a more sustainable community.

Historic Preservation

The Borough has many identified historic buildings and structures that in some cases may currently exist as underutilized or vacant properties subject to loss by neglect, abandonment or misuse. The Borough supports the restoration and adaptive reuse of historic buildings and structures whenever possible and encourages the further identification, investigation and inventory of historic buildings and sites within the community to preserve these resources for future generations. Un-warranted demolition of historically important buildings and structures is contrary to a sustainable community.

The Borough encourages the reuse of historic structures as possible museums, educational venues, cultural points of interest, office buildings, as well as mixed-use buildings that may include residential uses and restaurants. When restoring historic buildings, the Borough encourages consideration of obtaining LEED certification credits. Restoration and reuse of historic properties should also consider the Design Guidelines – Main Street New Jersey, a Program of the New Jersey Department of Community Affairs which provides in handbook form guidance for the preservation and improvement of New Jersey’s historic commercial architecture. Restoring historic resources is a positive step toward sustainability and will allow for the Borough to better maintain its history for future generations.

4.0 RECOMMENDATIONS

The following recommendations are provided as a summary to guide the Borough as a whole, its citizens, municipal officials, businesses and developers in future decision-making that may ultimately affect the community in its ability to achieve long-term sustainability goals. The list of recommendations is not all inclusive and should be revised periodically as needs and opportunities are identified. As a community the Borough of Riverdale should:

- Seek funding to update land use ordinances with new requirements to obtain LEED Certification standards.
- Preserve the land around the Pequannock River by discouraging inappropriate land uses and development within the river buffer areas and designated flood zones.
- Preserve riparian and stream corridors including their natural vegetation and topography to protect water quality, wildlife, and waterfront aesthetics.
- Use the land around the Pequannock River as a natural open space buffer and waterfront promenade to provide public access to the River and keep it as natural habitat.
- Encourage restoration of areas as open space in the redevelopment of the Riverdale Quarry in combination with planned future uses and redevelopment.
- Ensure that neighborhoods and surrounding communities are more pedestrian-friendly with easy access and physical linkages or connections to non-motorized transportation infrastructure including sidewalks, trails, pathways, and designated bike lanes to promote non-emission producing forms of transportation.
- Ensure that neighborhoods and communities are inter-connected such that each community may be reached by either bike/walking trails and/or public transit systems.

- Develop a green committee and/or designate a municipal representative that will focus efforts on greater sustainability.
- Educate the public about sustainability by offering free or minimal fee classes, seminars and tours of green buildings and other green projects through local educational institutions.
- Encourage the public to become more involved in sustainability issues and education by participating in different “green” community activities.
- Educate Borough citizens and employees about available sustainability tools, techniques and sources of information.
- Increase the availability and convenience of alternative modes of transportation which may be hybrid designs for municipal uses and public transit.
- Consider LEED certification standards for all new developed and renovated municipal buildings and public facilities.
- Support local farms and locally produced food and manufactured items.
- Promote greater recycling, reuse and waste reduction efforts in all municipal operations throughout the community.
- Consider restrictions on impervious surface coverage allotments for new development and redevelopment projects.
- Plant trees and other native forms of vegetation to help produce shade, wildlife habitat and reduce erosion and pollution potential.
- Maintain and provide infrastructure so that it is efficient, effective and can support non-motorized transportation growth in the community.

- Use green building and infrastructure design practices to protect natural resources that are in the area.
- Restore and encourage adaptive reuse of historic buildings and structures for a variety of uses such as apartments, museums, offices, and so on.
- Identify brownfields and target them for redevelopment and reclamation over development of greenfield areas.
- Investigate the feasibility of developing a Transfer of Development Right's (TDR) program to protect open space. The TDR program in Burlington County could be used as a model. An infrastructure plan must be adopted by ordinance prior to (or at the time of) the adoption of a TDR program by ordinance.
- Encourage the use of land trusts and conservation easements in order to protect and maintain remaining open space areas within the community.



VIII. RELATIONSHIP TO OTHER PLANS



VIII. RELATIONSHIP TO OTHER PLANS

1.0 INTRODUCTION

New Jersey Municipal Land Use Law, Section 40:55D-28d. requires that the Master Plan include a policy statement indicating the relationship of the proposed Master Plan to (1) the State Development and Redevelopment Plan (SDRP), (2) Regional Master Plan(s), (3) the Morris County Master Plan, (4) the master plans and zoning ordinances of contiguous municipalities, and (5) the district solid waste management plan. These relationships are examined in this Chapter.

2.0 STATE DEVELOPMENT AND REDEVELOPMENT PLAN

The State of New Jersey adopted three important bills that will significantly impact land use within the community. They are the State Planning Act, the Highlands Water Protection and Planning Act, and the State Transfer of Development Rights Act. Their effect on Riverdale is discussed below.

2.1 The State Planning Act and the State Development and Redevelopment Plan (SDRP)

In 1985, the Legislature of the State of New Jersey adopted the State Planning Act (N.J.S.A. 52:18A-196 et seq.). In the Act, the Legislature declared that the State of New Jersey needs sound and integrated “statewide planning” to:

... ‘conserve its natural resources, revitalize its urban centers, protect the quality of its environment, and provide needed housing and adequate public services at a reasonable cost while promoting beneficial economic growth, development and renewal’...

“Having a plan endorsed by the State Planning Commission provides the opportunity for a municipality, county or region to **qualify for priority for state discretionary funds, as well as expedited permitting and enhanced planning assistance.**”

- The New Jersey State Development and Redevelopment Plan,

Under the Act, the State Development and Redevelopment Plan (SDRP) is to establish “statewide planning objectives” regarding land use, housing, economic development, transportation, natural resource conservation, agriculture and farmland retention, recreation, urban and suburban redevelopment, historic preservation, public facilities and services and intergovernmental coordination. Sound and integrated statewide planning is the anticipated result of a statewide planning process that involves the active participation of state agencies, local governments, and the private sector. The State Planning Act recognizes, and is based on, the following principles:

- The future well-being of the State of New Jersey depends on equal and shared social and economic opportunity among all its citizens.
- A reasonable balance between public and private-sector investment in infrastructure is key to the fiscal health, economic prosperity and environmental integrity of the State.
- Coordinated planning among the state and local governments can ensure that “economies, efficiencies and savings” are achieved regarding public and private-sector investment.
- The revitalization of the State’s urban centers is necessary if all of New Jersey’s citizens are to benefit from growth and economic prosperity.
- The provision of adequate and affordable housing in reasonable proximity to places of employment is necessary to ensure equal social and economic opportunity in the State; achieving this end requires sound planning to ensure an adequate supply of available land that can be developed in an efficient growth pattern.
- The conservation of natural resources and the protection of environmental qualities are vital to the quality of life and economic prosperity of New Jersey.

The SDRP responds to these principles and establishes a vision and a plan for the future of New Jersey. It is intended to serve as a guide for how public policy decisions should be made at all levels of government to achieve the goals of the State Planning Act. The State Plan identifies these goals as well as strategies and public policy measures that, when applied flexibly by all levels of government, will shape growth in ways that will help achieve the intent and purpose of the State Planning Act.

It is the intention of the SDRP to achieve all the State Planning Goals by coordinating public and private actions to guide future growth into compact, ecologically designed forms of development and redevelopment and to protect the environs, consistent with the Statewide Policies and the State Plan Policy Map. The following Goals are derived from the State Planning Act:

- **Goal #1:** Revitalize the State’s Cities and Towns
- **Goal #2:** Conserve the State’s Natural Resources and Systems
- **Goal #3:** Promote Beneficial Economic Growth, Development and Renewal for All Residents of New Jersey
- **Goal #4:** Protect the Environment, Prevent, and Clean-up Pollution
- **Goal #5:** Provide Adequate Public Facilities and Services at a Reasonable Cost
- **Goal #6:** Provide Adequate Housing at a Reasonable Cost
- **Goal #7:** Preserve and Enhance Areas with Historic, Cultural, Scenic, Open Space and Recreational Value
- **Goal #8:** Ensure Sound and Integrated Planning and Implementation Statewide

In addition the SDRP has 19 policies, which address the following topics:

- | | |
|--|---|
| 1. Equity | 11. Water Resources |
| 2. Comprehensive Planning | 12. Open Lands and Natural Systems |
| 3. Public Investment Priorities | 13. Energy Resources |
| 4. Infrastructure Investments | 14. Waste Management, Recycling & Brownfields |
| 5. Economic Development | 15. Agriculture |
| 6. Urban Revitalization | 16. Coastal Resources |
| 7. Housing | 17. Planning Regions Established by Statute |
| 8. Transportation | 18. Special Resource Areas |
| 9. Historic, Cultural and Scenic Resources | 19. Design |
| 10. Air Resources | |

The State Plan’s Statewide Goals and Policies are applied to the natural and built resources of the State through the designation of five (5) Planning Areas. These five Planning Area categories are described below.

Metropolitan Planning Area (PA 1)

Provides for much of the State’s future redevelopment; revitalizes cities and towns; promotes growth in compact forms; stabilizes older suburbs; redesigns areas of sprawl; and protects the character of existing stable communities.

Suburban Planning Area (PA 2)

Provides for much of the State's future development; promotes growth in Centers and other compact forms; protects the character of existing stable communities; protects natural resources; redesigns areas of sprawl; reverses the current trend toward further sprawl; and revitalizes cities and towns.

Fringe Planning Area (PA 3)

Accommodates growth in Centers; protects the Environs primarily as open lands; revitalizes cities and towns; protects the character of existing stable communities; protects natural resources; provides a buffer between more developed Metropolitan and Suburban Planning Areas and less developed Rural and Environmentally Sensitive Planning Areas; and confines programmed sewers and public water services to Centers. The State Plan characterizes PA 3 as an area of a predominantly rural landscape that is not prime agricultural or environmentally sensitive land, with scattered small communities and free-standing residential, commercial and industrial developments.

Rural Planning Area (PA 4) and Rural/Environmentally Sensitive Planning Area (PA 4B)

Maintains the Environs as large contiguous areas of farmland and other lands; revitalizes cities and towns; accommodates growth in Centers; promotes a viable agricultural industry; protect the character of existing stable communities; and confines sewers and water services to Centers.

Environmentally Sensitive Planning Area (PA 5) and Environmentally Sensitive/Barrier Islands Planning Area (PA 5B)

Protects environmental resources through the protection of large contiguous areas of land; accommodates growth in Centers; protects the character of existing stable communities; confines programmed sewers and public water services to Centers; and revitalize cities and towns. The State Plan describes the Environmentally Sensitive Planning Area (PA-5) as containing large contiguous land areas with valuable ecosystems, geological features and wildlife habitats particularly in the Delaware Bay and other estuary areas, the Highlands Region, and coastal area. Generally these areas have remained somewhat undeveloped and rural in character. The SDRP also characterizes these areas as having watersheds of pristine waters, trout streams and drinking water supply reservoirs; recharge areas for potable water aquifers; habitats of endangered and threatened plant and animal

species; coastal and freshwater wetlands; prime forested areas; scenic vistas; and other significant topographical, geological or ecological features.

Figure VIII-1. NJ State Plan Policy Map

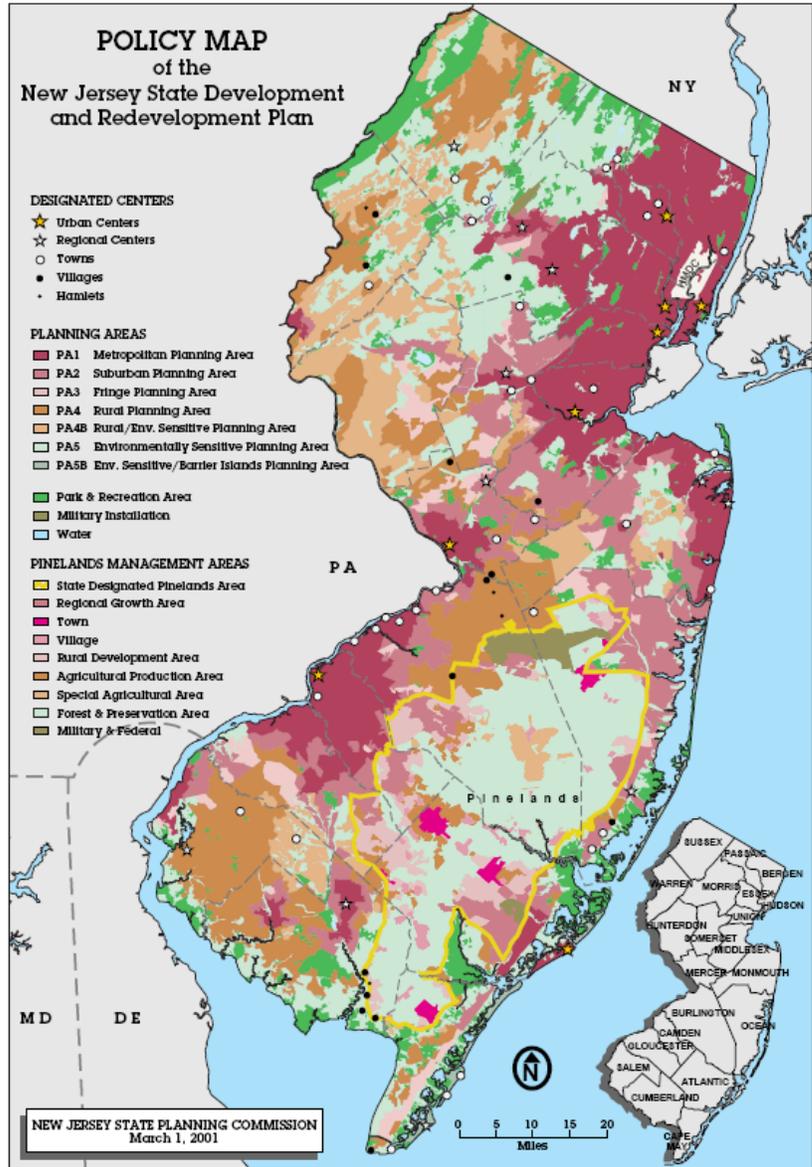
State Plan Policy Map

Each Planning Area reflects distinct geographic and economic units within the State and serves as an organizing framework for application of the Statewide Policies of the State Plan. The New Jersey State Planning Commission developed a State Plan Policy Map (Figure VIII-1) that shows the geographical boundaries of the five Planning Areas.

As shown in Figure VIII-2, Riverdale is identified as a Metropolitan Planning Area (PA 1). As mentioned above, the PA 1 Metropolitan Planning Area provides for much of the State’s future redevelopment. It focuses on revitalizing cities and towns, it

promotes growth in compact forms, it stabilizes older suburbs, it redesigns areas of sprawl, and it protects the character of existing stable communities.

Figure VIII-2 also shows that the Borough of Bloomingdale to the north consists of two Planning Areas that border with Riverdale. Along Riverdale’s northern border west of Matthew’s Avenue Bloomingdale’s land along the border is PA 2, Suburban Planning Area. The remaining border of



Bloomingtondale consists of PA 5, Environmentally Sensitive lands. The Borough of Pompton Lakes east of Riverdale is designated as PA 1, Metropolitan Planning Area. This PA 1 area extends along Riverdale's southern border to I-287 in the Township of Pequannock. West of I-287 along Riverdale's southern border to the Algonquin Gas Easement is considered PA 5, Environmentally Sensitive lands. The remaining western and southwestern border along the Borough of Butler is considered as a PA 1 Metropolitan Planning Area.

For the Planning Areas within and directly adjacent to the Borough of Riverdale, applying the Statewide Policies to each planning area will achieve the goals of the State Planning Act. Each Planning Area has Policy Objectives that guide growth in the context of its unique quality and conditions. As a Metropolitan Planning Area (PA 1), the Borough of Riverdale is guided by the policies specific to this designation. The subsequent paragraphs outline the State's policy objectives and recommended response activities as outlined in the SDRP.

Policy Objectives for the Metropolitan Planning Area (PA 1)

The following set of Policy Objectives should be used to guide the application of the State Plan's Statewide Policies in the Metropolitan Planning Area; the criteria for designation of any existing or new Centers appropriate in this Planning Area; the optional delineation of Center Boundaries around Centers; and local and state agency planning.

- **Land Use:** Promote redevelopment and development in Cores and neighborhoods of Centers and in Nodes that have been identified through cooperative regional planning efforts. Promote diversification of land uses, including housing where appropriate, in single-use developments and enhance their linkages to the rest of the community. Ensure efficient and beneficial utilization of scarce land resources throughout the Planning Area to strengthen its existing diversified and compact nature.
- **Housing:** Provide a full range of housing choices through redevelopment, new construction, rehabilitation, adaptive reuse of nonresidential buildings, and the introduction of new housing into appropriate nonresidential settings. Preserve the existing housing stock through maintenance, rehabilitation and flexible regulation.
- **Economic Development:** Promote economic development by encouraging strategic land assembly, site preparation and infill development, public/private partnerships and infrastructure improvements that support an identified role for the community within the regional marketplace. Encourage job training and other incentives to retain and attract businesses. Encourage private sector investment through supportive government regulations,

policies and programs, including tax policies and expedited review of proposals that support appropriate redevelopment.

- **Transportation:** Maintain and enhance a transportation system that capitalizes on high density settlement patterns by encouraging the use of public transit systems, walking and alternative modes of transportation to reduce automobile dependency, link Centers and Nodes, and create opportunities for transit-oriented redevelopment. Facilitate efficient goods movement through strategic investments and intermodal linkages. Preserve and stabilize general aviation airports and, where appropriate, encourage community economic development and promote complementary uses for airport property such as business centers.
- **Natural Resource Conservation:** Reclaim environmentally damaged sites and mitigate future negative impacts, particularly to waterfronts, scenic vistas, wildlife habitats and to Critical Environmental Sites, and Historic and Cultural Sites. Give special emphasis to improving air quality. Use open space to reinforce neighborhood and community identity, and protect natural linear systems, including regional systems that link to other Planning Areas.
- **Agriculture:** Use development and redevelopment opportunities wherever appropriate and economically feasible, to meet the needs of the agricultural industry for intensive agricultural production, packaging and processing, value-added operations, marketing, exporting and other shipping. Provide opportunities for farms, greenhouses, farmers markets and community gardens.
- **Recreation:** Provide maximum active and passive recreational opportunities and facilities at the neighborhood, local and regional levels by concentrating on the maintenance and rehabilitation of existing parks and open space while expanding and linking the system through redevelopment and reclamation projects.
- **Redevelopment:** Encourage redevelopment at intensities sufficient to support transit, a broad range of uses and efficient use of infrastructure. Promote design that enhances public safety, encourages pedestrian activity and reduces dependency on the automobile.
- **Historic Preservation:** Encourage the preservation and adaptive reuse of historic or significant buildings, Historic and Cultural Sites, neighborhoods and districts in ways that will not compromise either the historic resource or the area's ability to redevelop. Coordinate historic preservation with tourism efforts.
- **Public Facilities and Services:** Complete, repair or replace existing infrastructure systems to eliminate deficiencies and provide capacity for sustainable development and redevelopment in the region. Encourage the concentration of public facilities and services in Centers and Cores.
- **Intergovernmental Coordination:** Regionalize as many public services as feasible and economical to enhance the cost-effective delivery of those services. Establish multi-jurisdictional policy and planning entities to guide the efforts of state, county and municipal governments to ensure compatible and coordinated redevelopment.

State Recommendations for Statewide Metropolitan Planning Area Policy Implementation

To achieve consistency with State Plan Goals, municipal, county, regional and state agencies should implement Statewide Policies by undertaking the following activities, where appropriate:

- Strengthen or establish regional planning consortiums.
- Perform a community build-out analysis to determine opportunities for and impacts of future development under existing zoning.
- Identify regional focal points for public and private investment.
- Inventory the condition and capacity of infrastructure components such as roads, wastewater treatment facilities, water supply, and public buildings and parks, and prioritize maintenance and rehabilitation projects.
- Develop strategic capital plans and budgets to reduce infrastructure backlogs and adequately address ongoing maintenance and modernization.
- Integrate planning and implementation at all appropriate scales - the neighborhood, municipality, county, corridor and region (including interstate linkages).
- Coordinate permitting and land use approval requirements that recognize the regional and statewide interest in encouraging private investment in the Metropolitan Planning Area.
- Identify strategies for linking the region internally and externally.
- Identify opportunities and prepare guidelines for retrofitting concentrations of commercial, industrial and institutional land uses.
- Support needed improvements for downtown business communities by establishing programs such as “Special Improvement Districts” in Centers.
- Capitalize on the opportunities for redevelopment in Centers afforded by redevelopment laws and brownfields redevelopment programs. Provide zoning for a diversity of uses and residential densities consistent with the urban fabric to promote development and redevelopment. Establish and maintain a publicly accessible inventory of sites recommended for redevelopment.
- Develop a strategic acquisition plan for open space and farmland to support appropriate design of development and redevelopment.
- Prepare and maintain Environmental Resource Inventories (ERIs) and incorporate ERI information into master plans.
- Map and protect Critical Environmental Sites and Historic and Cultural Sites.

Cross Acceptance – Morris County Master Plan

Cross-Acceptance is the process of dialogue used to prepare the State Development and Redevelopment Plan. In this process, participants compare provisions and maps of local, county and regional plans and regulations with those of the State Development and Redevelopment Plan and work to identify and agree on ways to improve consistency among the plans. Consistency is defined in the State Plan to mean "*that a municipal, county or regional plan or regulation, or provision therein, is substantially the same as or has the same effect as the comparable provisions in the State Plan.*"

The State Planning Act created a statewide planning process, called Cross-Acceptance, to ensure that governments at all levels and the public participate in preparing the State Plan. The Act describes the Cross-Acceptance process as: "*. . . a process of comparison of planning policies among governmental levels with the purpose of attaining compatibility between local, county and State plans. The process is designed to result in a written statement of agreement or disagreement and areas requiring modification by parties to the cross acceptance.*" (N.J.S.A. 52:18A-202.b.) The Cross-Acceptance process is not only part of the development of the State Development and Redevelopment Plan, but is also part of every subsequent triennial review of the State Plan.

The Morris County Planning Board is the designated Negotiating Entity for the third cross-acceptance of the New Jersey State Development and Redevelopment Plan (SDRP). In that capacity, with input from the County's municipalities, including Riverdale, the Morris County Planning Board issued the 2005 Morris County Cross-Acceptance Report on February 9, 2005.

Morris County's Final Cross-Acceptance Report included the following:

Highlands Planning Area municipalities that adopt plans supporting the goals and standards of the Regional Plan and have approval from the Highlands Council will be deemed to have the equivalent of plans endorsed by the State Planning Commission. It remains to be seen how the designation of receiving areas, increased regulation by the NJDEP and municipal response to the Highlands regulations will impact implementation of and coordination with the State Planning Process.

The last land use plan completed by Morris County was adopted by the Morris County Planning Board in December 1975. The County's Future Land Use Element was built upon two basic

principles that remain relevant today. They were included in the plan's introduction and are as follows:

- 1) *That all future development proceed only after careful analysis of environmental considerations, and within any limitations imposed by such an analysis;*
- 2) *That future growth be clustered, in order to preserve open land, and to render utility services and public transportation feasible and economical.*

The plan identified centers around the county and recommended the clustering of future growth around these definable town centers. The general intent and objectives of the 1975 county plan are compatible and consistent with the recommendations found within the Borough of Riverdale's Master Plan.

Borough of Riverdale Master Plan Endorsement by the State Planning Commission

Through a voluntary process called Plan Endorsement, municipalities, counties and regional agencies may bring their plans to the State Planning Commission. Endorsement occurs if the State Planning Commission finds that the plan's provisions are consistent with the State Plan. Counties and municipalities are strongly encouraged to bring regional plans to the Commission for endorsement. Municipal plans brought to the Commission will be required to take the regional perspective into account, including regional growth projections and capacity analysis.

The purpose of Plan Endorsement is to increase the degree of consistency among municipal, county, regional and state agency plans and the State Plan and to facilitate the implementation of these plans.

The State Plan outlines six (6) objectives that derive from this purpose:

1. To encourage municipal, county, regional and state agency plans to be coordinated and support each other to achieve the goals of the State Plan;
2. To encourage counties and municipalities to plan on a regional basis while recognizing the fundamental role of the municipal master plan and development regulations;
3. To consider the entire municipality, including Centers, Cores, Nodes and Environs, within the context of regional systems;
4. To provide an opportunity for all government entities and the public to discuss and resolve common planning issues;

5. To provide a framework to guide and support state investment programs and permitting assistance and the implementation of municipal, county and regional plans that meet statewide objectives; and
6. To learn new planning approaches and techniques from municipal, county and regional governments for dissemination throughout the state and possible incorporation into the State Plan.

Having a plan endorsed by the State Planning Commission provides the opportunity for a municipality, county or region to *qualify for priority for state discretionary funds, as well as expedited permitting and enhanced planning assistance*. Even more important, however, are the benefits gained by coordinating their plans and regulations with other levels of government. In this way the State Plan provides the framework to achieve the Goals of the State Planning Act. Therefore, it is the intension of the Borough of Riverdale to develop its Master Plan consistent with the vision, goals, policies, and recommendations of the SDRP to achieve plan endorsement by the State Planning Commission.

3.0 HIGHLANDS REGION MASTER PLAN

The Highlands Region serves as the source of drinking water for more than half of the residents of the State of New Jersey. The Highlands Regional Master Plan is intended to protect this drinking water supply by dividing the Region into two planning categories, the Preservation Area and the Planning Area.

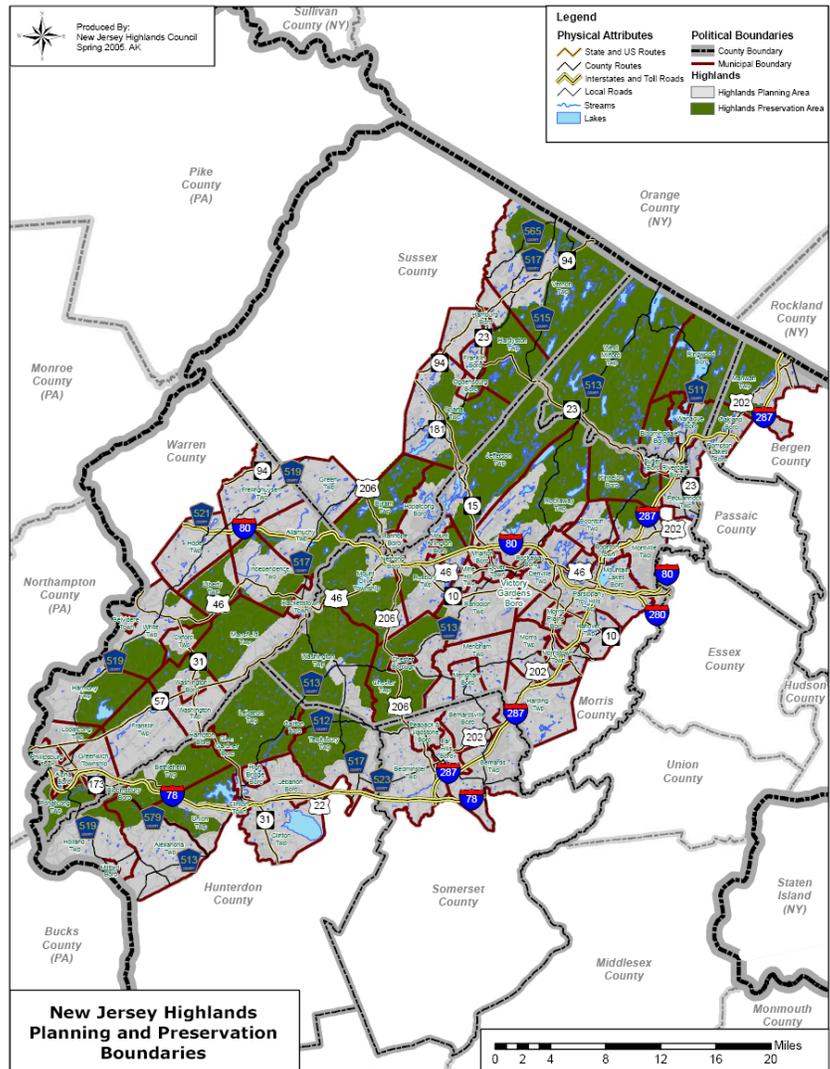
3.1 Highlands Water Protection and Planning Act

On June 10, 2004, both houses of the New Jersey Legislature passed the Highlands Water Protection and Planning Act (HWPPA). This bill, signed by the governor on August 10, became another significant piece of state land use legislation since the State Planning Act of 1985, and is among the most significant environmental bills ever passed by the State of New Jersey. The Highlands Water Protection and Planning Act institutes protective environmental standards on an approximately 1,250 square mile area in Northern New Jersey. The area encompasses portions of seven (7) counties and 88 municipalities. This 850,000-acre area known as the Highlands Region provides drinking water to more than 5.4 million New Jersey residents, approximately 65% of the State (i.e., for 16 counties, 292 municipalities). The intention of the HWPPA is to protect the environmental integrity of the

Highlands Region to preserve a vital water supply that yields approximately 379 million gallons of water per day for more than half of the State’s residents.

As illustrated in Figure VIII-3, the HWPPA divides the Highlands Region into two areas – the 416,000-acre *Preservation Area* that is subject to special protections, and the surrounding 443,000-acre *Planning Area* that contains some areas suitable for development as well as high-value conservation lands, most of which are presently zoned for growth. As such, the Highlands Preservation Council, a 15-member regional planning group created by HWPPA and by the NJ Department of Environmental Protection, will have the right to review certain building projects of local government anywhere within the Highlands Region. It will have the right to reject such projects in the Preservation Area.

Figure VIII-3, New Jersey Highlands Preservation Boundaries, Produced by NJ Highlands Council



The primary purpose of the HWPPA is to protect the region’s many natural resources. Land preservation is identified as a primary tool. The legislation specifically calls for the Council to:

“identify zones within the preservation area where development shall not occur in order to protect water resources and environmentally sensitive lands and which shall be permanently preserved through use of a variety of tools including but not limited to land acquisition and the transfer of development rights.”

The HWPPA states that a Highlands Regional Master Plan must be prepared for the Highlands Region. On November 30, 2006, the Highlands Council made public a draft version of the Highlands Regional Master Plan for public review and comment. When completed and officially finalized, the Regional Master Plan will identify Preservation Areas that *“prohibit or limit to the maximum extent possible construction or development which is incompatible with preservation of this unique area.”* Planning Areas will also be identified to *“preserve to the maximum extent possible any environmentally sensitive lands and other lands needed for recreation and conservation purposes”*.

3.2 Highlands Regional Master Plan

The draft version of the Highlands Regional Master Plan includes a resource assessment that establishes sustainable development considering ecosystem resources, a financial element to determine cost of implementation, and assessment of smart growth opportunities.

The Plan contains maximized opportunities for government and public input, methods for coordination and consistency with local, State and federal programs and policies, and a detailed approach to preserving transportation systems. In addition, it includes a land use capability map and comprehensive statement of policies for planning and managing the development and use of land in the Preservation Area, which is based upon, comply with, and implements the environmental standards adopted by the Department of Environmental Protection. Preservation zones are to be identified in a preservation zone element where development shall not occur in order to protect water resources and environmentally sensitive lands and which are to be permanently preserved through use of a variety of tools, including but not limited to land acquisition and transfer of development rights (TDR). The Regional Master Plan will also include minimum preservation area standards for municipalities and counties.

The State Transfer of Development Rights Act will form the basis for the development transfer provisions to be developed as per the HWPPA, but also allows for transfer of development plans outside of the Highlands Region. Implementing TDR requires complex and detailed analysis regarding sending areas, receiving areas, infrastructure capacity and administrative/financial support. However, this legislation adds an important tool for municipal and regional planners, and can support State Plan goals aimed at preserving environmentally sensitive and agricultural areas while

transferring future growth potential to areas where infrastructure exists and redevelopment can be accommodated.

It is currently anticipated that within 9 to 15 months after the Highlands Water Protection and Planning Council (Council) adopts the Final Regional Master Plan, municipalities located wholly or partially in the Highlands Preservation Area must revise their local master plans and development regulations as they relate to the portions of their town that are in the Preservation Area to conform with the Regional Master Plan and submit those revisions to the Council for approval. Municipalities that are not within the Preservation Area but are within the Planning Area are not required to conform to the Regional Master Plan. According to the Highland Council, any conformance with the Highland Regional Master Plan is on a voluntary basis for any municipality within the Planning Area.

As stated in the draft Highlands Master Plan, “the primary goal of the Regional Master Plan ‘shall be to protect and enhance the significant values of the resources thereof.’ To achieve this, the Highlands Master Plan identifies the following goals for the Preservation Area and the Planning Area:

Preservation Area Goals

- protect, restore, and enhance water quality and quantity;
- preserve extensive and contiguous areas of land in its natural state;
- protect the resources of the Highlands (contiguous forests, wetlands, stream corridors, steep slopes, scenic resources, and critical habitat for fauna and flora);
- preserve farmland and historic sites and resources;
- preserve outdoor recreation, hunting and fishing, on publicly owned land;
- promote conservation of water resources;
- promote brownfield remediation and redevelopment;
- promote compatible agricultural, horticultural, recreational, and cultural uses; and
- prohibit or limit to the maximum extent possible construction or development which is incompatible with preservation of this unique area.

Planning Area Goals

- protect, restore, and enhance water quality and quantity;
- preserve environmentally sensitive, recreational, and conservation lands;
- protect and maintain the essential character of the Highlands environment;
- preserve farmland and historic sites and resources;
- promote the continuation and expansion of agricultural, horticultural, recreational, and cultural uses;
- preserve outdoor recreation, hunting and fishing, on publicly owned land;
- promote conservation of water resources;
- promote brownfield remediation and redevelopment;
- encourage appropriate patterns of compatible residential, commercial, and industrial development, redevelopment, and economic growth, in or adjacent to areas already utilized for such purposes and discourage piecemeal, scattered, and inappropriate development; and
- promote a sound and balanced transportation system.

As Figure VIII-4 shows, the Borough of Riverdale is located within the Planning Area of the Highlands Region. Thus, according to the Highland Council, any conformance with the Highland Regional Master Plan is on a voluntary basis for any municipality within the Planning Area. The Plan further breaks down the Preservation and the Planning Areas into the following three subcategories:

- ***“The Conservation Zone*** – *Those areas identified on the Land Use Capability Map consisting of significant agricultural lands with interspersed environmental features that should be preserved when possible. Development potential is limited in area and intensity due to infrastructure constraints and resource protection goals, although opportunities exist for low impact, clustered development.”* According to the Highlands Regional Master Plan, the purpose of the Conservation Zone is to:
 - *Protect and enhance agricultural resources that are important to maintaining a viable agricultural industry; and*
 - *Prioritize farmland appropriate for preservation.*
- ***“Planned Community Zone*** – *Those areas identified on the Land Use Capability Map with concentrated development signifying existing communities. These areas have less constraining environmental resources, and have existing infrastructure that may*

support development provided that it is compatible with the protection and character of the Highlands environment.” According to the Highlands Regional Master Plan, the purpose of the Planned Community Zone is to:

- *Identify lands appropriate for providing economic growth opportunities with an emphasis on promoting the efficient use of previously developed lands;*
 - *Prioritize public investment in infrastructure in appropriate areas based on the Planned Community Zone; and*
 - *Provide opportunity for TDR Receiving Areas, which serve as voluntary development and redevelopment areas that allow for increased densities in specific sites that are not environmentally constrained and where infrastructure is available or feasible. (Note: Areas outside of Highlands Region but within the Highlands seven counties may also serve as TDR Receiving zones.)*
- **“Protection Zone** – *Those areas identified on the Land Use Capability Map consisting of high resource value lands that are important to maintaining water quality, quantity, and other significant ecological processes. Any development activities will be subject to stringent limitations on consumptive and depletive water use, degradation of water quality, and impacts to environmentally sensitive lands and may only occur via redevelopment of existing development areas.”* According to the Highlands Regional Master Plan, the purpose of the Protection Zone is to:
 - *Protect and enhance natural resources that are important to maintaining water quality, quantity and other significant ecological processes by implementing growth control measures; and*
 - *Prioritize land acquisition and areas in need of restoration and enhancement of important natural resources.*

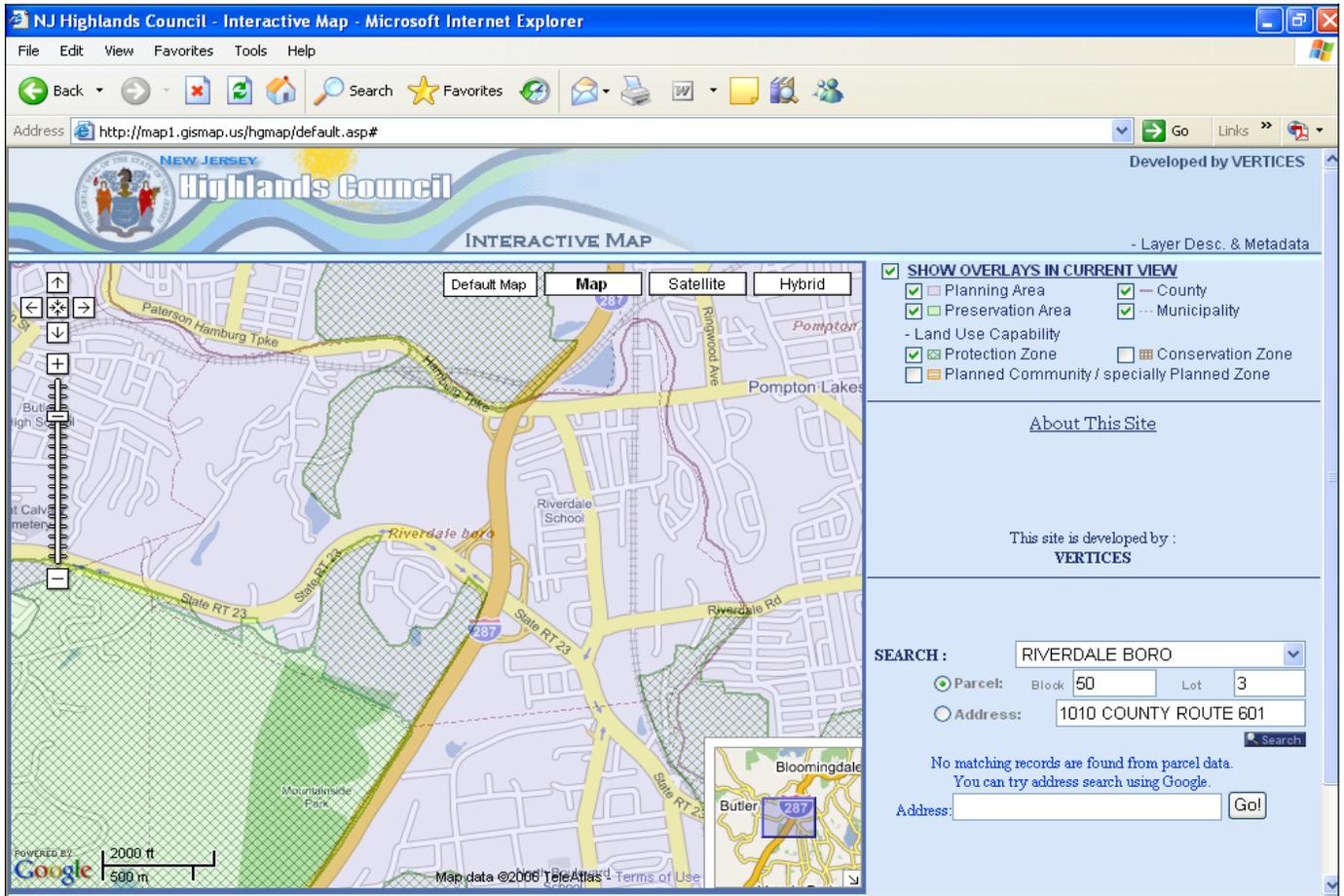
According to the Highlands Regional Master Plan, these above mentioned zones will serve as overlay zones.

“In the Highlands Region, the overlay zones will provide all levels of government, including municipal and county officials, with an indication of where special consideration is required in order to protect significant resources. Overlay zones also indicate where and how development initiatives may occur based on the ability of areas to accommodate such growth. The Highlands Council has developed three primary overlay zones (the Protection Zone, Conservation Zone and Planned Community Zone).”

The Borough of Riverdale contains land that is within the Planned Community Zone as well as the Protection Zone. Two primary areas are located within the protection zone. The first area is located west of the existing quarry and serves as a 500-foot forested buffer between the residential neighborhoods and the quarry. The second Protection Zone is located south of State Route 23 and east of State Route 287 in a currently undeveloped area east, south and west of existing residential

development. The Protection Zone can be viewed in Figure VIII-5 that shows an interactive map produced using the New Jersey Highlands Council interactive mapping website.

Figure VIII-5, New Jersey Highlands Protection Zone Boundaries



Produced using the New Jersey Highlands Council interactive mapping website, <http://www.gismap.us/hgmap/>.

It is the intent of the Borough of Riverdale to be generally consistent with the goals and intentions of the Highland’s Master Plan. The Borough acknowledges that the Highland’s Master Plan is still in draft form and specific Highlands Council standards are still being developed. When the Highland’s Master Plan is officially adopted, the Borough will evaluate the potential pros and cons of seeking formal Highlands Plan conformance in accordance with the voluntary opt-in procedures.

4.0 CONTIGUOUS MUNICIPALITIES

The zoning map and land use plans for the portions of the municipalities that abut the Borough of Riverdale in Morris County are illustrated on Figure VIII-6. There are five (5) municipalities that border Riverdale, three (3) are located in Morris County, two (2) are located in Passaic County. The three municipalities located in Morris County are the Township of Pequannock and the boroughs of Butler and Kinnelon. Pompton Lakes Township and the Bloomingdale Borough are located in Passaic County. Each township is discussed below as its land use regulations (zoning) relates to the Borough of Riverdale's land use regulations in order to identify consistencies and/or incompatible land uses.

Pequannock Township – Morris County

Pequannock Township borders the Borough's southern boundary. The adjacent zoning in Pequannock generally permits a variety of uses within four zoning districts. The Continuing Care Retirement District (CCRCD) is located adjacent to Riverdale's Professional Office (PO-2) district. The 2-acre Residential (R-87) zoning district in Pequannock is located across from Riverdale's Single Family Residential (R-40) district. Pequannock also has a 2-acre Industrial District (I-2) adjacent to Riverdale's Single-Family Residential (R-7.5) district as well as the Highway Business (HB) district. Finally, the 1/5 Acre Residential (R-9) district borders Riverdale's Industrial Park (I-3) district. The majority of the bordering zoning between Riverdale and Pequannock permits generally consistent land-use patterns. However, it is not a common practice to locate industrial zoning districts near residential districts. It should be noted that these districts are completely built out. Thus, the general intent and objectives of each community's zoning ordinance are generally consistent and compatible.

Kinnelon Borough – Morris County

The Borough of Kinnelon borders the Borough's eastern boundary. The adjacent zoning in Kinnelon generally permits commercial uses (C - Commercial zoning district) adjacent to Riverdale's Highway Business (HB), Professional Office (PO), and Single-Family Residential districts. The configuration of these lots is such that there should be minimal incompatibilities between associated land uses.

Thus, the general intent and objectives of each community's zoning ordinance are generally consistent and compatible.

Butler Borough – Morris County

The Borough of Butler borders Riverdale's western boundary. The adjacent zoning in Butler generally permits single-family detached residential uses on quarter-acre lots. Butler also has a smaller Research Office (RO) district in the southeast corner of the Borough. Riverdale's adjacent zoning and land use patterns adjacent to Butler's boundary include compatible single-family uses generally situated on large lots. Thus, the general intent and objectives of each community's zoning ordinance are consistent and compatible.

Bloomingtondale Borough – Passaic County

The Borough of Bloomingtondale borders Riverdale's northern boundary across from the Pequannock River. The adjacent zoning in Bloomingtondale generally permits business (B-1), public land (P), industrial (M-1) and residential uses (R-G Cluster). The industrial district in Bloomingtondale is located along the New York Susquehanna & Western Railroad adjacent to the eastern half of Riverdale's northern boundary. Business and public land zones are located adjacent to the western half of Riverdale's boundary, which shares similar zones and land use patterns. Riverdale's adjacent zoning and land use patterns adjacent to Butler's boundary include compatible single-family uses and retail/business uses. Thus, the general intent and objectives of each community's zoning ordinance are consistent and compatible. However, the industrial district in the Borough of Bloomingtondale may have the potential to conflict with the adjacent district in Riverdale.

Pompton Lakes Borough – Passaic County

The Borough of Pompton Lakes borders Riverdale's eastern boundary. The adjacent zoning in Pompton Lakes varies from Conservation Recreation (CR) to Single Family zone (R-4) to Business Retail (B-2). The largest district adjacent to the Borough of Riverdale is the Single Family (R-4) zone. Riverdale's zoning that is adjacent to the R-4 district is also Single Family Residential (R-15) and thus is generally consistent with Pompton Lake's zoning and land use patterns.

Riverdale does, however, have industrial zoning districts (I-1 and I-3) adjacent to Pompton Lakes' Single Family (R-4) and Conservation Recreation (CR) districts. Although these districts are generally considered incompatible, it is important to note that Riverdale has recently approved a multi-family project in the industrial district. This new development will include a river walk trail that will preserve open space along the Pequannock River adjacent to the Conservation Recreation and Single Family zoning districts in Pompton Lakes. Thus, the development of multi-family residential units with a river walk trail in Riverdale is generally consistent with Pompton Lakes' adjacent zoning and land use patterns.

The Borough of Pompton Lakes' Business Retail district is located along the Newark-Pompton Turnpike adjacent to Riverdale's Community Redevelopment District (CRD). Both districts permit similar retail uses and thus promote generally consistent land use patterns.

5.0 DISTRICT SOLID WASTE MANAGEMENT PLAN

The Morris County Solid Waste Management Plan was last updated in March of 1985 and was prepared by the Morris County Solid Waste Management staff. Since the Plan's last update in 1985, several new amendments have been adopted as part of the plan. The Borough of Riverdale Master Plan is compatible with the proposals of the solid waste master plan. All solid waste generated in Morris County and being disposed of as required by law to be delivered to one of two MCMUA solid waste transfer stations, the Parsippany-Troy Hills Transfer Station (which is used by the Borough of Riverdale) or the Mount Olive Transfer Station. This waste flow control requirement is part of the NJDEP approved Morris County Solid Waste Management Plan. Two facilities for recycling of materials exist in Riverdale. The first involves the Tilcon Quarry recycling facility, which is approved to recycle concrete and asphalt. The second facility is a compost facility that the Borough uses, which is located at Riverdale Road and Pompton-Turnpike intersection. The NJDOT leases this property to the Borough for the purpose of composting leaves and grass.

Table VIII-1 Solid Waste Disposal Facilities

<p>G.R.O.W.S. Landfill 1513 Bordentown Road Morrisville, PA 19067 Permit Number - PADEP 100148 10,000 ton per day permitted 456.5 acre sanitary landfill.</p> <p>Tullytown Resource Recovery Facility Landfill 200 Bordentown Road Tullytown, PA 19007 Permit Number - PADEP 101494 10,000 ton per day permitted 401.4 acre sanitary landfill.</p> <p>Alliance Sanitary Landfill, Inc. 398 South Keysor Avenue Taylor, PA 18517 Permit Number - PADEP 100933 5,500 ton per day permitted 512.9 acre sanitary landfill.</p> <p>Keystone Sanitary Landfill, Inc. * P.O. Box 249, Dunham Drive Dunmore, PA 18512 Permit Number - PADEP 101247 5,000 ton per day permitted 720 acre sanitary landfill.</p> <p>Commonwealth Environmental Systems, Inc. * 99 Commonwealth Road Hegin, PA 17938 Permit Number - PADEP 101615 2,350 ton per day permitted 230 acre sanitary landfill.</p> <p>Wheelabrator Falls, Inc. 1201 New Ford Mill Road Morrisville, PA 19067 Permit Number - PADEP 400633 Permitted as 1,500 ton per day (processing), 2,800 ton per day (receiving) mass burn waste to energy facility.</p>
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Source: Morris County Municipal Utilities Authority, www.mcmua.com

From the transfer stations the waste is trucked to disposal facilities in eastern Pennsylvania owned and operated by Waste Management, Inc. Table VIII-1 provides a listing of disposal facilities. In January 2003 the MCMUA executed a 5-year contract with Waste Management of New Jersey, Inc. to provide 3 operations as they relate to the provision of disposal services in Morris County. These three operational responsibilities include:

1. Operating the two MCMUA transfer stations;
2. Providing transportation of the solid waste from the transfer stations to the disposal facilities, and finally;

3. Provision of disposal capacity for the waste accepted at the two transfer stations.

According to the Solid Waste Coordinator of the Morris County Municipal Utilities Authority (MCMUA), two citations from the New Jersey Solid Waste Management Act (N.J.S.A. 13:1E-1 et seq.) are often overlooked by municipalities in Morris County when they review developments exceeding certain threshold requirements. These citations require that the municipality comply with certain regulations as identified in N.J.S.A. 13:1E-99.13a (Adoption of a model ordinance for recycling in multi-family housing), and N.J.S.A. 13:1E-99.16.c (Municipal recycling program). The first citation noted above was adopted in 1993 and the second was adopted in 1987.

N.J.S.A. 13:1E-99.13a - Adoption of a model ordinance for recycling in multi-family housing reads as follows:

“2. The Commissioner of Environmental Protection, in cooperation with the Commissioner of Community Affairs, shall, within 90 days of the effective date of this act, adopt a model ordinance requiring approval by the planning board of either subdivisions or site plans, or both, pursuant to paragraph (15) of subsection b. of section 29 of P.L.1975, 1975, c.291 (C.40:55D-38), as provided herein. The department shall submit the model ordinance to the Legislature for review upon its adoption. A municipality shall adopt an ordinance which is substantially similar to the model ordinance within 12 months of the adoption of the model ordinance. The model ordinance shall set forth standards governing the inclusion, in all new multifamily housing developments which require subdivision or site plan approval, of collection or storage facilities which allow for the source separation of all recyclable materials required by the district recycling plan adopted pursuant to section 3 of P.L. 1987, c.102 (C.13:1E-99.13). For the purposes of this section, ‘multifamily housing’ shall mean housing in which three or more units of dwelling space are occupied, or are intended to be occupied, by three or more persons who live independently of one another.”

N.J.S.A. 13:1E-99.13a - Adoption of a model ordinance for recycling in multi-family housing reads as follows:

“c. The governing body of each municipality shall, at least once every 36 months, conduct a review and make necessary revisions to the master plan and development regulations adopted pursuant to P.L. 1975, c.291 (C.40:55D-1 et seq.), which revisions shall reflect changes in federal, State, county and municipal laws, policies and objectives concerning the collection, disposition and recycling of designated recyclable materials.

The revised master plan shall include provisions for the collection, disposition and recycling of recyclable materials designated in the municipal recycling ordinance

adopted pursuant to subsection b. of this section, and for the collection, disposition and recycling of designated recyclable materials within any development proposal for the construction of 50 or more units of single-family residential housing or 25 or more unities of multi-family residential housing and any commercial or industrial development proposal for the utilization of 1,000 square feet or more of land.”

These regulations are currently mandated by the MCMUA. According to the Solid Waste Coordinator of MCMUA, in the near future, the MCMUA will adopt a new amendment to the Morris County Solid Waste Master Plan (SWMP), which will require that all Morris County Municipalities comply with these regulations by updating their solid waste and recycling ordinances within six (6) months of the adopted SWMP amendment.

Currently, the Borough of Riverdale’s solid waste and recycling program is generally consistent with the intent of Morris County’s SWMP. When the MCMUA adopts the new amendment to the SWMP the Borough of Riverdale will update its local solid waste ordinance consistent with Morris County’s ordinance within the County’s mandated time frame.

6.0 RECYCLING

The Borough of Riverdale participates in the Morris County recycling program. (Please see Section 4.0 District Solid Waste Management Plan above for additional information about recycling.) The following list of items must be source separated and recycled within the County.

- Newspaper, corrugated cardboard, mixed paper, aluminum cans, plastic bottles (coded #1 and #2), glass jars and bottles, steel (tin) cans, yard waste, tires, vehicular batteries, white goods (appliances), motor oil, tree stumps, household batteries, oil contaminated soil, and asphalt roof shingles.

All households in the Borough are responsible for the recycling of materials and are subject to random inspections to determine compliance with local ordinances. Any household found to be in violation is subject to enforcement actions. Furthermore, the Borough of Riverdale is also responsible for the following actions described below. According to the Morris County Solid Waste

Management Plan, each Morris County municipality is required to comply with the following recycling responsibilities:

- **Recycling Coordinator:** Each town shall designate a recycling coordinator to oversee the recycling activities of the municipality, maintain and compile recycling information for submittal to the State and County, and act as an informational base for municipal residents, businesses and officials. If a town fails to designate a municipal recycling coordinator, the County shall assume the municipal administrator or manager will be the acting coordinator until one is designated. Presently, each municipality has designated a recycling coordinator.
- **Recycling Ordinance:** By December 31, 1993, each municipality must update their recycling ordinance to accept the source reduction and recycling goals stipulated in this Plan Amendment. Likewise, the ordinance update must minimally include municipal acceptance of the County's mandated materials list for all sectors. The update shall also include a description of how the municipality plans on achieving the recycling goals in both the residential and commercial sector. The municipal ordinances shall include enforcement policies which include inspection of garbage set out for disposal and a minimum fine of \$25.00 per offense for recycling violators. Finally, the municipality must provide the County Recycling Coordinator with a certified copy of the municipal recycling ordinance whenever it is amended.
- **Documentation:** The municipality must provide documentation in accordance with the County Plan and State documentation system as presented in a report prepared by the NJDEPE entitled, 1993 Recycling Tonnage Reporting Manual dated December 1992. In the past, recycling tonnages were to be provided for all sectors to the County Recycling Coordinator on a quarterly basis. This responsibility shall remain in place until the formal implementation of the State's proposed system. In accordance with that manual, municipalities will be responsible to report tonnage information (and submit weight slips) to the NJDEPE on a semi-annual basis for specified materials depending on how the material is collected and processed. After compilation, the State shall distribute documentation data back to the County. Finally, the municipality must present a detailed description of the recycling programs established at all municipal buildings to the County Recycling Coordinator annually.
- **Notification:** At least once every six months each municipality must notify all persons occupying residential, commercial or institutional premises in that municipality of the provisions of the municipal recycling program and how each sector may recycle its mandated materials. This notification shall be provided to the County Recycling Coordinator. At least one notification a year shall be a direct mailing to each individual unit. This can be sent exclusively or accompany other official notifications such as tax or water bills.

Currently, the Borough of Riverdale's solid waste and recycling program is generally consistent with the intent of Morris County's SWMP. When the MCMUA adopts the new amendment to the SWMP the Borough of Riverdale will update its local solid waste ordinance consistent with Morris County's ordinance within the County's mandated time frame.



VII. COMMUNITY FACILITIES ELEMENT



VII. COMMUNITY FACILITIES ELEMENT

1.0 INTRODUCTION

It continues to be the goal of the Borough to provide effective community services and facilities in meeting the needs of Riverdale residents that enhance their quality of life. This chapter presents a summary of community facilities, which are those public buildings and lands that provide a community with the administrative, safety, health, welfare, educational and recreational needs of its residents.

2.0 MUNICIPAL BUILDING

The Municipal Building is located at 91 Newark-Pompton Turnpike. It includes the municipal administrative facilities, including the Clerk's office, the Mayor's office, a meeting room, Council Chambers/Courtroom, a Judge's Chambers, the Riverdale Police Department headquarters and a storage vault.

2.1 Municipal Administrative Facilities

The primary municipal administration offices for the Borough are located in the Riverdale Municipal Building. The municipal building provides administrative space for the following services:

- Borough Clerk
- Police Department
- Health Department

- Engineering and Public Works, Finance and Treasurer
- Tax Assessor and Collector
- Municipal Court and Court Clerk
- Construction Code Officer

As the Borough continues to grow, the demand for government and related services has increased. Furthermore, growth projections suggest that the demand for governmental services provided by the municipality will continue to increase as well. The current need for services such as police and municipal court functions has resulted in the expansion of these departments during the last decade. Moreover, in 2004, the Riverdale Public Library moved out of the Municipal Building into a new facility. The expansion of these departments has resulted in the need for additional space for records storage, administrative functions and parking. Unfortunately, however, space within the Municipal Building is very limited as is the ability to expand the building's footprint and size.

2.2 Police Department

As mentioned above, the Riverdale Police Department is also located at the Municipal Building. The Riverdale Police Department has 18 state-certified officers and employs a total of seven dispatchers, four of which are full-time, and three which are part-time (Please see Image VII-1). The dispatchers are assigned to provide 24 hour radio, telephone and computer emergency services to the Borough and its police officers.



Image VII-1 - Riverdale Police Department

The Riverdale Police Department also has a Bike Unit, which was established in August of 2005. The Bike Unit was implemented for the purpose of patrolling the Borough’s parks, soccer fields and baseball fields, business district, assist in street fairs and concerts, residential neighborhoods, and to interact with the residents and public in general. Currently, the Department has four officers certified for bike patrol and owns three bikes which contain basic first aid kits.

In addition to the uniformed officers, the Riverdale Police Department has three police dogs that comprise the K-9 unit. Two of the police dogs (Chubby and Dugan) are certified in narcotics detection and one (Kali) is trained in search and rescue.



Image VII-2 - Chubby is one of three dogs that comprise the K-9 unit.

The Riverdale Police Department owns nine (9) marked police cars and three (3) unmarked cars. The Department is working with a plan that allows for the purchase of two new police cars every year. In turn, two of the older police vehicles would be sold/auctioned before they reach 70,000 miles. This would ensure that the Department is able to maintain existing police vehicles while implementing a program to ensure that new vehicles are purchased as needed.

As the Borough continues to grow and develop the demand for police services has also continued to increase. Currently, there are plans to hire up to three new police officers in the near future. Growth in the Department has resulted in the need for additional space for administrative duties and vehicle storage. The Municipal Building where the police headquarters is currently located is nearly at full capacity. Space dedicated to parking for police vehicles and visitors to the Municipal Building is also limited. To address the needs of the Department, the Borough of Riverdale is investigating the feasibility of acquiring new property adjacent to the Municipal Building. If this property can be acquired, the Borough would need to design and construct a building that would meet the short and

long-term needs of the Department. Ideally, the Riverdale Police Department would prefer to design this facility so that it may share this space with the Borough's municipal court.

2.3 Municipal Court

Municipal court is also located in the Municipal Building. The Municipal Building is over burdened during Tuesday evening municipal court sessions as parking during this time is limited. In addition, space for storage and other administrative activities is also limited.

2.4 Department of Public Works

As the Borough has experienced new growth and increased demand for governmental services during the past decade, the Department of Public Works (DPW) has also experienced significant growth in its scope of responsibilities in order to meet this need. To help meet this growing demand, the DPW has expanded the number of its staff from three (3) within the last decade to a total of eight (8) full-time staff. Current staff positions include: a superintendent, a foreman, a senior utility specialist, two (2) mechanics, and three (3) utility personnel. Part-time summer help is hired on an as needed basis. The DPW also has two site locations within the Borough. The first is the Dalton Drive Garage and the second is located at 56 Post Lane (the DPW yard next to the firehouse).

The DPW is responsible for the maintenance of all 12.1 miles of Borough-controlled roads. This excludes Riverdale Road and the Newark-Pompton Turnpike which serve as county roadways. Additional responsibilities of the DPW include maintaining all Borough buildings and grounds, including interior and exterior improvements such as painting, framing and roof work. The DPW also maintains all of the Borough's vehicle equipment except police and fire equipment. Snow plowing and salting service and building janitorial service are also provided by the department to all Borough-controlled buildings including buildings in the Riverdale School District, the senior center, and at the Riverdale Library.

Roadway and ground maintenance include maintaining curbs, maintaining pavement ratings (filling pot-holes, paving, etc.), maintaining street lights and signs, clearing catch basins, sweeping streets, edging and weed-whacking, mowing lawn areas, maintaining vegetation and street trees (including

tree removal), and maintaining public parks. The DPW also monitors municipal well water quality and reports the results to the Department of Environmental Protection.

Furthermore, the DPW is also responsible for preparing the Recycling Program, which includes writing, scheduling and recording tonnage recycled. (All Class B recyclables could go to any New Jersey approved site.) Christmas tree as well as leaf and brush removal services are also provided. Equipment used by the DPW includes:

- 2006 F-350 Mason Dump Truck
- 2005 F-350 Utility Truck
- 2005 Jeep Liberty
- 2003 Unimog Implement Carrier
- 2002 F-550 Dump Truck
- 1998 GMC Pick-up
- 1995 Ford Pick-up
- 1992 Dodge Mason Dump Truck
- 1992 Elgin Pelican Sweeper
- 1985 GMC Vacuum Truck (Storm & Sewers)
- 1969 C-60 Chevy Salt Truck
- Ford 555 Backhoe

To insure that the vehicles are maintained and replaced as needed the DPW prepares a five-year plan for major capital improvements. This plan is completed annually in order to assess needs and future purchase requirements. Aside from routine maintenance and replacement of equipment in the future, the DPW anticipates a potential need to hire on an additional staff person to help with services provided, especially with storm water management services as additional expertise may be required to help with handling collected debris that are considered a material requiring special handling and disposal. The DPW would also like to expand its ability to use a Geographical Information System (GIS) and Geographical Positioning Systems (GPS) technology to establish a database for surveying, monitoring and documenting repairs and maintenance activities.

3.0 FIRE DEPARTMENT

The Borough currently has one firehouse that is home to the Riverdale Volunteer Fire Department. The firehouse is located at 56 Post Lane in Riverdale (the former Jersey Central Power and Light (GPU) building). Currently, the Department has approximately 30 firefighters. The expansion of

Route 23 and the development of I-287 during the last several years resulted in the need for the Department to grow and expand its services to include vehicle extrication. To ensure that fire protection and rescue services meet the need of a rapidly developing Borough, Riverdale and nine neighboring Morris County towns formed the Northeastern Morris Mutual Aid Association (NEMMA) in 1993. This mutual aid agreement was developed so that there will be a sufficient response of volunteers and equipment for emergencies during times of the day when many volunteers are at work and are unable to respond to calls for help.

Each year the Department responds to approximately 130 calls. Of these, 23% are fires (9% structures, 8% vehicles, 5% brush, and 1% dumpster/others), 3% are rescues, 30% are hazardous conditions (no fire), 6% are service calls, 9% are good intention calls, 25% are false alarms, 3% are severe weather/natural disaster related, and 1% is overpressure (sprinkler) activations.

In 1996, the Riverdale Fire Department’s firehouse underwent renovations and was expanded so that each bay was extended by 12 feet. Additions and renovations to the fire headquarters, the recent acquisition of a new heavy rescue truck, two command vehicles and new breathing apparatus have kept the Department current with up-to-date technology and facilities. Other equipment owned and maintained by the Department includes one fire engine (2004), 1 Quint (ladder/pumper 2005), one rescue truck (1993), and two Chief’s Vehicles (1999, 2006). Please see Image VII-3 below. The firehouse contains six truck bays, three are used for apparatus, one stores a 1926 antique truck and utility trailer, one stores fitness equipment and fire equipment storage, and one bay is available space for future growth.



Image VII-3 - Riverdale Ladder 31

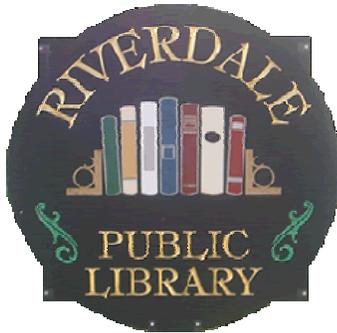
The facilities and equipment including the firehouse is anticipated to meet the needs of the Riverdale Fire Department for the next decade. However, the firehouse needs a source of back-up power as well as a cascade air system to fill breathing apparatus tanks. Furthermore, because of the growth of the Borough it would be practical to replace the aging rescue truck with a rescue/pumper and retain the old rescue truck as a utility vehicle to carry manpower and equipment that is currently stored in the firehouse (portable pumps, extra hazmat supplies, county decontamination kits, etc). The last ISO survey indicated the Department was experiencing an increase in fire department capabilities, but indicated that there was a need for an additional pumper. Issues with security and office space needs currently experienced at the firehouse is anticipated to be alleviated during the fall of 2006 when another organization that shares space at the firehouse will relocate its activities to a new location.

The Fire Department identified that the southwest section of the Borough (Stoneleigh/Hartung sections) contains no fire hydrants. Furthermore, each fire pumper has a capacity of pumping up to 2,000 gallons per minute, which may be a greater volume of water than the Borough's water system can supply.

4.0 EMERGENCY MEDICAL SERVICES

The Pompton Lakes Riverdale First Aid Squad (PLRFAS) building is located just off of Hamburg Turnpike on Ramapo Ave overlooking Hershfield Park. The PLRFAS consists of volunteers (age 14 and up) that provide 24-hour emergency medical service (EMS) to the communities of Pompton Lakes and Riverdale. PLRFAS volunteers provide various levels of medical aid. These levels include junior members (ages 14-16). Junior members are trained in CPR and first aid and assist in many ways. Once the junior members turn 16 years old they become a "youth member" and are assigned to a crew shift and are allowed to ride on medical shifts. At age 18, they have the option to go active or stay on as a youth member until they graduate. Youth members (ages 16-18) are trained in CPR, first aid, and may be certified as an Emergency Medical Technician (EMT). Auxiliary members are 18 years old or older and must start EMT training within a year after becoming a member. As a basis, all members older than 18 years old are trained in CPR and first aid. Active members are certified as EMT's and serve a six month probationary period for training. Secondary responders are EMT's with more than a year riding experience on the rescue squad.

5.0 LIBRARY



In April 2004, the Borough of Riverdale opened its new Public Library next to the Municipal Building at 93 Newark-Pompton Turnpike. The new library consists of an 8,000 square foot building that provides sufficient space for more than 15,000 items in its collection, including books, pamphlets, large-print titles, magazines, read-alongs, audio books, videos and DVDs. In addition, the Library has internet access, and provides activities/programs for children, teenagers and adults. The Library’s hours of operation include:

Monday	10:00 a.m.	to 8:00 pm
Tuesday	12:00 noon	to 8:00 pm
Wednesday	10:00 am	to 5:00 pm
Thursday	12:00 noon	to 8:00 pm
Friday	10:00 am	to 5:00 pm
Saturday	10:00 am	to 2:00 pm
Sunday	Closed	

Meeting rooms may also be reserved by Riverdale non-profit groups and businesses during scheduled library hours when the space is not being used for library programs. Groups must fill out an application and comply with the library's policies, fees, rules and insurance requirements regarding meeting rooms.

The public library building has adequate facilities and space to meet the needs of the community. However, parking can pose an issue for patrons and employees as the lot for the library is shared with the Municipal Building. The parking lot as a result quickly fills to capacity, especially during the evening and other times when the Library is holding functions at the same time as meetings, court and other events at the Municipal Building.

6.0 RIVERDALE PUBLIC SCHOOL

The Riverdale Public School is a Pre-K through 8 grade school of approximately 280 students, located in Riverdale. All school district facilities, including athletic and recreational facilities, are currently in use and were recently renovated in 2005. Therefore, the District does not have any further plans to renovate, expand, or relocate any of their current facilities. Future residential development will require that the Riverdale Public School district and the Borough of Riverdale periodically assess and address any impacts on the school district.

7.0 COMMUNITY FACILITIES RECOMMENDATIONS

Community facilities and services provided by the Borough are an important asset to the community. The strength of these services should be maintained as they are an important factor for maintaining Riverdale's high quality of life for its residents and visitors. The ability of these services to meet the future needs of the community have been reviewed with the following findings/recommendations provided:

1. Municipal Building- As the Borough continues to grow, the demand for government and related services have increased. Furthermore, growth projections suggest that the demand for governmental services will continue to increase in the near future. The current need for services such as police and municipal court functions has resulted in the expansion of these departments during the last decade. Moreover, in 2004, the Riverdale Public Library moved out of the Borough's Municipal Building into a new building next store. The expansion of these departments has resulted in the need for additional space for storage, administrative functions and parking. Unfortunately, space within the Municipal Building is limited as is the ability to expand the building. The Borough should assess the space and parking needs of each department and, based on the results of the assessment, should investigate the feasibility of expanding or re-organizing the current building or relocating some or all of the services to a new facility that has sufficient interior and exterior space to meet current and future needs. Relocated services or departments, including the Police Department and Municipal Court should be accommodated in adjacent or nearby properties to the greatest extent possible to maintain all municipal services in one central civic area.

2. Police Department - The Borough of Riverdale should assess the needs of the Police Department and investigate the feasibility of expanding the Municipal Building or relocating the Police Department from the Municipal Building to another building, possibly in conjunction with the Municipal Court and/or other governmental departments.

3. Municipal Court – The Borough of Riverdale should assess the needs of the Municipal Court and investigate the feasibility of expanding the Municipal Building or relocating the Court from the Municipal Building to another building, possibly in conjunction with the Riverdale Police Department and/or other governmental departments.

4. The Department of Public Works - The DPW anticipates a potential need to hire on an additional staff person to help with services provided, especially with storm water management services as additional expertise may be required to help with handling collected debris that is considered a material requiring special handling and disposal. The DPW would also like to expand its ability to use a Geographical Information System (GIS) and Geographical Positioning Systems (GPS) technology to establish a database for surveying, monitoring and documenting repairs and maintenance activities.

4. Fire Department - The existing fire station is adequate to accommodate existing and future needs for the next 10 years or more. The Borough of Riverdale should monitor the types of calls received by the Fire Department for help to ensure that equipment needs, staffing and training levels are being met. This will help to ensure a good ISO rating, which, in turn, helps to maintain lower fire insurance costs within the municipality. Opportunities for acquiring equipment such as a back-up generator and a cascade system to fill air tanks should be explored. Whenever possible, sharing of services through mutual aid agreements with neighboring departments should also be explored and continued as a cost effective method of maintaining/acquiring services and equipment. The Borough of Riverdale should also work with the Fire Department to ensure that adequate water pressure and supply is available throughout the entire community, including the southwest section of the Borough and other areas experiencing development.

4. Emergency Medical Services- Periodic reviews need to be conducted to ensure that sufficient emergency medical service coverage is provided as the Borough of Riverdale continues to add

housing (including age restricted housing) and increase its resident population. Moreover, reviews should also be conducted as necessary to ensure sufficient coverage as roadways (state, county and local) redevelop and as traffic patterns/volumes change.

5. Riverdale Public Library – The Riverdale Public Library was recently built in April 2004. As such, it provides sufficient space to accommodate existing and future needs for the next decade. Parking for the library is shared with the Municipal Building, and as a result, space is limited for patrons and visitors. This has resulted in the parking lot filling to capacity, especially during times when there are functions taking place simultaneously at the Library and at the Municipal Building. During these times, parking often overflows into areas more than a block away requiring that visitors walk extended distances in order to access the Library. The Borough should work with the Library to assess parking needs and investigate the feasibility of expanding the parking lot or developing a new municipal lot in close proximity to these civic services.

6. Riverdale Public School – The Borough of Riverdale and the Riverdale Public School district will have to conduct periodic reviews in order to address any associated impacts on the school district through new residential development as housing needs and requirements continue to evolve.



VI. UTILITIES ELEMENT



VI. UTILITIES ELEMENT

1.0 INTRODUCTION

Water and sewer utilities serve as vital infrastructure components for any community. Water and sewer infrastructure facilitates growth and development and indirectly affects one's quality of life. It is the intent of the Borough to ensure the community is adequately serviced with water and sewer utilities and that there is sufficient capacity to meet current and future demand.

Currently, the entire Borough is not adequately serviced by water and sewer infrastructure. In part, this is a direct result of the geological layout of the community with its many hills, shallow bedrock and varying terrain and topography. Historically speaking, the varying terrain also limited residential and commercial development in addition to limiting the development of water and sewer infrastructure. In recent years, however, property values have increased and the Borough has experienced development pressure. As a result, the community is almost entirely built out.

In recent years, the Borough assessed its sanitary sewer system to determine its ability to meet current and future demands based on this new growth. The sewer system has been assessed and a proposed implementation plan for phased improvements is presented below. Recommendations for the future water system improvements in the Borough are also presented. The proposed implementation and recommendation strategies are highlighted below.

Sewer and Water system findings, issues and recommendations are based on interviews with DPW staff and by source materials provided by the Borough. All source materials provided by the Borough have been included in Appendix C or as a referenced figure.

2.0 SANITARY SEWER SYSTEM

The Borough's sanitary sewer system includes existing Pequannock River Basin Regional Sewerage Authority (PRBRSA) interceptor sewers, local sewer lines, pump station and force mains, which are identified on Figure VI-1. As illustrated, large portions of the western part of the Borough are serviced by municipal sewers particularly in the recently developed residential areas west of Mathews Ave and within the commercial and residential areas north of State Route 23. PRBRSA interceptor sewers are located along the entire length of the Newark-Pompton Turnpike in the Borough and along a portion of the Paterson-Hamburg Turnpike from the Newark-Pompton Turnpike to a point where it crosses the Pequannock River.

2.1 Implementation Program of the Sanitary Sewer Master Plan

The Borough, in its attempt to provide municipal sewer service to as many residences as possible, established a Sewer Master Plan based on the Sewage Flow Study conducted by the Borough's Sewer Engineer, William Ryden, dated December 21, 2004. The Sewer Master Plan identified a priority list based on the findings from the Study. A copy of the priority area list can be viewed in Appendix C.

The Study developed criteria that lead to a phased approach for improvements based on current needs and availability. The list provided by the Borough was based on the following:

“Many of the residences were built fifty and sixty years ago, putting a strain on the old, existing septic and cesspool systems. It is the Borough's policy to provide adequate sanitary sewers for those buildings, in need, already in existence.”

According to the list, there are three groups or areas for which planned improvements are made. Improvements to the sewer infrastructure will be divided into nine phases based on current need and availability. It is the intent of the Borough of Riverdale to make improvements to the sanitary sewer

system consistent with the findings of the Sewer Flow Study and Sewer Master Plan. A list of phased areas by group is presented below.

Group One

Phase I

Newberry Place
Brown Court
Arlington Avenue
Riverdale Parkway

Phase II

Mead Avenue
Post Lane - Upper end (*between Munn Avenue and Newark Pompton Turnpike*)

Munn Avenue

Halsey Avenue

Federal Place

Drace Place

Haycock Avenue

Phase III

Oak Street

Cedar Street

Loy Avenue

Sonya Terrace

Cottage Place

Group Two

Phase IV

Post Lane - Lower end

Riverview Terrace

Fernwood Crescent

Stratford Place

Dalton Drive

Phase V

Morris Avenue

Curtis Street

Group Three

Phase VI

Evans Road

Windbeam Road

Macopin Road

Hillcrest Terrace

Afterglow Way

Wayside Place

Phase VII

Hemlock Street

Linden Street

Mickens Avenue

Mullins Avenue

Ryerson Avenue

Mathews Avenue

Phase VIII

William Street

Riverdale Road

Phase IX

Hartung Avenue

Wesley Street

Cotluss Road (*Route 23*)

Stoneleigh Terrace

Michael Drive

Hillside Avenue

Highland Avenue

Wilson Avenue

Carper Lane

It is also the hope that the Riverdale Quarry will someday be developed as a multiple use community following the closure of current operations. The Borough envisions reclaiming the area for open

space (both passive and active recreation) and as a specialty retail district and potential district for government uses and services. Currently, this area is not serviced by sewer infrastructure, which would limit reclamation opportunities following the closure of the existing facility. It is the intent of the Borough to assess infrastructure needs in this area prior to the closure of the facility to encourage future envisioned development opportunities.

3.0 WATER SYSTEM

Water supplies for the Borough of Riverdale are managed by the Riverdale Water Department, located at the Department of Public Works (DPW) building on Dalton Drive and within the Borough's administrative offices at the Borough Hall at 91 Newark-Pompton Turnpike. The Riverdale Water Department is a community water system consisting of one groundwater production well (see Figure VI-2) and one purchased ground water source. Figure VI-2 indicates that two production wells exist within the Borough; however, one municipal well was abandoned in 2000.

Source water comes from the Brunswick aquifer, a glacial sand and gravel groundwater resource. The Borough's water is not derived from any surface water features. The Borough's existing public water distribution system is illustrated in Figure VI-3. The figure shows that most areas in the Borough are served by the distribution system, which consists of water mains and storage tanks.

Water for the Riverdale system is derived from one production well located near Independence Park and Freedom Park along Dalton Drive west of the Pequannock River. The well, which has been updated within the past 10 years, supplies approximately 200,000 gallons of water to the community per day. The water from the well is treated with poly-phosphates before it goes for public use and the system is flushed twice a year. The Borough's water quality complies with all drinking water standards for chemical and organic contaminants as set by the State of New Jersey and the U.S. Environmental Protection Agency.

The Borough also purchases water from the Passaic Valley Water Commission (PVWC). The contract between the Borough and PVWC is for up to 1,000,000 gallons of water per day; however, the Borough purchases an average of only 8-13 million gallons of water per month, which is a small fraction of its daily allotment. As such, there is additional capacity within the PVWC water

distribution system to serve the community's future water needs. An assessment of future water demand should be conducted to determine if existing excess capacity will meet anticipated development needs.

Water System Issues

Not unlike other communities, the Borough of Riverdale's original water system established prior to recent development is aging and will soon reach or exceed its anticipated lifespan. Throughout the next 10 to 20 years the original system will require maintenance and repair to prevent unexpected service disruptions. Currently, water is leaking from the pipes within the system on Matthews Avenue near Rock Creek Development. In addition to leaking pipes, the existing well head is located in an area developed with houses that are not serviced by sewers; but instead, rely on a septic system for treatment. The well head is also located near a rail yard which is used by the railroad for freight storage. A threat to the aquifer exists if freight cars were to leak into the ground.

As mentioned above in the sewer system section, it is also the hope that the Riverdale Quarry will someday be developed as a multiple use community with passive and active open space following the closure of current operations. Currently, this area is not serviced by water infrastructure, which would limit reclamation opportunities following the closure of the existing facility. It is the intent of the Borough to assess infrastructure needs in this area prior to the closure of the facility to encourage future envisioned development opportunities.

3.1 Recommendations for the Water System

1. Investigate the location and cause of any leaks within the water system, including those known to exist on Matthews Avenue near Rock Creek Development.
2. Identify what repairs need to be made and prepare a summary report prioritizing improvements and repairs using the Sewer Master Plan as a model. As necessary, seek funding for improvements, and put any necessary repairs out to bid if they can not be handled by in house staff and resources.

3. As necessary, conduct routine inspections and perform routine maintenance on the existing water system.
4. Consider future water demand generated from major projects/initiatives, including envisioned projects such as the Riverdale Quarry reclamation as a multiple use community. The Quarry is anticipated to cease operations as early as 2014. Detailed water (and sewer) studies assessing needs, capacity analysis, and designs should be conducted prior to the closure of this facility.
5. An assessment of future water demand should be conducted to determine if existing excess capacity will meet anticipated development needs.
6. Protect local well head areas from pollution. This includes pollution from sources such as the existing septic systems and the railroad corridor located in the vicinity of the existing municipal well head. Implement the Sewer Master Plan and extend sewer infrastructure in these areas. Also, coordinate with the owner of the railroad to determine their short-term and long-term plans for the corridor. Encourage the owner of the railroad to store tanker cars in another location where the threat of ground water contamination does not exist.



V. CIRCULATION ELEMENT



V. CIRCULATION ELEMENT

1.0 INTRODUCTION

Travel patterns within the Borough of Riverdale reflect its location in Morris County that is surrounded by significant levels of commercial and residential development in adjacent municipalities. Much of the vehicular traffic within the Borough that is experienced along its major thoroughfares is “through” commuter-oriented vehicular traffic destined for locations outside the boundaries of Riverdale. However, in recent years as both residential and commercial development has accelerated in Riverdale itself traffic patterns on major and minor roadways have been altered to reflect more and more travel origins and destinations within the community.

To develop recommendations and understand the need for future improvements to the vehicular and pedestrian circulation systems in Riverdale, the existing transportation system must be assessed. This assessment is accomplished through an evaluation and update of information provided on roadway classifications, traffic volumes, traffic safety problem areas and proposed roadway improvements.

2.0 ROADWAY CLASSIFICATIONS

A functional classification system of streets and highways provides a graduated system of traffic flow. Efficient and safe operation of the system requires that specific roadway facilities be designed to serve a specific purpose within the street hierarchy. Roadways within the Borough are under three jurisdictions, State, County and local. The Classification of roadways is made according to the

movement served by that roadway and not according to traffic volumes on the roadway. The functional classifications with respective definitions are summarized in Table V-1.

Table V-1
STATE of NEW JERSEY DEPARTMENT OF TRANSPORTATION 2000 URBAN FUNCTIONAL CLASSIFICATION OF ROADS MORRIS COUNTY, NJ
<i>Urban Freeway/Expressway/Interstate:</i> Primary function is to serve through traffic and provide high speed mobility. Access provided from major streets at interchanges. Limited or no access to abutting land uses.
<i>Urban Principal Arterial:</i> Intended to provide a high degree of mobility and serve longer trips than minor arterials. Principal function is movement, not access. Should be excluded from residential areas.
<i>Urban Minor Arterial:</i> Interconnects and augments the major arterial system. Accommodates trips of shorter lengths. Operating speeds and service levels are lower than major arterials. Should be excluded from identifiable residential neighborhoods.
<i>Urban Collector:</i> Provides both land access and movement within residential, commercial and industrial areas. Penetrate but should not continue through residential areas.
<i>Urban Local:</i> Provide land access and can exist in any land use setting. Movement is incidental and involves travel to and from a collector facility.
<i>Source: NJDOT 2004 with Definitions Provided by Transportation Land Development Institute of Transportation Engineers, 1988.</i>

Figure V-1 *Road Jurisdiction Map* illustrates Riverdale’s roadway jurisdictions. Jurisdictions include: Municipal (Borough of Riverdale), County (Morris County Division of Transportation), State (New Jersey Department of Transportation), Interstate (Federal Highway Administration with jurisdiction under the New Jersey Department of Transportation) and Private. A brief description of the mode and function of each major roadway defined by its classification is included below.

2.1 Interstate

Interstate 287 (I-287) is the only interstate highway within Riverdale. It is the primary north/south route for large volumes of through traffic in the community commuting between areas north of New Jersey including connections to the I-87 and the Tappan Zee Bridge along the Hudson River and areas south and west of Riverdale including the New Jersey Turnpike.

I-287 has two interchanges in Riverdale, one at State Route 23 in the approximate center of the Borough and one at the Paterson-Hamburg Turnpike along the Borough's northernmost boundary along the Pequannock River. The interchange at State Route 23 is a full interchange providing complete access between I-287 and Route 23. The interchange at the Paterson-Hamburg provides only southbound access to I-287. Interstate 287 is under the jurisdiction of the New Jersey Department of Transportation.

2.2 Principal Arterials

New Jersey State Route 23 (NJ 23) Under the jurisdiction of the New Jersey Department of Transportation this route provides the primary means of east-west highway access through Riverdale with a full interchange at I-287. Route 23 varies in width from two to six lanes within the Borough. Access is controlled at key intersections, some of which are signalized.

2.3 Minor Arterials

Paterson-Hamburg Turnpike (County Routes 694 and 511): is primarily a minor two-lane arterial road from west of the Newark-Pompton Turnpike (Rte. 694) to the Riverdale line with the Borough of Butler. The Turnpike traverses Riverdale in an east-west direction south of the Pequannock River. East of the Newark-Pompton Turnpike the Paterson-Hamburg Turnpike (Rte. 511) is classified as a principal arterial east to the Riverdale line with Pompton Lakes. Roadway width and the number of travel lanes vary from two to four lanes along sections of this roadway in Riverdale. Turning lanes are provided at the I-287 interchange and at the Newark-Pompton Turnpike.

Newark-Pompton Turnpike (County Route 511): is a minor arterial road traversing Riverdale in a north-south direction between State Route 23 and the Paterson-Hamburg Turnpike. The roadway is primarily a two lane roadway with one travel lane in each direction and shoulders that vary in width of approximately 4 to 6 feet. A designated Morris County bike lane approximately five feet in width exists along the east side of the Turnpike.

Riverdale Road: is an east-west roadway classified as a minor arterial providing direct east-west access to State Route 23 and the Newark-Pompton Turnpike to Pompton Lakes east of Riverdale. Riverdale Road is primarily a two lane roadway with one lane in each travel direction.

2.4 Collectors

Mathews Ave.: located west of the Riverdale Quarry in the western portion of the Borough is classified as an urban collector. Mathews Ave. provides direct connection between two major access routes through Riverdale which includes State Route 23 and the Paterson-Hamburg Turnpike. Land use along this collector is primarily residential with some non-residential use southeast of the intersection with the Paterson-Hamburg Turnpike. The roadway is a winding two lane local roadway with areas of steep gradient and limited sight distances.

2.5 Local and Private Roads

The Borough maintains approximately 12.1 miles of local roads under its jurisdiction. Municipal roads are identified on Figure V-1. Private roads in the Borough are limited to recent residential developments. These are also identified on Figure V-1.

3.0 VEHICULAR TRAFFIC VOLUMES

The Borough of Riverdale, like many other municipalities in northern New Jersey continues to experience a significant increase in housing and non-residential forms of development. This development, which is occurring in Riverdale and surrounding communities, has resulted in changing travel patterns and increased traffic volumes on some arterials and local roadways. Riverdale's road system is affected by traffic volume growth from neighboring municipalities in addition to its own locally-generated traffic. Although it is oftentimes considered undesirable to have a high volume of "through" traffic traveling along local municipal roadways, Riverdale's geographical location and built-out development patterns does not permit otherwise.

Traffic count data from Morris County indicate actual decreases in volumes on some arterials under the County's jurisdiction in Riverdale. These decreases may correspond with the completion of I-287 from Montville to Mahwah in 1994. Average 24 hour traffic volumes from counts conducted along the Paterson-Hamburg Turnpike in 2003 west of I-287 in Riverdale totaled 19,231 vehicles. This was a decrease from counts conducted along the same stretch of road in 1994 that totaled 25,638 and

23,177 in 1990. Average 24 hour traffic volumes conducted along the Paterson-Hamburg Turnpike at the Passaic County line (East) totaled 20,707 vehicles in 2003 compared to 28,326 in 1994 and 27,542 in 1990.

Average 24 hour traffic volumes along the Newark-Pompton Turnpike north of State Route 23 totaled 12,613 vehicles in 2005, also down considerably from 23,743 vehicles recorded in 1993. Riverdale Road in Riverdale at the Passaic County line also experienced a decrease from 6,765 recorded in 2005 down from 8,256 in 1994 and 8,701 in 1990. More recent numbers for this area, however, indicate that traffic may be increasing. Morris County conducted a count on Riverdale Road east of the Newark-Pompton Turnpike of 8,102 vehicles as of October 11, 2006. During afternoon peak hour periods it is not unusual for commuters to sit through several traffic light cycles in a congested situation at the intersection of the Hamburg and Newark-Pompton Turnpike in an effort to get to I-287 or head westbound on the Hamburg Turnpike towards other communities.

Traffic volumes on I-287 within the Borough are considerably higher than experienced anywhere else within Riverdale as would be expected of an interstate. Annual Average Daily Traffic (AADT) volumes of 99,167 vehicles were recorded by the NJDOT along the Interstate between State Route 23 and County Route 694 based on numbers recorded on October 3, 2006. This reflects an increase of 15,437 vehicles from a count conducted in 2003, which recorded 83,730 vehicles. It is assumed that perhaps some of the traffic volume decreases recorded on local roads in Riverdale in recent years as described previously in comparison to earlier counts may be the result of greater numbers of people using the interstate or Route 23, or a combination of both to get through the Borough.

Traffic volumes along Mathews Ave between State Route 23 and the Paterson-Hamburg Turnpike include an AADT of 1652 vehicles recorded in 2005 which was a slight decrease from 1827 vehicles recorded in 2002, but up considerably from 1202 recorded in 1994. This increase may be attributable to two factors one the increase in residential development along Mathews Ave, and two, drivers may be using Mathews Ave as an alternative route between Route 23 and the Paterson-Hamburg Turnpike.

An opportunity to reduce traffic volumes on Mathews Ave. and other areas in the western part of the Borough is to develop a connection from Route 23 to the south and the Paterson-Hamburg Turnpike to the north through the Riverdale Quarry area. In the Borough's 1997 Master Plan it was recommended that a service road be provided along the northbound side of Route 23 from the Riverdale Quarry to the former Suntan Lake property. The service road is intended to help relieve some of the congestion being created by the recent influx of commercial development along the Route 23 corridor.

This connection between the Hamburg Turnpike and Route 23 has been shown on previous Master Plan maps in both 1991 and 1997. The proposed Development Scenario for the Riverdale Quarry illustrates a possible connecting road from the Hamburg Turnpike through the east side of the quarry following an existing road section to the southern boundary of the quarry. Making the connection from the quarry through the recently developed commercial area to connect to Route 23 should be investigated in more detail to determine its ultimate location and feasibility.

4.0 PUBLIC TRANSPORTATION

An alternative to the use of private vehicle modes of transportation is available in Riverdale via bus service. The Borough encourages alternative forms of public transportation particularly as congestion on area roadways takes place and is likely to increase in the future. Issues involved with each form of public transportation are discussed below.

4.1 Bus Service

Morris County Metro operates the MCM2 bus line under agreement with New Jersey Transit. Bus service is provided along both the Paterson-Hamburg Turnpike and the Newark-Pompton Turnpike in Riverdale with bus stops at several locations.

Eventually, expansion of existing bus routes must be considered as new development and redevelopment within the Borough continues to occur. This is particularly important in high traffic areas where significant residential and commercial development is occurring such as along the NJ

Route 23 corridor. Transit-oriented development patterns are encouraged and are discussed in more detail in the Land Use section of the Master Plan.

4.2 Rail Service

Passenger rail service is not provided within the Borough, and at present, there is no infrastructure to support passenger rail service. The nearest passenger service is available at the Mountain View Rail Station in Wayne Township located in Passaic County. The potential for some form of passenger rail service in the Borough in the future is uncertain, but this possibility should be considered and encouraged as new development occurs in Riverdale along the Paterson-Hamburg Turnpike and in the vicinity of the Riverdale Quarry. Some form of transit-oriented development is possible at both locations and could provide the Borough with much needed public transit forms of transportation access.

Freight service is provided by the New York, Susquehanna & Western Railroad (NYS&W) through Riverdale. Railroad lines in the Borough are identified in Figure III-4 and discussed in the Land Use section of the Master Plan.

5.0 PEDESTRIAN CIRCULATION

Pedestrian circulation within Riverdale is provided primarily along a series of interconnected sidewalks through existing residential areas mostly in the older established neighborhoods of the Borough east of I-287. Trail and pedestrian pathways construction and planned for construction has recently been spearheaded within the Borough by the Morris County Division of Transportation. It is a goal of the Borough to interconnect local pedestrian trails and pathways in the future with local destinations such as schools, parks, and open space areas with existing and planned trail networks and sidewalk systems in other municipalities within Morris County through connection to the County's Patriots Path trail and other pedestrian circulation systems in Passaic County communities.

5.1 Morris County Parks Trail System

The Morris County Parks Commission is continually enhancing Patriots Path, which is a network of hiking, biking, equestrian trails, and green open spaces that link several townships together with Federal, state, county, and municipal parks, watershed lands, historic sites and other points of interest across Morris County. Patriots Path's purpose is to protect and enhance the environment and aesthetic integrity of the stream valleys and uplands through which it passes, while providing opportunities for passive outdoor recreation.

The County's 50 mile Patriots Path trail network is located throughout Morris County and is comprised of various trail surfaces including crushed stone and gravel, pavement, and exposed earth and rock. Several miles of trails lie on cinder and the gravel beds of old railroad lines. The trails are used for hiking, horseback riding, cross-country skiing, biking, walking, and jogging.

It is anticipated that Morris County will undertake additional trail projects in the next few years including the New York, Susquehanna & Western (NYS&W) Bicycle & Pedestrian Path project. This 5 mile project will follow the NYS&W rail line right-of-way approximately parallel to NJ Route 23 in some locations. This trail system will follow the rail line from River Road in Pequannock to the Mountain View Rail Station in Wayne Township located in Passaic County. It is envisioned that the trail will link schools, libraries, parks and NJ Transit locations along the corridor. At this time, however, Riverdale has voted to exclude itself from the associated Interlocal Bike Path Agreement.

5.2 Riverdale's Pedestrian System

At the present time, opportunities for local trails under the jurisdiction of the Borough are being identified. These include opportunities to connect to the Morris County Trail System. The River Walk residential community that is being constructed in the southeastern portion of the Borough alongside Riverdale Road, both to the north and south, will include pedestrian walkways meandering along the Pequannock River and easterly through the community with opportunities to connect to the County's trail in the vicinity of the athletic fields and recreational facilities at Freedom and Independence Park. A project by a local Eagle Scout included the construction of a pedestrian bridge

over a tributary stream to the Pequannock south of the Park. This will enable connection to the County's Trail System once it is completed in the Borough, thereby creating a two-to three mile long looping trail in Riverdale with connections to the south. The County's portion of the trail system in Riverdale will include a trailhead and vehicle parking near the Borough's existing Police Department's pistol range south of Post Lane and west of Dalton Drive.

6.0 CIRCULATION RECOMMENDATIONS

The primary objective of the Circulation Element is to outline the means for the safe and efficient movement of vehicles and pedestrians to, from and within the Borough of Riverdale. The following recommendations are provided in this element to help meet these objectives:

1. Future residential and commercial development should continue to be encouraged to interconnect their sites with existing and planned vehicular and pedestrian linkages, particularly with future opportunities in "downtown" Riverdale and on the Paterson-Hamburg Turnpike, the envisioned development of a multiple use district within the Riverdale Quarry, the possible development of trails along the Pequannock River north of the Paterson-Hamburg Turnpike and other open space areas within the Borough.
2. The Borough should prepare a Trail Plan to expand its local pedestrian circulation system and connect to Morris County trails and the trail systems of other municipalities creating linear and looping trail system connections wherever possible.
3. The Community Design Handbook found in Appendix B of this Master Plan provides additional standards and guidelines that are recommended relative to vehicular and pedestrian circulation within the community.
4. Continued coordination with the New Jersey Department of Transportation and the Morris County Division of Transportation is encouraged to move forward with future transportation enhancements in areas where redesign is being encouraged including the Paterson-Hamburg Turnpike corridor and possible creation of riverside park facilities and trail system

development along the entire stretch of the Pequannock River in Riverdale. There are also future opportunities to expand existing bike lanes in the Borough, for example along the Paterson-Hamburg Turnpike, to interconnect with other bicycle and trail systems along municipal roadways such as the Newark-Pompton Turnpike and the Pequannock River.

5. Continued coordination with Morris County Metro (MCM) to expand bus and public transit services in areas where redesign is being encouraged including the Paterson-Hamburg Turnpike corridor and encourage transit-oriented design projects in the community.
6. The Borough of Riverdale should investigate the feasibility of providing the last remaining linkages needed to create a full connection between Route 23 to the south and the Paterson-Hamburg Turnpike to the north via the Riverdale Quarry.



IV. DEMOGRAPHIC ELEMENT



IV. DEMOGRAPHIC ELEMENT

1.0 INTRODUCTION

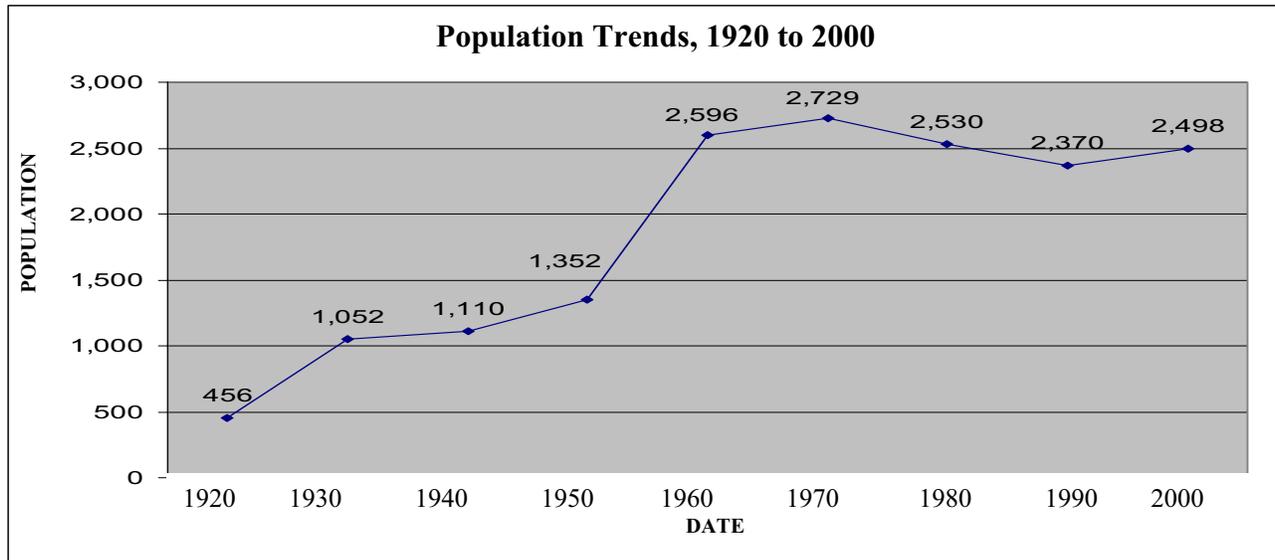
Population analysis provides information for the planning of schools, infrastructure, residential, office, commercial, retail, industrial and recreational facilities. It also provides a snapshot of what the community is comprised of during a specific period in time. Trends can be identified when the same demographic element is compared to itself for different time periods. For example, the question of whether Riverdale gained or lost population during the last ten years could be determined when we compare the population in 1990 against the population in 2000. In doing so, we see that Riverdale experienced a growth trend during this ten-year period. Trends can then be used to help guide policies that will be designed to promote the type of growth and development desired by the community.

Most of the data provided below will reflect trends that have occurred within Riverdale during the previous ten-year period recorded by the U.S. Census Bureau (1990 to 2000). However, as an update to the Borough's 1985 Master Plan, some of the demographic data provided below incorporates information dating back to earlier decades. Therefore, data presented will also reflect earlier population trends within the Borough. Such relevant information from earlier periods will be provided to enhance the reader's understanding about historical growth trends. This understanding will in turn be used to help guide policy decisions for the future development of Riverdale.

2.0 HISTORICAL BACKGROUND

Riverdale’s population growth between the 1920’s and the end of World War II (WWII) had been steadily increasing. Graph IV-1 shows population growth and decline in the Borough of Riverdale from 1920 to 2000.

Graph IV-1 Population Trends, Borough of Riverdale, New Jersey, 1920 to 2000



The decade following WWII experienced growth as soldiers returning from the war increased the population in communities across the country within and near major metropolitan centers such as New York City. Post-war U.S. housing policy and the U.S. Highway Act also encouraged growth in areas such as Riverdale as new transportation and housing opportunities became available.

As business and industrial activity spread from the New York/Newark urban region, the demand for housing increased. By 1970, Riverdale’s population peaked at 2,729. The Borough’s population during the following two decades, however, began to decline.

Recently, Riverdale has experienced residential and commercial development pressure. Development pressure has resulted in population growth thereby reversing the out-migration trend experienced during the previous two decades. This growth trend is anticipated to continue during the

near future, especially as people continue to move out of highly populated cities, such as New York City, following the September 11, 2001 terrorist attacks and as the numbers of single individual households continues to increase as part of a national trend towards smaller size households.

3.0 DEMOGRAPHIC AND EMPLOYMENT DATA

As previously mentioned, the population of the Borough of Riverdale grew from 2,370 in 1990 to 2,498 in 2000. The age characteristics for Riverdale based on the 1990 and 2000 U.S. Census are shown in Table IV-1.

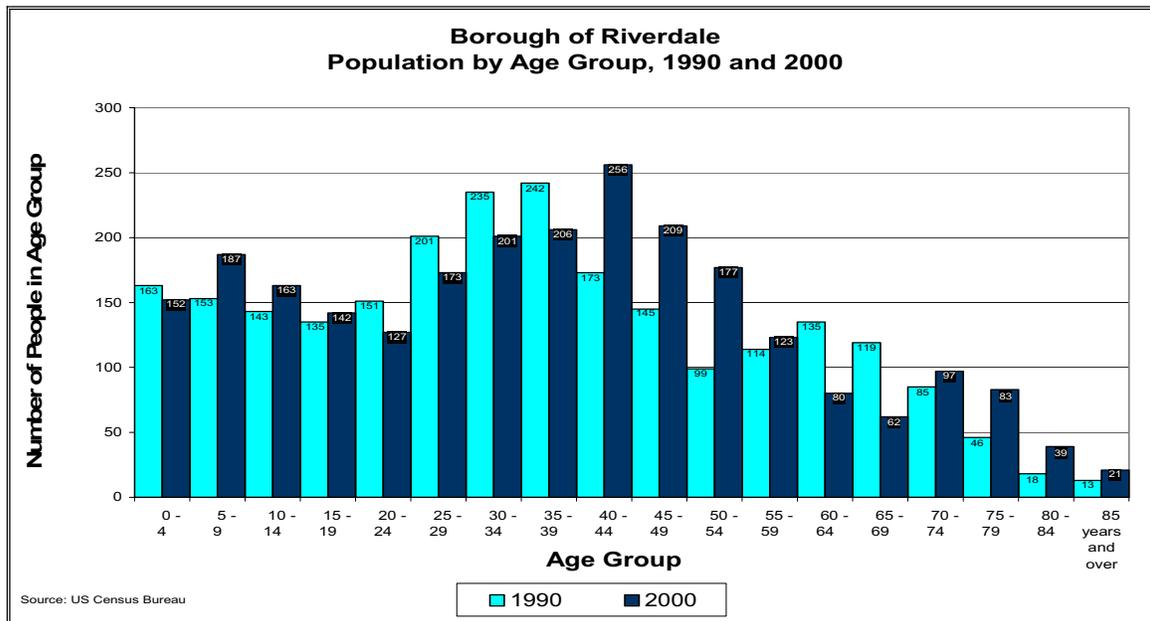
Table IV-1 Population by Age Cohort, Borough of Riverdale, 1990 & 2000

Population by Age Cohort, Borough of Riverdale, 1990 & 2000	1990	2000	Change		Percent of Total Change		
			Absolute	Percent	1990	2000	('00-'90)
Population	2,370	2,498	128	5.4			
0 - 4	163	152	-11	-6.7	6.9	6.1	-0.8
5 - 9	153	187	34	22.2	6.5	7.5	1.0
10 - 14	143	163	20	14.0	6.0	6.5	0.5
15 - 19	135	142	7	5.2	5.7	5.7	0.0
20 - 24	151	127	-24	-15.9	6.4	5.1	-1.3
25 - 29	201	173	-28	-13.9	8.5	6.9	-1.6
30 - 34	235	201	-34	-14.5	9.9	8.0	-1.9
35 - 39	242	206	-36	-14.9	10.2	8.2	-2.0
40 - 44	173	256	83	48.0	7.3	10.2	2.9
45 - 49	145	209	64	44.1	6.1	8.4	2.2
50 - 54	99	177	78	78.8	4.2	7.1	2.9
55 - 59	114	123	9	7.9	4.8	4.9	0.1
60 - 64	135	80	-55	-40.7	5.7	3.2	-2.5
65 - 69	119	62	-57	-47.9	5.0	2.5	-2.5
70 - 74	85	97	12	14.1	3.6	3.9	0.3
75 - 79	46	83	37	80.4	1.9	3.3	1.4
80 - 84	18	39	21	116.7	0.8	1.6	0.8
85 years and over	13	21	8	61.5	0.5	0.8	0.3
0 - 4	163	152	-11	-6.7	6.9	6.1	-0.8

Source: US Census Bureau

The population between 20 and 64 years old, which comprise the general work force, is 1,552, or 62.1% of the total population. The pre-school and school-age population is 644, or 25.8%, and the remaining 302 individuals, or 12.1% of the population, represent that portion of the population in the post child-raising and retirement age bracket. Graph IV-2, shows population by age group for both 1990 and 2000.

Graph IV-2 Population by Age Group, 1990 and 2000



As illustrated in Graph IV-2, there are fewer 0-5 year olds, 20 to 39 year olds, 60-69 year olds and more 5 to 19 year olds, 40-59 year olds, and 70+ year-olds in 2000 than there were in 1990.

During the 1990s, the Borough of Riverdale began to experience growth in its minority population, while its non-minority population levels remained virtually stagnant. These trends are depicted in Table IV-2. In 1980, the Borough did not contain any minorities. By 1990, however, the number of minorities increased to 2.2 percent of the Borough’s total population. This trend continued during the next decade. In the year 2000, there were 111 additional minorities that located within the community and only 17 additional people were categorized as white. The growth associated with the Borough’s population during the 1990s was largely attributed to the growth in its minority population. As a result, 13.3 percent of Riverdale’s growth during the 1990s was attributed to its white population growth while 86.7 percent of the community’s growth was attributed to its minority

population. Thus, by 2000, 6.6 percent of Riverdale’s population was minority with the largest growth being classified as “Asian or Pacific Islander” or “some other race”.

Table IV-2 Population by Race, 1990 and 2000

Population by Race 1990 and 2000	1990		2000		Change		Percent of Total	
	Absolute	Percent	Absolute	Percent	Absolute	Percent	Change ('00-'90)	
Population	2,370	2,498	128	5.4				
Population of one race:								
White	2,316	2,333	17	0.7	97.7	93.4	-4.3	
Black or African American	16	27	11	68.8	0.7	1.1	0.4	
American Indian & Alaska Native	1	1	0	0.0	0.0	0.0	0.0	
Asian or Pacific Islander	15	68	53	353.3	0.6	2.7	2.1	
Some other race	22	69	47	213.6	0.9	2.8	1.8	

Source: US Census Bureau

As discussed above, the Borough of Riverdale is losing its population of 20 to 39 year-olds. This age cohort is important to review in order to determine the need of educational facilities within the community. For instance, a decreasing population in this age cohort suggests that there are fewer families with young children in need of education. This trend is further supported in Table IV-3 which shows the educational attainment of Borough residents.

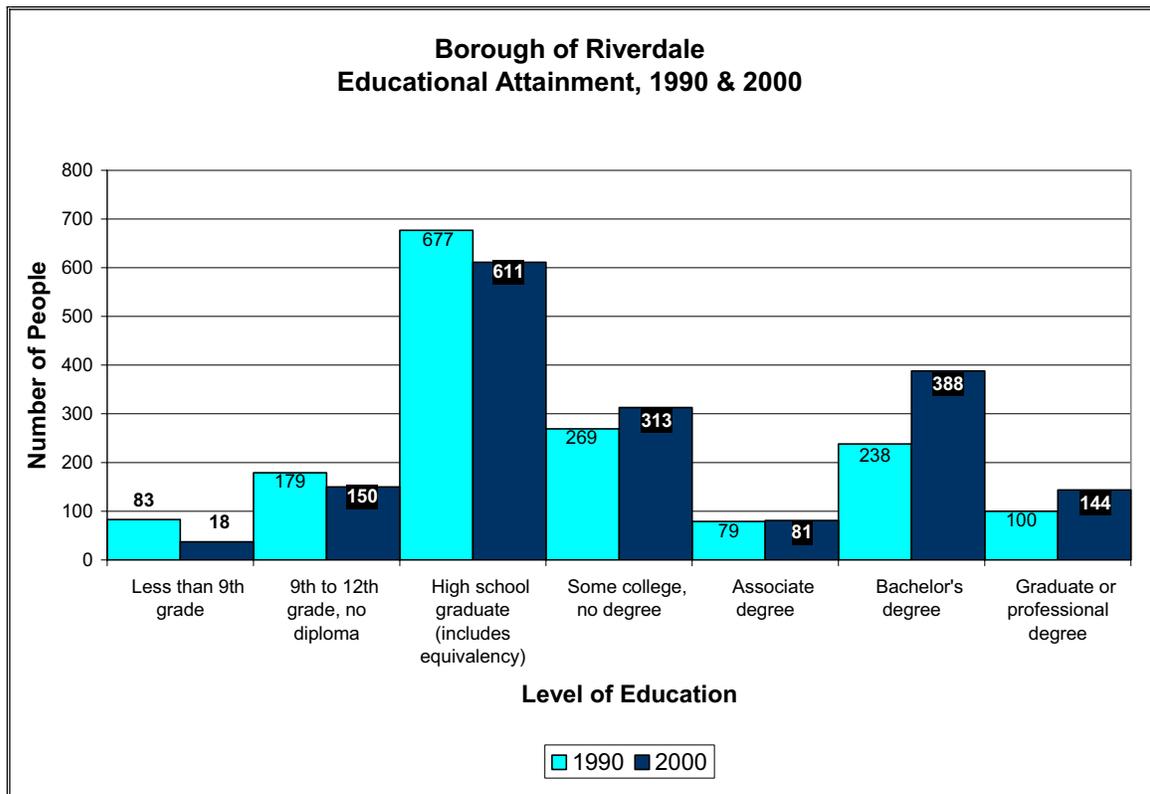
Table IV-3 Educational Attainment, 1990 & 2000

Educational Attainment, 1990 & 2000	1990		2000		Change		Percent of Total	
	Absolute	Percent	Absolute	Percent	Absolute	Percent	Change ('00-'90)	
% OF PERSONS IN SAMPLE	47.2	23.9						
EDUCATIONAL ATTAINMENT (Total)	1,625	1,724						
Less than 9th grade	83	37	-46	-55.4	5.1	2.1	-3.0	
9th to 12th grade, no diploma	179	150	-29	-16.2	11.0	8.7	-2.3	
High school graduate (includes equivalency)	677	611	-66	-9.7	41.7	35.4	-6.2	
Some college, no degree	269	313	44	16.4	16.6	18.2	1.6	
Associate degree	79	81	2	2.5	4.9	4.7	-0.2	
Bachelor's degree	238	388	150	63.0	14.6	22.5	7.9	
Graduate or professional degree	100	144	44	44.0	6.2	8.4	2.2	

Source: U.S. Census

Although the number of people with college and advanced college degrees increased during the 1990s, there were fewer children in elementary, middle or high school in 2000 than there were in 1990. This trend is a continuation of what had occurred within the community during previous decades as indicated in the Borough’s 1985 Master Plan. Graph IV-3 compares the level of educational attainment for residents of Riverdale for 1990 and 2000.

Graph IV-3 Educational Attainment, Borough of Riverdale 1990 and 2000



During the 1990s, the Borough of Riverdale also experienced an increase in household income. As indicated in Table IV-4 and in Graph IV-4, there were fewer households making less than \$74,999 and a greater number of households making more than \$75,000. Median household income also increased 57.1 percent during the 1990s.

Table IV-4 Household Income for 1990 & 2000

Household Income for 1990 & 2000			Change		Percent of Total		
	1990	2000	Absolute 1990	Percent 2000	1990	2000	Change ('00-'90)
MEDIAN HOUSEHOLD INCOME	45,250	71,083	25,833	57.1			
MEDIAN FAMILY INCOME	50,703	79,557	28,854	56.9			
HOUSEHOLD INCOME (Total)	861	927					
Less than \$10,000	33	35	2	6.1	3.8	3.8	-0.1
\$10,000 to \$14,999	35	28	-7	-20.0	4.1	3.0	-1.0
\$15,000 to \$19,999	52	16	-36	-69.2	6.0	1.7	-4.3
\$20,000 to \$24,999	56	32	-24	-42.9	6.5	3.5	-3.1
\$25,000 to \$29,999	66	17	-49	-74.2	7.7	1.8	-5.8
\$30,000 to \$34,999	77	47	-30	-39.0	8.9	5.1	-3.9
\$35,000 to \$39,999	56	49	-7	-12.5	6.5	5.3	-1.2
\$40,000 to \$44,999	53	37	-16	-30.2	6.2	4.0	-2.2
\$45,000 to \$49,999	48	57	9	18.8	5.6	6.1	0.6
\$50,000 to \$59,999	123	71	-52	-42.3	14.3	7.7	-6.6
\$60,000 to \$74,999	132	112	-20	-15.2	15.3	12.1	-3.2
\$75,000 to \$99,999	64	166	102	159.4	7.4	17.9	10.5
\$100,000 to \$124,999	40	131	91	227.5	4.6	14.1	9.5
\$125,000 to \$149,999	7	29	22	314.3	0.8	3.1	2.3
\$150,000 or more	19	100	81	426.3	2.2	10.8	8.6

Source: U.S. Census

As indicated in Table IV-5, approximately half of the Borough’s working population work outside of Riverdale. Roughly a third of the working population worked outside of the county, approximately 19 percent worked in the county and only about three percent (3%) worked in a different state.

The majority of Riverdale’s residents that are in the workforce (83.1%) drove themselves to work in 2000, and approximately 10% carpooled into work. More people walked to work or worked from home (4.3%) than those who took public transit or other means to work (3.0%). Therefore, it is safe to conclude that Riverdale is a very auto-oriented/dependant community. Approximately 65 percent of the workforce travels less than half an hour to work, while 28.6 percent travel up to an hour and only 7.1 percent travel more than an hour to work.

Graph IV-4 Household Income, 1990 & 2000

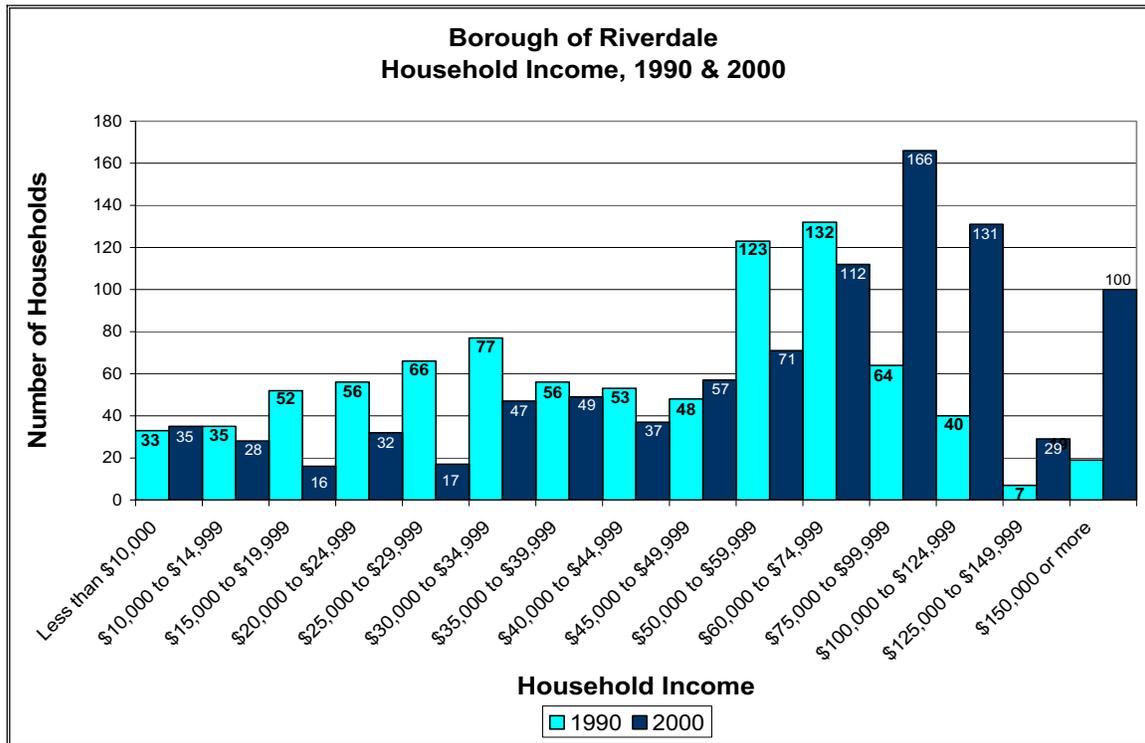


Table IV-5 Characteristics of Workforce, 1990 and 2000

Characteristics of Workforce 1990 and 2000	1990	2000	Change		Percent of Total		
			Absolute 1990	Percent 2000	1990	2000	Change ('00-'90)
% OF PERSONS IN SAMPLE	47.2	23.9					
TOTAL PERSONS IN WORKFORCE	2429	2614					
Worked in county of residence	427	504	77	18.0	17.6	19.3	1.7
Worked outside county of residence	785	819	34	4.3	32.3	31.3	-1.0
Worked outside state of residence	75	70	-5	-6.7	3.1	2.7	-0.4
Worked outside of place of residence	1142	1221	79	6.9	47.0	46.7	-0.3
MEANS OF TRANSPORTATION TO WORK	1,287	1,393					
Drove alone	1,083	1,158	75	6.9	84.1	83.1	-1.0
Carpooled	111	134	23	20.7	8.6	9.6	1.0
Bus or trolley bus	21	35	14	66.7	1.6	2.5	0.9
Streetcar or trolley car	0	0	0	N/A	0.0	0.0	0.0
Subway or elevated	0	0	0	N/A	0.0	0.0	0.0

Railroad	10	13	3	30.0	0.8	0.9	0.2
Ferryboat	0	0	0	N/A	0.0	0.0	0.0
Taxicab	0	0	0	N/A	0.0	0.0	0.0
Motorcycle	0	0	0	N/A	0.0	0.0	0.0
Bicycle	5	2	-3	-60.0	0.4	0.1	-0.2
Walked	27	18	-9	-33.3	2.1	1.3	-0.8
Other means	2	0	-2	-100.0	0.2	0.0	-0.2
Worked at home	28	33	5	17.9	2.2	2.4	0.2
TRAVEL TIME TO WORK	1,259	1,360					
Did not work at home:							
Less than 30 minutes	809	992	183	22.6	64.3	72.9	8.7
30 to 44 minutes	272	180	-92	-33.8	21.6	13.2	-8.4
45 to 59 minutes	88	61	-27	-30.7	7.0	4.5	-2.5
more than 60 min.	90	127	37	41.1	7.1	9.3	2.2

Source: U.S. Census

4.0 POPULATION TRENDS AND ESTIMATE

As previously mentioned, the population of the Borough of Riverdale grew from 2,370 in 1990 to 2,498 in 2000. This also resulted in an increase in population density per square mile by 86 individuals during the 1990s. Thus, by 2000 Riverdale had a density of 1,215, which is greater than Morris County’s population density of 1,003 people per square mile. Population by census block in Riverdale is provided in Figure IV-1. However, other communities such as Butler have a much higher density per square mile (3,569), while communities such as Kinnelon have a much lower density of 524 persons per square mile. Population by census block in communities surrounding Riverdale is provided in Figure IV-2.

Other communities surrounding Riverdale such as Pequannock, Butler, Kinnelon and Bloomingdale have experienced similar trends in population growth and decline as illustrated in Table IV-6 below. All of the communities except Bloomingdale, which is located north of Riverdale experienced population growth during the 1990s. As population growth continues to occur in these communities, areas such as Riverdale will continue to experience increased development pressure for housing, which may result in rising land values as well as other new types of development and supporting service needs.

Table IV-6 Population Trends for Riverdale and Surrounding Communities

Population Trends									
Population	2000	1990	1980	1970	1960	1950	1940	1930	1920
Riverdale	2,498	2,370	2,530	2,729	2,596	1,352	1,110	1,052	456
Pequannock	13,888	12,844	13,776	14,350	10,553	5,274	2,856	2,104	885
Butler	7,420	7,392	7,616	7,051	5,414	4,050	3,351	3,386	2,886
Kinnelon	9,365	8,470	7,770	7,600	4,431	1,350	745	428	180
Bloomingdale	7,160	7,530	7,867	7,797	5,293	3,251	2,606	N/A	N/A

Source: US Census Bureau and 1985 Riverdale Master Plan

Table IV-7 shows the percent change in population for the referenced communities for each decade from 1920 to 2000. During the 1990’s, Kinnelon experienced the fastest growing population at 10.6 percent. Riverdale was the third fastest growing community at 5.4 percent behind Pequannock at 8.1 percent. Morris County, however, grew at a faster rate (11.6%) than all of the communities noted in the table. In general, many communities experienced rapid and steady growth between 1920 and 1970, but saw a decline in population during the decades of the 70’s and 80’s.

Table IV-7 Percent Change in Population for Riverdale and Surrounding Communities

Percent Change in Population								
Percent Change in Population	00-90	90-80	80-70	70-60	60-50	50-40	40-30	30-20
Riverdale	5.4	-6.3	-7.3	5.1	92.0	21.8	5.5	130.7
Pequannock	8.1	-6.8	-4.0	36.0	100.1	84.7	35.7	137.7
Butler	0.4	-2.9	8.0	30.2	33.7	20.9	-1.0	17.3
Kinnelon	10.6	9.0	2.2	71.5	228.2	81.2	74.1	137.8
Bloomingdale	-4.9	-4.3	0.9	47.3	62.8	24.8	N/A	N/A

Source: US Census Bureau and 1985 Riverdale Master Plan

Population estimates can be used to verify anticipated trends within the Borough. The New Jersey Department of Labor publishes municipal population estimates between decennial censuses. Table IV-8 illustrates the estimates for the years 2001 through 2004, which show that the Borough’s population continued to grow at a steady rate.

Table IV-8	
Borough of Riverdale	
Population Estimates, 2001 - 2004	
Year	Population
2001	2502
2002	2539
2003	2610
2004	2633
Source: New Jersey Department of Labor	

Please note that these estimates are current as of July 1st of each year. They are calculated primarily based on building permits issued for new housing and the persons per household data from the previous census.

In 2000, the average household size in the Borough of Riverdale was 2.68. Two new high density residential projects are anticipated to be built-out in the near future. The first project known as the River Walk project will consist of 424 units, half of which will be age restricted (55 and up). Assuming a household size of two (2) adults for the age restricted section, it is anticipated that 424 new adults (212 x 2) will be added to the community. The remaining 212 units multiplied by the Borough’s average household size (2.68) will potentially result in an additional 568 people. In total, 992 new residents could be anticipated from the River Walk project.

Similarly, the Borough is anticipating the development of an additional 558 units of multiple-family housing in a project known as the Alexan at Riverdale. The proposed project is anticipated to be constructed in two phases; each phase may exist independently from the other. The first phase of the development consists of four buildings with 316 apartment units and the second phase consists of four buildings containing 242 condominium units. Thus, the total 558 units are anticipated to potentially increase the Borough’s population by 1,495 people if the average household size is 2.68.

Therefore, the River Walk project and the Alexan at Riverdale project are anticipated to bring up to an additional 2,487 people into the community. Assuming that some percentage of residents at these projects were to relocate from other housing within the Borough there would still be housing freed up from elsewhere within Riverdale that would likely attract new residents to the community. Therefore, the Borough's population is anticipated to increase substantially with the build-out of these two projects in the next few years and will accelerate population growth trends in the community. As the population increases demands for new services and facilities will increase and there will be a potentially large impact to infrastructure (roads, water and sewer facilities). These changes need to be anticipated and accounted for as the Borough continues to plan for future development.



III. LAND USE ELEMENT



III. LAND USE ELEMENT

1.0 INTRODUCTION

The Municipal Land Use Law in N.J.S.A. 40:55D-62 gives municipal governing bodies the power to adopt or amend a zoning ordinance relating to the nature and extent of the uses of land and of buildings and structures. The statute goes on to state:

Such ordinance shall be adopted after the planning board has adopted a land use plan element and the housing plan element of a master plan, and all of the provisions of such zoning ordinance or any amendment or revision thereto shall either be substantially consistent with the land use plan element and the housing plan element of the master plan or designed to effectuate such plan elements;

The land use plan, therefore, is critical in establishing the land use policies of the Borough that will be implemented by the zoning ordinance. The Municipal Land Use Law purposefully structures the planning and zoning process so that the logical progression is to develop the land use plan and follow that with the adoption or amendment of the zoning ordinance that is consistent with the plan.

This element of the Master Plan includes an inventory of existing land uses, presented in map, chart and narrative form, which presents a snapshot of Riverdale in 2006 and early 2007. Information on existing land use, environmental resources and conditions (steep slopes, wetlands, stream corridors, floodplains and aquifer recharge areas), utility availability, existing zoning patterns and other factors affecting land use in the community are used to develop this and other planning elements of the Master Plan. Geographic Information Systems (GIS) data obtained from Morris County were utilized

in the mapping of land use and natural resource information presented in this and other chapters of the Master Plan.

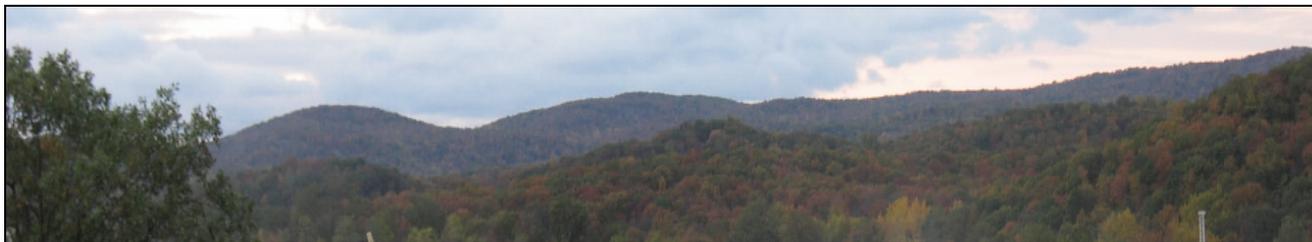
The land use plan element is intended to present policy recommendations for various uses of land, and various degrees of intensity of development, guided by the above conditions and the goals and objectives adopted as part of this Master Plan and State and regional policies. Specific land use recommendations for the Paterson-Hamburg Turnpike corridor and the Riverdale Quarry area are included as targeted revitalization areas and possible future land use opportunities in the Borough.

2.0 REGIONAL LOCATION

The Borough of Riverdale is best characterized as a suburban community located on the northeastern edge of Morris County, NJ in the Highlands Region less than thirty miles from New York City. The roughly two square mile Borough is bordered on the south by Pequannock Township, to the east by the Borough of Pompton Lakes, to the north by the Borough of Bloomingdale, to the west by the Borough of Butler, and to the southwest by the Borough of Kinnelon as shown on Figure III-1.

New Jersey State Highway Route 23 traverses the Borough in an east–west direction through the southern part of the community. It provides access to the regional highway network, which includes Interstate Route 287 from north to south. The Borough is also traversed from southeast to northeast by the Newark-Pompton Turnpike, as well as from northeast to northwest by the Paterson-Hamburg Turnpike both of which are historically two of the primary transportation corridors through the Borough.

Image III-1 – The Borough of Riverdale, New Jersey is situated along the transition between the Highlands and the Piedmont Region. This view is looking northwest from the Riverdale Quarry area.



Geologically, Riverdale is approximately 232 feet above sea level. Riverdale is situated along the transition from the New Jersey Highlands Region to the north and the Piedmont Region to the south. The Borough was settled along the Pequannock River, which is what encouraged its development as a mill town during the mid nineteenth century. An original mill dating from 1860 that was owned by Joseph Slater still exists today along the Pequannock River north of the Paterson-Hamburg Turnpike. The River forms the northern and eastern boundaries of the Borough.

3.0 EXISTING LAND USE

Historic settlement patterns in Riverdale largely developed around existing topography and terrain conditions. Those areas most conducive to development were located along the Pequannock River in the eastern half of the Borough where relatively flat lands exist in comparison to the much steeper terrain and hills of the western portion of Riverdale. As flat, developable land became scarce the steeper areas became much more attractive to development in the latter half of the 20th Century. This trend of development in areas of steep topography continues today as the value of land increases proportional to what remains of developable land in the Borough. Figure III-2 illustrates the topography of the Borough and clearly shows how development progressed from east to west in relation to topography.

Figure III-3 illustrates natural resources in the Borough. The Pequannock River and tributaries to the river are indicated as well as floodplain areas, state and federal wetlands. Although these resources somewhat dictate where development has or could occur the influence of these resources on the development patterns in the Borough are not nearly as significant as the influence that topography has on the past and present landscape characteristics of Riverdale. As Figure III-3 indicates, development has already occurred in areas where many of these resources exist or had existed.

Additional and more detailed information on the Borough's natural and open space resources are contained in Riverdale's Open Space and Recreation Plan that was completed by the Passaic River Coalition in August 2006. The Passaic River Coalition is a non-profit watershed association created in 1969 to provide advice on land and water resource management and public health information to citizens, governments and businesses in the Passaic River Basin. The Plan identifies many of the

issues currently facing the Borough in resource protection. The Open Space and Recreation Plan identifies current open space and recreational areas, population density, riparian and aquatic features, habitat for threatened and endangered species, wellhead protection areas, historic sites and addresses ways in which resources can be protected and conserved.

Existing land uses identified in the community in 2006 are illustrated in Figure III-4, and further described in chart form on Table III-1. The categories of land use analyzed in this chapter include: residential, apartment, commercial, industrial, farm qualified, church and charitable property, public property, public school property, other school property, other exempt property, open space, railroad Class I and II properties, and vacant land. Parcels identified as “null” indicate that existing land use data on those parcels are unavailable, uncertain or has not been categorized for GIS mapping purposes by Morris County.

Residential development is the single largest land use within the Borough. The percentage of the Riverdale’s land area devoted to residential use is 31.23 percent as of early 2007. An additional 0.13 acres of land is dedicated solely to apartment uses. The amount of residential land use has increased substantially in recent years, particularly in western portions of the Borough. These increases, compared to previous decades, are discussed in more detail later in this chapter.

Highest density residential land use has historically been located east of I-287 in the older established, more traditional small lot neighborhoods. These are the much flatter areas of the Borough that were, and remain today as perhaps the most conducive to dense forms of development.

Recently developed residential subdivisions are located on mostly larger parcels of land west of I-287 in the northwestern and south-central portions of the Borough. These areas will likely continue to experience residential development pressure in the near future.

Unlike eastern portions of Riverdale where housing was developed in the relatively flat areas new housing in western portions of the Borough is being developed on much steeper, more wooded terrain. In 2005, partly in response to this development pressure the Borough adopted its Steep Slope Ordinance to deal with issues related to future development in such environmentally sensitive areas.

The second largest land use category in the community is industrial property at 17.73 percent. Commercial land comprises 15.33 percent of land within the Borough. Industrial and commercial lands together comprise approximately 33 percent of the Borough's land area with 361 acres. These land uses include retail establishments, offices, and light manufacturing and distribution facilities.

A large portion of the industrial land in the community is occupied by the Riverdale Quarry located just south of the Paterson-Hamburg Turnpike west of I-287 in the north-central portion of the Borough. The Quarry, which is currently in operation, covers an area of approximately one-half square mile, a significant portion of about one-eighth of the entire land mass of the Borough. At present, the Quarry is a focus of interest in the Borough because it may afford substantial future development opportunities following its anticipated closure within approximately seven (7) years around 2014.

Light manufacturing and assembly has been undergoing some changes in recent years in the Borough. These uses have been concentrated in the southeastern portion of Riverdale along Riverdale Road and North Corporate Drive east of the Newark-Pompton Turnpike and west of the Pequannock River. This area is showing evidence of transitioning to other forms of land use, specifically some residential and open space/passive recreational uses that can utilize the area's proximity to the Pequannock River. The recent River Walk project that is a proposed residential use in this area is discussed later in this chapter.

Commercial uses including office, services and retail are concentrated along major thoroughfares in Riverdale, primarily State Route 23, the Paterson-Hamburg Turnpike and the Newark-Pompton Turnpike. In recent years, considerable retail development, both large scale retail and smaller uses have been developing north of State Route 23 in the central and western portions of the Borough south of the Riverdale Quarry. Similar uses along Route 23 actually extend beyond the Borough into the neighboring Borough of Butler. This area has now become the primary commercial corridor in Riverdale region.

Open space, public property and public school lands account for approximately 153.77 acres of land in Riverdale. This includes lands owned by the Borough of Riverdale, Morris County and the Riverdale School District. The use of these properties is diverse and includes undeveloped open

space, athletic fields, parks and municipal offices as well as other tax exempt land. The school lands are solely located along the Newark-Pompton Turnpike, while public property land is mainly located along the Railroad Class II designated areas which are illustrated in Figure III-4.

The land area for farm use in the Borough comprises only 1.93 percent, which is evidence that Riverdale is a nearly built-out suburban community with far less of the rural characteristics that existed in very recent decades. There are 21.08 acres of farmland in the Borough that have been preserved and/or identified as farm use. This last remaining acreage is located in the southernmost portion of the Borough immediately east of I-287. It should be noted that some land classified as “qualified farmland” may be woodland and the farming activity may be selling of firewood.

As identified on Table III-1 and Figure III-4, vacant land is land that is in private ownership and has no taxable improvements. In 2006, 167.48 acres or 15.34 percent of the Borough’s land area was classified as vacant. Much of this remaining undeveloped vacant land in the Borough is steeply sloped and may have other potential development constraints associated with them such as dense woodland or bedrock at or near the surface.

The amount of vacant land in Riverdale will likely be further reduced in future years as more residential and non-residential development takes place, as well as the possible public purchase of land for municipal use including land that could be set aside as open space or recreational land. Most of the vacant land within the Borough is located south of Route 23 and west of I-287. Development interest in the Borough is high and even lands once considered to be un-developable are under increasing development pressure. One such area is discussed later in this chapter.

Lands located east of I-287 are highly developed with residential, commercial and industrial uses, and thus, there are minimal amounts of vacant land remaining. Church and charitable property occupies 1.40 acres or 0.13 percent of the Borough’s land area. These uses are located in the eastern portion of the Borough along the west side of the Newark-Pompton Turnpike.

Finally, the land use category “null” as shown on Figure III-4 consists of 1.76 percent or approximately 19 acres of land. Null is a category assigned to land that does not meet the criteria of the other categories.

Table III-1		
Borough of Riverdale		
Existing Land Uses 2007		
Land Use	Acres	Percent
Residential	340.86	31.23
Apartment	1.45	0.13
Farm - Qualified	21.08	1.93
Commercial	167.27	15.33
Industrial	193.52	17.73
Church and Charitable Property	1.40	0.13
Public Property	37.83	3.5
Public School Property	1.26	0.09
Other School Property	7.39	0.7
Other Exempt	11.86	1.1
Open Space	95.43	8.74
Railroad Class I	22.63	2.1
Railroad Class II	2.65	0.24
Vacant	167.48	15.34
“Null”	19.20	1.76
Total	1091.3	100.0
Source: Morris County GIS data and field verification.		

The amount of acreage per land use category and thus, their percentages, have changed during the previous 44-year period between 1962 and 2007, for which information is available. Table III-2 highlights the number of acres per land use category in 22 year increments for 1962, 1984 and 2006. As the table shows, the amount of land dedicated to various land uses either increased or decreased in acreage as the Borough developed and revitalized itself throughout this time period.

Table III-2					
Borough of Riverdale					
Number of Acres Per Land Use Category in 22 Year Increments					
Type of Use	1962 Acres	1984 Acres	2006 Acres	Absolute Change 1962-2006	Percent Change 1962-2006
Residential (including apartments)	165.34	227.38	342.41	177.07	107.09
Public (including semi-public and institutional)	20.79	20.96	46.48	25.69	123.57
–Commercial (including recreation)	167.75	166.84	167.27	-0.48	-0.29
Industrial (including wholesale)	52.05	133.36	193.52	141.47	271.80
Vacant	752.55	612.89	167.48	-585.07	-77.75
Streets and Highways	92.93	93.21	239.20	146.27	157.40
Railroad	27.63	27.63	25.28	-2.35	-8.51
Source: 2006 Morris County GIS Data and field check. Data from 1962 and 1984 are from the 1985 Riverdale Master Plan.					

Between 1962 and 2006, the amount of vacant land in Riverdale decreased by nearly 78 percent. In 1962, there were approximately 752 acres of vacant land. By 1984, there were only 612 acres and by 2006, only 167 acres remained. As the community developed during this 44-year period, vacant land converted into many other land use categories. For instance, residential land uses increased by 107 percent from 165 acres in 1962 to 342.41 acres in 2006. Land dedicated for industrial use also increased by 271 percent, from 52 acres in 1962 to 193 acres in 2006. The expansion of the Riverdale Quarry within the Borough resulted in Riverdale's increased industrial acreage.

Interestingly, the amount of land dedicated for commercial purposes remained virtually unchanged during the previous 44 years as did land dedicated to railroad uses. The amount of public lands, however, more than doubled from 20 acres in 1962 to 46 acres in 2006. Current data are not entirely reflective of the very recent large-scale commercial and residential development occurring at this time in the western half of the Borough north of the Route 23 corridor.

Interstate 287 (I-287) was constructed through the Borough since the development of Riverdale's 1985 Master Plan. The development of I-287 had a profound impact on land use within the Borough. Approximately 145.79 acres of land (11.3 percent of the land within the Borough) were set aside for the development of the Interstate, which reflects a major shift in local land use within the community. As such, two interchanges were developed along the right-of-way of I-287, one full interchange at the junction of Route 23 and a second partial interchange at the junction of the Paterson-Hamburg Turnpike.

Development of I-287 and its associated interchanges resulted in the Borough losing a considerable amount of vacant land plus approximately 7 businesses and 21 residences. This shift in land use translated in an annual tax loss of \$351,488 in revenues in 1984 dollars (\$685,046 in 2006 dollars). In total, the streets, highways and interchanges within the Borough currently utilize 239.20 acres or 18.1 percent of the land within Riverdale.

In 2006, the Borough of Riverdale had an annual tax generation of approximately \$8.6 million dollars. Table III-3 shows a breakdown of taxes by land use within Riverdale. More than one half of the total assessed value of the Borough comes from residential land uses (including apartments) of

about \$423 million. This translates to \$5.3 million in annual taxes for residential uses based on assessment. The next largest tax revenue generators by land use category include: commercial \$1.8 million; vacant \$0.8 million; and industrial \$0.6 million. Recent retail development along State Route 23 will add to the amount of commercial tax generation in the Borough. Table III-3 also indicates the type and amount of land use that is not taxable or tax exempt within the community.

Table III-3			
Borough of Riverdale			
Annual Tax Generation Per Existing Land Use, 2006			
Land Use	Acres	Total Assessed Value \$	Annual Tax Generation \$
Residential	340.86	421,375,250	5,309,327
Apartment	1.45	1,646,700	20,748
Farm - Qualified	21.08	3,900	49
Commercial	167.27	144,650,900	1,822,601
Industrial	193.52	48,243,700	607,870
Church and Charitable Property	1.40	1,719,800	-
Public Property	37.83	10,593,900	-
Public School Property	1.26	2,816,800	-
Other School Property	7.39	1,311,000	-
Other Exempt	11.86	6,331,400	-
Open Space	95.43	-	-
Railroad Class I	22.63	0	-
Railroad Class II	2.65	0	-
Vacant	167.48	68,703,400	865,662
“Null”	19.20	-	-
Total	1091.31	\$707,396,750	\$8,626,257
Source: Assessor Data for the Borough of Riverdale.			

4.0 APPROVED DEVELOPMENTS

The amount of developable land within the Borough of Riverdale is diminishing quickly as it continues to transition to an almost entirely built-out community. As developable land disappears more and more interest and emphasis will likely be placed on redeveloping areas, particularly the older, more established areas of Riverdale. This is evidenced in several ways. For example, in some neighborhoods in the eastern portion of the Borough small homes on small lots are being renovated

and remodeled into much larger homes. This trend is likely to continue as new residents move into the Borough and revitalize older homes into more suburban styles with suburban amenities.

New development is also occurring in other areas where different land uses exist. For example, building vacancies exist in the light industrial and office areas north and south of Riverdale Road in the southeastern portion of the Borough. This area is undergoing a change in land use from industrial to residential as projects come online. This includes the proposed River Walk project discussed below.

Currently (final quarter of 2006), there are only two residential development projects that are being reviewed by the Borough's Boards. These proposed projects include:

- *The River Walk Project*: The River Walk Project proposal consists of 424 condo units (1-2 bedrooms), of which half will be located south of River Road and half to the north of River Road. Thus, each side of River Road will consist of 212 units in two buildings of four stories constructed over one story of parking. A club house building with related amenities will also be provided for each side of the development. The project also proposes that half of the units be age restricted (55 years old and older). The other half of the project will be available to the public on the open market.
- *Alexan at Riverdale*: The Alexan at Riverdale Project proposal consists of developing a multi-family housing development consisting of 558 units with related improvements and amenities, including swimming pools, club houses, exercise facilities, hiking trails and other related improvements and amenities. The development is proposed to be constructed in two phases; each phase may exist independently from the other. The first phase of the development consists of four buildings with 316 apartment units with the second phase consisting of four buildings containing 242 condominium units.

5.0 FUTURE LAND USE MAP & RECOMMENDATIONS

As mentioned above, the Borough of Riverdale is nearly entirely built-out over its approximately two (2) square mile size. Although it is nearly built out, the Borough has several major opportunities for growth as identified by the community during the comprehensive planning process. Opportunities for new land use patterns are identified on the Future Land Use map (Figure III-5). Future land use within the Borough of Riverdale was reviewed community-wide, but with a focus on two specific areas. As such, the Borough has identified these areas as the Downtown Development Scenario and the Riverdale Quarry Development Scenario (the area in and near the Riverdale Quarry).

The first development scenario area includes the Borough's traditional main street and downtown area along the Paterson-Hamburg Turnpike. The community identified this area as having the potential to be revitalized as a *mixed-use* commercial and retail district adjacent to the Turnpike and Pequannock River. A riverfront promenade with trails and more open space with public access and an enhanced "boulevard" style roadway and streetscape design for the Turnpike is envisioned.

A preliminary concept plan for the Downtown Development Scenario is presented to illustrate the possible layout of buildings, parking areas and various uses in the area, including creating more open space along the Pequannock River is presented in Appendix A. The concept plan indicates some modifications to the boundaries of the existing Community Redevelopment District (CRD) and a phased approach to development of the area by noting properties that should remain unchanged, properties that could be revitalized/redeveloped within a ten year period as well as properties that could be revitalized/redeveloped over a twenty year period. The plan is only intended to be conceptual and further studies of its feasibility will need to be conducted.

The second development scenario involves the reuse of the Riverdale Quarry as a possible *multiple-use* development designed for use by both local residents and regional visitors. The reclamation of the Riverdale Quarry is consistent with New Jersey State-led Smart Growth principles that encourage infill development in previously developed communities, including Brownfield sites and environmental reclamation areas. Redesigned as a multiple use district, the Riverdale Quarry could include uses such as a hotel and conference center, a public green, specialty retail, possible residential uses, athletic facilities, an amphitheater, and possibly a passenger railroad station.

A preliminary concept plan to illustrate the layout of possible uses on the site and the relationship among these envisioned uses is presented in Appendix A. The plan is only intended to be conceptual and further studies of its feasibility will need to be conducted.

5.1 Riverdale Future Land Use Districts

As shown in Figure III-5, the Borough of Riverdale has identified its vision for future land use development in its Future Land Use Map. Any future modifications to the Borough’s Zoning Ordinance will be made consistent with the intended districts identified on the Future Land Use Map. To classify desired future land uses, the Borough identified 13 land use categories with the following color codes. With the exception of a new mixed use and multiple use categories these are the same categories used in the mapping of existing land uses in Riverdale. These new categories are discussed later in this chapter under sections 5.2 and 5.3.



The color codes reflected on the Future Land Use Map identify appropriate land use categories for each area. Each land use category identifies specific uses that are compatible with Riverdale’s vision for its future land use. Land use categories are defined below as to the types of uses that could be associated within each district identified in Figure III-5.

The *Mixed Use* District should be developed specifically for the Downtown Development Scenario and is discussed in section 5.2. The *Multiple Use* District should be specifically designed for the

quarry area (Riverdale Quarry Development Scenario) as well as for some of the land along the Newark-Pompton Turnpike and the Paterson-Hamburg Turnpike. The *Multiple Use* District is discussed in section 5.3.

Residential Land Use

Primarily, residential uses within the Borough consist of single family detached units on various sized lots. However, there are several multi-family residential units generally consisting of condos, apartments, and age-restricted housing developed within the community during the past decade.

The community has expressed its interest in preserving the integrity of its single-family residential neighborhoods. As such, detached single family residential units are encouraged in neighborhoods where new infill development is possible. Currently, there are several vacant residential parcels within single family neighborhoods that could be developed as single family residences.

The Borough should protect the character of single-family neighborhoods by managing possible conversions of single-family residences into multiple-family residences. Recent trends experienced within the Borough also include the purchase and demolition of existing single-family residences in established neighborhoods (Image III-2). Once demolished, property owners are rebuilding larger single-family homes. In some instances, this can have a positive impact on the community, but in other cases the impact can adversely affect neighborhood character if new housing is inconsistent in style and/or scale with other properties. Development of new residences should be done so that it is compatible with the design and character of the neighborhood.

Image III-2 – New Construction in an Existing Neighborhood.



Within the Borough there is one parcel that is currently listed as a “farm qualified” land use (please reference Figure III-4, Existing Land Use). This parcel was identified as being appropriate for the development of additional single family homes and is located east of I-287 and south of Rt. 23 (southwest of Windbeam Road). Future single family homes within this parcel should be compatible with the character of the adjacent single family neighborhood.

Seven parcels along Riverdale Road have also been identified as suitable for redesign as a multi-family community. Currently, a project known as the River Walk is proposed for this area. Existing land uses within this area currently consist of industrial, commercial and vacant land uses. As the local, regional, and national economy has evolved from a manufacturing/industrial economy to a service-based economy, communities such as Riverdale that have an industrial district and associated infrastructure are experiencing a loss of traditional industrial uses. Consistent with its vision for the future, the Borough has identified opportunities for reclamation within this industrial area for residential uses.

New infill development, regardless of where it occurs in the Borough, should be developed in a manner that is sensitive to the character of existing single or multi-family residential units located nearby. An example of this was identified during the development of the comprehensive plan and a preliminary review of existing zoning districts. This situation is outlined in the following narrative.

Currently, there are several zoning districts that exist along Cotliss Road as outlined on Figure III-6. These zoning districts include a Single-Family District (R-7.5), an Adult Residential District (ARD), and an Industrial District (I). The following descriptions identify the intent of each district based on the Borough’s Zoning Ordinance (Chapter 168 of the Borough’s Municipal Code).

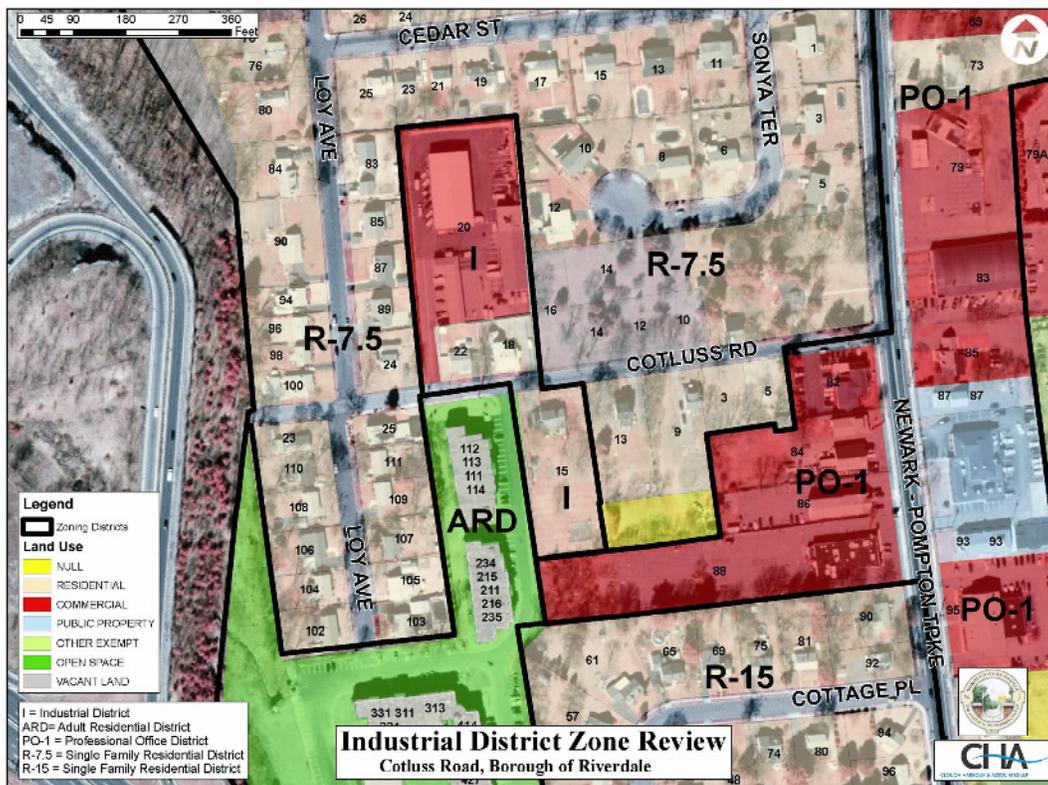
Single Family District (R-7.5): To accommodate smaller lots with a minimum lot area of 7,500 square feet in order to provide for a high density community of single-family detached units.

Adult Residential District (ARD): To provide adequate housing at an affordable cost to serve the unique needs of the adult population with regard to the design of such housing

and relationships to passive open space, proximity to shopping areas and recreational opportunities. Permitted uses include residential dwelling units, provided that the permanent residents of such units shall be restricted to persons who are 55 years of age or over. In addition, day-care facilities, as part of adult development are also permitted.

Industrial District (I): To provide a district for industrial development to serve the Borough's and the region's needs. The district will provide employment opportunities while ensuring compatibility with and enhancing the surrounding uses. Permitted uses include manufacturing, offices, research facilities, product development laboratories, veterinary hospitals, warehousing, metal and wood fabricating facilities, wholesale distribution facilities, parts assembly, and packaging.

Figure III-6 – Existing Land Use and Zoning Review for Cotluss Road



Land use patterns along Cotluss Road consist of high-density traditional neighborhood development containing both single-family detached units and attached multi-family age-restricted housing units. Five contiguous lots on the north side of Cotluss Road are identified as vacant, but are currently being developed as detached single-family units consistent with the R-7.5 zoning district. Two additional lots on the south side of Cotluss

Road are also identified as vacant, but are currently built-out as detached single-family units. The new residential development along Cotluss Road supports the identity, character and feel of this area as a residential neighborhood street.

Four parcels (three to the north and one to the south of Cotluss Road) are currently zoned for industrial uses. Three of these parcels fronting the road, however, are currently used as detached single-family homes, and thus greatly contribute to the residential character of Cotluss Road. The fourth parcel is a flag lot on the north side of Cotluss Road and contains AKS Industries.

It should be noted that the lot area of the three parcels (lot numbers 15, 18, and 22) within the Industrial District is less than the minimum 40,000 square foot lot area required as stated in the Borough's Municipal Code. In addition, these parcels fail to meet some of the dimensional and bulk requirements (e.g. Lot frontage, lot width, lot depth, etc.) of the Industrial District and would require variances if developed as industrial. Developing these parcels for industrial uses would be inconsistent with the residential character of Cotluss Road and would prove difficult as area variances would need to be granted to allow for such development.

Recommendations

Consistent with maintaining the residential character of Cotluss Road, the Borough of Riverdale should consider rezoning the Industrial District (I) to a residential district (possibly R-7.5) to be more compatible with the use and character of the surrounding properties. Industrial uses, by their nature, are generally not compatible land uses with residential uses as they tend to increase noise, dust, odors, light pollution, parking needs, and traffic. These attributes often decrease the quality of life near neighboring residential properties, may create conflicts that adversely impact the health, safety and general welfare of neighboring residents. In addition, they may pose a materially adverse affect on the community's neighborhood character. Therefore, the Borough of Riverdale should explore the opportunity of maintaining the neighborhood character of Cotluss Road by updating its land use regulations to encourage development that is more consistent with the residential neighborhood character of Cotluss Road.

Image III-3 – Protecting the Character and Integrity of Existing Neighborhoods is a Priority.

As previously mentioned, protecting the integrity of neighborhoods was identified by the community as a priority during the planning process (Image III-3). Borough residents take pride in their high quality of life and encourage the development of compatible land uses adjacent to residential areas. Additional opportunities exist to further enhance the community's quality of life within residential neighborhoods. For example, recreational trails



should be developed in order to link neighborhoods to open space, waterfront, employment areas, recreational areas, shopping areas and the two Development Scenario locations. Recreational trails should be developed consistent with the goals and objectives of regional master plans, including the Morris County Trail Master Plan.

Commercial Land Use

No new commercial areas are presently proposed in Figure III-5 and thus are envisioned only where they currently exist in the Borough. Route 23 currently serves as a major regional thoroughfare and has developed as a limited access commercial district. Most commercial uses along this corridor should continue to consist of well-planned large-scale retail development with site access via shared entranceways off of Route 23 (Image III-4). Commercial areas currently in existence outside of the Route 23 corridor should be phased out over time.

Image III-4 – New Retail Development north of Route 23



Whenever possible, commercial development including entranceways and parking areas should be developed with design standards that incorporate a theme that is unique to the Borough of Riverdale. Examples could include using stone construction materials similar to that found in the region, ornamental lighting and unique sign themes.

Examples of appropriate commercial uses for the Route 23 corridor include: dining establishments (restaurants, fast-food franchises), motor vehicle services (auto dealers, service/gas stations, auto parts facilities), storage, warehouse and distribution facilities (self-storage buildings, trucking facilities), retail services (regional shopping centers, area/neighborhood shopping centers, large retail outlets, large retail food stores, dealerships – boat, ATV, garden equipment, etc.), as well as banks and office buildings (standard bank/single occupant, office/professional buildings).

Light Industrial Park Land Use

Industrial land uses currently exist sporadically throughout the Borough. As indicated in the residential land use section above, some industrial uses are located in areas (such as residential neighborhoods) that may no longer support industrial development. Other industrial uses are located along Route 23, which has developed as a commercial corridor consistent with the vision expressed within this plan.

The Riverdale Quarry currently serves as a major industrial land use within the Borough. The quarry will soon be depleted of its resources and thus will end mining activities in the foreseeable future. The reclamation of the quarry provides new development opportunities for Riverdale. As such, this area is discussed in greater detail in section 5.3, which is entitled *the Riverdale Quarry Development Scenario*.

Industrial land uses also exist along the Borough's rail yards that run parallel to the Newark-Pompton Turnpike. It is in these existing areas within the railroad corridor that industrial uses should be concentrated as shown in Figure III-5. The Borough of Riverdale supports the development of "clean" light industrial business park uses. As the national and state economy continues to shift from a manufacturing based economy with a strong industrial base to a service based economy there is less and less demand for heavy industry uses. Moreover, current industrial zones are located within close

proximity to existing wellheads and thus may pose a potential threat to the community's drinking water. The phasing out of heavy industrial districts and the phasing in of a light industrial (business) park district would capitalize on industrial market trends while reducing the potential for contamination of Riverdale's wellheads.

Examples of appropriate Light Industrial Park uses for the existing north/south railroad corridor include: high tech manufacturing and processing and light industrial manufacturing and processing. The intent of the design of the Light Industrial Park is to utilize a high percentage of the buildings for office/laboratory space with superior architectural design and character.

Appropriate land uses for Corporate Drive, an area proposed as Light Industrial, could also include showroom and warehouse buildings. As market demands continue to evolve, businesses such as motorcycle dealerships and furniture stores require large areas for both storefront show rooms and on site storage space for merchandise. These uses differ from traditional retail or commercial uses as warehouse and showroom buildings are typically out of scale and character with other general retail and commercial uses. As such, the Borough would like to encourage the development of showroom buildings and warehouses within the Light Industrial district, especially along Corporate Drive.

Church and Charitable Property Land Use

Church and Charitable Property land uses currently exist along Newberry Place and Oak Street as shown on Figure III-5. Depending on size and design, churches and charitable uses may be compatible with a variety of land uses and thus could be located within virtually any district. Specific items should be addressed on a case by case basis depending on adjacent land use. For instance, building design, construction materials, lighting, traffic, and parking requirements should all be considered during site plan review when approving Church and Charitable Property land use. Site plans should give special consideration to protecting the integrity and character of existing neighborhoods.

Public Property Land Use

Public Property land uses currently exist sporadically within the Borough. As shown on Figure III-5, the Borough of Riverdale promotes the preservation of public property for use as public buildings and facilities (such as municipal buildings, schools, public utilities, and libraries), community parks and open space. All public property should be used by and serve the needs of local residents.

The development of public open space should involve lands adjacent to the Pequannock River as a means of providing access to public waterfront areas. In addition to open space, parkland should also be developed along natural corridors such as the Pequannock River. A riverfront park and a waterfront promenade, which will be discussed in greater detail in Section 5.2 below, should be developed north of the Paterson-Hamburg Turnpike in the Borough east of I-287 that connects with the linear park that already exists along the River west of I-287. Other Public Property land uses that may be appropriate for the Riverdale Quarry will be discussed in Section 5.3. Public lands should be maintained around sensitive environmental areas such as the municipal wellheads and other areas within the Borough.

Public School Property Land Use

Public School Property land use currently exists along the Newark-Pompton Turnpike and should continue as shown on Figure III-5. Appropriate uses include school buildings and facilities as well as athletic fields.

Other School Property Land Use

Other School Property land uses currently exist along the Newark-Pompton Turnpike and should also continue as shown on Figure III-5. Appropriate uses also include school buildings and facilities as well as athletic fields.

Other Exempt Land Uses

Other Exempt land uses include land uses that are exempt from local land use regulations. Properties used by the state or federal government (e.g. National Guard facilities) would be considered appropriate. Other Exempt land use areas are identified on Figure III-5.

Open Space Land Use

Open space currently exists sporadically within the Borough and is considered as private property for private use. Large tracks of open space should occur around high-density residential development. Examples of private open space areas include the Alaxan at Riverdale and the River Walk Project (both projects are currently being developed). Public access to private open space is encouraged through the use of easements. Appropriate open space uses include undeveloped open space such as woodland, parks, and trails.

During the planning process the Borough of Riverdale performed an assessment of undeveloped land to determine where public and private open space currently exists. Once identified, the remaining open space was assessed, which included an analysis of the development potential of the remaining undeveloped land.

Two privately-owned areas in the southern part of the Borough were identified during the review of undeveloped open space. The two areas are privately-owned and identified in Figure III-7 as the West parcel (west of I-287) and the East parcel (east of I-287). These two parcels represent the last relatively large remaining undeveloped open space lands within the Borough.

The assessment focused on the development potential of each parcel considering site constraints, specifically steep slopes, access, present zoning and land use regulations. Figures III-8 and III-9 illustrate existing slope conditions and other characteristics of each parcel. Steep slopes are likely to be the most potentially significant constraint to development along with site access. Federal wetlands were also mapped based on existing information sources.

West Parcel

Figure III-8 illustrates the significant constraints to development of this 42.4 acre parcel located west of I-287. As shown in Figure III-10, this parcel is significantly constrained by existing steep slopes on and adjacent to the site that affects access. The assessment categorized existing topography into four slope categories as shown on the attached figures. Slopes were categorized as 0-15%; 15-20%; 20-25%; and greater than 25%.

According to the Borough's Steep Slope Regulations (Ordinance No.4 – 2005), areas with slopes of less than 15% are considered "Non-critical slope or area". These slopes are not considered steep and pose little or no constraint to development at least from a terrain perspective. There may be other constraints that are not considered here such as soil characteristics that may pose an erosion potential or indicate the presence of wetland characteristics. Mapped information indicates the possible presence of some federal wetlands in the northernmost portion of the site as shown in Figure III-8. As mapped, these wetlands, however, do not appear to pose a significant development constraint.

The "developable" areas with less than 15% slope comprise approximately 39.5% (16.8 acres) of the total western parcel. Areas shown in orange and red on Figure III-8 (slopes of 20-25% and greater than 25%, respectively) pose the greatest development constraints. These slopes account for a combined total of approximately 42.7% (18.1 acres) of the total parcel. In addition, slopes of 15-20% account for approximately 17.8% (7.6 acres) of the parcel.

Slopes between 15 and 25% are considered "Precautionary slope" and slopes greater than 25% are "Prohibitive slope" under the Ordinance. Together these steep slope areas comprise approximately 60.5% (25.7 acres) of the total parcel. Therefore, existing slope conditions on this parcel pose a significant constraint to development.

Prohibitive slopes (greater than 25%) cannot be disturbed, developed or redeveloped under the Borough's existing steep slope regulations. These slopes account for a sizeable 26.8% (11.4 acres) of the total parcel. Precautionary slopes with a minimum grade of at least 15%, but not more than 20% may have a maximum disturbance area of no greater than 50%. Precautionary slopes with a minimum grade of at least 21%, but not more than 25% may have a maximum disturbance area of no greater than 25%.

The western parcel is currently zoned R-40 with minimum lot size requirements of 40,000 square feet. Maximum lot coverage for a principal building is 10% and for an accessory building 2%. Minimum floor area under this zone is 1,400 square feet. This parcel is currently undeveloped vacant land. No sewers or public water is available nearby. Under the Highlands Act the parcel is considered as a Planning Area, with a Protection Zone overlay. According to the Highlands Master Plan, the Protection Zone provides opportunities for additional, but limited development. Development within the Protection Zone will be subject to approval of the Highlands Council, may be limited to available infrastructure and must be consistent with regional environmental protection and local zoning policies.

As Figure III-10 illustrates due to the distribution of steep slopes on the site three areas of the parcel that might otherwise be considered developable are not easily accessed. These three areas in the south-central, southwestern and southeastern portions of the site comprise a total of approximately 10 acres that should be subtracted from the total acreage that can be developed. This would leave only the northern half of the parcel that could be developed, again approximately 10 acres.

Of the 10 acres that could be readily developed in the northern half of the site, approximately 12% of that total would be subtracted to account for access roads and other infrastructure. This would leave approximately 8.8 acres of land that could be developed for single-family housing.

East Parcel

Figure III-9 illustrates the significant constraints to development of this combined 25 acre parcel located east of I-287. By comparison to the west parcel this parcel appears to have more development potential.

Mapped information indicates the possible presence of some federal wetlands on the site as shown in Figure III-9. As mapped, these wetlands do not appear to pose a significant development constraint.

Based on existing slope conditions of 15% or less these “developable” areas comprise approximately 63.3% (15.8 acres) of the total site. This is very comparable to the 16.8 acres of “developable” land initially identified in the west parcel based on slope conditions. However, there is a substantial

difference in the distribution of developable areas on the eastern parcel when compared to the western parcel. On the eastern parcel the developable areas are mostly contiguous and those areas that are not contiguous are relatively accessible by crossing some steeper sloped terrain.

As Figure III-9 indicates areas shown in orange and red (slopes of 20-25% and 25% or greater, respectively) do pose development constraints. These slopes account for approximately 25.2% (6.3 acres) of the total parcel. In addition, slopes of 15-20% account for approximately 11.5% (2.9 acres) of the parcel.

Slopes between 15 and 25% are considered “Precautionary slope” and slopes greater than 25% are “Prohibitive slope” under the Ordinance. Together these steep slope areas comprise approximately 36.7% (9.2 acres) of the total parcel.

Prohibitive slopes (greater than 25%) cannot be disturbed, developed or redeveloped under the Borough’s steep slope regulations. These slopes account for 13.3% (3.3 acres) of the total parcel. Precautionary slopes with a minimum grade of at least 15%, but not more than 20% may have a maximum disturbance area of no greater than 50%. Precautionary slopes with a minimum grade of at least 21%, but not more than 25% may have a maximum disturbance area of no greater than 25%.

The east parcel is currently zoned R-25 with minimum lot size of 25,000 square feet. Maximum lot coverage for a principal building is 10% and for an accessory building 2%. Minimum floor area under this zone is 1300 square feet. This parcel is currently identified as “farm qualified”. It is adjacent to an area zoned R-7.5. Sewers are available east of the parcel. Public water is also available nearby. Under the Highlands Act the parcel is considered as a Planning Area.

However, there is a small area in the northernmost portion of the property that would not be developable because it cannot be easily accessed across a sizeable area of steep slope. This area accounts for approximately 0.5 acre. This would leave approximately 17.5 acres remaining for development. Subtracting an additional 12% from this total for roads and other site infrastructure would leave approximately 15.4 acres of developable land.

Recommendations

Upon consideration of existing zoning regulations and slope conditions it appears that the development potential that exists with the east parcel location is consistent with present zoning and land use patterns. Further investigation is needed to assess other site constraints on both parcels, but it would seem more practical to access and develop the eastern parcel for roads and other infrastructure through the existing residential subdivision immediately to its east than accessing the western parcel from its surrounding areas.

The relatively large contiguous area that is not significantly interrupted by steep slopes on the eastern parcel will facilitate site layout and development. Areas of “prohibitive slope” and “precautionary steep slopes” are mostly confined to small pockets in the extreme southwestern, northern and eastern portions of the parcel(s). These areas can be avoided by development and utilized effectively in site design as natural buffers.

The western parcel by comparison will be much more difficult to layout and develop due to steep slopes and potential access constraints. Access would most likely be possible only from the existing residential subdivision located to the north which provides direct access from State Route 23. The scattered distribution of steep slopes on the parcel likely restricts the most developable portion of the property to its northern half.

The western parcel should be developed in only a very limited fashion to preserve its steep slope and rural woodland characteristics. This assumes, however, that access from the north could be provided. Because of its steep slope characteristics and aesthetic importance, it is important that the site be developed in strict compliance with the Borough’s Steep Slope Ordinance with no variance. Limiting development of the western parcel is also consistent with the Highlands Preservation Area requirements and identified Environmentally Sensitive lands (NJ State Plan) just south of the parcel in the adjacent Town of Pequannock.

Centered on both parcels in Riverdale, Figure III-11 illustrates existing topographic conditions and present zoning in Riverdale and in the Borough of Pequannock to the south. Figure III-11 illustrates that the topography that exists on the western parcel is part of a larger complex of steep terrain that extends northward into Riverdale from Pequannock. As illustrated, current zoning of this steep, hilly

terrain in Pequannock is R-87, which is two-acre residential zoning. In light of this information it is recommended that the Borough consider similar zoning for the western parcel to preserve its slope and rural characteristics. Increased lot size is also more likely consistent with soil conditions and septic requirements.

Development potential of the eastern parcel is consistent with present zoning. Slope characteristics, access to the site, and the availability of nearby utilities (sewer and water) appear to accommodate development of the eastern parcel much more consistently with existing nearby land use patterns and site conditions than the western parcel.

The western parcel could be set aside as open space, perhaps by its current owner as part of a land trust agreement. Land trusts afford property owners significant tax incentives to set aside their properties as open space and wildlife habitats.

Railroad Class I

A Class I railroad is one of the largest freight railroads, as classified based on operating revenue. Smaller railroads are classified as Class II and Class III. As of 2005, a Class I railroad, as defined by the Association of American Railroads, has an operating revenue exceeding \$319.3 million. The current freight railroad corridors (running north/south and east/west) that exist within Riverdale should be maintained as long as the railroad remains active.

Furthermore, the Borough of Riverdale would like to encourage the development of passenger rail service within the community, which is talked about in greater detail in Section 5.3 below. Storage of railcars, especially chemical rail cars is discouraged near the wellheads and near residential neighborhoods. Uses appropriate along railroad corridors include ground water monitoring stations and Light Industrial land uses discussed above. Pollution prevention and public safety should be priority goals along railroad corridors.

5.2 The Downtown Development Scenario

Community District I will be redesigned over time as a *mixed-use* neighborhood. This type of development may contain several different uses within the same building. The focus of uses in this

Development Scenario will be on the provision of daily services to local residents. The ground level floors could consist of retail and other commercial uses, while the upper floors could be residential and/or office/professional uses. Figure III-12 (please refer to Appendix A for a larger size of the concept plan for this area) provides a conceptual plan of how the area could be redesigned. Please note, the layout of building footprints is just conceptual. Market conditions will determine the actual size, shape, and location of buildings.

Redesign of the area could occur as a Planned Unit District (PUD). As a PUD one developer could undertake all or significant portions of redesigning the area as a phased project. The Borough's Zoning Ordinance will require modification to allow for such development.

The Downtown Development Scenario should be accomplished in such a fashion as to create an identity for the Borough's traditional "main street" that is unique from surrounding communities. Riverdale should also capitalize on developing a theme around its waterfront using it as a basis to create a new neighborhood character. Buildings with waterfront themes could be designed, incorporating such features as awnings, quality construction materials, ornamental lighting, balconies and building fronts oriented to both the Turnpike and the Pequannock River. Streetscape infrastructure should include ornamental lighting, themed banners, ornamental benches, themed sidewalk pavers, a community gazebo, and so on.

The area north of the Paterson-Hamburg Turnpike is envisioned as a waterfront park with a riverfront promenade and a network of pedestrian paths connecting the community to the Pequannock River and downtown businesses. The pedestrian paths are also envisioned to connect with the Riverdale Quarry Development Scenario and beyond so as to create a linkage between the riverfront and the two redesigned areas.

Many of the existing buildings within the area south of the Paterson-Hamburg Turnpike and east of the Newark-Pompton will be phased out over time and replaced with new infill buildings that can support mixed-use development. Infill uses should include retail and office uses on the lower floors and residential uses on the upper floors. Residential uses could be a combination of condominiums and apartments, including loft style units.

The buildings that line the streets will be redesigned close to the street in order to create a more “walkable” and pedestrian-oriented development. The buildings that line Arlington Avenue will also be redesigned to create a smooth transition from the mixed-use development into the already existing residential neighborhood to the south.

Surface parking will be located at the rear or to the side(s) of each building, and thus will be enclosed on all sides by the buildings lining the streets. Parking areas should be well-landscaped and designed with adequate, but not overpowering lighting.

The area east of the railroad could be developed into mixed-use apartments with the possibility of having retail/office space at the street level. New access driveways will be created for this development so as to allow easy access into the apartment complexes. The existing open space area located in the southeastern corner of the Downtown Development Scenario is envisioned as a neighborhood park for the surrounding residents.

5.3 The Riverdale Quarry Development Scenario

Future land use and development within the Riverdale Quarry is designed to create a pedestrian-oriented environment that contains an array of uses that will allow residents and visitors to shop and recreate within a single area. Unlike the Downtown Development Scenario which is intended to serve local needs this area will serve as both a local and regional destination.

As shown in Figure III-13, (please refer to Appendix A for a larger size of the concept plan for this area) the development that could take place within the Quarry can be termed as a *multiple-use* development, which focuses on single-use buildings (individual buildings for commercial and residential) spread out across the landscape. Development of the Riverdale Quarry could also occur as part of a Planned Unit District (PUD).

The development of the Quarry draws upon many important interrelated development concepts. There is a primary access road into the development from the Paterson-Hamburg Turnpike which will be considered the main entrance into the site. A secondary access point could be provided farther to

the west along the Turnpike which will provide more direct access to open space areas and athletic facilities on site.

Upon entering the quarry sight lines will direct the eye to a landscaped community green that is ringed with prominent buildings and structures. This green could potentially be developed with ponds which could provide year-round visitors with an attractive gathering space. In the winter the frozen ponds could be used for ice skating, ice sculptures or other wintertime celebrations. In the summer this area could be used for festivals, as a marketplace and as a venue for other community activities.

An emergency entrance road could be located at the south-east portion of the development which will connect the Quarry to the commercial district to the south. The street pattern within the development includes a perimeter road that creates a connected street system that provides access to all buildings and natural areas within the development. The streets follow a clearly discernable pattern along the anticipated topographic pattern based on closure of the Quarry. All internal roadways are simple and direct in order to provide easy navigation through the development. Road rights-of-way will allow for an interconnected network of bike lanes.

Specialty retail uses are a major focus of development within the Quarry. Specialty retail districts are typically retail-oriented developments that consist of a wide variety of shops and services. More often than not, they consist of a mixture of retail and dining that are unique to the area. Therefore, specialty retail districts do not only meet peoples shopping needs, but they also meet social and entertainment needs as well. Furthermore, these districts also create a pedestrian-friendly environment, which includes designated public space for walking, social activity and public events.

Image III-5 – Morristown Community Green

The community green, located across from the main entrance incorporates pedestrian pathways and are bordered to the east and west by the specialty retail district. The Morristown Community Green shown in Image III-5 serves as an example from which Riverdale can pull inspiration. North of the community green beyond the road are more specialty retail shops. To the south, the green is bordered by a new municipal building that will become the focal point of the entire development.



The green is designed for easy pedestrian access to the specialty retail shops while creating a comfortable walking environment for a variety of social interaction and daily activity. Another design element within the green is the water feature. The water feature (perhaps a fountain) within the community green will serve as another focal point to help create a sense of unity within the development.

To the east of the specialty retail district is the hotel and conference center that is designed to allow regional visitors the opportunity to stay at their destination for meetings and social gatherings. Parking decks will eliminate the need for sprawling surface parking areas. Two parking garages and several smaller surface parking areas for general use are strategically placed to allow easy access to all buildings and natural areas within the development.

The western portions of the site include baseball fields, tennis courts and multi-use fields that will be connected via a pedestrian trail system that will meander through forested areas and open fields providing a unique recreational opportunity for adjacent neighboring residents as well as visitors and local employees.

To the south of the development an amphitheater could include a multi-use field for sporting activities and community celebrations including concerts and special event firework displays. The

amphitheater could be constructed into the cliff sides of the existing quarry to afford spectacular views of the region to the north and west.

The redesign of the Paterson-Hamburg Turnpike into a parkway boulevard with a divided tree-lined median will create new visual gateways into the Development Development Scenario and connect the pedestrian trail system with the Pequannock River Park and the Quarry Development Scenario.

To the very north of the development, a passenger rail line is envisioned to service the public and allow for alternative means of transportation to and from the development. Image III-6 below shows the existing Riverdale Train Station and the Montville Pedestrian Platform. Both of these examples could serve as a theme for the development of a pedestrian rail network within the Quarry.

Image III-6 – Riverdale Train Station and Montville Pedestrian Platform



5.4 The Paterson-Hamburg Turnpike Corridor

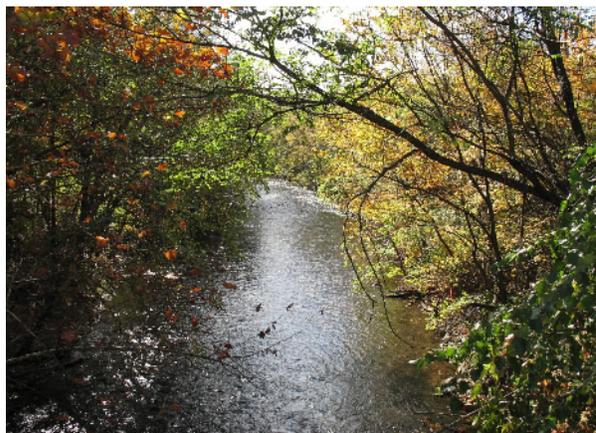
The Paterson-Hamburg Turnpike corridor serves both local and regional residents and visitors. The eastern half (east of I-287) serves as the traditional “main street” for the Borough and helps to establish an identity for Riverdale. The western half of the Turnpike (west of I-287) skirts the Pequannock River in a few areas. Farther west it is lined with smaller businesses and older homes, some of which exhibit historical architectural characteristics. There is less of a sense of identity along the western section of the Turnpike.

The entire Turnpike, both west and east, has been included as a physical link between both Development Scenarios. The Borough has identified the redesign of the Turnpike as an opportunity to enhance community identity and character and facilitate revitalization along the corridor. To enhance community identity and character and to enhance the quality of life within Riverdale, the Borough envisions that the Turnpike be redesigned as a formal boulevard that is divided down the center in some areas with a landscaped median, lined with trees, ornamental lighting, sidewalks and community banners.

As shown in Figure III-12 and Figure III-13, Riverdale residents and community leaders envision the entire redesign/enhancement of the northern half of the Borough. This redesign of the Turnpike as a formal boulevard along a waterfront park will establish a strong identity that is unique to the Borough. Communities with unique identities often serve as places of choice for living, learning, working and playing.

Image III-7 – The Pequannock River, Riverdale, NJ

A unique opportunity for the redesign of the Turnpike involves capitalizing on its undiscovered identity as being a waterfront location (Image III-7). The Borough supports the preservation of open space and recreation areas throughout the community. Currently, public access to the Pequannock River is limited in many areas within the Borough. The redesign of the Turnpike thus allows for the development of a pedestrian trail network along the River.



The trail network is envisioned to connect the east and west sides of the Turnpike. By doing so, the trail network will connect both Development Scenario locations with pedestrian trails. The redesigned boulevard corridor is also envisioned as supporting and facilitating the safe movement of pedestrians and bicyclists along the Turnpike. This will allow for direct access to the waterfront by residents, shoppers, employees and visitors.

6.0 ZONING

Zoning provides the legal basis by which a community can regulate land use within its boundaries. A zoning ordinance can help a community achieve desired development patterns consistent with its future vision when it is developed consistent with the community's comprehensive master plan. The purpose of zoning is to help retain, promote and enhance the desired community character of Riverdale's built environment and its relationship to the preservation of the natural environment.

Figure III-14 identifies the current zoning districts in Riverdale. This zoning map, like all zoning maps, assigns zoning district boundaries over geographic areas. A zoning district regulates the types of land use and development patterns permitted within its boundaries. Riverdale's Zoning Ordinance and Zoning Map must be updated to be consistent with this Master Plan. Without such an update and necessary modifications that will allow for new development and redevelopment in the Borough many aspects of the Community's vision presented throughout the Master Plan may not be achievable.

Recommendations for zoning ordinance and zoning map modifications are provided throughout the text of this Master Plan. It is recommended that the next step in implementation of the Master Plan should be a complete and thorough review and update of the Borough's Zoning Ordinance and Zoning Map to be consistent with these recommendations and the Future Land Use Map (Figure III-5) and discussions presented previously.

7.0 COMMUNITY DESIGN HANDBOOK

Well developed community design guidelines and standards for development will encourage aesthetic and functional compatibility between residential, non-residential, open space and mixed use areas. The Community Design Handbook provided as Appendix B of the Master Plan provides guidelines and standards for future development and redesign in the community. The Handbook is designed to accomplish a number of planning objectives including:

- Minimizing land use conflicts and promoting land use compatibility;
- Encouraging high quality architectural and landscape design;

- Clarifying the objectives of the Borough thereby reducing potential delays in the project approval and permitting process and;
- Promoting greater dialogue among decision-makers, planners, residents and developers.

It is recommended that the Community Design Handbook be adopted as part of the Borough's land use regulations. The Handbook includes descriptive text and photographs of building design, streetscapes, landscaping, signage and other design elements that illustrate preferred design and development characteristics that should be implemented throughout the Borough.

Some guidelines and land use recommendations that are discussed in the Handbook will be adopted as regulatory standards for future development into the Borough's Site Plan and Subdivision Requirements as well as its Zoning Ordinance. The Handbook distinguishes what should be considered as voluntary guidelines from regulatory standards. Many of the guidelines and recommendations focus on anticipated future opportunities for land use changes and redevelopment in three key areas of Riverdale including the Community Redevelopment District (CRD), the Riverdale Quarry and the Paterson-Hamburg Turnpike/Pequannock River corridor which connects the two areas.

The purpose of the recommendations, guidelines and standards presented in Handbook is to help retain, promote and enhance a desired community character for Riverdale's built environment and its relationship to the preservation of the natural environment. The Community Design Handbook is a very useful tool for the community as it undertakes the implementation of this Master Plan.



II. VISION, GOALS & OBJECTIVES



II. VISION, GOALS AND OBJECTIVES

1.0 INTRODUCTION

An integral part of the Master Plan is a statement of the Borough of Riverdale’s community planning goals and objectives. It is a required element of the Master Plan as directed by N.J.S.A. 40:55D-28b.(1)

A statement of objectives, principles, assumptions, policies and standards upon which the constituent proposals for the physical, economic, and social development of the municipality are based.

The planning elements that follow this statement are intended to define the strategies and implementation tools needed to effectuate these goals and objectives. The actual implementation of the following goals and objectives comes through the adoption of zoning and other land use and development ordinances, capital improvements and program development. The updating and revising of this Master Plan is designed to further improve upon the goals and objectives stated in Riverdale’s 1985 Master Plan. Therefore, these goals are a statement of policy and give direction to the planning process. They are organized here according to the various elements of the Master Plan.

2.0 COMMUNITY VISION

During the Borough's Master Planning Process the residents of the community identified the following vision for the future of Riverdale.

2.1 Riverdale Vision Statement

The Borough of Riverdale is a thriving community where people choose to live and invest their time, talents, energy and financial resources for the betterment of all residents. The Borough offers a unique mix of neighborhoods, social diversity, recreation and open space opportunities, and successful business areas set amongst a beautiful natural environment. Nestled along sloping hillsides residents and visitors are presented with a sense of peace and tranquility that is unique from nearby busy urban centers.

We are a growing community where our citizens actively participate in community decisions and partner with community leaders in order to enhance our quality of life. Our neighborhoods are safe, attractive and offer diverse housing choices for families.

Anticipated increases in population over the next decade will create opportunities for Riverdale to become a community like no other. Exciting development opportunities exist as older industrial uses phase out over time and the land becomes available for reuse. Improved traffic and pedestrian networks, riverfront and mixed-use development opportunities, protection of open space and community beautification will continue to enhance our Borough as an aesthetically pleasing, "walkable" community. This in turn, will enhance our unique community atmosphere and protect our community character. Riverdale will truly be "a place where those who live here want to stay and those who don't wish they did".

2.2 Paterson-Hamburg Turnpike Development Scenario – Vision Statement

The Paterson-Hamburg Development Scenario is centered on its traditional downtown area. This area can develop into a vibrant, prosperous area where citizens will benefit from a mix of uses that serve the needs of the local community. This district will be a safe, walkable neighborhood offering a mix

of housing, local services and business opportunities to people of all income levels. Revitalization of this district will benefit from the area's proximity along the Paterson-Hamburg Turnpike and the Pequannock River. The implementation of design standards and land use management practices will facilitate the creation of vibrant neighborhoods within this district.

We envision a transformation of the Hamburg Turnpike area into a more pedestrian-friendly riverfront neighborhood with an attractive mix of businesses, retail and passive recreational opportunities. This area will become our new downtown, a neighborhood filled with visually-interesting places and businesses to visit within easy walking distance from other neighborhoods and places in Riverdale. Our riverfront will be celebrated as an important part of our local heritage.

2.3 Riverdale Quarry Development Scenario – Vision Statement

Following its anticipated closure around 2014, the Riverdale Quarry area can become a showplace for the region that enhances the Borough's diverse economic base, becomes a model of environmental stewardship, and fosters greater civic activity. Development of the quarry area, including the quarry itself, offers tremendous opportunities to enhance the community's quality of life based on smart growth and New Urbanism principles.

The Quarry will give rise to an attractive, unique mix of vibrant uses intermingling civic activities and business opportunities, with possible residential uses and recreational opportunities in a visually impressive and interesting pedestrian environment. The Quarry will become a focal point of community life supporting a fresh mix of ideas that blend environmental restoration with business, tourism and recreational opportunities.

A more detailed discussion of the potential for development of the Quarry can be found in Chapter III, *Land Use*.

3.0 1985 MASTER PLAN GOALS

As first established in the Borough's 1985 Master Plan, the following goals became the guiding policies to direct decisions toward a shared, unified vision of the community. These goals are still relevant as a basis to achieving the desired visions for Riverdale as expressed above. These goals with some modification included:

Land Use: To establish a pattern of land use which promotes the highest degree of health, safety, efficiency, and well-being for all segments of the community, given existing natural conditions and local needs.

Circulation: To develop a circulation system that will provide for the safe and convenient movement of people and goods within Riverdale and to surrounding communities.

Community Facilities and Services: To provide adequate community services and facilities to best meet the present and future needs of the community's residents.

Financial Sustainability: To maintain the financial stability, integrity and sustainability of the Borough including its government and its residents.

Housing: To provide varied housing opportunities and choices, with reference to consideration of the health, safety and welfare of present and future residents of the Borough.

Open Space: To reach a desirable balance between open space needs and population within the community.

Energy Conservation: To provide an energy conservation plan to help the community reduce energy consumption and to maximize utilization of renewable energy sources.

Utilities: To provide a utility service plan showing future water supply and distribution facilities, drainage and flood control facilities, sewage and waste treatment, solid waste disposal and provision for other related utilities.

Consistency with Other Plans: To provide a specific policy statement relating the master plan of the Borough to the master plan of contiguous municipalities and to the Morris County Master Plan.

4.0 GOALS AND OBJECTIVES

During the summer of 2006, the Borough of Riverdale began working with local residents and project stakeholders to review the goals established in the 1985 Master Plan. As part of this process it was determined that additional goals and objectives would be identified to help to further direct policy decisions towards the Borough's vision for the future. To provide additional guidance to Borough municipal officials, surrounding municipalities, regional and state agencies, private developers, and the general public these new goals were created for the following Master Plan categories: land use; housing; community design; utilities; community facilities; circulation; parks, recreation and open space; conservation; historic preservation; recycling; and compatibility with other local, regional and state-level planning efforts. Following these goals are key objectives and action items that recommend ways to implement the goals.

5.0 LAND USE

It is the Borough's goal to balance preservation of its remaining open space and environmentally sensitive areas with maintenance and enhancement of its diverse community character through effective management of residential, commercial and industrial development and redevelopment opportunities. The Borough will continue to strive to maintain its small community identity and promote greater community cohesiveness through its land use policies.

Riverdale will continue to maintain its high quality of life by providing for a variety of housing options for all age groups and income levels; by providing for a greater mix of compatible land uses,

and;by implementing design principles and standard s that will enhance overall community character that instills a sense of community pride. The following are provided in no particular order of priority.

Our land use goals include:

- Preserving the diverse character of Riverdale by encouraging a variety of compatible land uses.
- Preserving the Borough’s traditional neighborhood characteristics found in its many well-established residential neighborhoods.
- Permitting development that protects environmentally sensitive areas and natural features.
- Promoting land use patterns for the Borough which recognizes and enhances enjoyment of the community’s natural resources, its high quality of living, and its simple, neighbor-oriented way of life.
- Providing for sufficient flexibility in development regulations to permit a variety of housing types and styles serving a broad range of income levels and age groups.
- Maintaining a high quality of community facilities and services that meet the expectations of present and future Borough residents.
- Managing the density of housing development that is supported by the carrying capacity of the land, roads and utility infrastructure.
- Encouraging clustered forms of residential development and planned unit development which can minimize environmental disturbance and preserve open space particularly in heavily wooded and steep slope areas.

- Maintaining a balance between residential and non-residential uses to ensure a stable and sustainable local tax base and employment opportunities.
- Promoting creation of a centrally-located, mixed-use and pedestrian-friendly “community or new town center” in the Riverdale quarry area once quarry operations cease that will provide possible residential, retail, recreation, entertainment and business opportunities.
- Designing non-residential development that is compatible with existing nearby residential development.
- Discouraging strip-style and typical franchise-style commercial development along major roadway corridors through the use of explicit site planning and design guidelines and standards including the use of common driveways, common rear yard parking areas, unified sign plans and other site design improvement techniques.

6.0 COMMUNITY DESIGN

It is the Borough’s goal to enhance its community character by encouraging creative planning and development to establish a true community identity and visual uniqueness based upon its history, heritage and natural resources. Our community design goals include:

- Encouraging creative site planning and development strategies to produce visual harmony and a compatible community identity including preservation of sensitive environmental features such as wooded hillsides and the Pequannock Riverfront.
- Promoting a sense of Borough identity and unity by developing focal centers such as the development of the quarry area into a mixed use “town” or “village” center based on Smart Growth and New Urbanism design principles.
- Establishing illustrative building, signage, landscape and streetscape design standards and guidelines to ensure the development of a desirable physical environment in the Borough.

- Preserving the indigenous natural features of the Borough such as its rolling wooded hillsides and tree-lined roadways.
- Discouraging development on ridgelines and steeply sloped areas by keeping rooflines below the ridgeline to preserve distant views as well as maintaining significant areas of vegetation along ridges and steep slopes.

7.0 HOUSING

It is the Borough's goal to meet its housing obligations and provide housing opportunities for people of all ages, lifestyles, and income levels. There is ample opportunity for revitalization and rehabilitation of housing units using new design and building standards in order to beautify the community. Our housing goals include:

- Continuing to meet the Borough's obligation to provide for its fair share of low and moderate income housing needs through zoning and other land use management regulations.
- Encouraging the continued use of housing rehabilitation programs.
- Establishing and monitoring the Borough's growth share projections to ensure that the Borough's housing obligations are met at different projected time intervals.
- Maintaining and encouraging diverse, attractive and affordable housing choices and opportunities that can be utilized by all residents and that promote neighborhood stability and property values.

8.0 CIRCULATION

It is the Borough's goal to provide adequate, safe and fully integrated motorized and pedestrian circulation systems that are compatible with desirable development patterns in the community.

Riverdale shall continue to develop walkable neighborhoods that provide sufficient facilities and interconnected networks of sidewalks, bike paths and trails which will help decrease vehicular congestion, increase community health and fitness, and create opportunities for different modes of transportation that are not auto-dependent. Our circulation goals include:

- Working towards the establishment of traffic demand thresholds generated by new development and rehabilitation, especially new large-scale residential and non-residential development that does not exceed the existing and planned capacities of the Borough's existing road network and circulation systems.
- Coordinating future road improvements with State and County transportation agencies in conjunction with new development and redevelopment.
- Providing pedestrian circulation facilities including sidewalks, bikeways and the Borough's trail system serving as connections between community facilities, commercial areas, residential neighborhoods, employment sites regional destinations, and other pedestrian circulation networks.
- Promoting development of a Borough Trail Plan, especially along the Pequannock riverfront, to encourage greater pedestrian mobility, activity and community health.
- Encouraging the availability and accessible use of public transportation (buses, passenger rail service) with local and regional providers particularly among the disadvantaged and the elderly.

9.0 UTILITIES

It is the Borough's goal to protect its critical water supply for future generations and encourage the expansion of sewer systems where septic systems are currently being used. Sewer systems and storm water management obligations and objectives will also be met. Our utility goals include:

- Protecting the Borough’s critical water supply (presently, there is one municipal public community supply wellhead near Riverview Terrace and two public non-community water supply wellheads in the southwest section of the Borough near Route 23) for future needs, in accordance with the principles and requirements of Federal and State laws.
- Promoting the extension of sewers into developed areas serviced by individual septic tanks, especially in areas where septic tanks are located in close proximity to existing wellheads.
- Ensuring that adequate water capacity and water supply pressure exists throughout the Borough for fire protection and fire suppression needs.
- Encouraging programs that will aid in conservation and other measures to increase the potable water supply for future needs.
- Limiting future sanitary sewer service to those areas identified in the Utility Element.
- Implementing the recommendations established within the Borough’s Stormwater Management Plan (SMP).
- Working with utility companies and providers as well as private developers to place existing overhead wires underground, wherever practical in order to improve the visual aesthetics of the community. This is particularly important along the Hamburg Turnpike in the Community Redevelopment District.

10.0 COMMUNITY FACILITIES

It is the Borough’s goal to provide sufficient community centers and facilities for all age groups, but particularly for our youth and senior citizens. The Borough shall also continue to supply efficient and effective emergency services able to respond to emergencies throughout the community. Our community facilities goals include:

- Coordinating and prioritizing the construction and installation of improvements via a capital improvement program (CIP) to insure that community facilities and public infrastructure are available when and where needed by our citizens.
- Developing a river walk and trail master plan that identifies opportunities for public access, public recreational opportunities, and environmental stewardship along the Pequannock River.
- Developing a development scenario plan for the Riverdale Quarry area that identifies additional opportunities for new community facilities and public services such as the development of a public square or public green that offers park and recreational amenities (ice skating rink, trails, venues for concerts and celebrations) and so on.
- Planning for and providing adequate coverage of emergency services to all residents and neighborhoods, particularly during daytime hours and continuing mutual aid contracts and agreements with neighboring municipalities for fire and emergency medical services.
- Continuing to provide adequate facilities for community groups and cultural activities.
- Planning for future expansion of municipal public works facilities.
- Encouraging efficiencies in the design of new residential developments that will minimize public service costs and infrastructure.

11.0 PARKS, RECREATION AND OPEN SPACE

It is the Borough's goal to increase its range of recreational facilities in order to meet the needs of all age groups. This shall include new recreational facilities, parks and open space areas, and athletic fields to meet the changing needs of the community, especially with the potential development opportunity for the Riverdale Quarry area and along the Pequannock River. Riverdale shall also develop a non-motorized path system linking major residential areas and civic uses in order to create a desirable walking community. Lastly, the Borough shall preserve and protect its open space and

environmentally sensitive areas so as to increase the community's aesthetic appeal and conserve resources for the future. Our parks, recreation and open space goals include:

- Providing a full range of recreation facilities to meet the needs of all age groups with particular emphasis placed on recreation facilities that serve the needs of senior citizens, young children and the handicapped.
- Ensuring that sufficient public access is provided to our parks and recreation facilities.
- Developing recreation facilities as identified in the Parks, Recreation and Open Space Element along the Pequannock River and within the potential revitalization areas within the boundaries of Borough-owned land.
- Providing athletic fields and other recreational facilities that meet the ever-changing needs of Riverdale's residents.
- Continuing to create linkages between existing recreation, public open space/recreation areas and greenway connections along natural corridors and public pathways, including stream corridors.
- Providing access and connections to regional trail networks within Morris County whenever and wherever possible.
- Developing non-motorized pathway systems between major residential areas, schools, parks and public centers of activity.
- Preserving and protecting open spaces and other resources having important environmental, historical and cultural significance.

12.0 CONSERVATION

It is the Borough's goal to improve its natural environment. Development patterns that preserve open space shall be encouraged so as to minimize disturbance and preserve existing vegetation and other resources. Municipal public wellheads will be protected as well as other natural environmental features such as the Pequannock River and the lands adjacent to the Highlands Preservation Area.

Our conservation goals include:

- Protecting environmentally sensitive areas such as stream corridors, steep slopes, floodplains, wetlands and wildlife habitats as passive open space resources through appropriate and consistently applied land use regulations.
- Prohibiting development in environmentally critical areas as much as practicable.
- Providing a continuous network of open space areas and greenway corridors along streams, ridges and steep slopes, woodland habitats, scenic areas and critical environmental areas.
- Encouraging development which preserves natural amenities and does not aggravate drainage problems or adversely impact surface or groundwater quality or quantity, particularly in important potable water wellfields and drainage areas.
- Protecting high quality streams, waterways and wetlands through appropriate stormwater and wastewater best management practices, conservation easements and development setbacks.
- Encouraging cluster development and use of conservation easements to protect environmentally sensitive areas in order to retain open space areas and to reduce impacts to natural resources.
- Encouraging the preservation of existing vegetation, particularly significantly woodlands.
- Replacing plantings in areas of disturbance with native vegetation.

- Minimizing site disturbance by establishing limits of clearing and through the adoption of tree preservation techniques and standards.
- Reviewing and updating, as needed, the environmental management techniques that the Borough currently has in place to ensure that sensitive areas are protected.

13.0 HISTORIC PRESERVATION

It is the Borough's goal to promote the preservation of historic sites, landmarks and districts so as to maintain the community's unique history and heritage. Our historic preservation goals include:

- Promoting the preservation and maintenance of the Borough's historic sites and districts.
- Maintaining an inventory of historic buildings, sites and landmarks to ensure that land use regulations protect these resources by allowing for preservation, adaptive reuse and conservation improvements.
- Continuing to educate residents about the history of Riverdale and its unique heritage.

14.0 RECYCLING

It is the Borough's goal to enhance recycling opportunities in order to protect the health of its residents and the natural environment today and in the future. Our recycling goals include:

- Encouraging resource recovery and the continued recycling of reusable materials through public education.
- Promoting increased conservation and reuse of materials as part of new development and redevelopment activity taking place in the community.

15.0 GREEN DEVELOPMENT

It is the Borough's goal to encourage the development of projects that promote green-friendly design principles. Designs that implement green-friendly principles enhance and protect biodiversity and ecosystems, improve air and water quality, reduce waste streams, and conserve and restore natural resources. Economic and social benefits include reduced operating costs, improved productivity among the local workforce, enhanced occupant comfort and health, minimized strain on local infrastructure, and increased quality of life.

- Establish a LEED Certification action plan.
 - Send employees to LEED Certification training classes and online courses to become familiar with topics such as carbon reduction or LEED Professional Accreditation.
 - Develop and refurbish buildings that can become certified LEED Certified by the United States Green Building Council.
 - Educate the public on LEED Certification processes, the different steps being taken by the Borough of Riverdale and encouraging them to becoming actively involved with helping the Borough to become a sustainable city.
 - Establish LEED for neighborhood development pilot program which will be implemented in 2008.

- Promote development of green municipalities and infrastructure.
 - Develop a recycling facility that will allow for maximum recycling potential.
 - Develop a mass transit system containing hybrid energy.
 - Develop trail systems between townships.
 - Upgrade existing municipalities and infrastructure and maintain to make sure they are running efficiently.
 - Maintain an active program of tree planting, street and sidewalk maintenance, and ensure provision of adequate trash and recycling receptacles community wide.

16.0 COMPATIBILITY WITH OTHER PLANNING EFFORTS & JURISDICTIONS

It is the vision that the Borough's updated Master Plan (2007) be compatible with surrounding municipalities to create desirable development patterns that are consistent with surrounding uses. The Borough will also ensure compatibility with the New Jersey State Redevelopment Plan, the Highlands Region Master Plan and the Morris County Master Plan. These goals include that:

- The zoning of the Borough of Riverdale is compatible with that of adjoining municipalities.
- This Master Plan will obtain plan endorsement from the New Jersey Office of Smart Growth and be consistent with the Highlands Water Protection and Planning Act.
- The Borough's Master Plan is compatible with the appropriate plans of Morris County.



I. INTRODUCTION



I. INTRODUCTION

1.0 PLANNING IN THE BOROUGH OF RIVERDALE

The 2007 Master Plan of the Borough of Riverdale provides a comprehensive guide for the future development, revitalization and preservation of the Borough's valuable assets, resources and quality of life. The Master Plan considers, assesses and makes recommendations on many factors that have an impact on community life with the focus on its physical, social, economic and aesthetic needs. The Master Plan and its various planning elements will be reviewed periodically and updated consistent with the State's Municipal Land Use Law and other applicable requirements.

The last complete revision of Riverdale's Comprehensive Master Plan was adopted by the Borough in December 1985. A number of amendments to this plan have been completed over the past 22 years. These amendments focused on various planning issues including land use and development, open space protection and housing among others. Borough officials decided in 2006 that it was appropriate to review all past studies including these amendments and prepare one updated document that took into consideration all of the findings of these past documents.

Many changes have occurred within the community since 1985. One of these changes was the construction of I-287 through the Borough that essentially divided the community between its eastern neighborhoods and its western more undeveloped areas. The construction of I-287 and a strong economy has led to the present era in Riverdale that is experiencing sprawling residential and commercial development in western neighborhoods, particularly along, and north of, the State Route 23 highway corridor. The 2007 Master Plan addresses concerns and issues arising in the community due to recent development opportunities and other changes occurring in Riverdale.

In response to challenges and opportunities facing the community and consistent with its State mandates the Borough enlisted the assistance of Clough, Harbour & Associates LLP (CHA) in preparing a new Master Plan. This Master Plan is prepared pursuant to the requirements of the Municipal Land Use Law in N.J.S.A. 40:55D - 28. Issues, policies, and recommendations addressed in the 1985 Master Plan and its amendments have been updated to reflect current trends and anticipated future needs in Riverdale.

2.0 DOCUMENT FORMAT

This document includes an update of the goals, objectives and planning strategies of previous community planning initiatives and documents prepared by the Borough of Riverdale. Planning elements undergoing revision and included in this Master Plan include:

- Vision, Goals, and Objectives
- Land Use
- Demographics
- Circulation
- Utilities
- Community Facilities
- Relationship to Other Plans
- Green Element
- Housing
- Historic

As required by Municipal Land Use Law, the Master Plan also includes a statement addressing the relation of the Borough's Plan with the plans of adjacent municipalities, the County and the State Development and Redevelopment Plan.

Not all planning elements are undergoing revision by the Borough simultaneously. As elements are revised and updated they will be added to this Master Plan.



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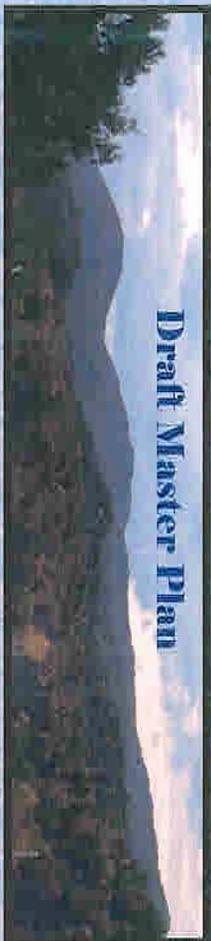
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Borough of Riverdale
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Riverdale, NJ 07457



Draft Master Plan

**Draft
Master
Plan**
January, 11, 2008

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