



**Earth Conservancy South Valley Corridor Lands**  
*Luzerne County, Pennsylvania*

**DRAFT FINAL REUSE ANALYSIS AND  
SUSTAINABLE REDEVELOPMENT FRAMEWORK**

*December 2008*



## EXECUTIVE SUMMARY

Through support provided by the U.S. Environmental Protection Agency (EPA), the SRA Team (SRA International, Inc. and Vita Nuova) conducted several research tasks to develop a regional analysis to support potential development of Earth Conservancy property. The SRA Team conducted a regional analysis to identify opportunities and constraints and to present a regional framework which would support redevelopment of the South Valley Corridor lands owned by Earth Conservancy. In addition, the SRA Team developed preliminary draft development concepts to showcase redevelopment opportunities which are supported by the regional market as well as the site location and opportunities.

This analysis is one component of a comprehensive project to understand the economic history and trends of the region, market competition and potential for the area, and physical opportunities and constraints of the site. This analysis will 1) help the Earth Conservancy Board of Directors make informed decisions regarding the implementation of the 1999 Master Plan and the phasing of development and 2) provide the preliminary data and analysis from which developers/investors will make decisions.

The following analysis reviews the greater Scranton/Wilkes-Barre/Hazleton, PA Metropolitan Statistical Area (MSA) region for economic history and trends and market competition. The market potential focuses on the viability of developing the South Valley Corridor lands in the Wyoming Valley. This information was collected through qualitative (regional visit, interviews) and quantitative (data searches) approaches.

### PROJECT LOCATION/STUDY AREA AND PRINCIPLES

The area considered in the reuse planning framework includes areas of the City of Nanticoke, Hanover Township, and Newport Township of the Wyoming Valley, which runs northeast to southwest in eastern Pennsylvania and which includes the cities of Scranton and Wilkes-Barre.

The intention of the study is to provide general analysis of factors that impact the area as a whole and provide an overall framework for the future development of the Earth Conservancy lands. A systemic overview helps to inform more defined goals and design guidelines for various areas of the Land Use pattern. Each location within an overall plan plays a specific role in the future vision of the Valley; however, larger systems of man-made and natural infrastructure need to be identified and evaluated as they inform specific areas of the EC lands.

The general goals of any sustainable urban design should be sustainable on three levels: Ecological; Economic; and Cultural. Those values should reinforce rather than contradict each other. Current thinking in sustainable planning supports these principles in order to produce a flexible and viable, long-term set of values and principles that guide the master plan. To help achieve the goals of sustainable design, general and planning principles have been identified to help during the development of site concepts as well as site decision making.

The task in reassessing the 1999 Master Plan should be to support economically and ecologically sustainable growth in the Valley. Specific Smart Growth Principles such as Low Carbon Development (LCD) and Transit Oriented Development (TOD) are highlighted as strategies for mixed scales of development and greater planning flexibility vital to any long range development.

### MARKET ANALYSIS

The SRA Team conducted a thorough review of available economic data in addition to qualitative reviews. Several market segments were analyzed for this report. This report relied significantly on reports already compiled by the Joint Urban Studies Center of Wilkes University. The data, information, and analysis have identified a number of trends that present opportunities for the redevelopment of South Valley Corridor lands and other mine-scarred lands. Some of the preliminary conclusions from the report include:

- The greater Wilkes Barre market is a dynamic growing real estate market that is likely to continue. National and international organizations continue to be attracted to the region for its quality of life, affordable real estate and abundant workforce.

- There is a demand for housing of every type to meet the growing population, rising household income levels, and migration from eastern counties and states. The market is demanding more modern homes in both the rental and owner-occupied markets.
- The creation of new and expanded village centers and the upgrade of urban cores can help meet the demand for modern low to midrange housing. This may require public investment in infrastructure in some locations to ensure housing costs remain within market demand.
- Distribution, commercial, and large retail development will likely continue along the interstate corridor. At the same time, growing village centers will demand convenience retail and professional office products to serve the local populations.

The location and size of the South Valley Corridor lands suggests the need for a mixed-use development project that incorporates components of residential, convenience retail and service segments. A mixed-use development would diversify the development risk, meet the demand for a variety of housing stock, and build upon the existing fabric of the South Valley while connecting neighborhoods through pedestrian and transportation routes.

### **LAND USE**

The development of a general Land Use Plan for the South Valley Corridor lands and surrounding areas would help to achieve goals and objectives set forth by the development committee for Earth Conservancy as well as provide a tool for marketing the availability of the site to future developers and investors. The land use plan also should attract and encourage diverse development opportunities for multiple stakeholders in the region. This would include a number of alternative housing, commercial, and public land use options that work together to support the future needs of the Valley.

The concept considerations highlight the framework used in drafting the development concepts and viewing the Earth Conservancy property. The concept considerations specifically include circulation and transit networks, ecology, and energy. The circulation and transit networks are reviewed and considered to understand regional road networks, inter-valley road connections, local roads, parking, rail, and bus transit connections. In addition, to maintain the Smart Growth Principles, the concept considerations include maximizing and enhancing the current trails, rivers, and ecology in the valley. Finally, the concept provides prospective on energy use and production within the study area.

Two potential reuse scenarios are designed within the report – focusing around a Thinkbelt and a Village Center theme. Development phasing is considered with development initiating in the South Valley Corridor land area or along Ridge Road.

### **OTHER STUDIES**

A number of previous studies also informed the recommendations of this report. These include the ecological studies done by Wilkes University/Joint Urban Studies Center and the Army Corps of Engineers and planning initiatives and visions commissioned by the Wilkes-Barre Chamber of Commerce.

- Wilkes University/Joint Urban Studies Center
- Wilkes-Barre Chamber of Commerce
- 2007 Lackawanna and Luzerne County Indicators and Regional Forum Follow-Up Report by the Joint Urban Studies Center of Wilkes-Barre
- 2008 Lackawanna and Luzerne County Indicators Report by the Joint Urban Studies Center of Wilkes-Barre
- The Rise of Luzerne County: An Examination of the Origin and Future Effects of Recent Population Shifts by Joint Urban Studies Center, 2007
- 2005-03 Nanticoke Creek Ecosystem Restoration by Army Corp of Engineers
- Nanticoke Creek Watershed Study by USACE Baltimore District

**TABLE OF CONTENTS**

EXECUTIVE SUMMARY .....	i
SECTION 1. INTRODUCTION .....	1
SECTION 2. PROJECT LOCATION / STUDY AREA .....	2
SECTION 3. GENERAL PRINCIPLES GUIDING THE DRAFT FINAL REUSE ANALYSIS AND SUSTAINABLE REDEVELOPMENT FRAMEWORK.....	4
GENERAL REDEVELOPMENT PRINCIPLES.....	4
SUSTAINABLE PLANNING PRINCIPLES.....	4
SMART GROWTH PRINCIPLES.....	5
SECTION 4. REVIEW OF THE 1999 EARTH CONSERVANCY ROUTE 29 MIXED-USE DEVELOPMENT MASTER PLAN.....	7
OVERVIEW OF THE 1999 PLAN.....	7
<i>Primary Areas Targeted for Redevelopment</i> .....	7
SECTION 5. MARKET ANALYSIS AND FINDINGS .....	9
REGIONAL ANALYSIS .....	9
<i>Demographics</i> .....	9
<i>Economy and Business</i> .....	11
<i>Healthcare</i> .....	12
MARKET DRIVERS .....	12
<i>Transportation</i> .....	12
<i>Westward Migration</i> .....	13
<i>Luzerne County Community College</i> .....	14
<i>Tourism and Recreation</i> .....	15
<i>Rail Access</i> .....	15
<i>Urban Centers and Mixed-Use Development</i> .....	16
REAL ESTATE MARKET .....	17
<i>Commercial / Industrial Real Estate</i> .....	17
<i>Residential Real Estate</i> .....	23
SUMMARY OF MARKET TRENDS AND OPPORTUNITIES.....	26
RECOMMENDED MARKET APPROACH.....	27
SECTION 6. LAND USE ANALYSIS AND FINDINGS .....	28
CIRCULATION AND TRANSIT NETWORKS .....	28
<i>Regional Road Network</i> .....	28
<i>Inter Valley Road Network</i> .....	29
<i>Local Roads</i> .....	29
<i>Parking</i> .....	29
<i>Rail</i> .....	29
<i>Trolley and Bus Lines</i> .....	30
GREEN NETWORK.....	31
<i>Trail Network</i> .....	32
BLUE NETWORK.....	32
<i>Ecology</i> .....	33
<i>Water</i> .....	33
<i>Land Remediation</i> .....	34
<i>Habitat Protection, Restoration, and Connectivity</i> .....	34
<i>Biophilic Design and Ecosystem Services</i> .....	34
ENERGY.....	34
<i>Coal</i> .....	34
<i>Natural Gas</i> .....	35
<i>Alternative Energy</i> .....	35
<i>Energy Efficiency</i> .....	36
SECTION 7. PROPOSED REDEVELOPMENT COMPONENTS .....	37
VILLAGE CENTERS .....	37
<i>Residential Areas</i> .....	38
<i>Commercial Areas</i> .....	40
<i>Place Making</i> .....	41
<i>New Town Centers Attractions</i> .....	42
<i>Areas Proposed to be Targeted for Village Center Development</i> .....	43
THINKBELT .....	45
SECTION 8. CONSIDERATIONS FOR PHASING: SUSTAINABLE REDEVELOPMENT FRAMEWORK FOR EARTH CONSERVANCY .....	48
SECTION 9. CONCLUSION.....	53
APPENDIX A .....	54

LIST OF FIGURES

The study area is located in Luzerne County in northeastern PA. This area is part of the Scranton/Wilkes-Barre, PA, Metropolitan Statistical Area (MSA) .....	2
The study area is located in the South Wyoming Valley northwest of Interstate 81 .....	2
EC parcels in the South Wyoming Valley .....	3
Development area with Earth Conservancy land overlay .....	3
Luzerne County Population Chart from 2000-2006 .....	9
Luzerne County Birth and Death Rates, 1991-2005 .....	10
Map Identifying Hazleton, Wilkes-Barre, and Scranton Markets .....	18
Hanover Crossings and Hanover Industrial Estates in Wilkes-Barre Region .....	19
Greater Wilkes-Barre Chamber of Business and Industry Industrial Parks Location .....	21
Pennsylvania County Housing Affordability Index Comparison .....	23
Wyoming Valley and Earth Conservancy Lands with Proposed Transportation Networks .....	28
Luzerne County Transportation Authority Bus Schedule .....	31
Wyoming Valley and Earth Conservancy property – Greenways and Trail Networks .....	31
Wyoming Valley and Earth Conservancy property – Blue Network .....	33
DOE NREL Pennsylvania Wind Resource Map .....	35
Solar Resource Potential for Collectors .....	36
Depiction of Potential Village Centers in the Study Area .....	38
Example of Courtyard Housing .....	38
Example of sustainable design housing – Bedzed .....	39
Example of Townhouse design style .....	39
Depiction of Commercial Development in the Target Area .....	41
Historic Photo of City Park, Nanticoke, Pennsylvania .....	41
Nanticoke, Pennsylvania, today .....	42
Town Center – Potential development for Penobscot Point .....	44
Comparison of Penobscot Point and Nanticoke Center .....	44
Thinkbelt – Earth Conservancy development opportunities .....	46
Thinkbelt – Potential development .....	46
Illustration of traditional office development (left) versus sustainable design principle office development (right) .....	47
Example of sustainable design principles incorporated at office complex in the Thinkbelt .....	47
Mapping of potential alternative energy development in the Thinkbelt .....	47
Total development potential after completed development phasing .....	48
Ridge Road – Alternative scenario for development .....	48
Potential Development Identified with Political Boundaries .....	49
Thinkbelt Development Phasing Structures .....	49
Thinkbelt Development – Phasing Structure and Development Plans .....	49
Thinkbelt Development – Initial Phasing .....	49
Thinkbelt Development – Further Phasing for Additional Parcels .....	49
South Valley Corridor – Initial Phasing Thinkbelt .....	49
South Valley Corridor Opportunities .....	50
South Valley Corridor – Initial Phasing Penobscot Point .....	50
South Valley Corridor – Second Phasing Thinkbelt .....	50
South Valley Corridor – Third Phasing Newport Township .....	50
South Valley Corridor – Third Phasing Penobscot Growth .....	50
South Valley Corridor – Third Phasing Warrior Run .....	50
Ridge Road Development Scenario – Initial Phasing Thinkbelt .....	51
Ridge Road Development .....	51
Ridge Road Development Scenario – Sugar Notch Properties .....	51
Ridge Road Development Scenario – Additional Sugar Notch Properties .....	51
Ridge Road Development Scenario – Warrior Run .....	51
Ridge Road Development Scenario – Penobscot Point .....	51
Ridge Road Development Scenario – Additional Penobscot Point Properties .....	52
Ridge Road Development Scenario – Newport Township Properties .....	52
Ridge Road Development Scenario – Thinkbelt Properties .....	52

## SECTION 1. INTRODUCTION

The Environmental Protection Agency (EPA) Office of Brownfields and Land Revitalization (OBLR) seeks to build off past successful mine-scarred lands projects by providing targeted technical assistance to organizations to help further redevelopment efforts on these properties. In 2007, OBLR requested that its ten regional offices recommend candidate projects for technical assistance in support of local mine-scarred lands revitalization goals. EPA Region 3 successfully nominated a project associated with Earth Conservancy (EC), a non-profit, 501(c)(3) corporation created in 1992. EC is dedicated to the reclamation and reutilization of former coal mining lands in Luzerne County, Pennsylvania, through partnerships with governmental agencies, educational institutions, area businesses, residents and other conservation organizations.

The EC project selected for EPA-sponsored technical assistance targets lands located in the City of Nanticoke, Newport and Hanover Townships, all within in the Wyoming Valley of Luzerne County. This report summarizes the regional analysis conducted by EPA with support from SRA International, Inc., and Vita Nuova (SRA Team) for the EC lands in the Wilkes-Barre region, with the purpose of helping EC better understand development trends, opportunities, and constraints to promote reuse planning for its mine-scarred lands. Section 2 of this report provides information specific to the project location and the study area for the proposed redevelopment analysis and sustainable framework. Section 3 provides the general principles guiding the redevelopment analysis and sustainable framework. Section 4 is an overview of the Earth Conservancy 1999 Route 29 Mixed-Use Development Master Plan. Section 5 provides the findings of a regional market analysis for the Scranton/Wilkes-Barre Metro Statistical Area (MSA) and Scranton/Wilkes-Barre/Hazleton Metropolitan Listing Service. Section 6 presents the results of the background information and planning information to present specific findings for the region. Section 7 outlines the specific proposed development components for the redevelopment scenarios. Finally, Section 8 outlines specific considerations for phasing the redevelopment scenarios.

Based on the market analysis results, regional development trends, historic trends of the region, two development components are proposed for EC's targeted development area: Village Centers and the Thinkbelt. Section 7 describes these development components in detail, and how they could be combined to promote redevelopment of EC's South Valley Corridor lands. In addition, considerations for phasing and other design features are described in Section 7. Additionally, Section 8 presents an alternative scenario for initiating development around Ridge Road and building out back toward the Thinkbelt targeted area.

The development of this framework for the EC lands in the South Valley Corridor and surrounding areas will help to achieve goals and objectives set forth by the development committee for EC as well as provide a tool for marketing the availability of the site to future developers and investors.

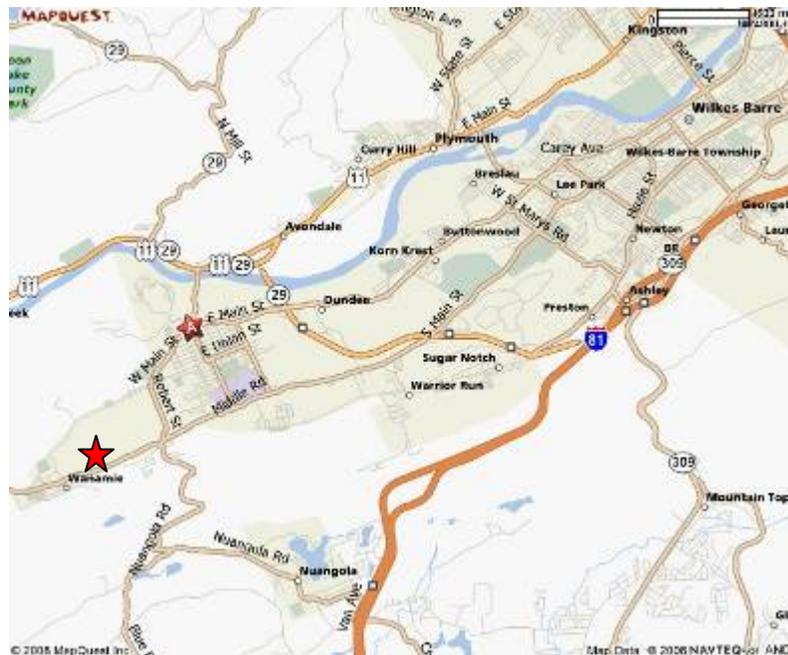
## SECTION 2. PROJECT LOCATION / STUDY AREA

This Draft Final Reuse Analysis and Sustainable Redevelopment Framework considers redevelopment options for EC land located in Luzerne County in northeastern, PA. The EC parcels are located in the City of Nanticoke, Newport, and Hanover Townships, within the Wyoming Valley.



*The study area is located in Luzerne County in northeastern PA. This area is part of the Scranton/Wilkes-Barre, PA, Metropolitan Statistical Area (MSA).*

The Wyoming Valley runs in a northeast to southwest direction along the Susquehanna River, through Wilkes-Barre City to the City of Nanticoke. The Valley is characterized by hills and valleys characteristic of Pennsylvania's anthracite beds and the Valley has historically been linked economically to mining. In addition to the smaller scale hills and valleys, the Valley is bordered by larger ranges that form an elongated crescent that defines the areas of historic development. The Susquehanna River is another significant natural feature in the area. Its watershed extends from Central Pennsylvania to the Chesapeake Bay.

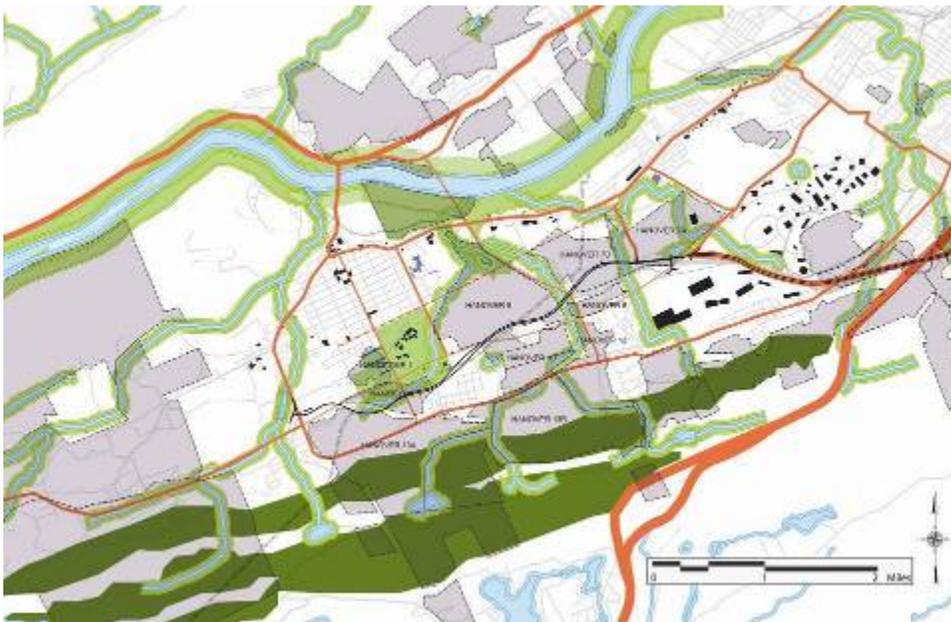


*The study area is located in the South Wyoming Valley northwest of Interstate 81.*

The study area is accessed via Interstate 81, which parallels the Valley to the south, and Route 29, a regional parkway that bisects the valley, connecting Interstate 81 with State Route 11, north of the Susquehanna River. The area targeted for redevelopment under this effort includes four EC Parcels ranging in size from 240 acres to 574 acres with a total acreage of 1,534 acres. Of this total, 350 acres are under development, 190 acres are available for development, and 994 acres will be available beginning in 2010. In order to connect the four separate parcels and enhance the redevelopment potential of the property, this report proposes redevelopment options for the general area including and surrounding the four parcels.



*EC parcels in the South Wyoming Valley.*



*Development area with Earth Conservancy land overlay.*

## SECTION 3. GENERAL PRINCIPLES GUIDING THE DRAFT FINAL REUSE

The general goals of any sustainable urban design should be sustainable on three levels: ecological; economic; and cultural. Those values should reinforce rather than contradict each other. Current thinking in sustainable planning supports these principles in order to produce a flexible and viable, long-term set of values and principles that guide the master plan. To develop this Draft Final Reuse Analysis and Sustainable Redevelopment Framework, we relied on the following general redevelopment, sustainable planning, and Smart Growth principles to provide a framework for decision making, discussion, and development for individual parcels.

### **GENERAL REDEVELOPMENT PRINCIPLES**

1. *Make Existing Neighborhoods Complete.* All new development should reinforce, improve, and strengthen qualities and opportunities for local residents and businesses.
2. *Work in Harmony with Natural Systems.* Plans should employ sustainable, green technologies and land-use practices so that the development is recognized as a model for environmental planning. These opportunities might include improvements to regional wetland, watercourse and stormwater systems, and cultivation of wildlife corridors and patches in the region.
3. *Raise the Value of Existing Properties.* Any stigma attached to the area should be modified by redevelopment opportunities to make sure residents share in the equity generated by redevelopment.
4. *Honor the Spirit of the Community.* The plan should reinforce the positive values of the existing community while making those values more intelligent and sustainable responses to the current economic, cultural, and environmental situation rather than images of a nostalgic past.
5. *Recognize that Everyone has a Voice.* The plan should reinforce the desires and needs of the public and private participants in the process.
6. *Meet the Housing Needs of the Community.* The plan should include new housing opportunities for families, the elderly, and a variety of income levels to foster a more diverse and therefore sustainable economic solution to current housing opportunities.
7. *Reduce Reliance on Carbon-Based Systems.* For example:
  - a. Provide alternatives to the car. Plans must recognize that the automobile is a necessity for the mobility of members of the community but alternatives including mass transit, bike paths, and walkable town centers are desirable.
  - b. Seek to implement passive and active solar, wind, and alternative energy technologies, and other alternatives for individual and community-based energy systems. Steps have already been taken in the region to achieve this mission.

### **SUSTAINABLE PLANNING PRINCIPLES**

1. *Rely on a networked systems of roads, watercourses, greenways, and other circulation systems* to provide multiple alternatives and flexibility in the ultimate realization of the plan. The current plan continues to isolate its areas by single axis roadways.
2. *Provide diversified transportation options* such as bikeways, bus lines, and future locations for mass transit corridors beyond the car. The current plan addresses these issues but in a limited context.
3. *Consider roadway and parking options* that do not function solely as circulation corridors but allow for development as town streets that support multiple scales of commercial and residential development.

4. *Promote diverse development opportunities for multiple stakeholders* in the future of the valley. The valley is sustained on global, regional, and local economies. Suggestions for future uses should address this range of opportunities.
5. *Include alternative housing options* in the plan so that multiple scales of development, multiple users, and diverse economic classes have a stake in the plan.
6. *Use flexible planning approaches in which the temporal aspect of plans is recognized.* Plans should be conceived so that they may be realized in specific phases and scales but are conceptually whole at any given scale of development rather than partial aspects of a total plan. Fragmented and isolated patch solutions to a much larger master plan are not desirable nor are they necessarily economically feasible as uses and programs reinforce each other. Economies of scale are critical in developing a regional strategy.
7. *Respect the strength of the existing settlement pattern of the valley* while recognizing that the historic economic circumstances that produced this pattern are outdated. The plan should provide opportunities for cultural and social services that can bolster communities, suggesting opportunities for upgrading existing housing stock, public institutional land use, and ecologies at a diverse level of physical and economic scales.
8. *Recognize the work and input of regional constituents* that continue to develop the region's future visions. The plan must offer ideas that will not only reinforce the goals previously established but improve upon them moving forward.

### **SMART GROWTH PRINCIPLES**

1. *Integrate Low Carbon Development (LCD)* strategies, which focus on minimizing the environmental impact of development. LCD strategies are supported by a number of analytical models and goals that differ from country to country. The LCD strategies outlined below are from the BedZED standards used in Great Britain and serve as a reference for developing goals for LCD in the Wyoming Valley. The standards below are provided to give background information to help inform future decisions which may be made by EC and future stakeholders. Incorporating all these standards into a concept design could become expensive and difficult to market; however, understanding the opportunity to capitalize on low carbon development activities could also provide further cost savings in the future as the current energy situation shifts.

#### Embodied Energy

- Reuse existing materials
- Onsite recycling program during construction
- Locally sourced heavy materials
- Certified new materials certified (i.e. FSC certified wood)

#### HVAC/Lighting & Other Power or Resource Usage

- Extensive use of passive heating and cooling
- Wind driven ventilation and heat recovery
- Native species landscaping
- Super-insulated building envelopes (+R-40)
- Very low air infiltration
- Low flush WC
- EnergyStar appliances
- Low voltage and fluorescent lighting

#### Energy & Material Sources

- Photovoltaics
- Bio-fuelled combined heat and power
- Heat recovery wind cowls
- Rain recovery system
- Waste treatment and water recovery system
- Locally grown foods

#### Transportation

- Public transportation easily accessible
- Development provides a large number of live/work spaces
- Bicycle friendly planning
- Ubiquitous broadband access
- Established car sharing and carpooling programs

#### Consumption & Disposal of Goods

- Aggressive recycling programs with local processing center
- Incentives for locally grown food sources

2. *Prioritize Transit Oriented Development (TOD).* TOD is another principle of smart growth which is primarily concerned with "place making" – a term its practitioners use to describe small pedestrian

based urban centers with active public spaces organized around a core train or bus depot. Key factors include:

- A train or bus station centrally located in the downtown
- High level of mixed use zoning
- Gradually decreasing density moving away from the central station
- All components of the TOD are organized within a one quarter mile radius of the central station for easy pedestrian access

TOD plans distinguish between Urban Core or Downtown Development, Neighborhood or Village Centers, and Hamlets as three distinct transects with associated densities, building types, and services. Each planning type is broken into a center core and general development densities and types.

**Hamlet**

- Core (CT4) of roughly 4.5 dwelling units/acre, up to 12 dwelling units/acre for townhouses and apartments and up to 18 dwelling units/acre in mixed-use setting.
- General density (CT3) is defined as between 3.5-4.5 dwelling units/acre.
- Edge density (CT 2) are very low residential density no greater than 1 unit/20 acres

**Village Center**

- Core (CT 5) up to 12 dwelling units/acre for townhouses and apartments and up to 18 dwelling units/acre in mixed-use setting.
- General density (CT 4) is defined as between 4.5 dwelling units/acre.
- Edge density (CT 3) is 3.5-4.5 dwelling units/acre. (6.5 dwelling units/acre if accessory apartments added for 50% of the residential stock.)

**Urban Core**

- Core (CT 6) up to 18 dwelling units/acre; up to 36 dwelling units/acre in mixed-use setting.
- General density (CT 5) is defined as up to 12 dwelling units/acre; up to 18 dwelling units/acre in a mixed-use setting.
- Edge density (CT 4) 4.5 dwelling units/acre single-family dwelling; single-family apartment; and duplexes; up to 12 density/acre for townhouses and apartments; up to 18 dwelling units/acre in mixed-use setting.

## SECTION 4. REVIEW OF THE 1999 EARTH CONSERVANCY ROUTE 29 MIXED-

In 1999, EC commissioned a study completed by Legg Mason Real Estate Services titled, *Earth Conservancy Route 29 Mixed-Use Development Master Plan* (1999 Master Plan). This study was reviewed in order to better understand the development framework currently guiding the development of EC's land and to inform the development of this Draft Final Reuse Analysis and Sustainable Development Framework. The study analyzed the economic opportunities in the Valley and presented a plan to guide development of 6,100 acres of the more than 16,300 acres of property owned by the EC. The remaining 10,200 acres was addressed in EC's Open Space Master Plan.

### **OVERVIEW OF THE 1999 PLAN**

EC Property Area: 16,300 acres

#### *Projected Outcomes*

Commercial and Industrial	8,500,000	SF
Retail/Entertainment	1,000,000	SF
Institutional/R & D	600,000	SF
Residential	2,150	units

#### **Primary Areas Targeted for Redevelopment**

*South Valley Corridor:* Hanover 7B (213 acres; developed by 2009) & Hanover 9 (402 acres)

Commercial Industrial	6,000,000	SF
Retail/Entertainment	150,000	SF
Institutional/R & D	400,000	SF
Open space	500	acres

Hanover 7B is currently in the works with Caremark facility realized (156,000 SF on approximately 30 acres) and 148.22 acres available (50 acre parcel for retail included) and an additional 151 acres available in 2009.

*Penobscot Point* Hanover 13A (301 acres) & Hanover 12D (273 acres)

Commercial Industrial	1,800,000	SF
Retail/Entertainment (village center)	850,000	SF
Institutional/R & D	200,000	SF
Residential	1,495	units
Open Space	550	acres

*Wyoming Valley Village:* Hanover 13B (419 acres), Hanover 10 (68 acres), & Hanover 12 (40 acres)

Commercial Industrial	0	SF
Retail/Entertainment	0	SF
Institutional/R & D	0	SF
Residential	655	units
Open Space	110	acres

In order to ensure this document is consistent with the 1999 Master Plan, and to adhere to the general redevelopment and sustainable planning principles outlined by the SRA Team, the 1999 Master Plan was evaluated against current market conditions and technological advancements. There were two major findings from this evaluation: 1) existing development must be considered in new redevelopment plans, and 2) the current master plan should be evaluated to ensure linkages between transportation, development and ecosystems are maintained.

**Existing Development:** It is important that any future development on Earth Conservancy property or in the Valley in general, does not isolate current development. This region has a longstanding history of industry, with many residents tied to the area. Any development by Earth Conservancy should embrace the surrounding communities and help improve their current social, economic, and environmental conditions. Examples of these communities include the City of

Nanticoke and sections Newport Township, which can be tied to future development to ensure that these communities and the residents thrive with the redevelopment projects. Future redevelopment projects should connect villages rather than isolate these areas.

**Current Master Plan:** Being mindful of the current political and environmental views, the current Master Plan should be evaluated to ensure that connections between use and space are made. In addition, as stated above, an evaluation of planned space in relation to the current market will need to be evaluated to ensure that the market can support additional development in specific segments (e.g., commercial, residential, industrial).

Current thinking in sustainable urbanism tends to favor the development of village centers, with greater degrees of density than the 1999 Master Plan shows. These centers should be linked by mass transit systems. This strategy allows for greater future flexibility and a potential diversity of uses and constituents vital to any long range development.

**SECTION 5. MARKET ANALYSIS AND FINDINGS**

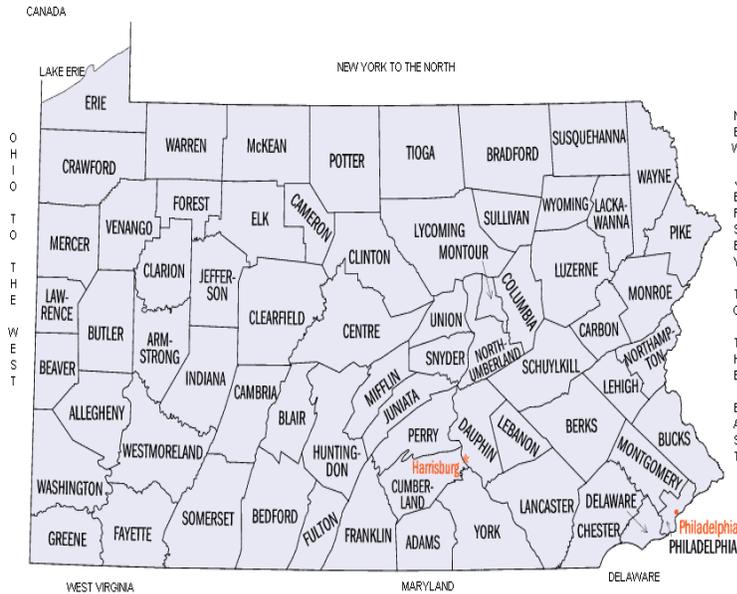
**REGIONAL ANALYSIS**

A reuse analysis generally begins with an economic and demographic assessment of the region. Since the Joint Urban Studies Center of Wilkes-Barre University (JUSC) has completed extensive research on the region, much of the data and trends included in a typical economic and demographic analysis have been compiled in the *2008 Lackawanna and Luzerne County Indicators Report*. In addition, the 2007 Joint Urban Studies Center report entitled *The Rise of Luzerne County: An Examination of the Origin and Future Effects of Recent Population Shifts* includes additional demographic information. These reports were reviewed and analyzed and the following information represents highlights from these two reports.

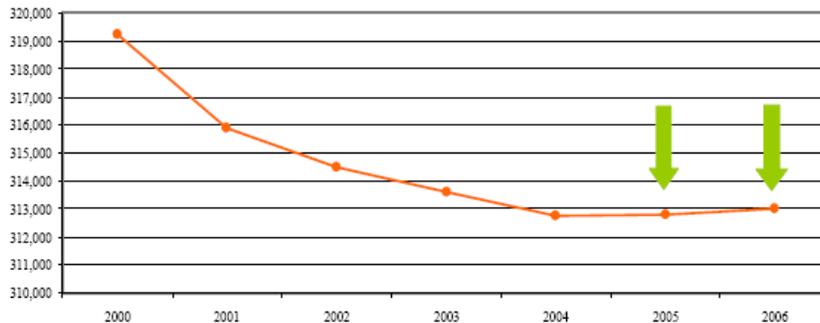
**Demographics**

According to the U.S Census Bureau<sup>1</sup>, the total population of Luzerne County in 2000 was 319,250. The U.S. Census Bureau estimates the 2006 population at 313,200, a two percent decrease since 2000.<sup>2</sup>

Approximately 20 percent of the population in 2006 is estimated to be less than 18 years of age, while 18.5% is estimated to be over the age of 65. Compared to the State of Pennsylvania, a large percentage of Luzerne County's population is over the age of 65 and a smaller percentage is under the age of 18. Also according to the U.S. Census Bureau, Luzerne County has a smaller representation of minority and ethnic groups as a percentage of its total population than Pennsylvania.



**Luzerne County Population: 2000 to 2006**

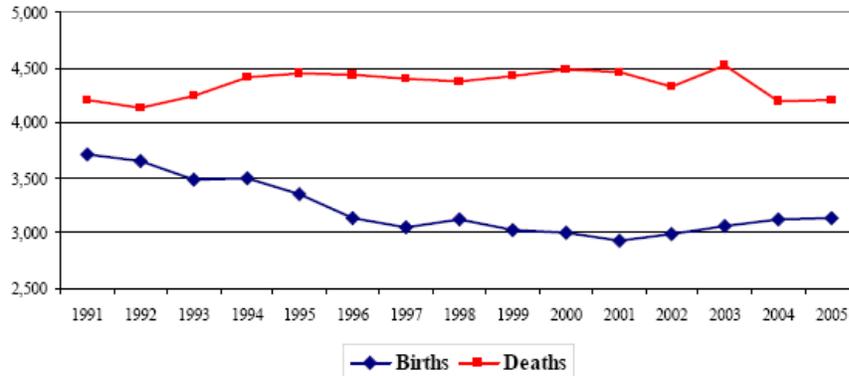


*Luzerne County Population Chart from 2000-2006*

<sup>1</sup> Source: U.S. Census Bureau, Summary File 1 (SF 1) and Summary File 3 (SF 3),  
<sup>2</sup> <http://quickfacts.census.gov/qfd/states/42/42079.html>, QuickFacts: Luzerne County PA, August 2008.

Although Census data shows a population decrease between 2000 and 2006, according to the 2007 JUSC Report, Luzerne County experienced a slight population increase between 2004 and 2006. While the increase was slight, this increase is of significant note as it followed decades of population decline. In addition, according to the 2007 JUSC Report, the rise in population in the last two years may partially be attributed to the differential between birth and death rates. Between 1991 and 2005, the death rate has been fairly constant. As the chart below shows, the birth rate was generally declining until 2002. The last several years shows the birth rate experiencing a slight increase and the death rate a slight decrease.

**1991-2005 Birth and Death Rates: Luzerne County**



*Luzerne County Birth and Death Rates, 1991-2005*

According to the 2000 Census, the median age was 40.8 years, which is substantially older than the U.S. median age of 35.3 years. Reportedly, 19.7% of the population was over 65 years of age compared to the national average of 12.4%. The 2008 Indicators Report identified the number of elderly living alone in Luzerne County decreased between 2000 and 2006 to 19,312.

According to the Indicators Report, Luzerne County has a ratio of 0.9 children to 1 elderly person, meaning there are more elderly in the county than children. The other surrounding counties have more children than elderly, suggesting thriving, growing communities.

Households in Luzerne County earning \$50,000 - \$75,000 annual represented 19.1% of the households, an increase of 1.5% since 2000. Approximately 9.7% of the households earned less than \$10,000 per year, while 9.2% of the households earned over \$100,000 per year. Luzerne County has a smaller percentage of households earning above \$100,000 than surrounding counties.<sup>3</sup>

From 1990 to 2000, Luzerne County experienced an increase in median household income that was \$1,700 less than the national average. From 2000 to 2005, however, the county narrowed that margin to \$500. A similar pattern occurred in per capita income. From 1990 to 2000, Luzerne County's per capita income increase was more than \$950 less than the national average. From 2000 to 2005, that differential decreased to \$500.

Civilian Labor Force	159,500	281,100
Employed	150,900	266,100
Unemployed	8,700	15,000
Rate	5.4%	5.3 %

<sup>3</sup> The 2008 Lackawanna and Luzerne County Indicators Report, Joint Urban Studies Center, 2008

**Economy and Business**

Luzerne County has a reported 7,847 business establishments, which varies year to year. For the past four years, Luzerne County has increased the number of jobs in the county. The number of retail establishments in the county decreased between 2001 and 2008. However, the number of employees in the retail trade increased during this same period.

According to the 2007 JUSC Report, Luzerne County saw employment increases in ten out of nineteen industry sectors. The greatest increases from 2005 to 2006 occurred in healthcare, construction, and arts, entertainment and recreation. Manufacturing jobs continued to decrease. Between 2006 and 2007, total employment in the County decreased by 0.9%.<sup>4</sup>

The mean travel time to work for Luzerne County was 21.2 minutes – less than the state average of 25 minutes. For workers in the area, 81% commute to work alone, 11.5% car pool, and 1.9% work at home.

In 2008, Luzerne County had 905 non-profit organizations, the highest number of organizations reported in the surrounding counties. The 197 organizations that filed Form 990 reported total annual revenues of \$99 million dollars. In addition, the county reported 67 private foundations and 653 public charities in 2008.

According to the Wilkes-Barre Chamber, the top 50 employers in Luzerne County, excluding government and educational institutions are:

Wyoming Valley Health Care System	Hospitals	3,500
Procter & Gamble Paper Products Co.	Paper Products	2,450
Keystone Automotive Operations, Inc.	Automotive Parts/Supplies	1,425
Commonwealth Telephone Company	Telecommunications Services	1,350
Transcontinental Refrigerated Lines	Trucking/Distribution	1,269
Pride Mobility Products Corporation	Manufacturer - Home Medical Equipment	1,200
Berwick Offray LLC	Ribbons & Bows	1,100
Geisinger-Wyoming Valley Medical Center	Hospitals	1,100
Bank of America	Financial Info/Service	1,050
PPL Susquehanna LLC	Electricity	1,000
Department of Veteran Affairs Medical Center	Hospitals	994
RCN Corporation	Telecomm Services	900
Sears Logistics Services	Warehouse/Distribution	900
The Mercy Hospital of Wilkes-Barre	Hospitals	890
Blue Cross of Northeastern Pennsylvania	Insurance – Health	875
TJ Maxx Distribution Center	Warehousing/Distribution	840
Benco Dental Supply Company	Dental Equip/Supplies	804
Offset Paperback Manufacturers, Inc.	Printers	790
Caremark	Pharmaceutical	750
Verizon	Telecommunications	725
Sallie Mae, Inc.	Loan Servicing Centers	703
Bemis Company, Inc.	Manufacturer - Bags	660
InterMetro Industries Corporation	Storage/Transport/Productivity Systems	660
Wal Mart Stores	Department Stores	650
UNI Marts LLC	Convenience Stores – Quick Marts	645
May Department Stores Company	Warehousing/Distribution	600
Altria Corporate Services, Inc. (Nabisco)	Data Center/On Line Sales & Customer Service	500
Schott Glass Technologies	Flat, Optical, and Ophthalmic Glass	500

<sup>4</sup> “The Rise of Luzerne County: An Examination of the Origin and Future Effects of Recent Population Shifts, Joint Urban Studies Center, 2007

Earth Conservancy South Valley Corridor Lands, *Luzerne County, Pennsylvania*  
**DRAFT FINAL REUSE ANALYSIS AND SUSTAINABLE REDEVELOPMENT FRAMEWORK**

Company Name	Description	No. Employed
U.S. Postal Service	Postal	500
John Heinz Institute of Rehabilitation Medicine	Rehabilitation Services	498
Fairchild Semiconductor	Electronic Parts	470
Klein Candy Company, L.P.	Candy Dist-Wholesale	460
PG Energy	Utilities – Gas	440
Travelocity.com	Travel	425
Motorworld Automotive Group, Inc.	Auto Dealers	400
Telrx Marketing, Inc.	Telemarketing	400
Caradon Mideast Aluminum	Extruded Aluminum	380
Trion Industries, Inc.	Store Fixtures	360
Certainteed Corporation	Fiberglass Insulation	350
XO Communications	Telecomm Services	350
Mideast Aluminum	Metal Extrusion	325
Wachovia Arena/SMG	Entertainment	322
Creditek, LLC	Financial Info/Services	300
Times Leader	Newspapers	295
GUARD Insurance Group	Insurance	288
ALLTEL Information Services, Inc.	Information Services	286
American Asphalt Paving Co.	Asphalt Mixtures	285
Bridon American Corporation	Wire Rope/Cable	285
Penguin Group (USA) Inc.	Publishers	275
Smiths Aerospace	Jet Engine Rings	267

***Healthcare***

Luzerne County reported higher cancer and heart disease rates than the state average and higher than most of the surrounding counties. At the same time, Luzerne County has the lowest number of nursing beds per 1,000 residents of the three surrounding counties. It also has one of the lowest ratios of hospital beds in the region.

**MARKET DRIVERS**

***Transportation***

As previously stated, the region is heavily influenced by the Interstate system of roads. The Scranton/Wilkes Barre/Hazleton area has gained recognition over the last decade as a strategic, affordable pathway to the economic centers of the United States and Canada. The convergence of Interstates 81, 80, 84 as well as Pennsylvania 476 and nearby I-78 create direct access to major cities in the United States.

In addition, existing railways provide additional linkages to major economic centers. Significant money has been spent over the past several years upgrading freight lines for expansion of commercial development and specific end users.

The existence of and access to quality roadways has been a significant driver in the selection of development sites over the past few years. New development has occurred on sites with direct or nearly direct access to existing roadways. This suggests that investment in core roadways, bridges, and rail lines is key to improving a property’s marketability.

**Westward Migration<sup>5</sup>**

The Joint Urban Studies Center completed an analysis of the population shift in Luzerne County in 2007. The following information is gleaned from the document entitled: *The Rise of Luzerne County: An Examination of the Origin and Future Effects of Recent Population Shifts*, November 2007.

Lackawanna and Luzerne Counties experienced a population growth in 2005 and 2006 for the first time since the 1930s and 1940s. Luzerne County experienced slight population increases from 2004 to 2005 and again from 2005 to 2006.

According to the 2007 JUSC Report, nine specific counties were the source of Luzerne County's demographic shift, including: Lackawanna and Monroe Counties in Pennsylvania; Essex, Hudson, and Passaic Counties; and Bronx, Kings, New York, and Queens Counties in New York.

Westward Migration					
Pennsylvania			New York		
Rank	County	Population	Rank	County	Population
1	Lackawanna	17,141	1	Lackawanna	7,362
2	Monroe	4,512	2	Monroe	2,362
3	Kings	2,783	3	Kings	1,967
4	Queens	2,062	4	Queens	1,191
5	New York	1,195	5	Bronx	994
6	Passaic	1,138	6	Passaic	737
7	Bronx	1,092	7	New York	679
8	Hudson	1,030	8	Hudson	628
9	Essex	1,013	9	Essex	593

The 2007 JUSC Report determined that housing is at the forefront of the population and demographic shift. People generally move in search of affordable and lower priced housing. As a population increases, demand on the housing market also increases, eventually causing housing prices to rise and shifts to occur once again. This is the pattern that has been occurring in the greater New York, New Jersey metropolitan markets.

Monroe County, which ranked second as a source of in-migration, ranked well above the national average in terms of change in housing units. In fact, during each time period, the county ranked highest among the nine counties examined. From 1990 to 2000, Monroe County's total number of housing units grew by 23.3 percent, compared with 13.3 and 11.3 percent in the U.S. and Bronx County, respectively.

Housing Units					
Location	1990	2000	Change 90-00	2005	Change 00-05
Bronx	440,955	490,659	11.3%	506,396	3.2%
Essex	298,710	301,011	0.8%	308,707	2.6%
Hudson	229,682	240,618	4.8%	251,211	4.4%
Kings	873,671	930,866	6.5%	954,382	2.5%
Lackawanna	91,707	93,362	4.0%	96,899	1.6%
Luzerne	138,724	144,686	4.3%	147,321	1.8%
New York	785,127	798,144	1.7%	840,443	5.3%
Passaic	162,512	170,048	4.6%	171,539	0.9%
Queens	752,690	817,250	8.6%	832,545	1.9%

<sup>5</sup> The Rise of Luzerne County: An Examination of the Origin and Future Effects of Recent Population Shifts, Joint Urban Studies Center, November 2007.

As suggested, the increase in median home values has contributed to the westward migration. Examining median home values, Monroe County exhibits some interesting figures. The following chart shows that between 2000 and 2005, Lackawanna and Luzerne Counties were the only counties to see home value increases lower than the national average. The tremendous increase in home values in the eastern counties contributes to the migration to Luzerne and Lackawanna.

Location	1990	2000	Change 90-00	2005	Change 00-05
Bronx	\$173,000	\$190,400	10.1%	\$366,500	92.5%
Essex	\$194,400	\$208,400	7.2%	\$409,300	96.4%
Hudson	\$157,400	\$150,300	-4.5%	\$387,100	157.6%
Kings	\$194,600	\$224,100	15.2%	\$534,500	138.5%
Lackawanna	\$68,000	\$93,400	37.4%	\$122,800	31.5%
Luzerne	\$55,500	\$84,800	52.8%	\$102,800	21.2%
New York	N/A	N/A	N/A	N/A	N/A
Passaic	\$185,000	\$190,600	3.0%	\$406,300	113.2%
Queens	\$189,100	\$212,600	12.4%	\$470,500	121.3%

The documented westward migration of New York/New Jersey populations into Pennsylvania has and will continue to affect the region's housing market. Eastern Pennsylvania counties have seen significant migration from New York and New Jersey. Lackawanna and Luzerne Counties are likely next in line for similar migration patterns. This trend will continue as long as there remains affordable and available housing at different price points.

***Luzerne County Community College***

With over 3,100 full-time students, and equal number of part-time students and over 400 faculty and staff, Luzerne County Community College (LCCC) is a significant influence on the South Valley Corridor community. LCCC completed a master plan in 2005, which was based upon surveys and focus groups with college faculty and staff, community members, and area businesses. This input helped guide the College's strategic plan.

The master plan calls for a number of expansion projects that include a \$28 million public safety training institute, a health sciences center, and a culinary institute. The total expansion will likely exceed \$41 million dollars.

A new \$28 million dollar Public Safety Training Institute is being developed. The Public Safety Training Institute will be built on LCCC property across Prospect Street and consist of a burn building, fire fighting props, emergency vehicle driving course, classroom buildings, a firing range, canine training area, and a helicopter landing pad. The new facility will be able to train up to 4,000 emergency personnel each year and cover a 10-county area.

The new Health Sciences Building will simulate a hospital setting and will allow all health care students to interact together. The new facility also will offer simulator equipment, an expanded working dental clinic, and be able to offer additional educational programs in other health fields. The cost estimate for the Health Sciences Center is \$9.3 million.

Another area of growth for the region is the hospitality industry and therefore, emphasis is on the development of increased Hotel and Restaurant Management facilities. A newly-constructed Culinary Arts Building will allow LCCC to update the physical facilities for the food production pastry arts and hotel and restaurant management programs that prepare students for courses in their chosen field. Also, it would address the need for skilled labor at the local, state, and national level and expand courses and programs in the areas of casino management and leisure spa management. Programs will meet the need for food-service workers and training expressed by representatives from area resorts, hotels, and restaurants. The Culinary Arts Building is planned to be located in downtown Nanticoke at the corner of Main and Market

Streets. A private developer, 406 North Washington Avenue, LLC, bought the property on July 8, 2008 from the City of Nanticoke for \$250,000.

### **Tourism and Recreation**

The greater Wilkes-Barre area has a wide range of entertainment and recreational facilities. According to area real estate professionals<sup>6</sup>, the variety of cultural and recreational amenities in the region have attracted corporate and industrial businesses to the region. Currently the region is home to an AHL hockey team, a Triple A baseball team, an arena football team, and the nearby Pocono International raceway which hosts NASCAR, SCCA, and IMSA racing.

Active recreation is a changing market. The 17 golf courses<sup>7</sup> in the immediate area and 42 courses<sup>8</sup> in the region are struggling to attract members and book tee times.<sup>9</sup> At the same time, Wyoming Valley Sports Dome, an indoor soccer, golf, softball, field hockey, flag football and skate park, just celebrated its successful refinancing as a family-owned organization.

Mohegan Sun at Pocono Downs was Pennsylvania's first casino, located northeast of Wilkes-Barre. The casino began with 1,203 slot machines in a remodeled portion of the clubhouse at the Pocono Downs racetrack. On July 17, 2008, Project Sunrise, the \$208 million Phase II gaming and entertainment complex opened. This 300,000 square-foot complex features 2,500 slot machines and electronic virtual table games, restaurants, a food court and night club. Total employment exceeds 1,600 people.

This new attraction is expected by many to be an economic benefit to the region. Between 2007 and 2008, Luzerne County experienced an increase of four hotels, some of which may be related to the tourism market. However, the casino's role as an economic driver remains to be seen. Five other racetrack gaming properties are in some phase of development in Pennsylvania at this time. In addition, Mount Airy Casino Resort in the nearby Pocono Mountains opened in 2008. Nationally, gaming and slot revenues have been decreasing over the last few years.

Furthermore, the County experienced a major decrease in visitor spending between 2004 and 2005. A majority of this decrease was in transportation spending, including air, car, and other modes of transportation.

### **Rail Access**

When Conrail sold its lines to CSX, CSX chose to abandon the lines in Luzerne County. The County established the Luzerne County Rail Authority to operate feeder service to Class I railroads operated by Norfolk Southern and Canadian Pacific.<sup>10</sup>

According to the 2006 update to *the 2003-2025 Long Range Transportation Plan* for the Lackawanna/Luzerne MPO, the Luzerne Rail Corporation (LCRC) operates 56 miles of freight-only line and services a total of 25 shippers.<sup>11</sup> The Luzerne and Susquehanna Rail Line splits into four branches - the Westside Branch, the Hanover Industrial Park Branch, the Avoca Branch, and the Mountain Branch. LRCR purchased the line in 1996. Over the last several years, a number of economic development activities have advanced related to freight rail:<sup>12</sup>

- The Commonwealth of Pennsylvania awarded a \$500,000 grant to the Redevelopment Authority of Luzerne County in April 2008 to help refurbish the Susquehanna River Bridge on the Luzerne & Susquehanna Railroad's West Pittston Branch. This improvement will support Diamond Manufacturing's expansion and allow the company to shift 100 million pounds of steel coil shipments from truck to rail.

---

<sup>6</sup> Telephone interviews with greater Wilkes Barre realtors June-August 2008.

<sup>7</sup> <http://wilkesbarre.org/ed/>, August 11, 2008

<sup>8</sup> [http://www.pennsnortheast.com/c\\_community\\_data/luzerne.shtm](http://www.pennsnortheast.com/c_community_data/luzerne.shtm), August 12, 2008

<sup>9</sup> Telephone interview with Robert Mericle, July 30, 2008, 2:00 pm.

<sup>10</sup> [http://www.pennsnortheast.com/c\\_community\\_data/luzerne.shtm](http://www.pennsnortheast.com/c_community_data/luzerne.shtm), August 12, 2008

<sup>11</sup> <http://www.dot.state.pa.us/pennidot/Districts/district4.nsf/MPO.htm?OpenForm>, August 2008

<sup>12</sup> The 2003-2025 Long Range Transportation Plan for the Lackawanna/Luzerne MPO, 2006 Update, Pennsylvania Department of Transportation.

- Last year, the Redevelopment Authority of Luzerne County received \$243,250 to rehabilitate the track and improve rail operations from Spring Brooks Bridge to Wilkes-Barre, which services a number of businesses in the Grimes Industrial Park.
- The LCRC is in the process of restoring the Suscon Branch in Pittston Township to service a new development by Mericle, one of the largest commercial developers in the area.
- The LCRC moved 2,125 cars in 2005 and has expended \$4 million in rehabilitation, repairs, and new construction over the last four years.
- Approximately 4 acres of the Ashley Yards has been developed by Petro Gas and a second developer is seeking an additional 4 acres within the Yards for development.

A passenger-rail study has been completed and the line will be utilized from Market Street Square in downtown Wilkes-Barre to the interchange with CP rail at Hudson Yards for a distance of approximately 3.8 miles. The CP Rail will be used to connect to Scranton.<sup>13</sup>

Rail is and continues to be a key driver in the region. There is a current proposal to restore high-speed passenger and freight rail lines connecting Luzerne County, Scranton, Monroe County, and New York City. Both Pennsylvania and New Jersey politicians are pressing federal transportation agencies to move the plans forward; completion is still at least six years away.

### ***Urban Centers and Mixed-Use Development***

Over the past decade, mixed-use developments have been a growing trend in downtown redevelopment projects and land revitalization programs. Mixed use development programs can benefit developers by dispersing the intensity and risk of any single use. Mixed-use is often considered a less risky investment.<sup>14</sup> At the same time, the mixed use approach helps municipalities diversify their tax base while improving quality of life in the community.<sup>15</sup>

More recently, a renewed interest in urban living, spurred by rising energy costs and an increasing awareness of the environment, has strengthened the interest in mixed-use development. There is a growing demand for mixed-use, higher densities and transit oriented lifestyles that enable people to work, shop and be entertained close to home.<sup>16</sup> According to The Congress for New Urbanism, home sales in walkable mixed-use areas are faring better in the current downturn than houses in traditional suburban sprawl communities.<sup>17</sup>

According to Christopher Leinberger, a visiting fellow at the Brookings Institution who also runs the University of Michigan's graduate real estate program, there is pent-up demand across the country for walkable places. "We've got a structural change taking place in this country. Gas prices are just accelerating the trend," according to Leinberger.<sup>18</sup>

Mixed use is currently attractive to homeowners without children, generally young professionals and baby boomers. Demand could rise as households with children decrease. Some studies suggest that up to 80% of households nationwide will be childless in the next 20 years.<sup>19</sup>

Examples of recent mixed use and transit-oriented developments include the following:

#### ***New Town Design Standards, Washington Township, New Jersey***

- Establishes design standards for a 400-acre development.
- All homes will be within walking distance of the commercial main street

---

<sup>13</sup> The 2003-2025 Long Range Transportation Plan for the Lackawanna/Luzerne MPO, 2006 Update, Pennsylvania Department of Transportation.

<sup>14</sup> Kelly, Juliane; "Making Mixed-Use Work, CIRE Magazine, June 2000.

<sup>15</sup> Garbarine, Rachelle, "Commercial Property/New Jersey; Turning a Factory Site into Mixed use Development," The New York Times, December 26, 1999.

<sup>16</sup> Hudgins, Matt, "Mixed-use Matures", CIRE Magazine, June 2008.

<sup>17</sup> Hardin, Jason, "Trend of mixed-use developments Grows," News-Record, August 10, 2008.

<sup>18</sup> Gopal, Prashant, "The Unraveling of the Suburban Fringe", BusinessWeek, July 12, 2008.

<sup>19</sup> RaHS, Michelle Cater, "Blended: Mixed-use projects a growing trend in the Triad," The Business Journal of the Greater Triad Area, August 29, 2008

- 300,000 square foot mixed-use commercial sector
- Plan integrates the town with its surrounding greenbelt edge agrarian environment
- The plan calls for a minimum of 1,000 housing units, though more could be built
- The town will have a broad range of house types, including apartments, townhouses, duplexes, and single-family detached homes, with a variety of sizes within each type.
- The center will also be integrated into the region through a series of interconnected pedestrian paths, greenbelts, and pedestrian- and bicycle-compatible roadways.
- The town will have a network of connected streets within 1,500 feet of the commercial core.

*Wesmont Station, Woodbridge, NJ*

- 140 acre development
- a complete neighborhood with a transit station at its core
- The station and the surrounding mixed-use district will be within walking distance of residents
- 737 residential units:
  - 217 single-family homes,
  - 135 rental apartments,
  - 131 condos,
  - 77 age-restricted condo units,
  - 166 townhouses,
  - 11 live-work spaces for artists and small entrepreneurs.
- 130,000 sf retail
- a new train station
- mixed-use town center

*The Commons at Holmdel, Holmdel, New Jersey*

- Two office buildings, totaling approximately 80,000 square feet,
- A 130 bed nursing home and an assisted living facility with 110 units.
- 235,000-square-foot retail shopping center,
- 155 single-family homes for residents who are 55 and over.

*Highlands at Morristown Station, New Jersey*

- 219 Luxury Rental Apartments
- 740 Car Parking Garage,
- 8,000 sq. ft .Morristown Transit Village Retail
- Connection to train station

## **REAL ESTATE MARKET**

Northeastern Pennsylvania is generally defined as the area of the state north of I-80 extending from Stroudsburg on the east to Williamsport on the west. The Wilkes-Barre/Scranton/Hazleton region is centrally located at the intersection of Interstates 80, 81 and 476. The real estate market in the region is divided into three Multiple Listing Service (MLS) regions: Scranton, Wilkes-Barre and Hazleton. Scranton and Hazleton have been the most active development markets; however significant development has occurred around Wilkes-Barre as well.

### ***Commercial / Industrial Real Estate***

The Scranton/Wilkes-Barre/Hazleton market has not only been recognized for its strong transportation links and active recreation, but also its affordable real estate and abundant workforce. The combination of these characteristics has attracted local, regional, national, and international firms to the market within the past 10 years. Over 30 million square feet of commercial and industrial space has been developed



- In the spring of 2008, Mericle began construction of 400,000 square feet of commercial space in the greater Wilkes-Barre market.
- 83 buildings developed/constructed/renovated since 1989
- 12.5 million square feet developed/constructed/renovated
- 10.5 million square feet currently owned and managed
- 9.5 million square feet developed/constructed since January 1, 2000
- 120 tenants in Mericle portfolio

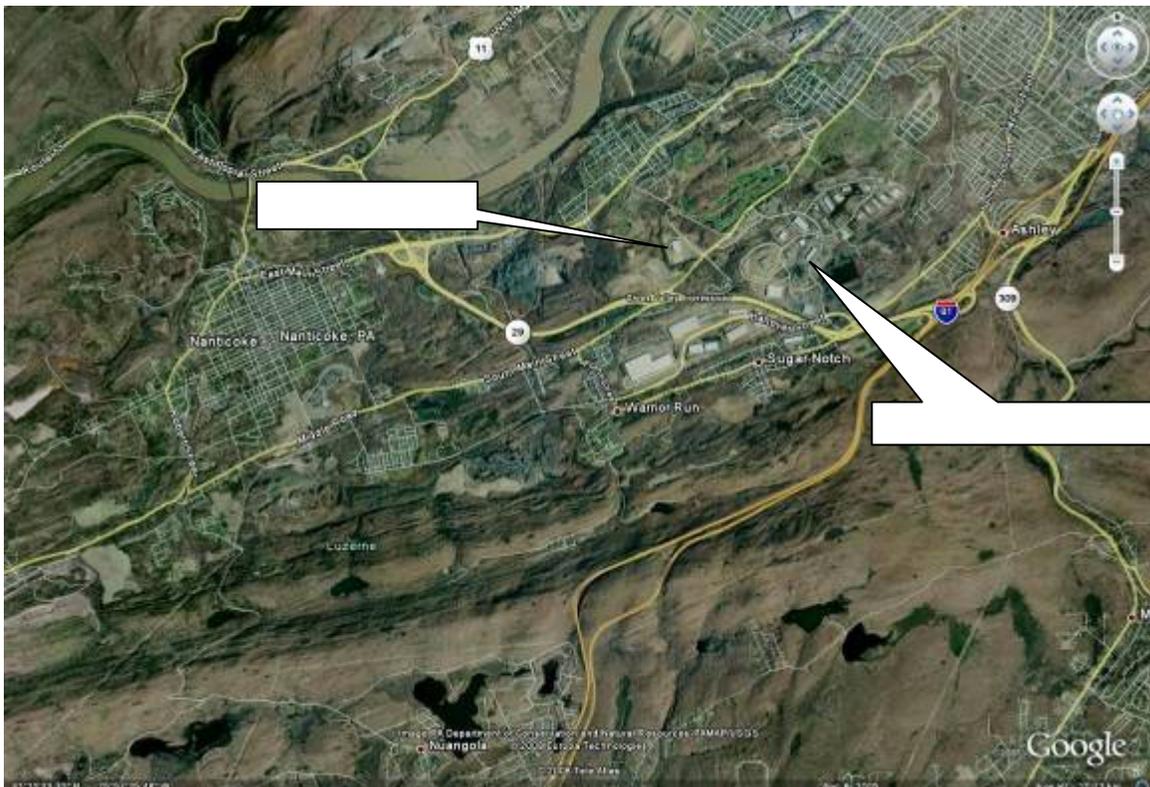
The Greater Wilkes-Barre Chamber of Business and Industry owns five industrial parks, including:

*Hanover Industrial Estates* is located in Hanover Township, less than one mile from Interstate 81 via State Route 29, a limited-access highway. The industrial park is zoned manufacturing and contains 962 acres. The park includes:

- 25 Total Acres Available
- 5,727 Total Employees
- 62 Total Companies

*Hanover Crossings* is located in Hanover Township, and includes 304 acres zoned manufacturing. The park includes:

- 109.1 Total Acres Available
- 400 Total Employees
- 1 Company (Caremark RX, a mail-order pharmaceutical company)



*Hanover Crossings and Hanover Industrial Estates in Wilkes-Barre Region*

*Crestwood Industrial Park* is located in Mountain Top, seven miles north of Interstate 80 along PA Route 309 and 4.5 miles from Interstate 81. This 1,050-acre park is home to food production facilities, distribution centers, plastics, and electronic companies. The park is zoned industrial and has rail service. The park includes:

- 242 Total Acres Available
- 2,696 Total Employees
- 25 Total Companies

*Corporate Park at East Mountain* in Plains Township, is a campus-like park with 225 acres. It is zoned highway commercial and promoted as office, research, and development. The park includes:

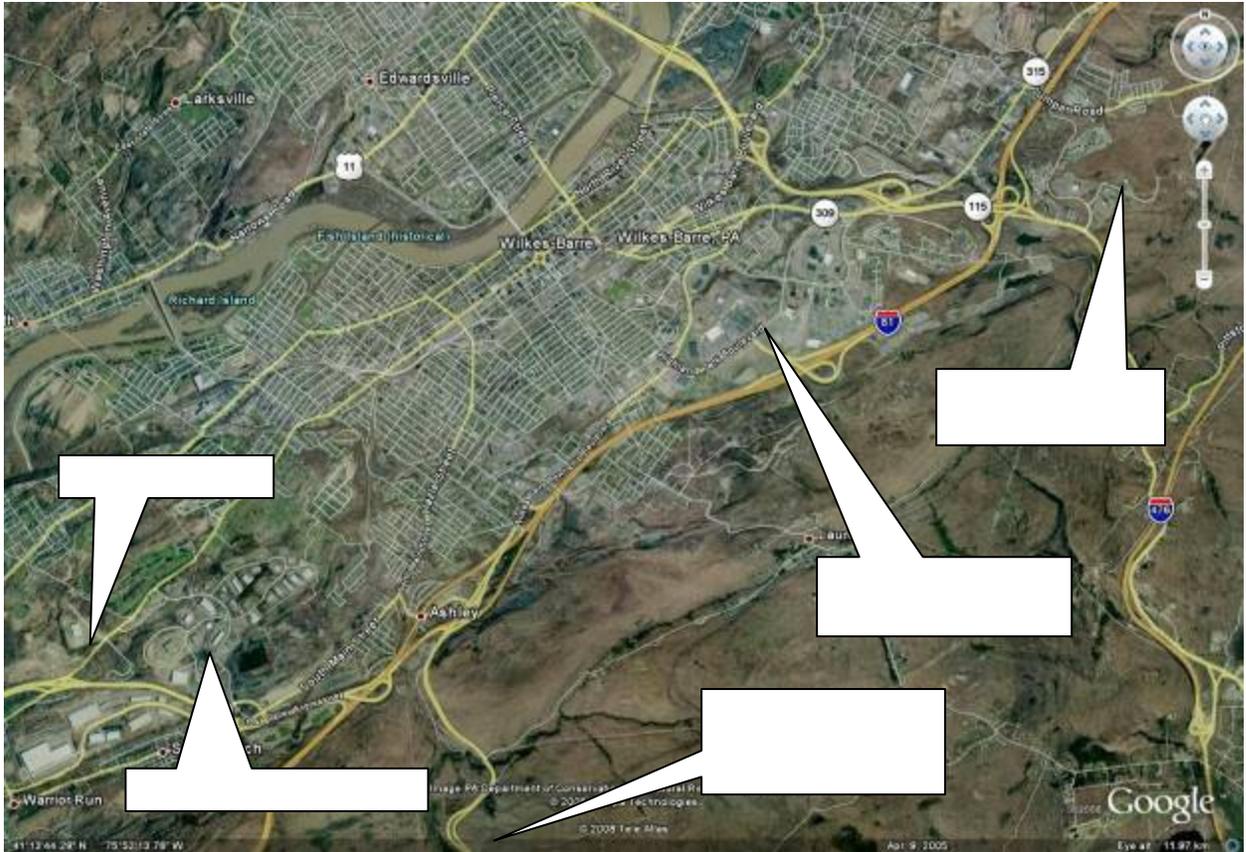
- 62 Total Acres Available
- 2,764 Total Employees
- 19 Total Companies

Corporate owners and tenants include:

- Penn State Geisinger Wyoming Valley Medical Center
- U.S. Social Security Administration
- PPL East Mountain Business Center
- Cross Valley Federal Credit Union
- Mericle Commercial Real Estate Services
- State Farm Insurance
- Merrill Lynch
- Pennsylvania Governor's Northeast Regional Office
- Citadel Communications
- US Foodservice, Inc.
- Borton-Lawson Engineering
- Howell Benefit Services, Inc.
- Productivity Point
- The Luzerne Foundation

*Highland Park Boulevard* in Wilkes-Barre Township is a prime retail and business location. Located off Interstate 81, Highland Park is home to numerous commercial organizations including Bennigan's, a Wal-Mart Super Center, the Hilton Garden Inn, Cracker Barrel, Target, and the Lord and Taylor Distribution Center. The park includes:

- 52.58 Total Acres Available
- 1,197 Total Full-Time Employees
- 1,709 Total Part-Time Employees



*Greater Wilkes-Barre Chamber of Business and Industry Industrial Parks Location*

#### Available Listings

Listings of available real estate provide a snapshot of the real estate market at a given time. A number of sources were used to identify available real estate in the region.

NAI Mertz of Pennsylvania, located in Wilkes-Barre, is a leading commercial brokerage company. The company is associated with NAI Mertz, the large commercial brokerage firm in southern New Jersey, serving the NJ and PA markets. A search of NAI Mertz (<http://www.mertzcorp.com/listings/>) on July 3, 2008 identified the following properties in the Wilkes-Barre-Scranton region:

- 11 commercial properties for sale or lease
- Properties included office, industrial, commercial, and older buildings identified for rehabilitation
- Office properties were listed at \$8.00 per sq ft NNN
- Industrial properties ranged from \$2.75 – 4.74 per sq ft NNN

Mericle Commercial Real Estate is the largest private developer of industrial real estate on the I-81 Corridor. A search of Mericle Commercial Real Estate listings (<http://www.mericle.com/public/all-properties.html>) on July 15, 2008 identified the following properties in the Wilkes-Barre-Scranton region:

- 147 properties for sale or lease
- Over 3.4 million square feet available
- 63 properties had available building space less than 5,000 sq ft
- 10 properties had available building space over 100,000 sq ft
- The remainder of the properties were between 5,000 and 100,000 sq ft
- A majority of the properties were for lease, not sale
- Lease rates on the smaller units ranged from \$4.50 to \$9.50 NNN
- Lease rates on the larger buildings were not published

The Greater Wilkes-Barre Chamber of Business and Industry web site (<http://wilkesbarre.org/ed/index.php?a=1>) includes a listing of available properties. This listing includes properties owned and managed by the organization and other entities. Some properties overlap parcels found on other web sites. A search on July 15, 2008 found the following properties:

- 200 commercial properties for sale or lease
- 13 properties with rail access
- Properties included office, industrial, and retail buildings

In addition to available commercial buildings, a number of vacant properties were listed for commercial and industrial development:

A search of NAI Mertz (<http://www.mertzcorp.com/listings/>) on July 3, 2008 identified the following properties :

- 3 vacant parcels for sale
- Land was selling from \$25,000 - \$50,000 per acre

A search of Mericle Commercial Real Estate listings (<http://www.mericle.com/public/all-properties.html>) on July 15, 2008 identified the following land parcels in the Wilkes-Barre-Scranton region:

- 31 vacant parcels for sale
- Properties in Wilkes-Barre and Mountain Top commanded the highest prices, averaging \$650,000 per acre
- Land in outlying townships without utilities was listed for \$2,500 to \$14,000 per acre

The Greater Wilkes-Barre Chamber of Business and Industry web site (<http://wilkesbarre.org/ed/index.php?a=1>) includes a listing of available properties. This listing includes properties owned and managed by the organization and other entities. Some properties overlap parcels found on other web sites. A Search on July 15, 2008 found the following vacant parcels:

- 95 parcels for sale or lease
- 33 parcels with rail access
- Parcels ranged from 0.3 acres to 202 acres in size

#### Current Commercial Rates

NAI Mertz Corporation publishes data on the Wilkes-Barre/Scranton/Hazleton commercial market.<sup>25</sup> The following information was provided by Carolyn Mertz<sup>26</sup>:

Downtown Office		Avg Rate/sf	Vacancy
Class A (prime)		\$25	10%
Class B (secondary)		\$15	18%
Suburban Office		Avg Rate/sf	Vacancy
Class A (prime)		\$19	15%
Class B (secondary)		\$18	5%
Industrial		Avg Rate/sf	Vacancy
Bulk Warehouse	\$4		10%
Manufacturing		\$3.25	30%
Retail		Avg Rate/sf	Vacancy
Downtown		\$18	15%
Neighborhood Service		\$15	15%
Community Power Center	\$17		2%
Regional Malls		\$26	2%

<sup>25</sup> Wilkes-Barre/Scranton/Hazleton, Pennsylvania Market, NAI Mertz Corporation of Pennsylvania, July 2008.

<sup>26</sup> Telephone interview between Elaine Richardson and Carolyn Mertz, July 24, 2008.

Development Land	Price Range
Office in CBD	\$ 7 - \$17/buildable sf
Land in Office Parks	\$60,000 - \$275,000 / acre
Land in Industrial Parks	\$25,000 - \$100,000 / acre
Office / Industrial Land	\$20,000 - \$180,000 / acre
Residential	\$15,000 - \$125,000 / acre

**Residential Real Estate**

The residential market in the region has been changing over the past several years. According to the Luzerne County web site, significant new construction has occurred throughout the county. New construction has included planned residential developments, senior communities, groups of homes on one to three acre lots, and estate homes on properties as large as ten or twenty acres.

New construction and higher priced homes have been built in every community. Newer homes in excess of \$300,000 have been built east of Nanticoke center and northeast of the Luzerne County Community College.

Higher priced homes exist around Nuangola Lake south of the subject area, as well as in the towns of Alden, Mountain Top, Bear Creek, Shaverton, and others. The Town of Mountain Top has homes ranging from \$25,000 to \$800,000. The highest priced homes are located south of the subject area on the southeastern side of I-81.

The new construction is attractive to the changing population while older homes are more difficult to sell. According to the 2006 Housing Symposium, the average selling price of a property in 2006 varied substantially by township and product. Homes in Mountain Top were averaging \$223,177; Back Mountain, \$210,000; while Wilkes-Barre averaged \$58,000. The average time period a property was on the market in 2006 was 48 days in Mountain Top; 63 days in Back Mountain; and 77 days in Wilkes-Barre.<sup>27</sup>

According to local realtors, there is a demand for new single family homes in the range of \$175,000 to 200,000. A majority of the new housing units in this price range have been townhouse style condominiums. Rising construction costs have driven housing developers into higher price units in excess of \$285,000.<sup>28</sup>

There continues to be demand for affordable and subsidized housing for the elderly and lower income population. According to Dave Fagula, Executive Director of the Luzerne County Housing Authority, there is a huge demand for public and subsidized housing. There are over 440 people on a waiting list and the housing authority is no longer taking applications.<sup>29</sup>

**Recent Residential Sales Data**

According to the 2007 JUSC Report, the Median Home Value in Luzerne County in 2006 was \$102,800.

Cumberland	\$56,426	\$163,000	\$53,742	105.0
Lackawanna	\$28,915	\$122,800	\$45,708	85.1
Lehigh	\$48,469	\$185,100	\$58,159	83.3
Luzerne	\$39,687	\$102,800	\$41,711	95.1

*Pennsylvania County Housing Affordability Index Comparison*

Between July 2007 and June 2008, 2,063 houses sold in the region. This was a decrease over the same period the previous year when 2,362 houses sold. Between July 2006 and June 2007, 55.8% of the homes sold had a sale price greater than \$100,000. Over 13% of the homes sold for more than \$250,000.

<sup>27</sup> <http://lchousing.com/>, Luzerne County Housing Symposium

<sup>28</sup> Phone Interview between Elaine Richardson and Rhea Simms, August 12, 2008

<sup>29</sup> *County Housing Authority makes do*, TimesLeader: Steve Mocarisky, July 14, 2008

Between July 2007 and June 2008, 53% of the homes sold had a sale price greater than \$100,000. Over 12% of the homes sold for more than \$250,000.<sup>30</sup>

Home sales in the Ashley/Nanticoke/Hanover (ANH) Township area between July 2007 and June 2008 accounted for 10.66% of the housing sales in the region. The average sale price was \$73,148, averaging 94.34% of list price. Homes averaged 71 days on the market. This area had the lowest average home sale price in the region, with the exception of the City of Wilkes-Barre. Mountain Top had the highest average homes sale price at \$249,266. The City of Wilkes-Barre had the highest number of homes sold, representing 16.17% of the market.

Home sales in the Ashley/Nanticoke/Hanover Township area between July 2006 and June 2007 accounted for 9.95% of the housing sales in the region. The average sale price was \$74,290, averaging 94.52% of list price. Homes averaged 76 days on the market. This area had the lowest average home sale price in the region, with the exception of the City of Wilkes-Barre. Mountain Top had the highest average homes sale price at \$249,266. The City of Wilkes-Barre had the highest number of homes sold, representing 16.17% of the market.

	2006-07		2007-08		2006-07		2007-08	
	06-07	07-08	06-07	07-08	06-07	07-08	06-07	07-08
ANH	9.95	10.66	74,290	73,148	69,000	69,950	76	71
W-BC	16.17	18.53	66,864	63,602	58,696	49,500	96	98
MNTP	10.8	9.5	249,266	235,907	215,000	205,750	69	98
Region	100	100	142,440	134,860	124,294	117,320	79	90

#### Residential Product and Inventory

The 2007 Joint Urban Studies Center migration study found that from 1990 to 2000 and from 2000 to 2005, Luzerne County posted below average percentage increases in total housing units.

	1990-2000	2000-2005	1990-2000	2000-2005	1990-2000	2000-2005
Luzerne	138,724	144,686	4.3%	147,321	1.8%	
United States	102,263,678	115,904,641	13.3%	126,311,823	9.0%	

According to the 2007 Indicators Report, Luzerne County had 130,034 occupied housing units in 2006.

From 2000 to 2006, 5,170 new homes were constructed in Luzerne County, accounting for 3.5% of the total housing units in the County. This percentage is significantly lower than Cumberland County (9.4%) and Lehigh County (7.5%) but higher than Lackawanna County (2.8%).

The 2007 Indicators Report included a number of important statistics:<sup>31</sup>

- Total housing units increased between 2005 and 2006 from 146,911 to 147,321.
- In 2006, Luzerne County had 130,034 occupied housing units.
- The County's 2006 vacancy rate of 11.7% was an increase over 2005's rate of 10.6%.
- While the number of *occupied* units decreased, the percentage of *owner occupied* units increased from 69.9% to 72.9%.

The above statistics suggest that construction of new housing units within the last five years has replaced older housing units, rather than adding substantially to the inventory. The market has seen an increase in home ownership, rather than rental. Older less desirable rental units likely account for the vacancy rates.

#### Home Values

From 1990 to 2000, median home values in Luzerne County increased at a rate slightly higher than national median home values; however the actual median home value in Luzerne County was still well below national averages.

<sup>30</sup> Residential statistics provided by Lewith & Freeman Realtors, August 2008.

<sup>31</sup> The 2008 Lackawanna and Luzerne County Indicators Report, Joint Urban Studies Center, 2008

In 2000, Luzerne County's median home value of \$84,000 was well below the U.S. average of \$119,600. From 2000 – 2005, Luzerne County's median home value incurred a minimal increase of 21.2% significantly lower than the national average increase during the same time period.

	2000	2005	% Change	2000	% Change
Luzerne	\$55,500	\$84,800	52.8%	\$102,800	21.2%
United States	\$78,500	\$119,600	52.4%	\$102,800	54.8%

Surrounding counties and markets have higher median home values. For 2005, Lackawanna recorded median home values of \$122,800.<sup>32</sup> The National Home Builders Association estimated the 2007 median new home price for the Scranton/Wilkes-Barre MSA is \$242,217. The 2007 median new home price in the New York-Northern New Jersey-Long Island MSA is \$471,222 – \$225,000 more than the Scranton/Wilkes-Barre MSA.

The median sale price in the Wilkes-Barre MLS region for the past two years was above the reported 2006 median home value for Luzerne County. Like much of the United States, housing prices decreased between 2007 and 2008.

#### Available Residential Properties

The residential market in Luzerne County is divided into two Multiple Listing Service areas: the Wilkes-Barre MLS and Hazleton MLS. A search of the Wilkes-Barre MLS on July 17, 2008 provides a snapshot of the residential real estate market in the area.<sup>33</sup>

498 single family properties were identified for sale in the Wilkes-Barre MLS. A significant majority of these homes were between 1,000 and 1,500 square feet. Very few homes in excess of 3,000 sf were listed.

< 1000 sf	=	30 properties
1000 – 1500	=	152 properties
1500 – 2000	=	102 properties
2000 – 2500	=	64 properties
2500 – 3000	=	31 properties
3000 – 3500	=	15 properties
3500 – 4000	=	14 properties
4000 – 5000	=	8 properties
5000 – 6000	=	9 properties
6000 +	=	1 property

The asking price of single family homes ranged from \$25,000 for a 1,000 sq ft two bedroom older home in Glen Lyon to \$750,000 for a 5,600 sq ft four bedroom home on five acres in Mountain Top.

There are 128 residential properties available in the Nanticoke-Ashley-Hanover MLS sub-district. The asking price of single family homes ranged from \$5,000 for a 910 sq ft trailer style 3 bedroom older home to \$350,000 for a 3,560 sq ft four bedroom home on 0.5 acres of land.

- A number of newly constructed homes and development lots are available in the Lynnwood section north of the Wyoming Valley Country Club.
- The newly constructed homes are priced around \$250,000
- Six (6) condos/duplexes were included in this listing. They ranged from \$118,000 - \$236,000 and appeared to be relatively new construction.

There are 42 residential properties available in Nanticoke. The asking price of single family homes ranged from \$25,000 for a 1,400 sq ft two bedroom older home to \$350,000 for a 3,560 sq ft four bedroom home on 0.5 acres of land.

- 2 homes were listed above \$300,000 (Lawrence Street and Meade Street).

<sup>32</sup> The 2008 Lackawanna and Luzerne County Indicators Report, Joint Urban Studies Center, 2008

<sup>33</sup> [http://www.lewith-freeman.com/property\\_search.php?loc=proprch](http://www.lewith-freeman.com/property_search.php?loc=proprch)

- 8 homes were listed between \$120,000 and \$175,000.
- The remainder (32) was below \$120,000.

The residential market has declined slightly over the last year. While prices have not declined significantly, homes are taking longer to sell.

#### Residential Rental Properties

The residential market in the greater Wilkes-Barre area, and specifically in Nanticoke, includes a large rental market. According to the 2000 Census, 54% of the housing in Nanticoke is single unit detached homes. According to the same census, over 61% of the housing stock was built prior to 1940.<sup>34</sup>

According to the 2007 Indicators Report, the total number of occupied housing units decreased between 2005 and 2006. At the same time, the owner occupancy rate increased from 60.0% to 72.9%. This suggests that the increase in vacancies is attributable to new construction combined with an increase in home ownership.<sup>35</sup> Additionally, the report states that 27.1% of the housing units in Luzerne County were renter occupied in 2006. This was a decrease from 30.1% in 2005. The median monthly rent in Luzerne County was \$546 in 2006. This represents the lower median rental rate of the four counties analyzed in the Indicators Report.

According to local realtors, there is a demand for newer garden style apartment complexes.<sup>36</sup> This is likely due to the migration from New York and New Jersey where such complexes are common. Green Acres in Kingston is an example of a garden style apartment. Units in this complex are currently advertised as follows:<sup>37</sup>

1 Bedroom Studio	\$720
One Bedroom	\$740 - 775
Two Bedroom One Bath	\$820-\$875
Two Bedroom Two Bath	\$935-\$990
Three Bedroom Two Bath	\$1,100-\$1,125
Townhome (3 Bedroom 2.5 Bath)	\$1,250

#### **SUMMARY OF MARKET TRENDS AND OPPORTUNITIES**

The above data, information and analysis have identified a number of trends that present opportunities for the redevelopment of the South Valley Corridor lands and other mine-scarred lands.

- The greater Wilkes Barre market is a dynamic growing real estate market that is likely to continue. While the current economic downturn may slow growth, the positive trends are likely to continue. National and international organizations continue to be attracted to the region for its quality of life, affordable real estate and abundant workforce.
- There is a demand for housing of every type to meet the growing population, rising household income levels, and migration from eastern counties and states.
- As companies continue to expand and locate in the region, demand for housing will continue to be a major issue. If passenger rail is extended from New York to Scranton, the residential population will grow even faster.
- A large portion of the existing residential properties is pre-1940, while the market is demanding more modern homes in both the rental and owner-occupied markets.
- A majority of the new residential construction in recent years has been larger homes in excess of \$300,000. There are relatively few large tracts of land near urban cores resulting in the need for significant infrastructure for new developments. This issue, combined with rapidly rising construction costs, has made smaller midrange homes unattractive to residential developers.

---

<sup>34</sup> U.S. Census Bureau, Profile of Housing Characteristics, Nanticoke city, Pennsylvania, 2000

<sup>35</sup> The 2008 Lackawanna and Luzerne County Indicators Report, Joint Urban Studies Center, 2008

<sup>36</sup> Phone Interview between Elaine Richardson and Rhea Simms, August 12, 2008

<sup>37</sup> <http://www.forrent.com/apartment-community-profile/1000000295.php>, August 12, 2008

- Creation of new and expanded village centers and the upgrade of urban cores can help meet the demand for modern low to midrange housing. This may require public investment in infrastructure in some locations to ensure housing costs remain within market demand.
- Distribution, commercial, and large retail development will likely continue along the interstate corridor. At the same time, growing village centers will demand convenience retail and professional office products to serve the local populations.

### **RECOMMENDED MARKET APPROACH**

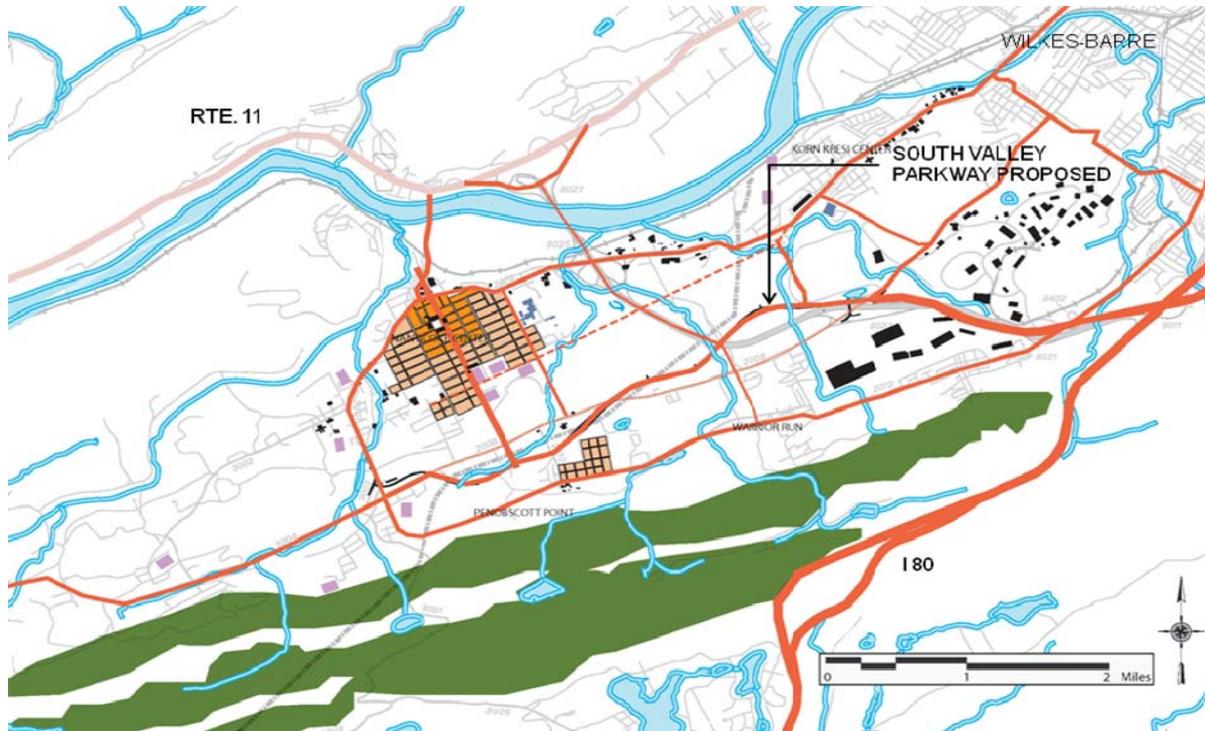
The location and size of the South Valley Corridor lands suggests the need for a mixed-use development project that incorporates components of residential, convenience retail, and service segments. A mixed-use development would diversify the development risk, meet the demand for a variety of housing stock, and build upon the existing fabric of the South Valley while connecting neighborhoods through pedestrian and transportation routes.

A mixed-use development requires a developer to strategize the proper placement, timing, and mix of market segments. Mixed-use developments are characterized by three or more significant revenue-producing uses, significant physical and functional integration, and development in conformance with a coherent plan. A mixed-use development of housing, retail, and office would help meet the current and future needs of the market.

## SECTION 6. LAND USE ANALYSIS AND FINDINGS

The intention of this study is to provide a general analysis of factors that will impact redevelopment in the larger geographic area and provide a framework for the potential development of EC's land. A systemic overview helps to inform more defined goals and design guidelines for various areas of the Land Use pattern. Each location within an overall plan plays a specific role in the future vision of the Valley; however, larger systems of man-made and natural infrastructure need to be identified and evaluated as they impact specific areas of the EC lands.

### CIRCULATION AND TRANSIT NETWORKS



*Wyoming Valley and Earth Conservancy Lands with Proposed Transportation Networks*

#### **Regional Road Network**

The main highways that service the Wilkes-Barre area are:

[Interstate 81](#) – north to [Binghamton, New York](#) and [Ontario](#) and south to [Harrisburg](#), Pennsylvania and [Tennessee](#);

[Interstate 84](#) – east to [Milford](#) and New England;

[Interstate 380](#) – south to [Mount Pocono](#) and [Interstate 80](#) – east to [New York City](#);

[Interstate 476/Pennsylvania Turnpike](#) Northeast Extension – south to Allentown and Philadelphia;

[U.S. Route 6](#) – east to Carbondale and parallel to I-84 to New England and west to [Erie](#); and

[U.S. Route 11](#) – parallel to I-81.

Distance to major metropolitan areas:

New York	2.5 hours
Philadelphia	2.0 hours
Boston	5.5 hours
Washington, DC	4.0 hours
Chicago	11.0 hours
Montreal	7.0 hours

*Analysis:*

Northeast Pennsylvania is the central location for international distribution servicing retail markets in New England, New York, Washington DC, and Chicago. One third of the U.S. population is within 500 miles of the area. This has made the region a viable growth area for these industries as well as provided access to major metropolitan centers.

***Inter Valley Road Network***

Access from Interstate 81 is serviced by Route 29 which runs across the Valley and connects to Route 11 on the northern side of the Susquehanna River. Major inter-valley connections to Wilkes-Barre/Scranton parallel the major ridge lines and the river. Those roads, moving north to south across the study area, include the Sans Souci Parkway to the northeast, Middle Road/South Main Street which runs central to the Valley, and Hanover/Main Street which is the southernmost road and directly feeds off the Interstate.

Major town streets that connect across the Valley include Ashley Street adjacent to the Wyoming Valley Country Club, Dundee Road and Kosciuszko Street east of the Community College, and Prospect Street running through the center of Nanticoke.

*Analysis and Recommendations:*

There is limited access to properties on the south western end of the Valley. Hanover and Middle Road were once street car roads and a number of residences, built close to the street prevented any consideration of widening exiting roads. Access to valley-wide attractions like the community college or any major new commercial development is limited by these conditions.

The proposal for the South Valley Parkway is intended to facilitate access to the southwest areas of the Valley. Discussions should take place on the role and probability of the project as the project will greatly influence future development. In our assessment, the road, with limited scale, could provide a viable alternative to the limited roads that already exist. Furthermore, making a more direct access to Route 81 might also limit the necessity of a major physical barrier like Route 29 which currently divides the natural connections through the Valley.

In addition, it is advisable to improve cross-valley connections by adding local streets that might offer easier access to the Sans Souci Parkway and enable greater accessibility and alternative routes to the South Valley Corridor development parcels.

***Local Roads***

*Analysis and Recommendations:*

In keeping with smart growth principles, a number of recommendations are made for the construction of new streets within the development. Those might include integrated landscape swales to mediate ground water run-off, designated bike lanes on key streets, and "green streets" or permeable surfaces in new developments.

***Parking***

Parking in townships is generally parallel parking on key urban streets with surface parking lots servicing commercial and industrial properties. There is little structured parking in the region although a proposal exists for a large parking garage to support the Nanticoke Center at Prospect and Sans Souci Parkway.

*Analysis and Recommendations:*

In keeping with smart growth principles, a number of recommendations are made for the construction of new streets within the development. These might include recommendations for permeable parking surfaces, locations of swales and rain gardens to alleviate taxing the existing and new sewer systems in order to improve water quality in the regional Blue Network.

***Rail***

Historically the Valley was well serviced for freight line transport with internal rail servicing the mines. Most of the rail lines are no longer serviceable; however, the main trunk line that follows the Susquehanna River could conceivably be used as a commuter line. Costs associated with this type of undertaking are beyond the scope of this study.

Discussions have taken place to consider extending commuter train service from New York in to the northern Valley in Scranton. The Valley currently lacks an integrated vision from Scranton to Newport. Currently the north Valley is connected by the County of Lackawanna Transit System (COLT) but no commuter lines run to the southern Valley.

**Analysis and Recommendations:**

In keeping with smart growth principles, a number of recommendations are made for the construction of new streets within the development. It is recommended that the Valley framework preserve opportunities for future rail connections. Logical stops along the Susquehanna River include areas on the northern end of Nanticoke and the center of Wilkes-Barre. Additions to servicing freight spurs in the central and northern areas of the South Valley Corridor would make these areas more valuable for commercial real estate.

**Trolley and Bus Lines**

The Wyoming Valley was once serviced by an extensive trolley network that enabled mine workers to move easily throughout the Valley. Middle Road and Hanover Streets most likely were designed for trolley service, connecting to the civic center of Wilkes-Barre. This would account for the narrow dimensions of the streets and the narrow setback of buildings to the street.

Buses from the Wilkes-Barre area are available and are available to connect to larger metropolitan areas. The Luzerne County Transportation Authority runs service between Glen Lyon and Wilkes-Barre with stops at Nanticoke town green and at the intersection of the Sans Souci parkway and Willow Street.

<b>14 NANTICOKE via GLEN LYON</b>										
<b>WEEKDAYS</b>						<b>SATURDAYS</b>				
OUTBOUND FROM WILKES-BARRE						INBOUND TO WILKES-BARRE				
Leave Rite-Aid Pharmacy	Hanover & Barney	Willow Street San Souci Parkway	Broad & Market Nanticoke	Arrive Glen Lyon		Leave Glen Lyon	Broad & Market Nanticoke	Willow Street San Souci Parkway	Hanover & Barney	Arrive Public Square
X 5:10	--	--	--	5:40	*	5:40	5:55	6:05	6:15	6:20
X 6:10	--	--	--	6:40	*	6:40	6:55	7:05	7:15	7:25
6:30	6:35	6:45	7:00	7:15	*	7:15	7:35	7:45	7:55	8:05
+ 7:30	7:40	7:50	8:05	--	--	8:10	8:20	8:30	8:40	
8:00	8:10	8:20	8:35	--	--	8:40	8:50	9:00	9:10	
8:30	8:40	8:50	9:05	9:20	*	9:20	9:40	9:50	10:00	10:10
9:15	9:25	9:35	9:50	10:05	*	10:05	10:25	10:35	10:45	10:55
10:20	10:30	10:40	10:50	11:05	*	11:05	11:25	11:35	11:45	11:55
11:15	11:25	11:35	11:50	--	--	11:55	12:07	12:17	12:30	
12:05	12:15	12:25	12:35	--	--	12:40	12:50	1:00	1:10	
* 12:35	12:45	12:55	1:10	1:25		1:30	1:45	1:55	2:05	2:15
* 1:30	1:40	1:50	2:05	2:20		2:25	2:40	2:50	3:00	3:10
* 2:45	2:55	3:05	3:20	3:35		3:40	3:55	4:05	4:15	4:25
* 3:20	3:30	3:40	3:55	4:10		4:15	4:30	4:40	4:50	5:00
4:30	4:40	4:50	5:05	--	--	5:10	5:20	5:30	5:40	
* 5:15	5:20	5:30	5:45	6:00	X	6:00	--	--	--	6:30
5:50	6:00	6:10	6:30	--	--	6:30	6:40	6:50	7:00	

OUTBOUND FROM WILKES-BARRE						INBOUND TO WILKES-BARRE				
Leave Rite-Aid Pharmacy	Hanover & Barney	Willow Street San Souci Parkway	Broad & Market Nanticoke	Arrive Glen Lyon		Leave Glen Lyon	Broad & Market Nanticoke	Willow Street San Souci Parkway	Hanover & Barney	Arrive Public Square
X 8:50	--	--	--	9:20	*	9:20	9:40	9:50	10:00	10:10
9:50	10:00	10:10	10:20	--	--	10:20	10:30	10:40	10:50	
10:15	10:25	10:35	10:50	--	--	10:55	11:05	11:15	11:25	
10:55	11:05	11:15	11:25	--	--	11:30	11:40	11:50	12:00	
11:30	11:40	11:50	12:05	12:20	*	12:25	12:45	12:55	1:05	1:15
* 12:10	12:20	12:30	12:45	1:00		1:05	1:20	1:30	1:40	1:50
1:40	1:50	2:00	2:15	--	--	2:20	2:25	2:35	2:50	
2:20	2:30	2:40	2:55	--	--	2:55	3:05	3:15	3:25	
* 3:00	3:10	3:20	3:35	3:50	*	3:55	4:10	4:15	4:25	4:40
O 3:30	3:40	3:50	4:05	--	--	--	--	--	--	--
* 4:45	4:55	5:05	5:20	5:35	X	5:35	--	--	--	6:05

**X** – These Express buses will use South Main Street to Academy Street to Carey Avenue to San Souci Parkway. Reversing for the inbound.  
**\*** – These trips will service Wanamie.  
**O** – The 3:30 PM trip will inbound via Route #15 Nanticoke Middle Road. This trip will use #14 Nanticoke loop.

**X** – These Express buses will use South Main Street to Academy Street to Carey Avenue to San Souci Parkway.  
**+** – This trip will service L.C.C.C. College on outbound via Kosciusko Street, to right into L.C.C.C. to right on Prospect, to left on Ridge Street, to Hanover Street, to regular route.  
**\*** – These trips will operate to Wanamie. Inbound only in AM. Outbound only in PM.

No Service Sundays or Holidays  
 SENIOR CITIZENS - RIDE FREE WITH PROPER I.D.

15 NANTICOKE - MIDDLE ROAD											
WEEKDAYS						SATURDAYS					
OUTBOUND FROM WILKES-BARRE			INBOUND TO WILKES-BARRE			OUTBOUND FROM WILKES-BARRE			INBOUND TO WILKES-BARRE		
Leave	Arrive	Stop	Leave	Arrive	Stop	Leave	Arrive	Stop	Leave	Arrive	Stop
Pharmacy	Main Street	Crossing	Park	LCCC	Crossing	Pharmacy	Main Street	Park	Park	Crossing	Square
M 5:50	--	--	6:15	6:20	--	6:25	6:40	6:55	M 9:30	--	9:50
7:00	7:05	7:20	7:35	7:35	7:40	7:48	7:55	8:05	10:20	10:25	10:50
8:10	8:15	8:32	8:43	8:50	8:50	8:55	9:03	9:10	11:25	11:30	11:55
9:25	9:30	9:38	9:48	9:55	10:00	10:05	10:10	10:17	12:30	12:35	1:00
9:50	9:55	10:03	10:15	10:25	10:25	10:30	10:35	10:42	1:50	1:55	2:20
11:05	11:10	11:18	11:30	11:40	11:40	11:45	11:50	11:57	2:55	3:00	3:25
12:20	12:25	12:33	12:45	12:55	12:55	1:00	1:05	1:13	--	--	4:05
1:50	1:55	2:05	2:20	2:30	2:30	2:35	2:40	2:47	4:00	4:05	4:30
3:10	3:15	3:28	3:38	3:45	3:45	3:50	3:58	4:06	--	--	4:30
P 3:30	3:35	3:48	3:53	4:10	4:10	4:15	4:23	4:30	4:40	4:45	4:50
4:20	4:25	4:38	4:50	5:00	5:00	5:05	5:10	5:20	5:05	5:10	5:20
H 4:45	4:50	5:03	5:08	5:15	5:15	5:20	5:25	5:35	5:15	5:20	5:35

**NOTE: ROUTE CHANGE** - Bus will no longer service Clarks Crossing Road. Will use Middle Road, to Espy Street, to left on Front Street, to left on Pine Street, to left on Bliss Street, to right on Espy Street, to Regular Route. (Will use Espy Street Loop outbound only). Passengers wishing to continue to come inbound will get on outbound trip.

**NOTE: ROUTE CHANGE** - Loop in Nanticoke will use Wash Street, to left on College Street, to left on Green Street, to right on Walnut Street, to left on Broad Street.

**NOTE:** Bus will service Sallie Mae approx 8:20 AM and 5:15 PM

**M** - This bus will use South Main Street to Middle Road to right on Kosciusko Street.  
**H** - The 4:45 Outbound trip will not service the Hanover Section of Nanticoke.  
 -- Will start outbound trip at Main and Kosciusko Streets, Nanticoke, to Nanticoke Park via Kosciusko Street, to Washington Street, to College Street, to Green Street, to Walnut Street, to Broad Street, to Nanticoke Park. This inbound trip will service Car-Tech Corp. in the Hanover Industrial Park, via Espy Street, to Front Street, to Hanover Street, to Sears Road. This trip will not use Clarks Crossing to Middle Road.  
**P** - Will go into Hanover Industrial Park. Outbound only, via Commerce Road to Stewart Road Loop, to Sears Road, to Front Street, to Espy Street, to Regular Route.  
**S** - Will go into Hanover Industrial Park & service Sallie Mae.

**All trips except the 9:30 will use outbound Route: left through Industrial Park, right on Sears Road to Espy Street to regular inbound route.**

**M** - This bus will use South Main Street to Middle Road to Prospect to regular route.

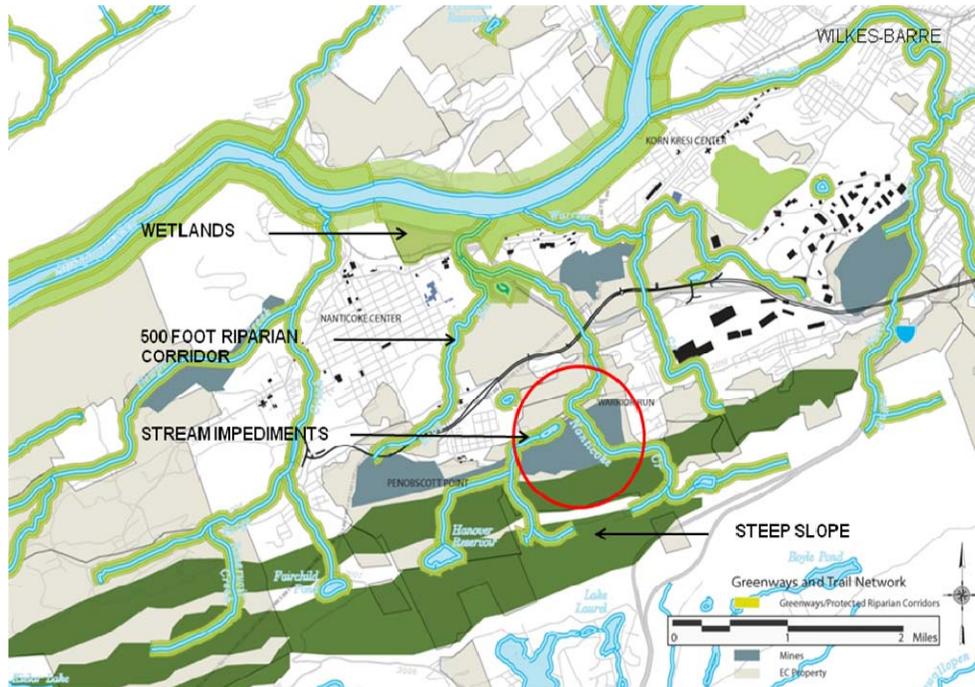
**No Service Sundays or Holidays**  
**SENIOR CITIZENS - RIDE FREE WITH PROPER I.D.**

Luzerne County Transportation Authority Bus Schedule

Analysis and Recommendations:

In keeping with smart growth principles, it is suggested that a Valley wide system linking the various Urban and Village Centers would minimize the carbon footprint for the region and also improve access for a large portion of the population that may have limited ability to move throughout the Valley region. In addition an intelligent mass transit system enhances capacity for growth in the area. Although a more extensive study would be outside the scope of this report, some recommendations are included in the plan. Additional stops along current service lines are effective and require little cost.

GREEN NETWORK



Wyoming Valley and Earth Conservancy property – Greenways and Trail Networks

The area has an extensive green network consisting of wilderness, parklands, river, creeks and streams, and a number of reservoirs. The major portion of the Earth Conservancy's 16,300 acres is designated as part of this larger Valley system. A number of studies precede and inform this report, notably the *Lower Wyoming Valley Open Space Master Plan* completed in April 1999; the *Nanticoke Creek Watershed* report completed by the US Army Corps of Engineers Baltimore District in March 2005; and studies done by members of Wilkes University. These studies inform the general framework of this plan and merit further discussion among the parties toward further study and implementation of aspirations of these reports.

### **Trail Network**

There is a vast amount of formal and informal trails throughout the wild areas of the south Valley, many of which are connected along the Susquehanna River and to the southeast along the Lehigh Gorge Trail System. Though extensive in respective regions, as a network, the south valley trails are often disconnected from Village and Urban Centers. Because they were conceived as spaces for recreation, access to the trailheads is limited and often requires driving.

- Susquehanna River Trails
- South Ridge Trails
- River and Creek Trails
- Smaller Trail Networks
- Recreational Trails (designated ATV areas, etc.)
- Trails Crossings

#### *Analysis and Recommendations:*

These trail systems could be enhanced so as to knit into Urban Centers of the Valley while adding both ecological performance and real estate value to the Valley. By connecting urban spaces to water courses and the network of green space, the trail network will link outdoor activities. In addition, this network may also act as a shortcut through natural obstacles encouraging biking and pedestrian transportation, which would reduce the carbon footprint of the master plan and alleviate potential for future traffic.

### **BLUE NETWORK**

The area has an extensive Blue Network (system of waterways) that feeds the Susquehanna River. Local sources include a series of reservoirs at the south ridge of the Wilkes-Barre Mountain formation that feed smaller streams and brooks that eventually empty to the Susquehanna River. These include the Witinskis Pond feeding Nanticoke Creek at Warrior Run; the Hanover Reservoir which also runs toward Nanticoke Creek but is currently impeded by the former mines; the Espy Run running south and east of Luzerne County Community College; and Fairchild Pond feeding Forge Creek to the south west of Nanticoke center.

#### *Analysis and Recommendations:*

A more extensive analysis of the Blue Network is included in the Ecology section of this report. In terms of movement through the Blue Network, the brooks and stream beds are logical areas for extending and enhancing the trail network through the Valley. It is critical that any new development be integrated and respectful of these ecosystems.

Trail courses may follow corridors set aside for riparian setbacks making functional use of these conservation spaces and linking high and low points in the valley. Ecological standards recommend minimal setbacks of 100 feet from these wetland areas. This report recommends larger setbacks of up to 500 feet (see Ecology section of this report.) Like the other trail networks, these wetland areas and blue corridors will both alleviate run-off issues associated with development and be economic enhancements to properties adjacent to these areas.



science, closer monitoring of the project, and recommendations for improving future restoration activities.

- Include onsite water retention in all new developments coupled with the isolation of contaminated throughflow for specialized treatment.

#### **Land Remediation**

- Development in brownfields and restoration work of existing structures should nearly always be prioritized over greenfield development.
- Limitations on development of steep slope areas.
- Land remediation effort would benefit by being coupled with long-term impact studies. Currently, published guidelines for mine remediation have insufficient support studies to determine project effectiveness. Ecological effectiveness monitoring studies should be incorporated into the planning of the remediation.
- Current best practices for restoration activities may limit resettlement of native species. Reseeding after mine restoration should prioritize native species and encourage the dispersal of early secessional woodlands.
- Designation of substantial buffers for wetlands and streams.
- Analysis of current covenants for Industrial Estates lack ecological consideration.

#### **Habitat Protection, Restoration, and Connectivity**

- Intact and high quality habitat should remain intact.
- Developments should in general be planned to minimize habitat fragmentation and increase connectivity.
- Restoration and development activities should be planned with ecosystem structure and function in mind. Patches should be considered relative to the needs of the ecosystem patch mosaic when strategizing restoration activities.
- Connections to state reserves, parks, and greenways should be strengthened where appropriate.

#### **Biophilic Design and Ecosystem Services**

- Associating ecosystem restoration activities in the South Valley with development not only improves the quality of habitat for species, it also improves the quality of life for residents. Periurban sites like Nanticoke and Newport Townships mitigate the transition from urban to rural ecologies. These sites have tremendous potential to foster mutually beneficial relationships between nature and development.

### **ENERGY**

An energy plan for the Valley is integral to any future planning. The issues associated with energy use are both a national and regional issue of substantial importance. As outlined in the general principles of this plan, energy evaluation is a concern for both identifying resources and for establishing quantifiable design goals for the region. The Land Use section of this report will address the physical attributes that would reduce carbon-dependent development. This section outlines resources and studies that might inform the larger Valley infrastructural framework.

#### **Coal**

It is estimated that only the Newport area mines contain enough concentrated, readily available coal to make it worth reopening. Currently there are no plans to actively reopen mining areas on Earth Conservancy lands. However, there are several benefits to reopening mining including reintroducing jobs to the region, as well as sharing remediation responsibility with future coal companies. As this area is mostly full of clean burning anthracite coal, reopening mining operations in this area may become increasingly attractive.

**Natural Gas**

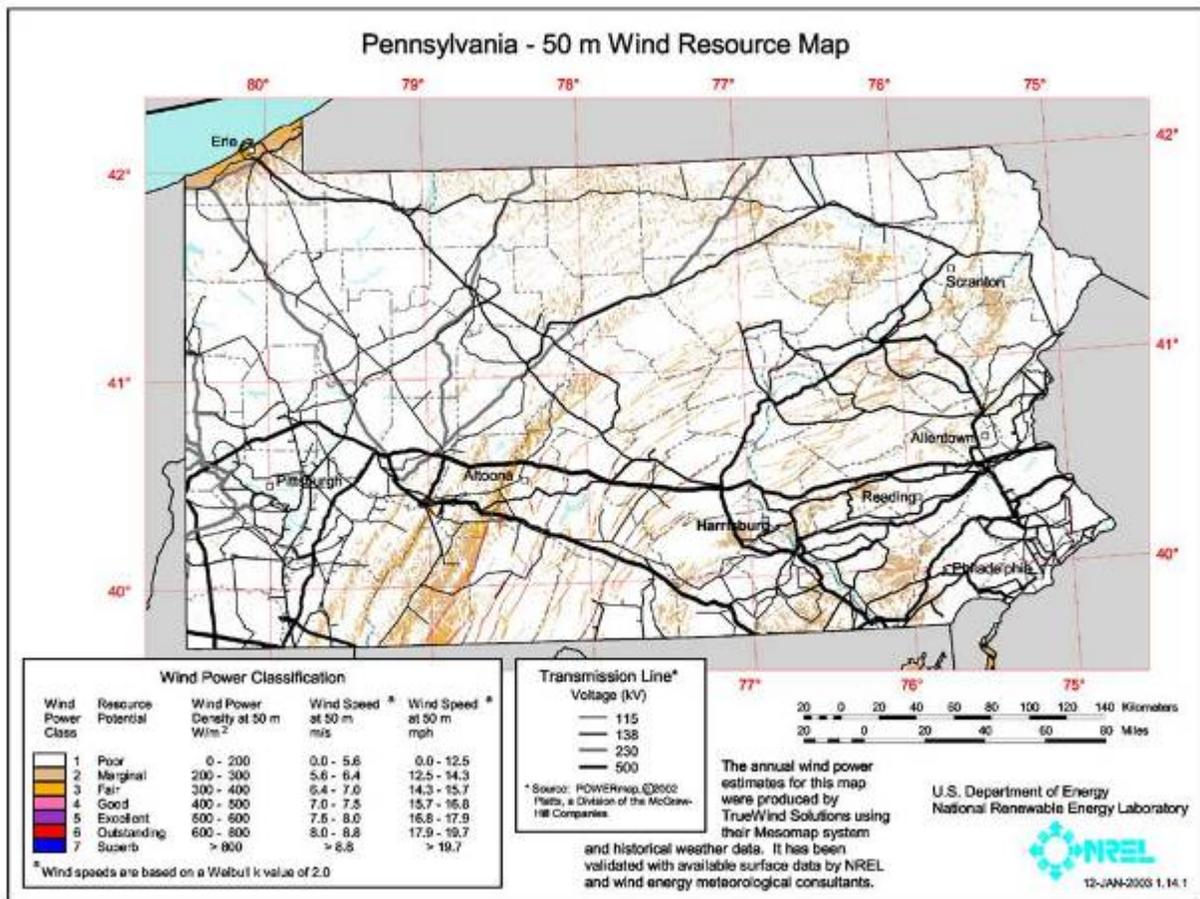
In addition to coal, the discovery this year of high concentrations of extractable natural gas in the Marcellus Shale has generated some speculation about properties included in the study area. Some gas companies have already purchased mineral rights on property 20 miles to the north.

**Alternative Energy**

Alternative energy is being explored in the form of a 20-30 acre solar installation proposal in Newport Township; a wind farm on Bald Mountain in Bear Creek; and a proposal for a wind farm on Penobscot Mountain. Consideration of energy sourcing is important when designing strategic plans for a region. Building integrated strategies and strategies that consider the opportunities available in the landscape are important to include in planning documents. The U.S. Department of Energy (DOE) suggests that wind, flat panel solar, biomass, and some small scale hydro are viable options in this area. There are a large number of subsidies, financing opportunities, and support groups available to alternative energy projects. This region should expect to see a number of diverse alternative energy projects come online in the coming decades.

**Wind**

Wind is a cost effective, efficient renewable energy that has received considerable attention in the region. The ridges of the east valley have exposures and windspeeds appropriate to windpower generation. The existing Bear Creek wind farm has 12 turbines at 24mW capacity—enough power for nearly 6,000 homes. Proposals for other wind farms on the east ridge are being considered. Wind power on the ridges has the unfortunate consequence of disturbing a landscape that has been set aside as greenspace.

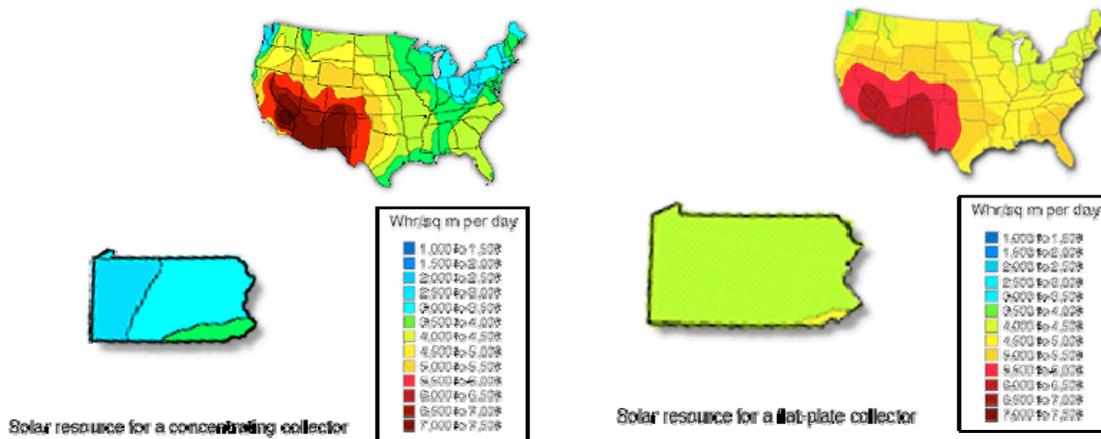


*DOE NREL Pennsylvania Wind Resource Map*

**Solar**

In this region of the state, flat panel solar photovoltaic (PV) is a viable resource option and is an increasingly viable financially for companies due to increased subsidies and improving performance and production efficiencies. Solar has the potential to supplement the grid during peak daytime hours. Earth Conservancy has been approached by developers to develop a 20-30 acre solar farm on EC land in Newport Township, but currently the deployment of solar is limited despite large incentives offered by the state. A number of financing alternatives are available that reduce the costs associated with solar to the tipping point of economical investment for commercial enterprises. Several renewable energy providers (CitizenRE or Helio) will lease roof space in exchange for competitive, fixed-cost solar power delivered on contract with the provider. The use of existing building structures is an efficient and economical options for installing renewable energy capacity.

Many solar energy systems beyond PV exist on the market including thin cell and solar thermal. The deliverability and efficiency of these systems deserves closer examination.



*Solar Resource Potential for Collectors*

**Micro-hydro**

Micro-hydro and small-scale hydro electric projects are a viable option in this area according to the Idaho National Hydroelectric prospector, but, despite plentiful streams and rivers and the historic presence of hydropower, few operational local examples exist. Small-scale hydro and micro-hydro electric are good supplemental energy sources to solar PV because flow rates are generally highest during the winter when solar PV capacity is diminished.

**Biomass**

Biomass energy currently has a limited market in the area, though BHS Energy LLC, a local family run business is developing a mobile switchgrass pelletizer that may change the market for biomass energy. DOE identifies biomass as having high potential for expansion in Pennsylvania. EC lands offer opportunity for biomass development both as planted land for biofuels like switch grass in the meadows left from surface mine restoration and as sites for the location, management, and processing of biofuels. Of the Earth Conservancy property, 951 acres has been identified as Prime Soils.

**Energy Efficiency**

There are a number of preexisting conditions that lend themselves to efficient urban operation. One is the compactness of development. Compact development not only allows for transportation efficiency, but also suggests that efficient centralized services such as steam heating or hot and chilled water may be viable options. Additionally, the proximity to available energy sources means losses are reduced in transmission and distribution. Wherever possible, locally produced fuel sources should be used and the number of state conversions minimized.

## SECTION 7. PROPOSED REDEVELOPMENT COMPONENTS

Market analysis results indicate that the area has recently grown in population and has many local assets on which to build. The proximity of natural resources, numerous colleges, and a robust transportation network provide a solid framework on which mixed-use development has the potential to thrive. Based on the market and land use analysis results, regional development trends, historic trends of the region and to capitalize on existing transportation corridors, town networks, as well as smart growth features that promote linking development with multi-modal transportation options, several reuse concepts were prepared for EC's target development area. The reuse concepts rely on two primary development components: Village Centers and a Thinkbelt.

EC land, in combination with adjacent properties, provides the opportunity to develop as many as five Village Centers, with a development density similar to that of Nanticoke. Complementing the compact Village Centers, the reuse concepts propose the development of a Thinkbelt. The Thinkbelt will operate as a regional connector and an area in which green redevelopment concepts – such as integrating emerging stormwater practices, renewable energy development, and greenspace – and economic development strategies emerging from local universities can be focused. Central to the proposed reuse concepts is Luzerne County Community College, which can serve as a physical connection between Nanticoke, the Thinkbelt, and the Village Centers developed across EC's lands (see the image of the Ridge Road Scenario as an example).

### VILLAGE CENTERS

New development will occur at the Village Center and Hamlet scale of development, while Urban Core development would operate in a larger Valley framework, representing criteria for the redevelopment of areas like downtown Wilkes-Barre. Denser core planning has distinct design and lifestyle advantage over standard suburban sprawl densities and land use patterns. The dense core is a “both/and” solution, providing the best aspect of in-town living with easy access to regional green and blue network systems. In addition, there is a measure of built-in social equity to this land use pattern allowing for access to public and commercial services for residents who have limited mobility; specifically elderly and younger residents in the community.

In addition, denser planning cores allow for strategic land banking for future growth, easing costs associated with extended town utilities. In particular, consideration should be given to the specific political constraints on development in the Valley in order to match development areas to local school districts, community facilities like police and fire, as well as sewer, electrical, and other utilities.

Existing areas like Nanticoke center are likely within the target core densities proposed in this report. The historic community developments were laid out prior to automobile use; therefore conforming to contemporary standards for Sustainable Growth.



*Depiction of Potential Village Centers in the Study Area*

### **Residential Areas**

As discussed previously (Smart Growth Principles), residential areas should be planned as TOD centers and can operate at any number of scales. The factors which define TOD centers, including the centrally located downtown train or bus station, mixed use zoning, will help encourage a live, work, and play environment. The Hamlet, Village Center, and Urban Core density levels (outlined in the Smart Growth Principles Section of this report) will be used for the following design concepts.

New development should occur at the Village Center and Hamlet scale of development, while Urban Core development would operate in a larger Valley framework, representing criteria for the redevelopment of areas like downtown Wilkes-Barre. Denser core planning has distinct design and lifestyle advantage over standard suburban sprawl densities and land use patterns. The dense core is a “both/and” solution, providing the best aspect of in-town living with easy access to regional green and blue network systems. In addition, there is a measure of built-in social equity to this land use pattern allowing for access to public and commercial services for residents who have limited mobility; specifically elderly and younger residents in the community. The following photos depict different housing styles which should be considered for Village Center development.



*Example of Courtyard Housing.*



*Example of sustainable design housing – Bedzed.*



*Example of Townhouse design style.*

In addition, denser planning cores allow for strategic land banking for future growth, easing costs associated with extended town utilities. In particular, consideration should be given to the specific political constraints on development in the Valley in order to match development areas to local school districts, community facilities like police and fire, as well as sewer, electrical, and other utilities.

Existing areas like Nanticoke center are likely within the target core densities proposed in this report. The historic “patch town” developments were laid out prior to automobile use; therefore conforming to contemporary standards for Sustainable Growth. Nanticoke center is approximately one mile square or 640 acres with a census survey from 2006 listing 10,341 residents and 5,502 dwelling units. Land area is 3.51 square miles or 2,246 acres. Density for the town is 1,569 houses/condos per square mile or 2.45 dwelling units/acre. Though there is insufficient data to give exact determinations of local density at the time of this report, estimating that 80% of the dwelling units are in the core area would yield densities on the order of 6.88 dwelling units/acre corresponding to a modest Village Center core (CT5).

The areas of new development should consider adding and enhancing to these existing fabrics and infrastructures. This would supplement the need for added population and commensurate town services associated with dense town cores, but also will help control further isolation of the historic districts.

The plan recognizes the need for updating existing facilities and residential neighborhoods. It is suggested that further study is required to target small-scale projects which might be achieved in the short and long term to stabilize, upgrade, and improve the quality of life for existing homeowners and residents of these neighborhoods.

Target projects that are in development or should be considered as part of the framework include:

- Enhancement and development of properties surrounding Nanticoke Town Green (including support for the Luzerne County Community College Culinary Arts facilities)
- Sidewalk and street scale improvement on main town corridors like Prospect Street
- Investigation of sources for storefront improvement
- Pilot projects for 'greening' existing homes
- Solar initiatives
- Park improvements
- Low Impact Development solutions for ground water treatment
- Enhance street lighting in public areas
- Designated bike lanes
- Signage for historic structures
- Rehabilitation or redevelopment on the site of the bowling alley

#### *Utilities and Services*

Consideration should be taken for costs associated with site improvements and utility services. The 1999 Plan states that the center valley area of the plan is the easiest area to run sewer lines. This includes parcels adjoining State Route 29 in Hanover Township, parcels near Nanticoke, and Lower Asham south of Warrior Run borough. The more difficult areas for sewer service are Sugar Notch, Warrior Run, areas of Hanover Township, Newport Township. Upon additional development, new sewer lines should be separated due to possible strains on older existing systems and limited capacity. Low Impact Development (LID) solutions like bioswales or rain gardens, are cost effective solutions that may be integrated into the plan.

#### *Costs*

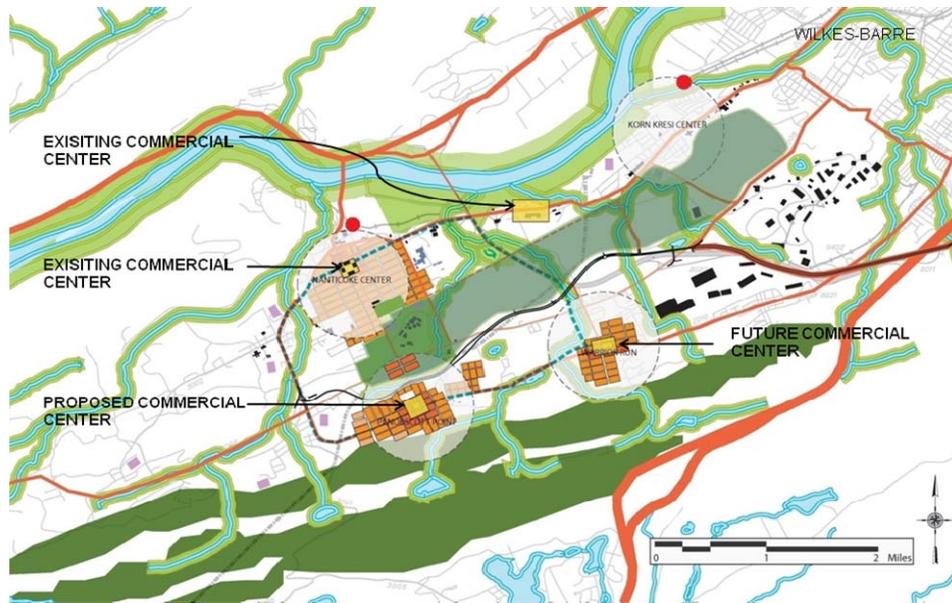
There is a relatively high cost of construction for much of Earth Conservancy lands due to the cost of remediation and the difficult topography. Market analysis indicates that there is a shortage of new, moderately priced homes in the area.

#### **Commercial Areas**

The greater valley area is serviced by a number of commercial and retail centers. The Market Analysis outlines the development and role of these commercial projects in the area. Larger commercial centers are located in Wilkes-Barre, while existing areas in the plan consist of smaller retail strips on the Sans Souci Parkway and smaller retail in northern Nanticoke around the Nanticoke town green and scattered throughout the valley along the major valley corridors. In addition, there are numerous bars and restaurants in town servicing the local population.

As stipulated in the Residential Area section, the framework recommends mixing commercial Village Centers into the residential fabric. There are a number of large auto-dependent shopping areas in the Valley. Considering the limited access to this area of the Valley, it is not strategic to target development for large scale regional retail in the framework plan; however, large tracts of land might be strategically located near major road access in order to leave areas for future growth in the framework.

Since the 1999 Plan was issued, the Arena and Convention Center was constructed. The 1999 Plan calls for retail spaces between 30,000 – 70,000 square feet, and a regional shopping center of 250,000 – 500,000 square feet on 200 acres of land. Current trends indicate that there is not a market for the larger project.



*Depiction of Commercial Development in the Target Area*

### **Place Making**

Key areas of the plan should be designated as unique points of interest and targeted for specific architectural invention or place making within the framework. It is generally recommended that these would be features that define neighborhoods or attractions within towns; generally they should be frequent so as to be no more than a short walk of  $\frac{1}{4}$  mile from any individual residence. Place making features can and should be at a variety of scales and relative importance within the plan. Because of the historic character of existing town development and due to proximity of desirable natural features, the South Valley corridor already contains a number of qualities and features that will help to structure the plan. In addition these places might be targeted as smaller projects for general improvements and maintenance within the comprehensive study of the South Valley.



*Historic Photo of City Park, Nanticoke, Pennsylvania*



*Nanticoke, Pennsylvania, today.*

Key existing regional centers and attractions include:

- Nanticoke Town Green
- Huber Breaker
- The Concrete City
- Ashley Planes
- Hanover Reservoir
- Fairchild Pond
- Luzerne County Community College
- Luzerne County Community College Library
- Bike and Footpath Trails

Key existing local facilities and centers include:

- Historic churches
- Nanticoke High School
- Historic Districts

### ***New Town Centers Attractions***

#### *Transit Hubs*

Transit hubs correspond to locations of Village Centers. The hubs need only consist of designated areas for bus stops with small commercial facilities located nearby. The framework also makes recommendations for regional Valley-scaled transit systems linking the South Valley communities to downtown Wilkes-Barre via rail. Along with the commercial cores, transit hubs should also occur at key locations supporting the Community College, the high schools and libraries, and hospital and elderly housing communities within the framework.

#### *Schools*

Location of newer communities with housing stock that is intended for families with children are best located in close proximity to existing schools and park facilities. The target growth of the 1999 Plan corresponds to an additional 2,500 school-age children over a 25 year period. In the long term, this would require additional facilities to the regions education system.

Further study will be required as to the ideal location and scale of these facilities, but in the short term the framework would hope to support a neighborhood structure that locates housing closer to existing school buildings. No analysis had been done as to the excess capacity of these existing school programs and facilities.

It is recommended that the EC properties and the area within the immediate context be considered as five target development areas or Village Centers. In keeping with the nomenclature of previous reports, the SRA Team identifies these areas by both their place names and the parcel designation in previous EC sponsored reports. The SRA Team hopes to productively link each of these five areas through consideration of the Valley infrastructure, while attempting to have each Village Center retain its identity and ensure the networking of these Centers will benefit from the revitalization of its neighboring territories.

**Areas Proposed to be Targeted for Village Center Development**

The suggested target design areas are outlined below. Included are examples of the criteria that might be developed for each area. Upon request of EC and EPA, the most detail is provided for Penobscot Point.

*Penobscot Point (Hanover 13A, 13D, 13C)*

The 1999 Plan target development identifies 1,800,000 SF commercial/industrial; 850,000 SF retail/entertainment; 200,000 SF institutional/research and development; 1,495 residential units, and 550 acres of open space. The revised program for Penobscot Point calls for the creation of a new village center building on the fabric and framework of Nanticoke and the South Valley.

- Suggest limiting development to reclaimed land
- Code requirements for sustainable building
- Strong links to recreation areas and trails
- Mixed use of housing opportunities
- Supportive public amenities
- Suggested housing mix:
  - Garden style, two-story rental apartment units within defined complexes
  - Owner-occupied single story elderly condominium duplexes
  - Owner-occupied townhouse condominiums
  - Zero lot line single family detached dwellings; 1,800 square feet
  - Single family units on 0.30 to 0.50 acre lots
  - Single family units on 1 acre lots
- Potential convenience retail:
  - 15,000 square foot stand alone pharmacy
  - Neighborhood grocery 15,000 -18,000 SF
- Mixed-use buildings:
  - First floor retail (i.e. coffee shop, video store other local retail)
  - Second floor professional office
  - Third floor residential rental units



Town Center – Potential development for Penobscot Point



**PENOBSCOTT POINT SCHEMATIC TOWN CENTER SCHEME 1**

**TOTAL AREA APPROX. = 574 ACRES**

**BLOCK = 3.8 ACRES (200' X 800')  
 APPROX. 220 ACRES SHOWN DEVELOPED**

**CORE BLOCKS** ■

**15 BLOCKS IN PENOBSCOTT POINT  
 = 54 ACRES  
 1/8 AC. LOTS = 30 LOTS/BLOCK  
 = 450 LOTS = 900 D.U. ( 3 STORY TOWNHOUSE)  
 FOR 12 D.U. / ACRE FOR CORE = 648 D.U.**

**GENERAL BLOCKS** ■

**45 BLOCKS IN PENOBSCOTT POINT  
 1/8 AC. LOTS = 30 LOTS/BLOCK = 1350 D.U.  
 1/4 AC. LOTS = 15 LOTS/BLOCK = 675 D.U.  
 1/2 AC. LOTS = 8 LOTS/BLOCK = 380 D.U.**

**FOR 4.6 D.U. / ACRE FOR GENERAL = 730 D.U.**

**ONE ACRE LOTS  
 NOT SHOWN**

**MAX. FOR AREA = 2260 D.U.  
 AVG. FOR AREA = 1378 D.U.**

Comparison of Penobscot Point and Nanticoke Center.

*South Valley Economic Corridor East or Hanover Mixed Use Development (Hanover 9)*

- Small-scale flex buildings, suitable for tech start ups, and small commercial uses
- Flexible mid-size distribution and front office setups compactly planned to allow employees to walk to lunch or retail space
- Retirement and apartment housing in a well landscaped center
- Nursery school/day care center
- Link to Wilkes-Barre with public transit
- Larger wooded lots lining Nanticoke and Espy Creeks
- Preserve steep wooded ridge with trails
- Roadways into community college and eastern Nanticoke
- Knit the scale of the historic town with the scale of development in the Hanover Industrial Park
- Small retail and food service within walking distance
- Bike/walk links to Espy and Nanticoke Creek Trails

*South Valley Economic Corridor West or Hanover Business Park (Hanover 7B)*

- Evaluation and improvement to Sans Souci retail center
- Revised covenants on business park, including on-site runoff retention, shade tree planting, and other green development practices
- Consider requirements for solar or green roofs
- Nursery school/day care center for employees – market the region for families
- Ties to Susquehanna River trails
- Walkable connections to existing shopping area

*Luzerne County Community College (partial impact on EC lands)*

- Link to Wilkes-Barre with public transit
- Propose expansion of the facilities

*Wyoming Valley Village (Hanover 6, 10, 12, 13B)*

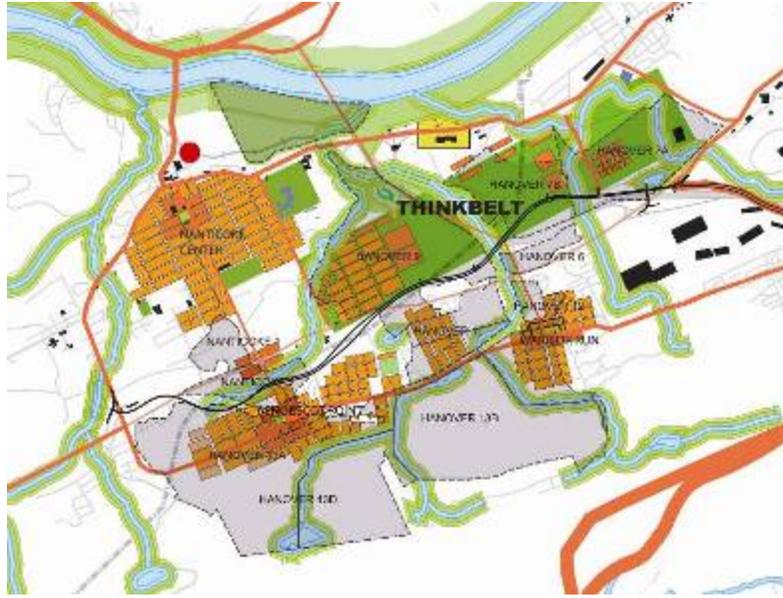
- Suggest limiting development to reclaimed land
- Code requirements for sustainable building
- Strong links to recreation areas and trails
- Mixed use of housing opportunities
- Supportive public amenities

*Nanticoke Center (outside EC site limits)*

- Improvement around the town green
- Facade improvements
- Build additional facilities for the region's elderly population which capitalize on the compactness of downtown Nanticoke
- Encourage energy upgrade pilot projects
- Target development for old bowling alley site
- Greening/landscape projects in town – shade tree avenue planting
- Additional backing for local small-scale commercial enterprises
- Targeted investment in schools K-12 nursery and day care
- Link to Wilkes-Barre with public transit

**THINKBELT**

Complementing the compact Village Centers, the reuse concepts propose the development of a Thinkbelt. The Thinkbelt will operate as a regional connector and an area in which green redevelopment concepts – such as integrating emerging stormwater practices, renewable energy development, and greenspace – and economic development strategies emerging from local universities can be focused.



*Thinkbelt – Earth Conservancy development opportunities*



*Thinkbelt – Potential development*

The properties running from the Wyoming Valley Country Club to the Luzerne County Community College are at the scale equal to New York's Central Park. This is not only a useful scale comparison but also a theme for development of this portion of the plan. Central Park is an aesthetic enhancement, but it also functions as a utility for the city with its reservoirs, public spaces, and institutions. Development of the "thinkbelt" might be considered as an alternative or a parallel development concept.

As shown above development would be encouraged at the edge of the area but also within. Current design covenants might be enhanced so that new commercial and residential areas are governed by inventive land use policies. Programmatically this area functions as the employment core of the Valley. Centrally located it is easy access to the surrounding old and new communities. The Community College anchors the "Thinkbelt" and ties academic programs to local businesses and research institutions that the Colleges program supports.

Design covenants might further guide development in the Thinkbelt's research corridor tying the image of the building and its performance to the landscape. This area might function as both a corporate center office park and a regional and cultural landscape attraction.

Earth Conservancy South Valley Corridor Lands, Luzerne County, Pennsylvania  
 DRAFT FINAL REUSE ANALYSIS AND SUSTAINABLE REDEVELOPMENT FRAMEWORK

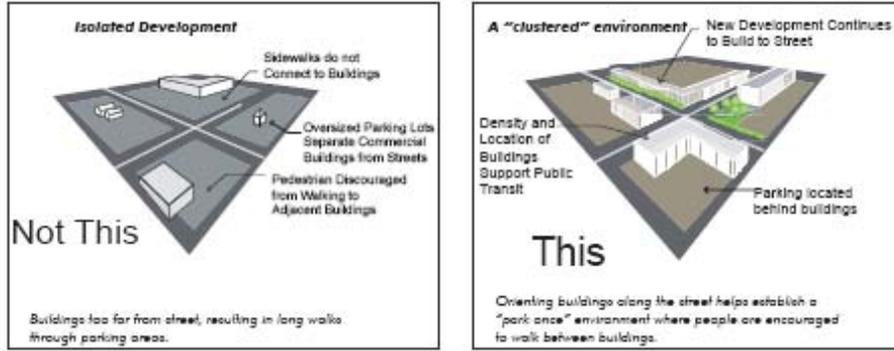
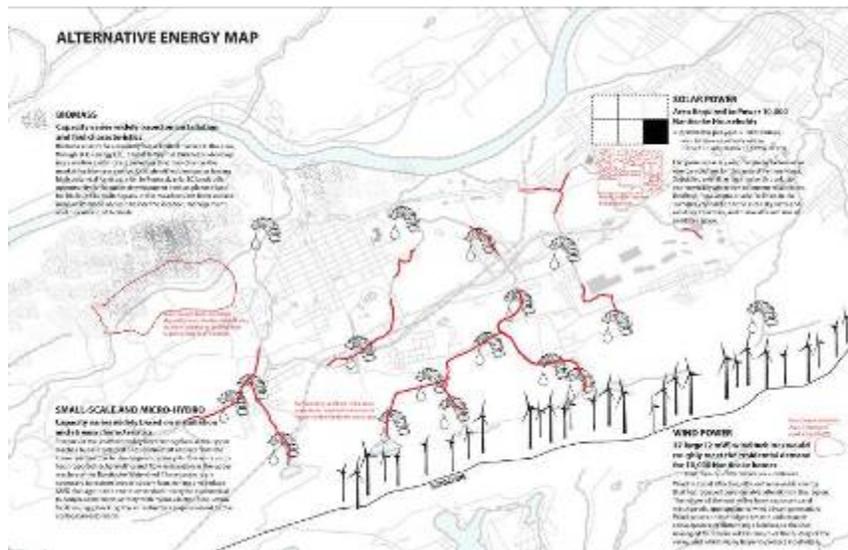


Illustration of traditional office development (left) versus sustainable design principle office development (right).



Example of sustainable design principles incorporated at office complex in the Thinkbelt.



Mapping of potential alternative energy development in the Thinkbelt.

## SECTION 8. CONSIDERATIONS FOR PHASING: SUSTAINABLE REDEVELOPMENT FRAMEWORK FOR EARTH CONSERVANCY

Specific focus is given to mixed-use development and residential and commercial areas. All aspects of the framework strive to create a sense of place which would encourage development and use of the locations. The development of this framework for the EC lands in the South Valley Corridor and surrounding areas will help to achieve goals and objectives set forth by the development committee for EC as well as provide a tool for marketing the availability of the site to future developers and investors.



*Total development potential after completed development phasing*

Alternatively to developing along the Middle Road corridor, development could be phased to initiate along Ridge Road. Development initiating here would create market demand for additional development and infrastructure toward Middle Road.



*Ridge Road – Alternative scenario for development*

The following development scenarios are for the Thinkbelt development, development around the South Valley Corridor, and a final scenario with development initiating at Ridge Road. The development images are presented to demonstrate possible phasing options for initiating the development.



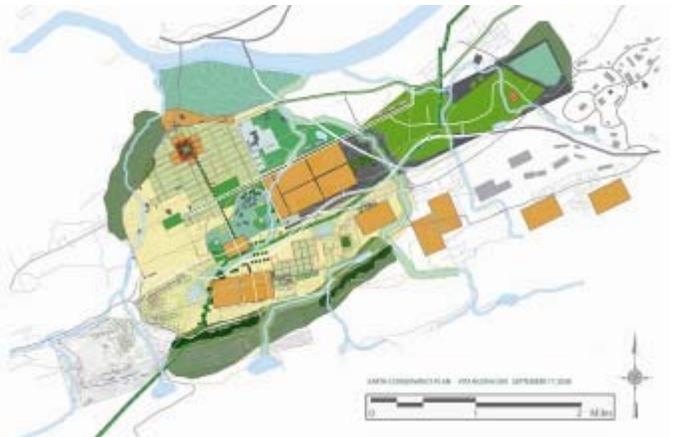
Potential Development Identified with Political Boundaries



Thinkbelt Development – Initial Phasing



Thinkbelt Development Phasing Structures



Thinkbelt Development – Further Phasing for Additional Parcels



Thinkbelt Development – Phasing Structure and Development Plans



South Valley Corridor – Initial Phasing Thinkbelt



*South Valley Corridor Opportunities*



*South Valley Corridor - Third Phasing Newport Township*



*South Valley Corridor - Initial Phasing Penobscot Point*



*South Valley Corridor - Third Phasing Penobscot Growth*



*South Valley Corridor - Second Phasing Thinkbelt*



*South Valley Corridor - Third Phasing Warrior Run*



Ridge Road Development Scenario – Initial Phasing Thinkbelt



Ridge Road Development Scenario – Additional Sugar Notch Properties



Ridge Road Development



Ridge Road Development Scenario – Warrior Run



Ridge Road Development Scenario – Sugar Notch Properties



Ridge Road Development Scenario – Penobscot Point



*Ridge Road Development Scenario – Additional Penobscot Point Properties*



*Ridge Road Development Scenario – Newport Township Properties*



*Ridge Road Development Scenario – Thinkbelt Properties*

## SECTION 9. CONCLUSION

The development of a general Land Use Plan for the South Valley Corridor and surrounding areas would help to achieve goals and objectives set forth by the development committee for Earth Conservancy as well as provide a tool for marketing the availability of the site to future developers and investors. Best practices in land use planning would enhance smart growth principles in this report including Low Carbon Development (LCD) and Transit Oriented Development (TOD). The Land Use Plan should be supported and substantiated by the Market Analysis in order to target and identify potential developers who will support and enhance the goals of the plan. The challenge with developing a land use plan is capturing the balance of the current market situation, as demonstrated through the Market Analysis, against the long-term potential growth patterns of a region. The land use plan also should attract and encourage diverse development opportunities for multiple stakeholders in the region. This would include a number of alternative housing, commercial, and public land use options that work together to support the future needs of the Valley.

The Land Use Plan will need to address potential conflicts and contradictions between community desires and reasonable market supported development so that differences can be reasonably negotiated and developed for both immediate and long term sustainability. For example, contradictions may exist between rehabilitation of pre-existing communities in Wilkes-Barre, Nanticoke, and other smaller townships in the region and new developments. Aspirations for density that addresses sustainable development may differ from market demands for larger residential parcels.

## APPENDIX A



## Agenda

- General planning principles guiding this project
- Study area
- Market analysis findings
- Planning and local asset research findings
  - Smart Growth, transportation
  - Valley geology and ecology
  - Core proposed development components:  
Village centers and the Thinkbelt
- Proposed reuse concepts and phasing; discussion

## General Planning Principles Guiding this Project

- Make Existing Neighborhoods Complete
- Reduce Reliance on Carbon-based Systems
- Work in Harmony with Natural Systems
- Raise the Value of Existing Properties
- Meet the Housing Needs of the Community
- Honor the Spirit of the Community
- Recognize that Everyone has a Voice

## Study Area Location

- Luzerne County, PA
- Scranton/Wilkes-Barre MSA
- Scranton/Wilkes-Barre/  
Hazleton MLS



## Earth Conservancy Property

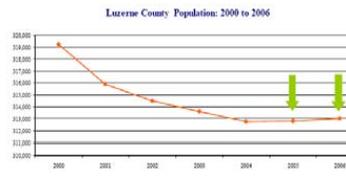
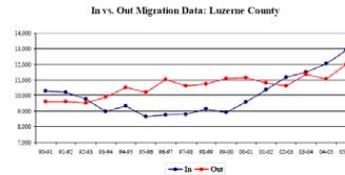


## Market Analysis



## Demographic Overview

- 2000 Data
  - County population 319,250
  - Median age of 40.8
  - Median household income \$1,700 < national average
  - Lower than average minority population
- Recent Trends
  - More people moving *into* than *out* of County
  - Slight increase in total population
  - Slight increase in the birth rate
  - Rising median household income
  - Rising minority population, still below state averages



## Real Estate Markets

- Commercial / Industrial Real Estate
  - Over 30 million sq ft built in past 5 years
  - Concentrated along Interstates
  - Significant land still available in industrial parks
  - Retail over built ahead of the curve
- Residential
  - Over 50% of housing stock built before 1940
  - Approx. 400 houses built between 2005-2006
  - 2006 vacancy rate (11.7%) higher than 2005 (10.6%)
  - *Owner occupied* increased from 69.9% to 72.9%.

## Market Drivers

- Quality roadways and interstates
- Rail Access
  - Freight, passenger
- Luzerne County Community College
  - Significant role in the community
  - Master plan important driver
- Tourism and Recreation
  - Growing market sector
  - Attractive to major corporations

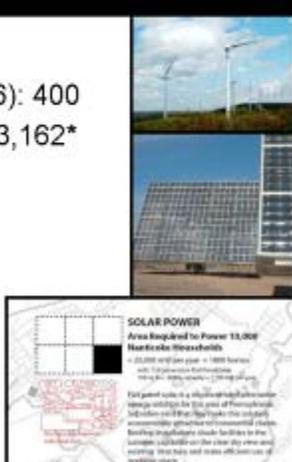


## Market Drivers: Green Jobs

Scranton-Wilkes Barre

- Current green jobs (through 2006): 400
- New green jobs (through 2038): 3,162\*
  - Opportunity for additional growth

- Renewable power generation
- Agriculture and forestry
- Engineering, legal, research, consulting
- Manufacturing
- Government administration
- Construction and systems installation
- Equipment dealers/wholesalers



**SOLAR POWER**  
 Area Required to Power 13,000  
 Households (Scranton/Wilkes Barre)  
 13,000 households x 10,000 sq ft = 130,000,000 sq ft  
 130,000,000 sq ft / 10,000 sq ft per acre = 13,000 acres  
 13,000 acres x 100% = 13,000 acres

For green jobs to be a significant economic development strategy for the area of Pennsylvania, it will need to be supported by the state government through infrastructure development. Building infrastructure made facilities for the business will help to attract the investment and create jobs and create off-balance of economic growth.

## Market Drivers: Westward Migration

- Steady in-migration to Luzerne County since 1999
- Pennsylvania Counties, New York and New Jersey main sources
- Study indicates that affordable housing is the major draw

Luzerne County In-Migration: 1996 to 2006			
Rank	Location	Total	%
1	Pennsylvania	79,816	70.8%
2	New York	11,081	9.8%
3	New Jersey	11,000	9.7%
4	Illinois	3,484	3.1%
5	Florida	3,254	2.9%
6	California	1,119	1.0%
7	Minnesota	1,103	1.0%
8	Connecticut	778	0.7%
9	Virginia	774	0.6%
10	Arizona	349	0.3%

Most influential counties 2000-2006

2000 to 2006		
Rank	County	Total
1	Lackawanna	7,162
2	Monroe	2,362
3	Kings	1,067
4	Queens	1,191
5	Bergen	994
6	Passaic	737
7	New York	679
8	Hudson	628
9	Essex	593

## Market Drivers: Mixed Use

- Mixed Use and Transit Oriented Development
  - Growing trend over past decade
  - Increasing demand nationally for walkable lifestyle
  - Studies estimate that by 2020, a majority of households will be childless
  - Existing communities faring better in housing slump
  - Benefits developers by dispersing risk
  - Benefits municipalities by diversifying tax base



## Mixed Use Nearby

- **Mixed Use and Transit Oriented Developments occurring nearby in PA, NY, NJ**

- Washington Township, NJ
- Wesmont Station, Woodbridge, NJ
- Commons at Holmdel, Holmdel, NJ
- Highlands at Morristown Station, NJ
- Harrison MetroCenter, NJ
- Rego Park, Queens, NY
- Hudson Point, Esopus, NY
- Riverview at Valley Forge, PA
- Uptown Worthington, Malvern, PA



## Market Summary

- Wilkes Barre market is continuing to grow
- Real estate market is healthy despite downturn
  - Industrial / commercial developments continue along established transportation corridors
  - Demand for new modern housing
  - Retail potentially over-built
- Market drivers are attractive
  - Land, location, resources
  - Luzerne County Community College
  - Large recreation/entertainment options
- Mixed use and transit-oriented development trends support vision for Valley's future

## Planning and Local Asset Research Findings



## Smart Growth

### Smart Growth Principles

- Make use of embodied energy – reuse existing buildings and infrastructure
- Use local sources for construction materials
- Optimize mass transit and employ pedestrian friendly planning
- Reduce waste and disposal of goods
- Use renewable resources and efficient systems

### Smart Growth Planning Principles

- Network circulation systems
- Diversify transportation options
- Design options for roadways and parking
- Diversify development opportunities
- Propose alternative housing options
- Make flexible planning strategies
- Respect the strength of the existing valley
- Recognize the work and input of regional constituents



## Smart Growth in Practice

- A train or bus station centrally located in the downtown
- High level of mixed use zoning
- Density near the central station and decreases away from center
- Amenities within one quarter mile radius for easy pedestrian access



## Historic Patch Towns



## Smart Growth Density Principles



### Hamlet

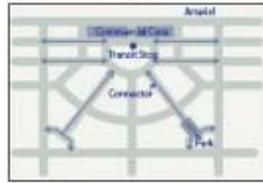
Core (CT4) - 4.5 -12 dwelling units per acre  
General density (CT3) - 3.5 - 4.5 d.u./acre.  
Edge conditions (CT 2) - no greater than 1 unit/20 acres

### Village Center

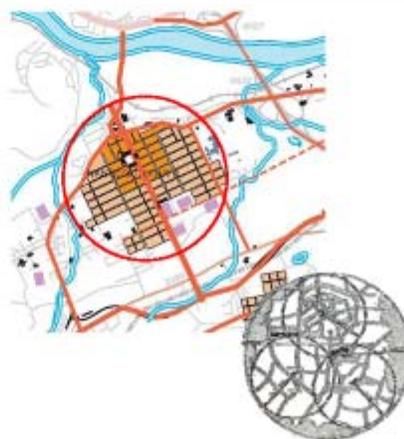
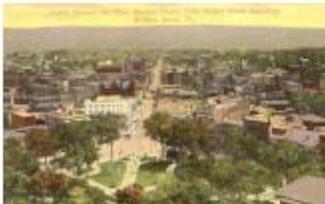
Core (CT 5) up to 12 d.u./ac.  
General density (CT 4) - 4.5 d.u./acre.  
Edge density (CT 3) - 3.5 - 4.5 units/acre.

### Urban Core

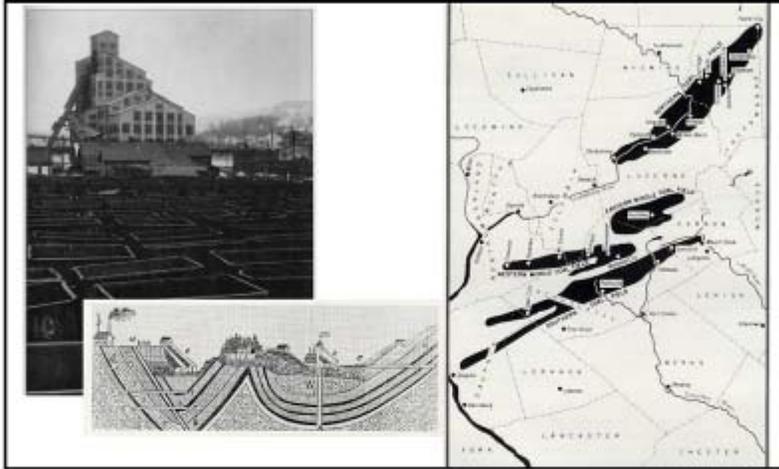
Core (CT 6) up to 18 -36 d.u./ac  
General density (CT 5) up to 12 -18 d.u./ac.  
Edge Density (CT 4) 4.5 -12 d.u./ac.



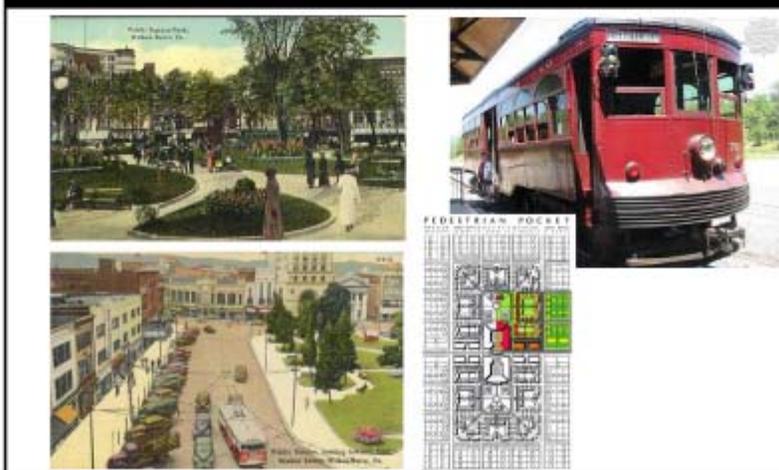
## Historic Urban Structure



## Valley Geology Drives East-West Orientation



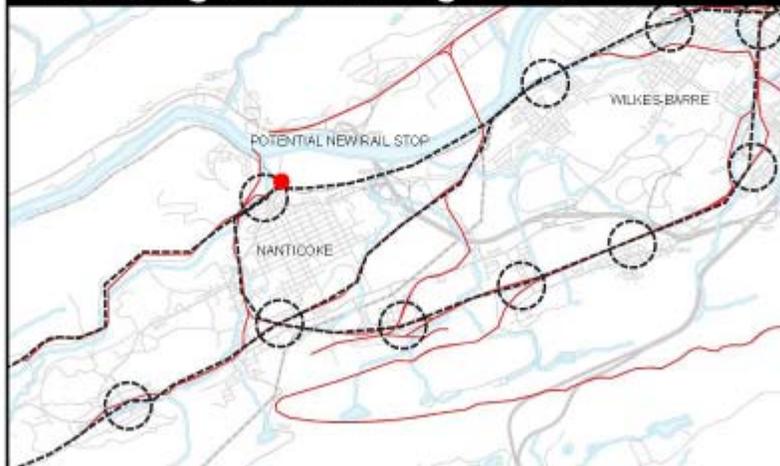
## Historic Transportation - Trolley

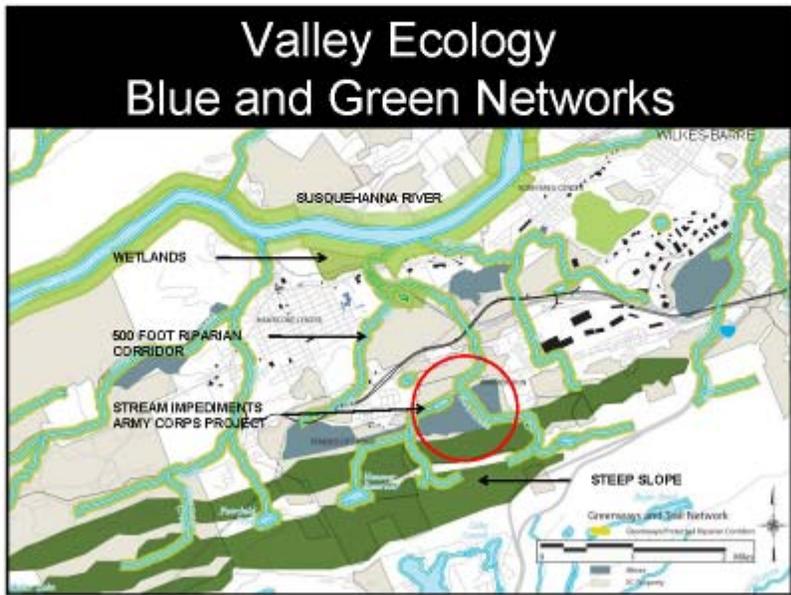
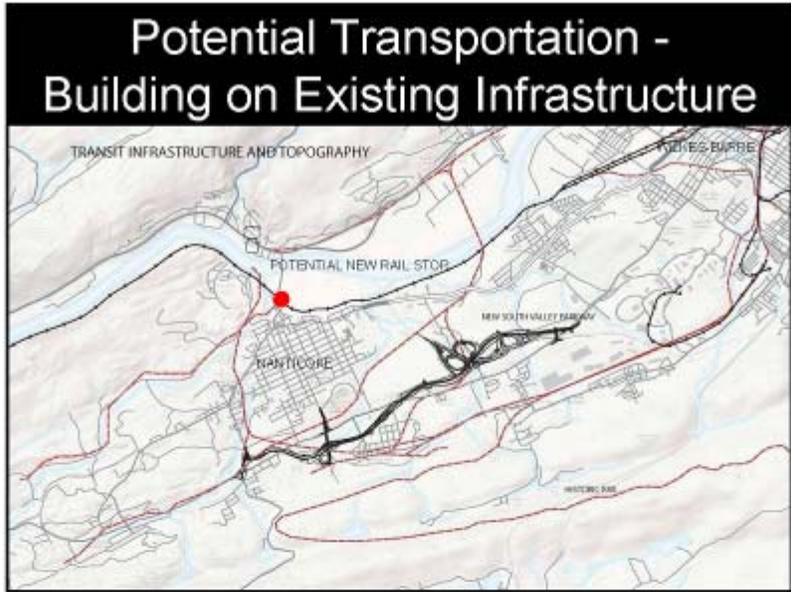


## Current Circulation and Transit Networks



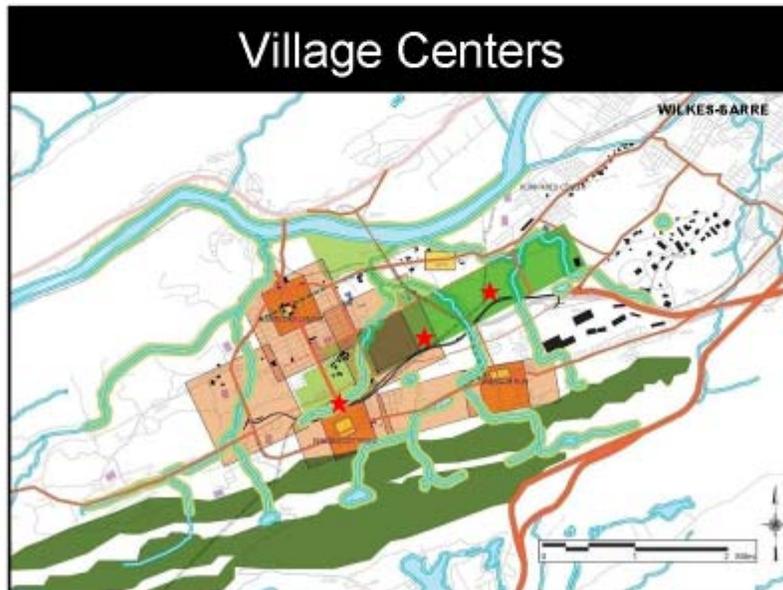
## Potential Transportation - Building on Existing Infrastructure

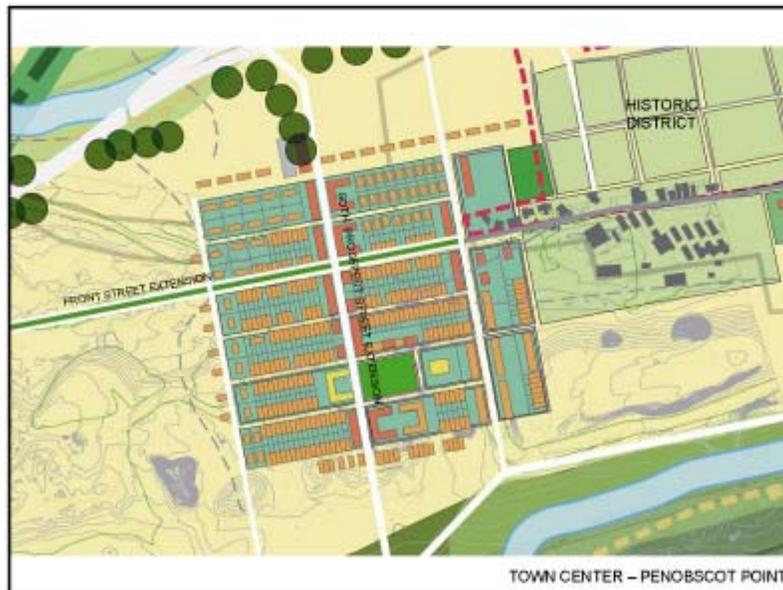


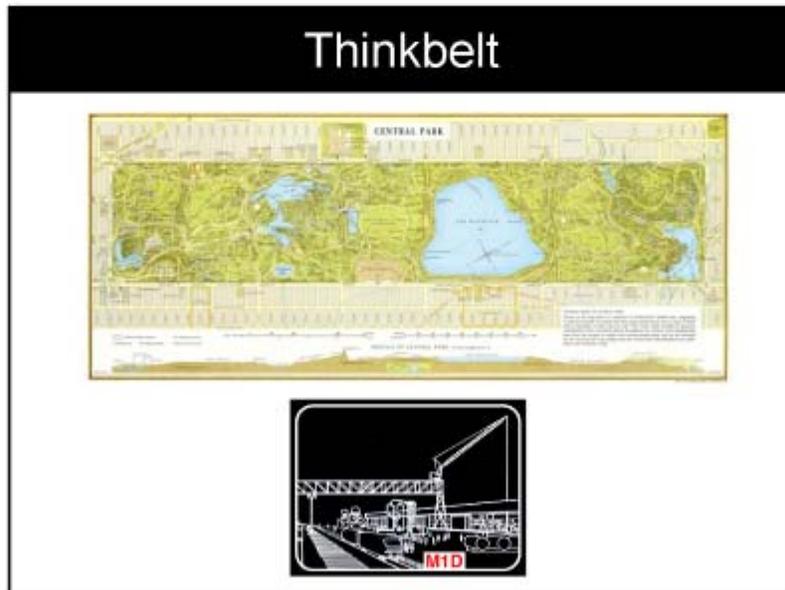
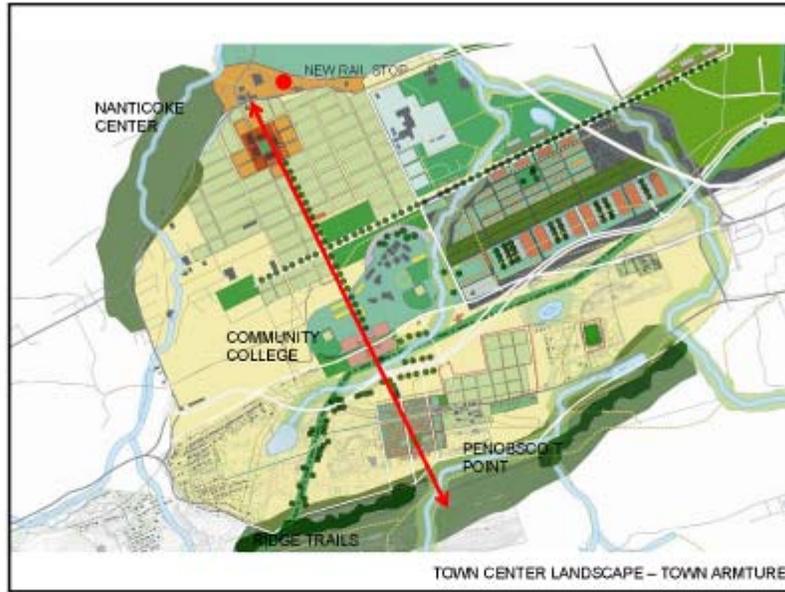


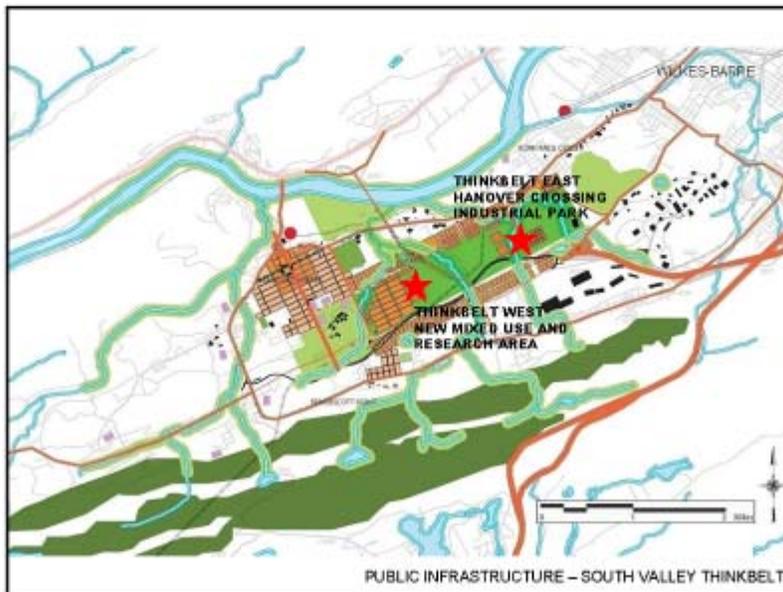
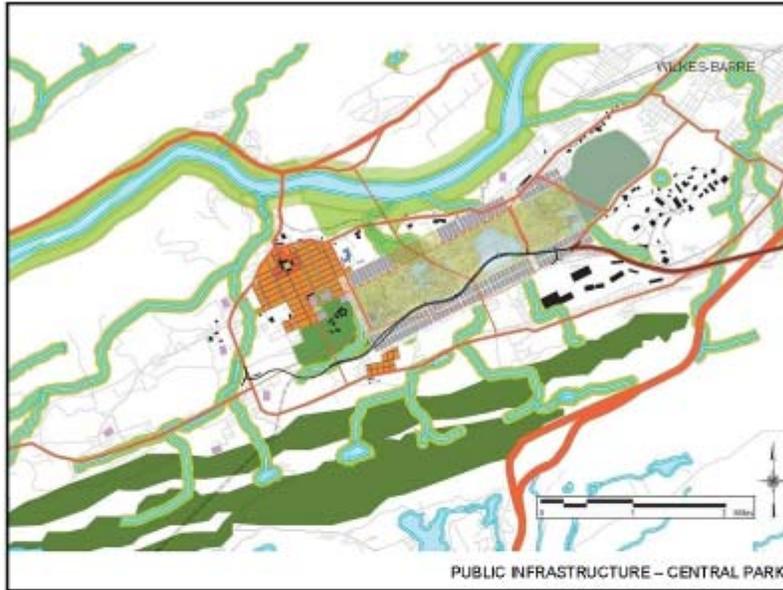
## Core Proposed Development Components

VILLAGE CENTER	+	THINKBELT
		
<ul style="list-style-type: none"><li>• Small Scale</li><li>• Neighborhood based</li><li>• Regionally connected</li></ul>		<ul style="list-style-type: none"><li>• Larger Scale</li><li>• Regional based</li><li>• Regionally connected</li></ul>



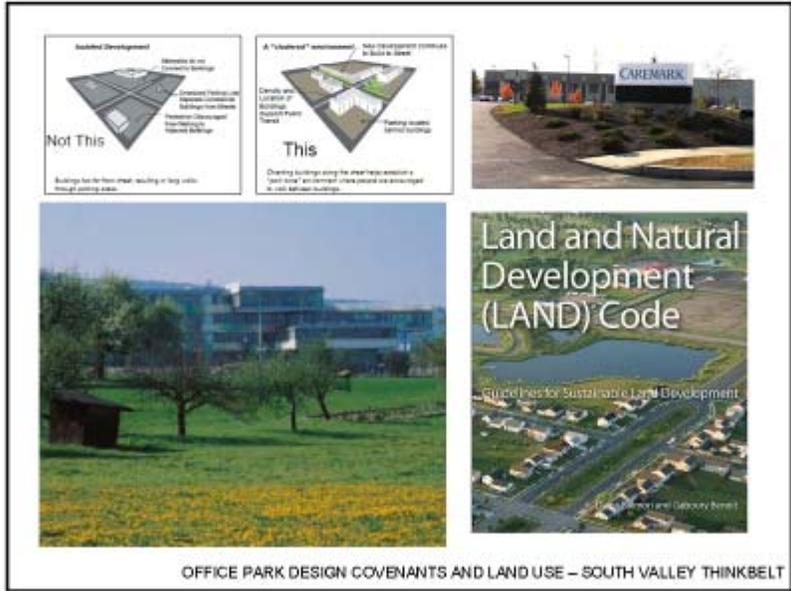








PUBLIC INFRASTRUCTURE – SOUTH VALLEY THINKBELT



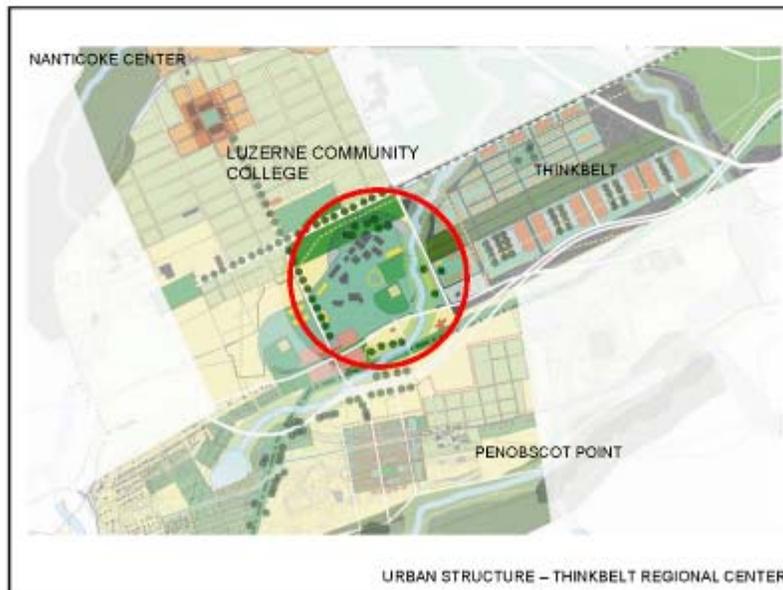
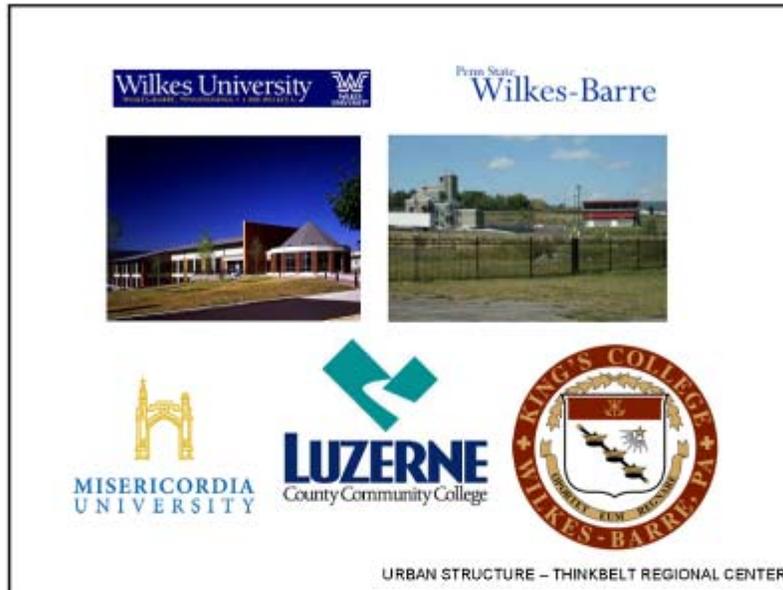
OFFICE PARK DESIGN COVENANTS AND LAND USE – SOUTH VALLEY THINKBELT



## Two Development Components...

VILLAGE CENTER	+	THINKBELT
		
<ul style="list-style-type: none"><li>• Small Scale</li><li>• Local</li></ul>		<ul style="list-style-type: none"><li>• Larger Scale</li><li>• Regional</li></ul>

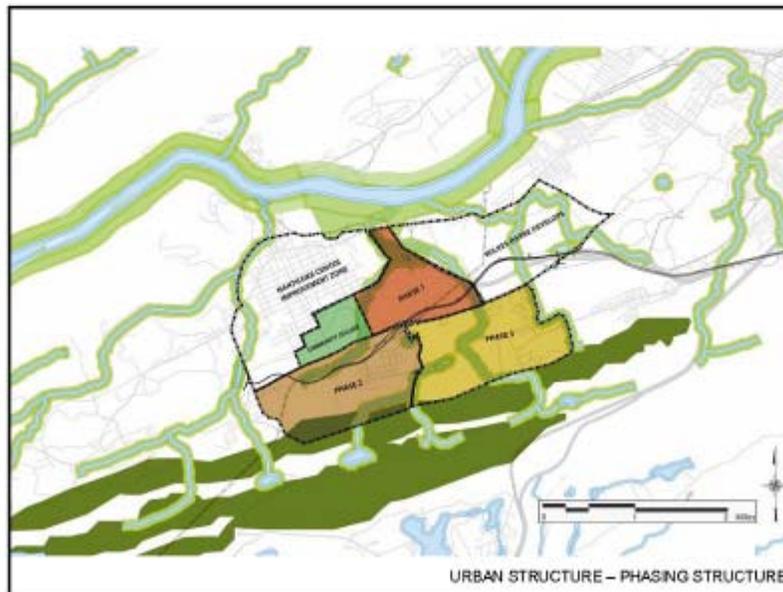
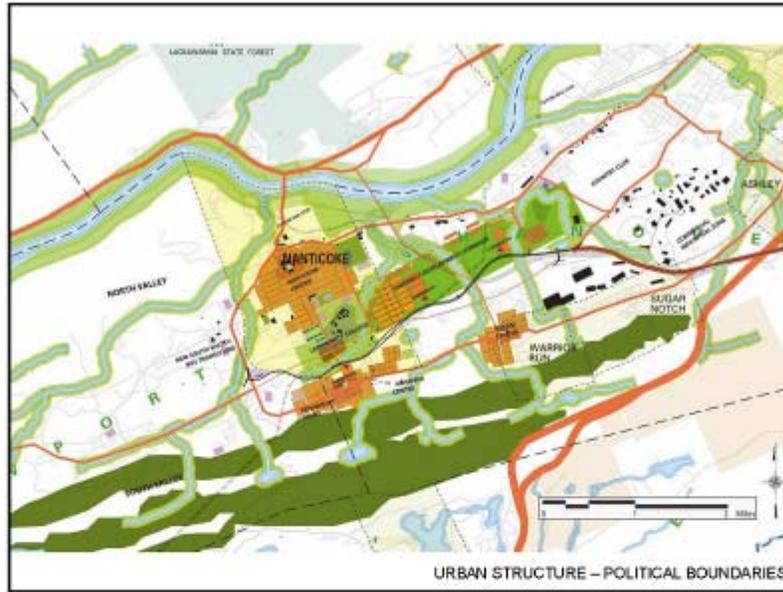
...WHAT CONNECTS THEM?

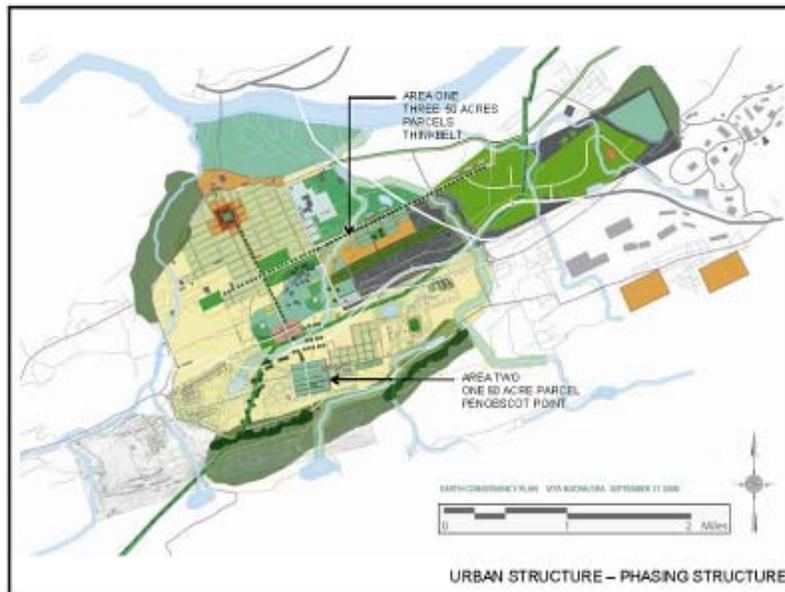
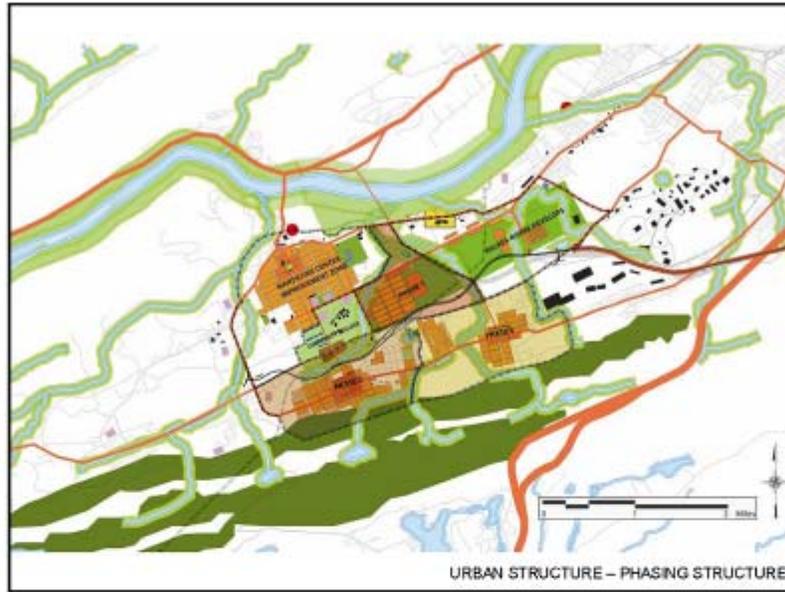


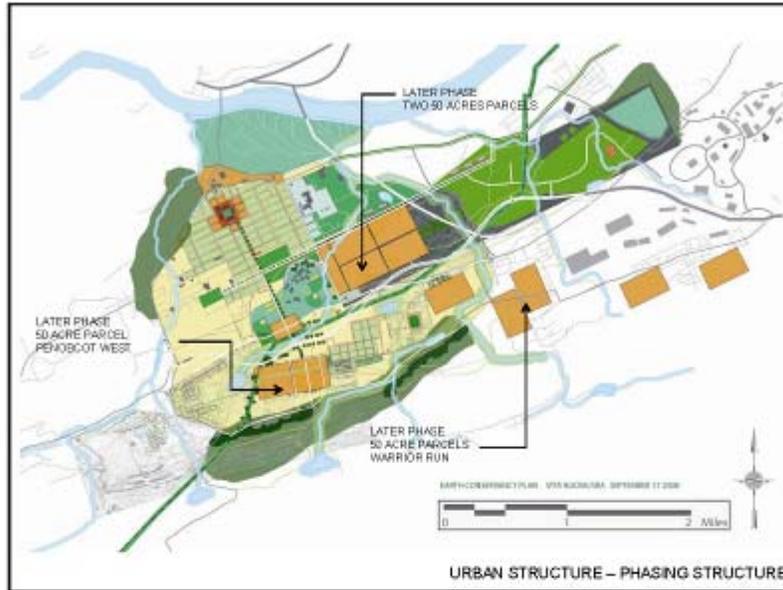
PAUSE

Proposed Reuse Concepts  
and Phasing

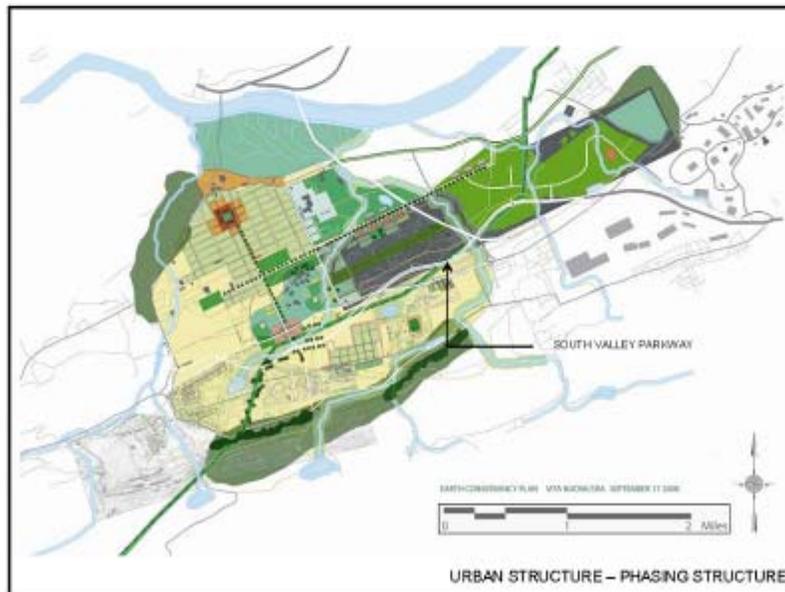
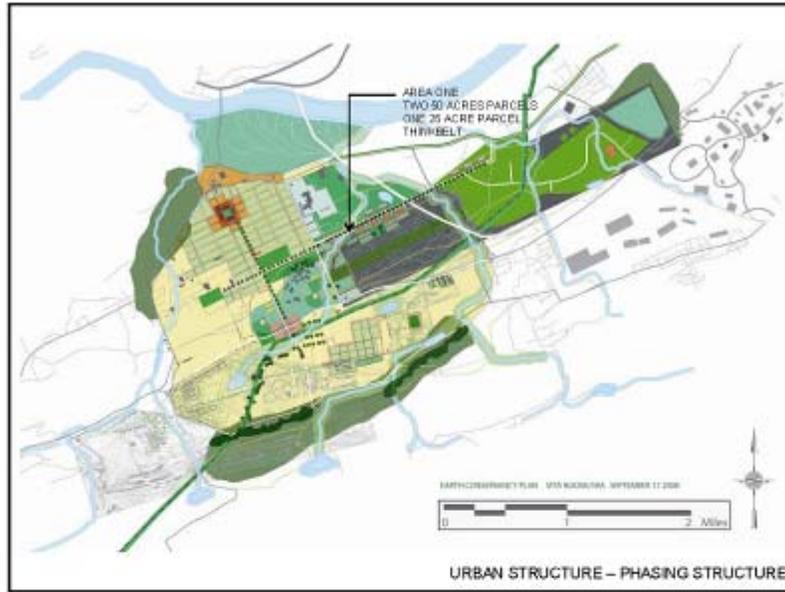
:: Discussion ::

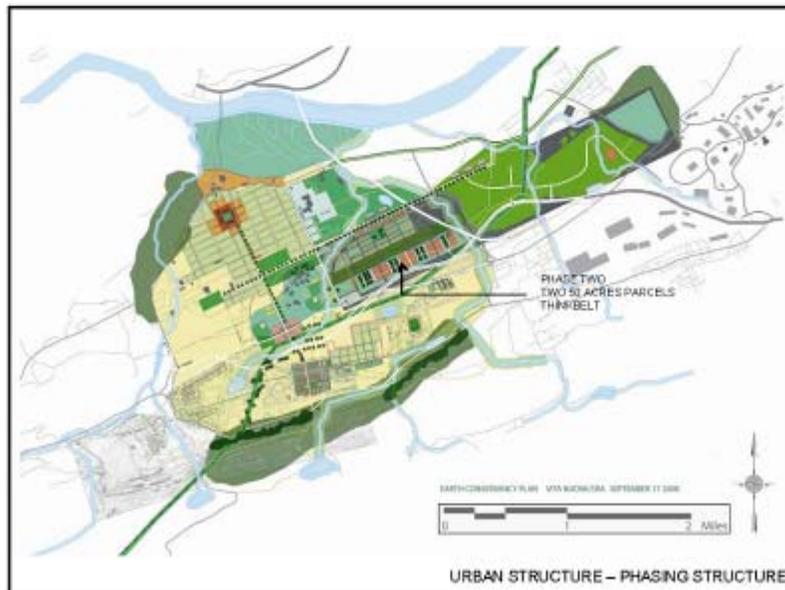
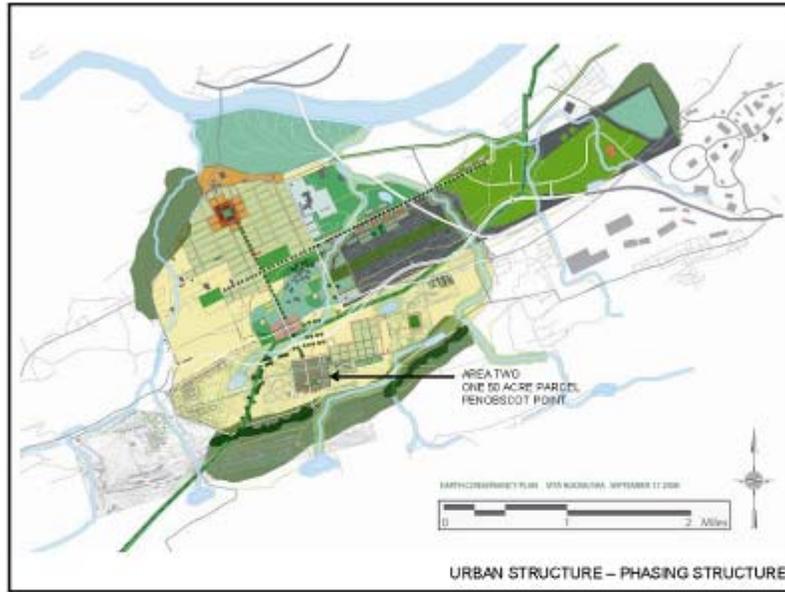


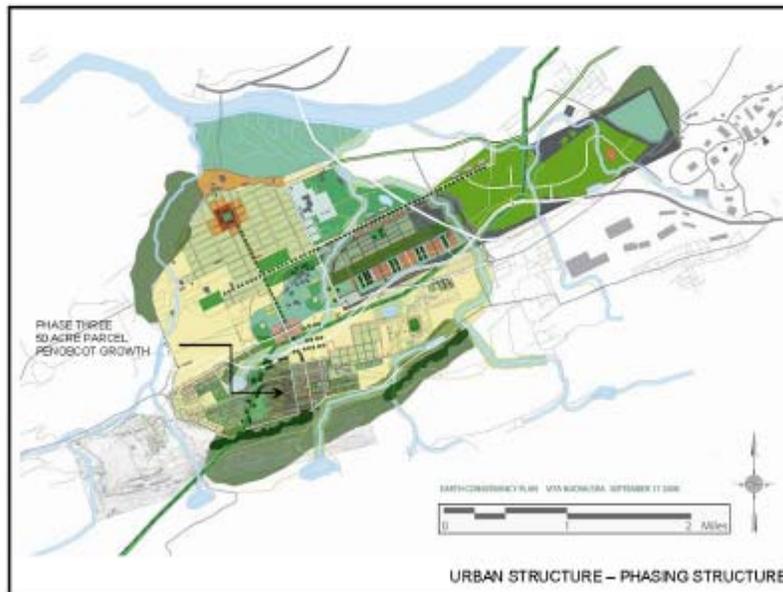
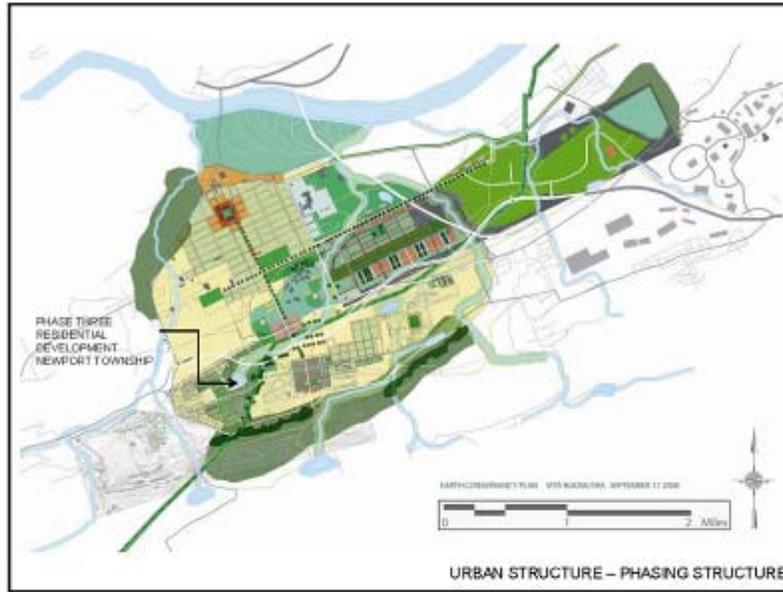


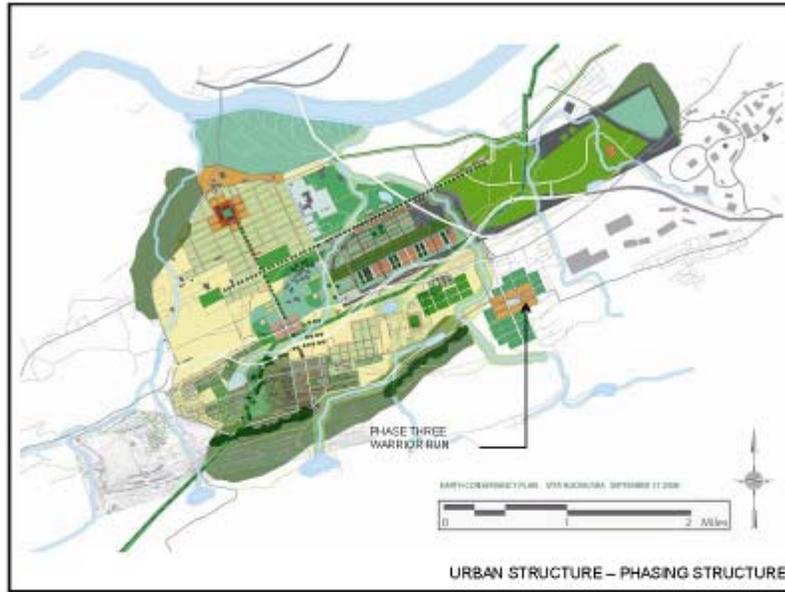


## South Valley Parkway Scenario

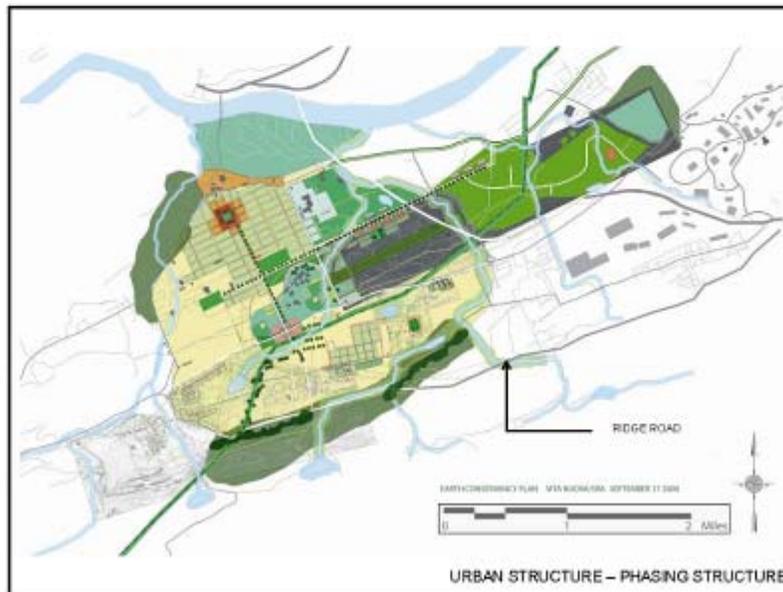
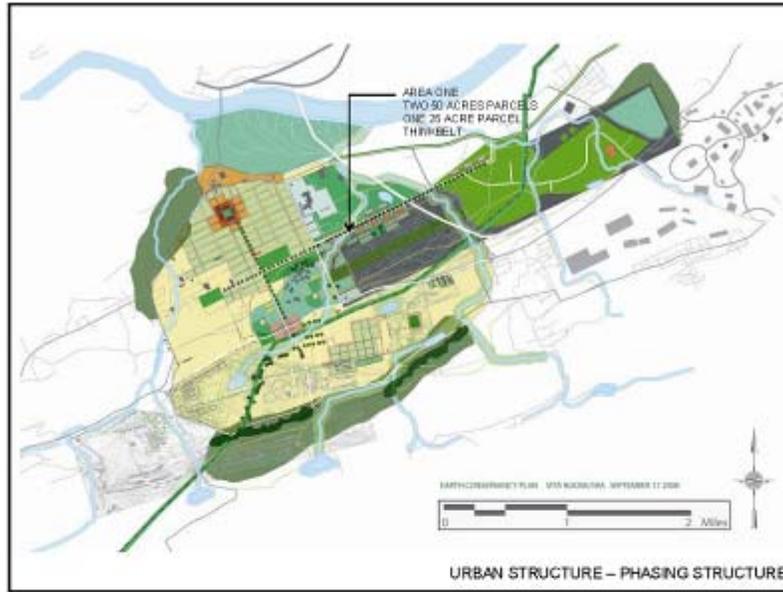


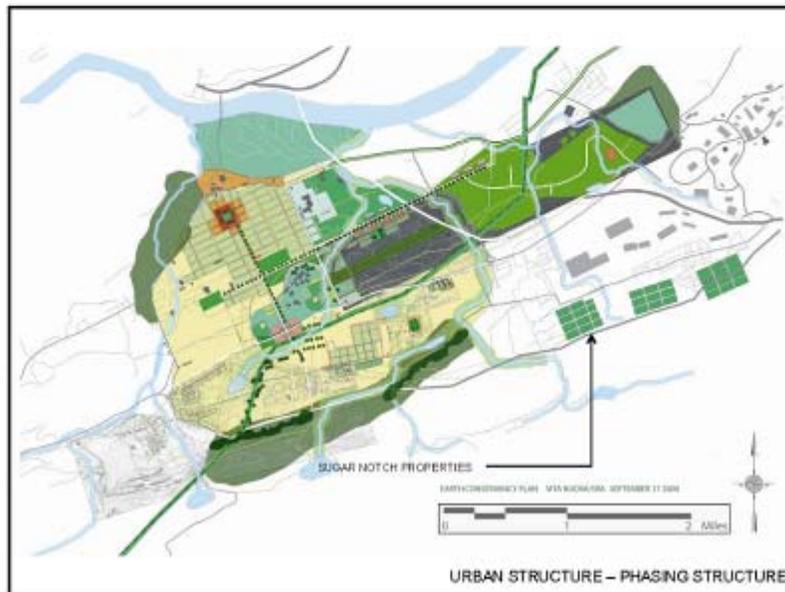
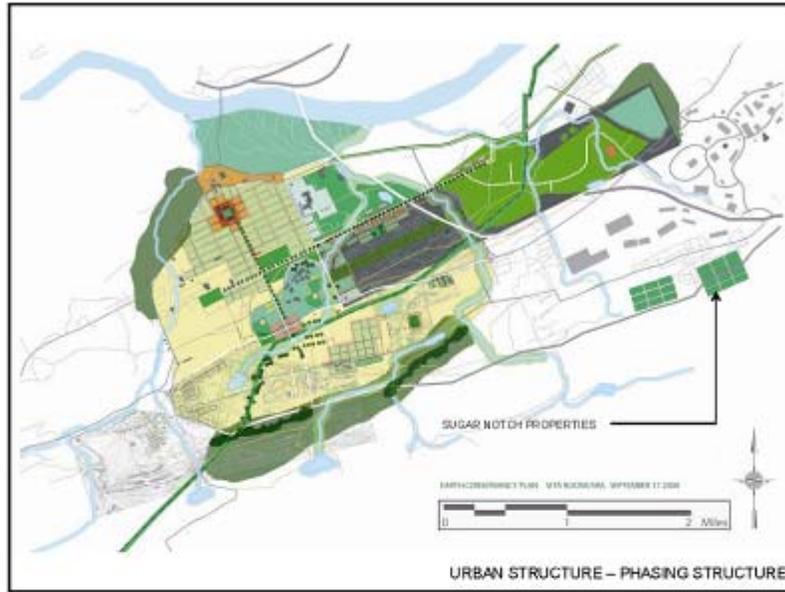


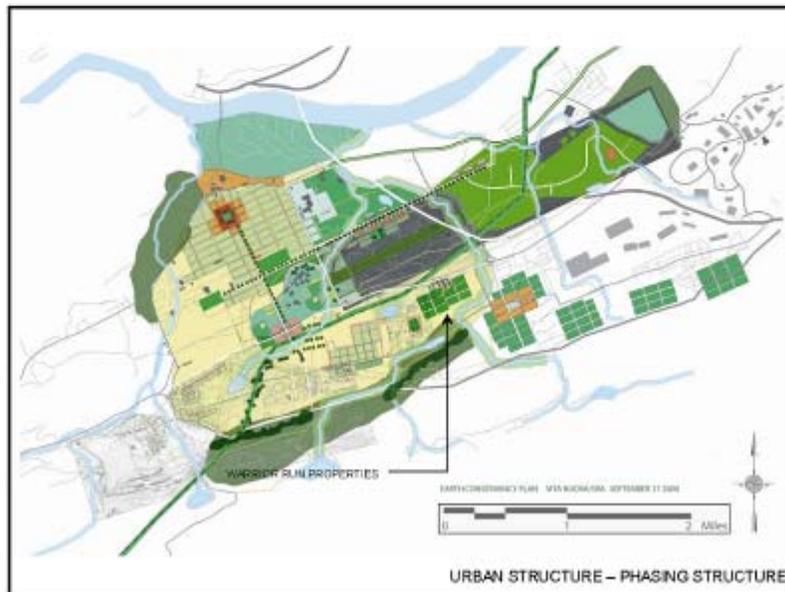
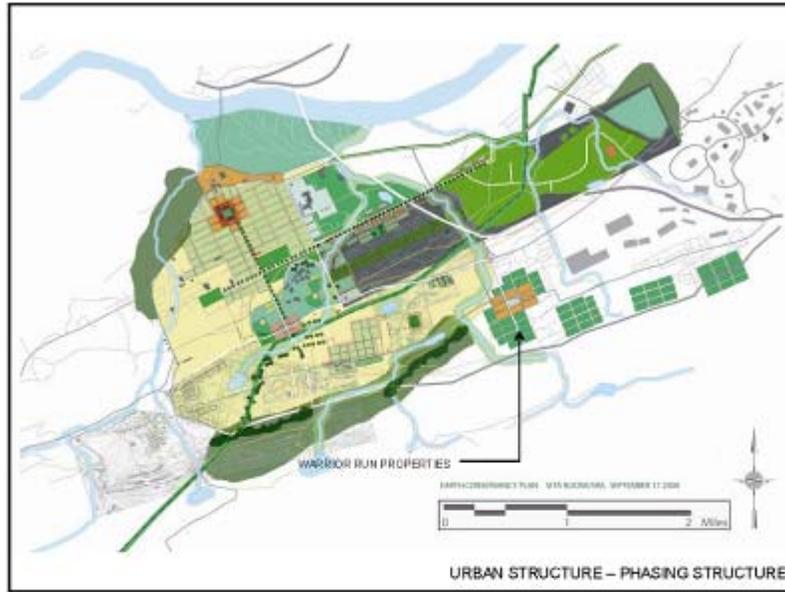


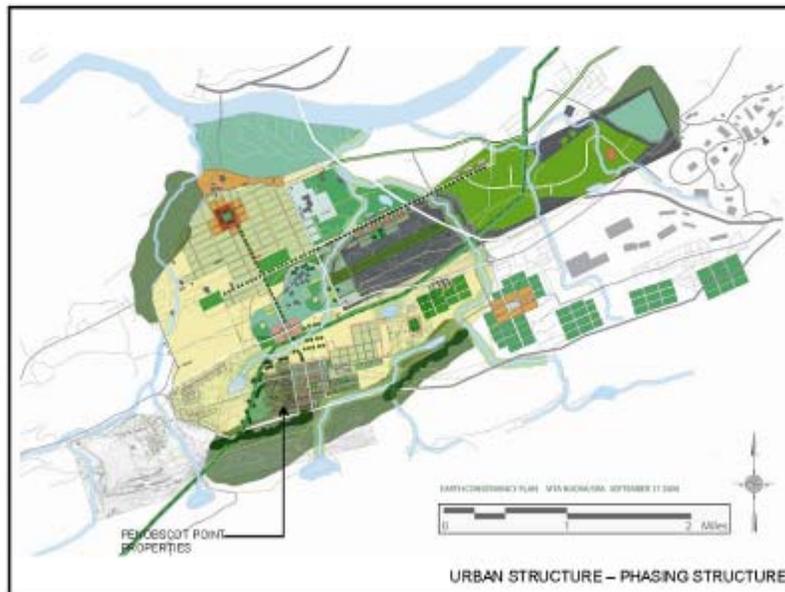
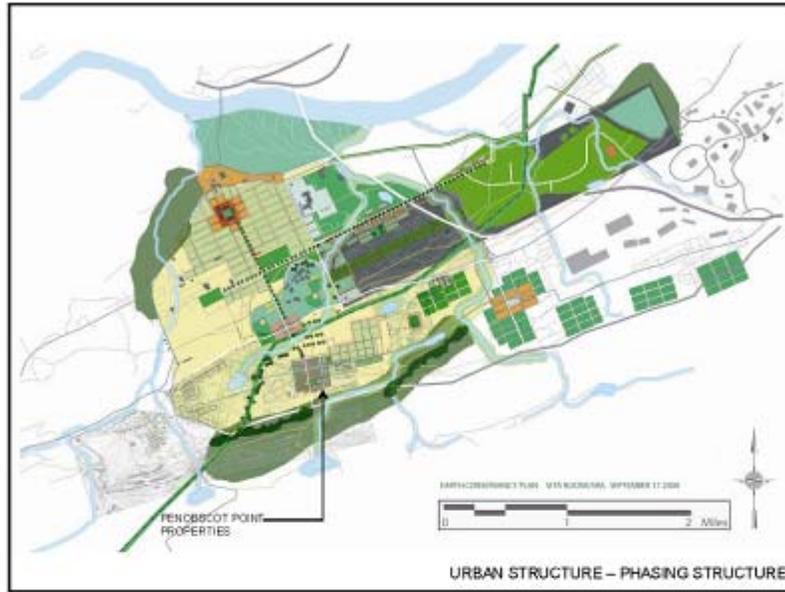


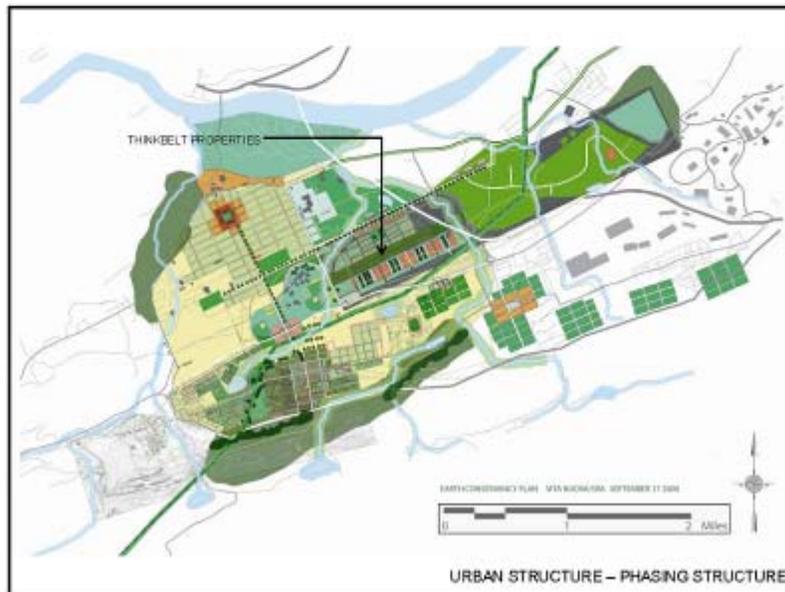
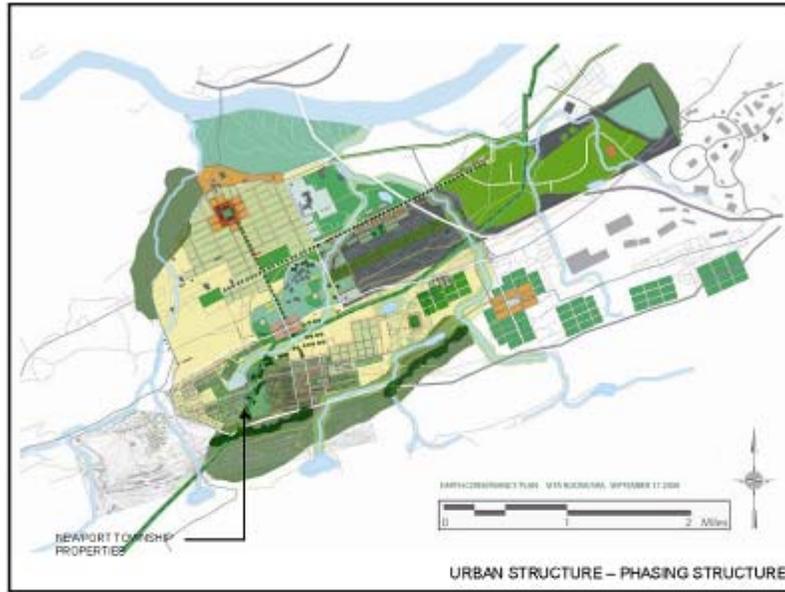
## Ridge Road Scenario













## Thank you

**Draft Final report planned to be issued in  
late November 2008**

If you would like to receive a copy,  
please sign up at the registration desk  
or email [mine-scarredlands@sra.com](mailto:mine-scarredlands@sra.com)