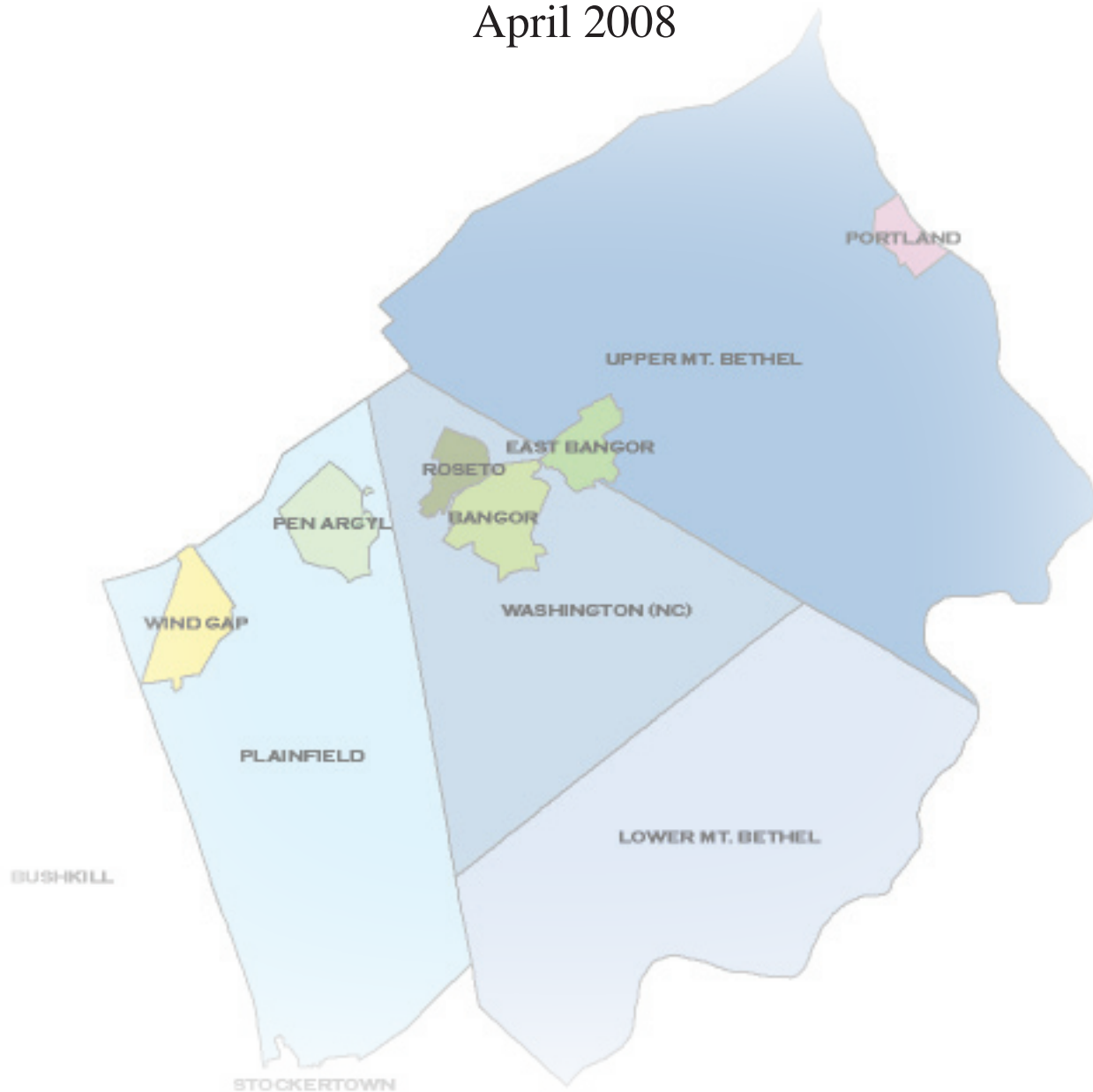


Intelligent Redevelopment of the Slate Belt

Lafayette College Technology Clinic

April 2008



Sponsors:

PA Department of Community and Economic Development
The Honorable State Senator Lisa Boscola
John McCullum, Vice President, Ultra-Poly Corp.
Pete Iselo, President, Slate Hills Enterprises
Authority of Bangor
Slate Belt Council of Governments (SB-COG)
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EXECUTIVE SUMMARY

The Slate Belt is confronted by numerous internal and external pressures that will inevitably change the way of life for residents of the region. Based upon the shift in the Slate Belt's industrial profile and continued housing pressures from metropolitan New York and New Jersey, it is clear that this is an opportune time for self assessment and redirection. Our analysis suggests that there are three major factors crucial to attaining successful and what is often referred to as "intelligent" growth in the Slate Belt: active response to change, cooperation, and self-investment. In our report, we present and discuss these fundamental concepts as well as other key objectives, general approaches, and strategies for further improvement of the region. We conclude the report with specific recommendations to achieve the objectives.

Identification of objectives. Based upon interviews with local municipality officers, development organizations, businesses, environmentalists, developers, and residents, we identify five common objectives. The ultimate goal is to stimulate intelligent economic development capable of increasing employment opportunities and tax income while concurrently enhancing livability and preserving community character in the Slate Belt. Below we discuss five fundamental goals that can be considered as intermediate objectives: managing urban and rural growth, stimulating growth of industry and services, preserving open space, promoting livability of downtowns, and attracting tourists.

1. **Manage urban and rural residential growth.** This objective implies the creation of a balanced and holistic housing plan with a focus on preserving open space and building stronger communities.

2. **Cultivate local industry.** The second objective is to boost jobs and tax income through the cultivation of local industry and services. Development of the industrial and services sector is also necessary to counter continuous residential growth.

3. **Preserve open space.** The third objective is to preserve one of the greater assets of the Slate Belt – open space – and to do so in an economically viable and sustainable manner – namely by promoting agricultural and forestry activities.

4. **Enhance downtowns.** Downtown improvement entails increasing walkability, preserving and celebrating the region's rich heritage, and supporting downtowns as centers of community life.

5. **Promote tourism.** Tourism is a profitable industry in and of itself but also represents a powerful tool to market the Slate Belt while promoting cooperation, self-investment, and pride.

Emphasis of general approaches. The five general approaches that follow are integral to achieving the stated objectives.

a) **Build on existing cooperation.** First and foremost, cooperation is vital to stimulating progress. We use the concept of cooperation to define a multi-level coordinated effort between municipalities, economic development organizations, local businesses, environmentalists, and residents to shape change collectively in the most beneficial ways.

b) **Promote resident participation.** Our second approach is to promote resident participation in local affairs. This stimulates residents' enthusiasm and creates a sense of ownership essential to building a supportive community.

c) **Supply appropriate initial infrastructure.** Improving road access and providing basic utilities are central to increasing the attractiveness of the Slate Belt to the right kind of investors.

d) **Interact with local educational institutions.** Our fourth approach is to stimulate further interaction with local educational institutions and to recognize them as a valuable asset – a local employer, client, partner and facilitator of information exchange.

e) **Marketing the region.** The Slate Belt can launch a marketing campaign to showcase its assets and potential via the internet and other media outlets. Reaching out to a broader audience will attract consumers, tourists, and investors.

Three-tiered recommendations. We provide a list of recommendations for short-, medium- and long-term improvements. The three-tier structure represents three levels of ease in terms of investment of time and resources needed to implement certain projects. All of the recommendations are worth considering immediately.

I. **Short term.** In the short term, efforts can be directed towards inexpensive projects that can be readily implemented, such as introducing uniform and distinct signage, sponsoring a contest to create a slogan to advertise the region, and improving internet presence of local destinations, boroughs, and townships.

II. **Medium term.** Larger scale projects that entail more resources and complex logistics are the focus in the medium term. Examples of such endeavors include hiring a business liaison to create and maintain a database of available industrial sites and grants, establishing farmers' markets to encourage local agricultural activities, and preparing existing structures for reuse as business incubators and call centers.

III. **Long term.** Finally, in the long-term, the Slate Belt could invest in developing industrial sites, redeveloping grey-fields and brown-fields, renovating historic buildings to preserve architecture and character, and in providing appropriate initial conditions for growth. These conditions include infrastructure and a labor force with a skill set geared towards changing market demands.

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1. Introduction

Internal and external challenges related to both local pressures and the forces of globalization are transforming the way of life for residents in the ten municipalities that make up the Slate Belt region. In an effort to influence the way the region responds to these challenges, a diverse group of parties in the Slate Belt asked the Lafayette College Technology Clinic to use its unique multidisciplinary approach to address the concerns of the Slate Belt residents.

The idea is to craft an “intelligent” development strategy that will serve the interests of the current residents of the Slate Belt while acknowledging that there are a multitude of pressures due to a dynamic world setting that will inevitably affect the region. The question is, how can the residents of the Slate Belt best shape and use these forces to suit their interests and to better the region as a whole?

1.1 Overarching Themes

The goals of this report are to highlight positive developmental ends and to explore the means, or strategies, by which we can realize the potential of the Slate Belt. To give coherence to our recommendations, the strategies are couched in three overarching themes – change, cooperation, and self-investment – that are particularly important to the success of the region.

Change:

- o **Global player.** The world is changing ever more rapidly. Extraordinary technological advancements have diminished former spacial and temporal boundaries to the point that author Thomas L. Friedman proclaimed that nowadays “The World is Flat” in his bestseller book of the same name. A flat world refers metaphorically to a global market in which all businesses are at an equal level in terms of commerce and competition and where historical, regional, and geographical divisions become increasingly irrelevant. Based upon this view, the Slate Belt is a player on the larger, dynamic world stage.
- o **Shape change.** The Slate Belt community is in a good position to shape inevitable large-scale changes to its advantage; this can occur through the concerted efforts of its members. Providing opportunities for resident input and participation is central to success.
- o **Forward-looking.** The Slate Belt has a rich history and heritage. In order to take full advantage of these factors and to truly thrive, the region needs to anticipate changes and respond positively to them.

1. Introduction

1.2 Challenges

Cooperation:

- o **Stronger communities.** Common goals bring communities together. Unity and coordination will facilitate the formation of a strong Slate Belt identity, a shared vision, and an integrated strategic plan for future development. Cooperation at multiple levels - among boroughs, townships, local businesses, environmentalists and development organizations - is essential to achieving mutual goals.
- o **Common challenges.** Even though each community within the Slate Belt has its own distinct character, they all face common challenges - namely, a shift in the industrial profile of the region and rising residential growth.
- o **Added value.** By pooling its social and economic resources, the Slate Belt can benefit in ways that will outweigh costs associated with compromises.

Self-Investment:

- o **Creating initial conditions.** To increase the region's attractiveness to investors and tourists, the Slate Belt needs to direct efforts towards providing appropriate initial infrastructure and information services.
- o **Stronger regional identity.** Self-investment is closely tied to feelings of pride and self-confidence among regional residents. Self-investment helps to knit communities together.
- o **Sense of ownership.** Residents who invest time and effort in their community are rewarded with feelings of ownership over what takes place in their hometown. Such self-investment motivates and empowers residents, contributing to a proactive ethos.

1.2 Challenges

The Slate Belt as a collective entity is at an important crossroads. The shift in the industrial profile of the region with regards to the slate and textile industries along with housing pressures from New York and New Jersey, that have only temporarily subsided, leave the area facing a number of challenges.

- o **Tax income.** A prolonged rise in residential development has resulted in an influx of predominantly young families with school-aged children. This trend has put pressure on local schools as they have been forced to accommodate an increasingly large pool of children while facing a diminishing tax income yield per child. At present, the tax base is not growing at a rate sufficient to provide necessary public services; this is a result of an imbalance in industrial and residential development.

Bangor Area School District Assessments 2007

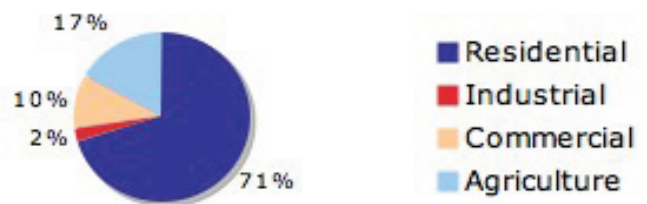


Fig. 1: Percentage of tax income by sector in 2007.

Households generate significantly less tax income than businesses, but consume much more in terms of school tax income and public services.

- o **Fragmented interests.** At the end of this year, Washington township will be leaving the Slate Belt Council of Governments. This deviation is an example of the existence of disparate interests among townships and boroughs and suggests a need for a stronger shared vision.

1. Introduction

1.2 Challenges

o **Bedroom community.** An average of 76.6 percent of Slate Belt residents work outside of the towns they reside in (see Fig. 2). Residents who commute long distances to work on a daily basis are less likely to participate in community activities and generally have less at stake in their town of residence.

as progress versus preservation or growth versus no growth. Rather, development can take place in an intelligent manner that not only satisfies members of the community but may also be quite profitable for investors.

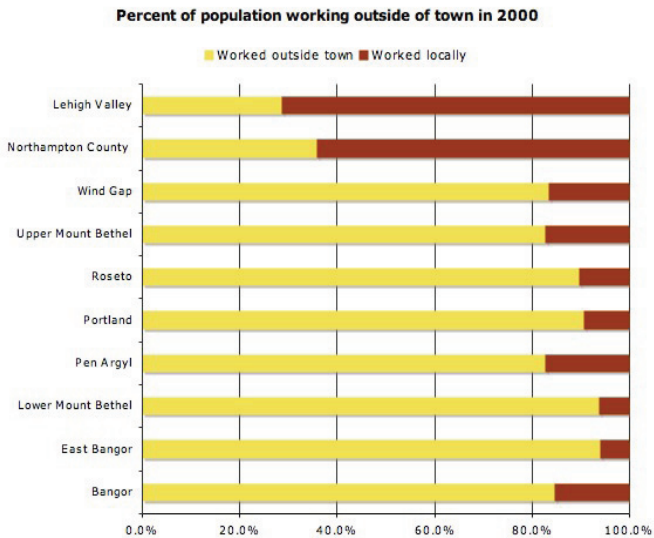


Fig. 2: Commuting statistics showing percentage of population working outside of towns in 2000.

o **Mixed connotations behind the term “development.”** The concept of development carries with it significant baggage. Community planners associate development with progress, prosperity and investment that brings about positive change. Residents, however, often see it as a predominantly negative force that interferes with private space and livability. This type of development is commonly associated with large-scale profit-driven housing developments or other commercial establishments such as strip malls and supermarkets. Throughout the report, we invoke the former meaning of development. In other words, we stress the importance of a development that is “good” or “intelligent.” This type of development is one that meshes the unique character and public interests of the local community with its growth needs. The emphasis here is on the fact that the choices available to the Slate Belt region are not limited to “either-or” options, such

1.3 Methods

During the past year, we explored the Slate Belt region in a number of different ways. The following are the methods that we used to form a holistic understanding of the situation at hand.

- o **Using diverse backgrounds and experiences to find innovative solutions.** As a team of five Lafayette College students and two professors representing the natural sciences, humanities, social sciences, and engineering, we each learn and apply our knowledge in different ways. The team profile can be found in Section A.1 of the Appendix.

- o **Reviewing past feasibility studies and reports.** We reviewed past reports to see what analyses have already been done. Recommendations and examples from previous local and state-wide studies will be used in this report as supporting evidence.

- o **Interviewing local businesses and development organizations.** Since the beginning of the project in September 2007, we have discussed economic development opportunities with many of the Slate Belt's public and private institutions, activists, and residents. Their insight guided the formation of our proposed economic development strategies - strategies that respond to the Slate Belt's needs while making the best use of its assets. A compilation of assets, opportunities, and challenges as identified by the interviewees can be found in Appendix A.2.

- o **Exploring the region and potential industrial sites.** Driving across the Slate Belt and walking around its boroughs allowed us to evaluate both local strengths and potential areas for improvement. We also visited several vacant sites that are available for industrial or commercial development.

- o **Developing a SWOP.** We have identified a list of Slate Belt's strengths, weaknesses, opportunities and pressures. Some of the major strengths of the Slate Belt are its affordable land, lower property and

operation costs, access to major highways, proximity to markets in New Jersey, New York and Philadelphia, and the existence of support groups such as the Slate Belt Economic Development (SBED) organization. The entire SWOP can be found in appendix section A.3.

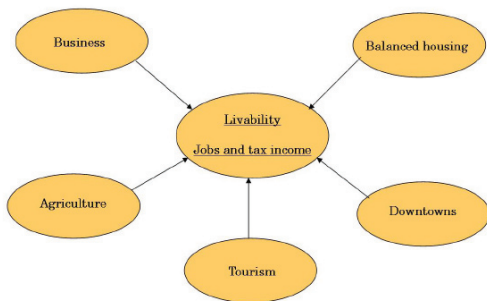
The remainder of the report is organized as follows. In Section 2, we identify five common objectives for the intelligent economic development in the Slate Belt. In Section 3, we discuss five general approaches that are integral to achieving the objectives. In Section 4, we address specific strategies for further improvement of the region. We conclude with suggestions for topics needing further study and a three-tiered list of recommendations.

2. Objectives

2.1 Manage Urban and Rural Growth

2. Objectives: Creating and Maintaining Jobs to Preserve Livability in the Region

In this report, we examine the two highway corridors in the Slate Belt region located primarily along State Routes 512 and 611. Based upon interviews with local municipality officers, development organizations, businesses, environmentalists, developers and residents, in this section we identify five common objectives. The ultimate goal is to stimulate *intelligent* economic development that could create employment opportunities and tax income in the region, thereby enhancing livability and preserving community character. Below we discuss five goals that may be considered as intermediate objectives: managing urban and rural growth, stimulating business growth, preserving open space, promoting livability of the downtowns, and attracting tourists.



2.1 Manage Urban and Rural Growth

Develop in a balanced and livable manner for individuals and communities.

With rising housing pressures due to expansion in metropolitan New York and New Jersey, managing residential growth has become increasingly important for the Slate Belt. As the financial incentive to create housing developments continues to grow, large plots of agricultural land are being converted to residential neighborhoods. Large-scale housing developments rarely seek to integrate into communities and their distinct local characters, place an added burden upon local school systems and public services, and provide relatively little additional local revenue. The following table demonstrates the tax income deficit per child per year for the Bangor Area School District.

Tax income deficit: Bangor Area School District 2007

	Household income of \$150,000	
	From PA or NJ	From NY
Home assessed at \$100,000		
with one student	-\$2,070	-\$3,120
with two students	-\$9,735	-\$10,785
Home assessed at \$125,000		
with one student	-\$934	-\$1,984
with two students	-\$8,599	-\$9,649

Fig. 3: Tax income deficit per child per year for the Bangor Area school district in 2007.

The objective is not necessarily to suppress residential growth but to handle it in an effective and sustainable manner. Part and parcel of management of residential growth is effective and seamless integration of urban, rural, and open spaces. Many of the fundamental goals associated with the effective management of urban and rural growth are manifested in the tenets of *smart growth*.

2. Objectives

2.1 Manage Urban and Rural Growth

PA lost over 1 million acres of cropland, forest, and open space over the five year period from 1992 - 1997. This figure placed it at #2 in the nation in regards to open space converted to developed space behind only Texas.

Smart Growth and Intelligent Development.

Smart growth or *intelligent development* entails the investment of time and resources in building stronger communities and restoring vitality to towns and suburbs. *Smart growth* is pedestrian-oriented and focuses on creating a mix of housing, commercial, and retail environments. It also places emphasis on the preservation of open space and environmental sustainability. Throughout the report we use the terms *smart growth* and *intelligent development* interchangeably.

It is important to note how closely the three overarching themes of this report are tied to *smart growth*.

- o **Change.** Change is inevitable, but can be crafted. *Smart growth* proactively molds these changes to the maximum benefit of the region.
- o **Cooperation.** Cooperation at multiple levels is necessary to obtain *smart growth*. Neighbors, local institutions, and towns must work together to achieve the larger goals of the region.
- o **Self Investment.** *Smart growth* represents perhaps the most, *intelligent* guided form of self-investment possible.

Key tenets of *smart growth*:

- o **Mix land uses.** Mixing commercial, residential, open, and institutional spaces while accommodating diverse household types and needs is vital to *smart growth*. Mixing land use also promotes walkability and increases property value.
- o **Incorporate compact building design.** Compact building is meant to increase housing efficiency and maximize efficiency in the use of land and resources.
- o **Create a range of housing choices.** *Smart growth* suggests providing a range of housing options (such as affordable, senior, luxury, etc).
- o **Improve walkability.** Pedestrian-friendly communities are more convenient for residents, decrease reliance on vehicles, and reduce pollution.



Fig. 4: Pedestrian-friendly sidewalks promote walkability.

2. Objectives

2.1 Manage Urban and Rural Growth

o **Foster distinct character.** *Smart growth* seeks to foster distinctive, attractive communities with a strong sense of place. Implementation of the principles of *smart growth* prevents the creation of cookie-cutter communities.



Fig. 5: Typical cookie-cutter housing development.

o **Preserve open space.** The preservation of open space, farmland, natural beauty, and critical environmental areas are goals of *smart growth*.

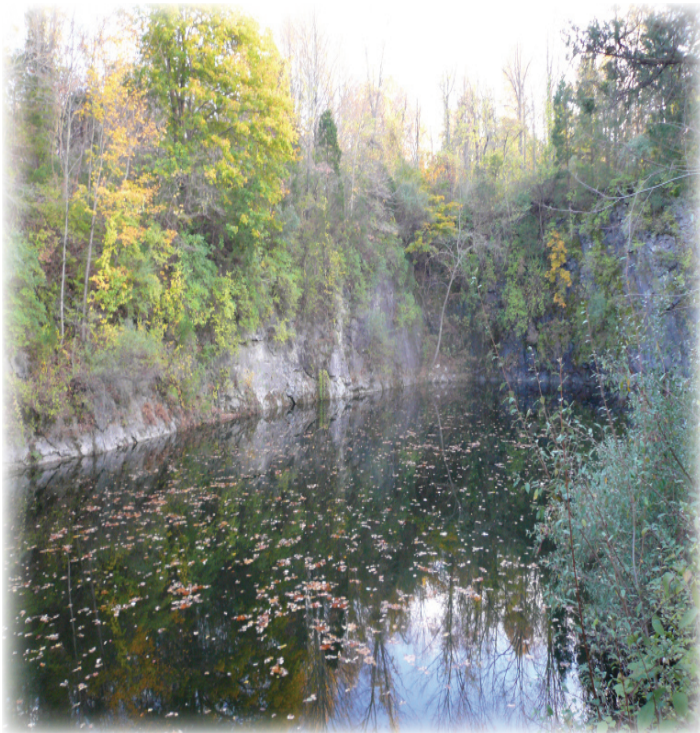


Fig. 6: Beautiful scenery in the Slate Belt.

o **Focus on existing communities.** Another means of preserving open space is to strengthen and direct development toward existing communities.

o **Improve transportation.** A livable community provides a variety of public transit choices and encourages the use of non-motor based means of transportation.



Fig. 7: Potential Park and Ride location in Portland, PA.

o **Improve project planning techniques.** Strategic project management makes development decisions predictable, fair, and cost-effective.

o **Foster collaboration.** Effective management also involves encouraging community and stakeholder collaboration in development decisions.

2. Objectives

2.1 Manage Urban and Rural Growth

- o **Enhance streetscapes.** Investing in downtown streetscapes preserves historic character and makes communities more aesthetically pleasing.



Fig. 8: Example of an attractive streetscape.

- o **Optimize land use.** Careful consideration of where to and where not to develop is essential to the maintenance of communal assets.

What can the Slate Belt gain by incorporating principles of smart growth?

Incorporating the principles of *Smart Growth* can improve the region in terms of:

- o **Quality of life.** Enhancement of communities will improve quality of life for residents.
- o **Attractiveness to investors.** *Smart growth* will increase the region's desirability by making it a great place to live and work.
- o **Regional identity.** Improvement of the Slate Belt's identity through *smart growth* will make the region distinct and strong.

2. Objectives

2.2 Business

2.2 Business

Attract local jobs and taxes as a balance to residential growth.

In addition to managing urban and rural residential development, it is important to aim for a balance between residential and industrial development. Industry represents one of the most important means of achieving the broader economic goals of the Slate Belt. It provides jobs and revenue and acts as an essential foil to the already prominent residential development characteristic of the Slate Belt. A table showing the percentage of different uses of land in 2005 can be found in appendix section A.4. Reflecting on interviews with Slate Belt residents, we found that there is an overwhelming belief that a boost in the industrial sector would invigorate the region. Many claimed they would like to see high-tech industries move in. We will consider potential opportunities for industrial development in Section 4.2.

What makes the Slate Belt attractive to business?

Lower property costs. The state of Pennsylvania is an attractive location for business based upon its relatively low property costs when compared with those in New York and New Jersey. Low property costs reduce startup expenses for incoming businesses.

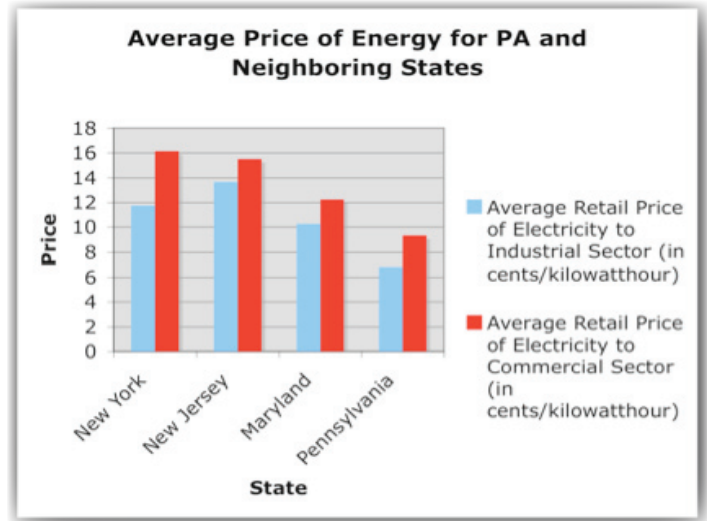


Fig. 9: Energy Information Administration. Prices as of Aug 2007.

Lower operation costs. Pennsylvania has lower than average operation costs. Compared to nearby metropolitan areas, Pennsylvania offers lower labor, insurance, and, at least until the deregulation in 2009, energy costs.

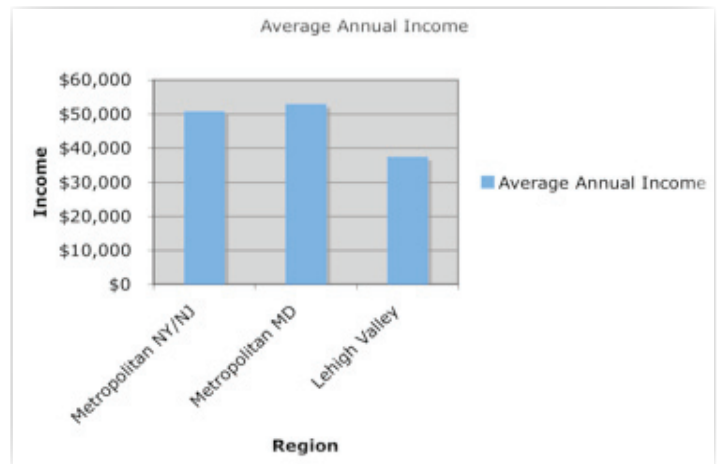


Fig. 10: LVEDC May 2006.

Within Pennsylvania, the Slate Belt is attractive based upon:

- o Excellent location relative to major east-coast markets.
- o Access to major roadways from certain boroughs and townships.
- o Access to nearby power-generating facilities that make the region attractive to energy intensive industries.
- o Access to financial and planning assistance through local economic development organizations.

- *PA ranks second in the nation in nuclear power generating capacity.*
- *PA produces nearly all of the nations anthracite coal (primarily used for domestic heating).*
- *Industrial GDP for PA is ranked 6th in the nation.*
- *Electricity production exceeds consumption in the state.*

2.3 Agriculture

Create jobs while preserving and utilizing open space in economically viable and sustainable manner.

Development of the agricultural sector represents an attractive alternative to the continuation of sprawling residential development. Agriculture helps to stimulate and sustain local economic growth and improves the overall value of the region by creating more beautiful, livable communities with lots of open space. By investing in alternative farming techniques and crops grown for use in biofuels, the groundwork is being laid for a sustainable future.

How can agricultural activity benefit the Slate Belt?

- o **Open space.** Agricultural activity preserves open space and natural beauty. Statistics show that homeowners prefer to live near natural open spaces but often move into less than ideal areas such as those near golf courses because the land is perceived to be guaranteed open space. Is there a way to guarantee the preservation of open land through agriculture that will provide a similar perceived benefit for nearby homeowners?



Fig. 11: Which open space would you prefer to live near?

Some benefits of open space:

- o **Buffer zone.** Open space serves as a cushion between industrial sites and residential houses. It also serves as a buffer zone for water detention areas.
- o **Economic impact.** Working farms, forests and scenic landscapes contribute to the economic vitality of communities.
- o **Optimal use of land and resources.** Managed forestry and agriculture can improve soil and minimize resource consumption in the Slate Belt.
- o **High demand.** Global demand for alternative energy resources has created opportunities in both the agricultural and industrial sectors.

2.4 Downtowns

Promote livability and community while celebrating heritage.

An important part of balanced development is the preservation of livability and the fostering of downtowns as centers of community life. Livability refers to the environmental and social quality of an area as perceived by residents, employees, customers and visitors. Traffic flow, cleanliness, community identity and pride, opportunities for recreation and entertainment, aesthetics, and preservation of historic structures and traditional architectural styles all factor into a region's livability.

What are the characteristics of healthy downtowns?

- o **Multiple options.** A healthy downtown is a bustling place that provides options for shopping, dining, and entertainment.
- o **Balanced.** Healthy downtowns include a balance of workplaces, homes, services, and amenities.
- o **Pedestrian friendly.** A healthy downtown has streets that are easily walkable is generally pedestrian friendly.
- o **Ambiance and identity.** A healthy downtown should have a safe, friendly, engaging, welcoming, and attractive environment with a strong sense of community.

2. Objectives

2.5 Tourism

Why is it important to promote livable downtowns?

- o **Quality of life.** Enhancing downtowns increases quality of life for residents and visitors alike.
- o **Center of community life.** Downtowns are the heart and soul of the region, and the mental pictures we form of our downtowns are some of the most enduring we have of our communities.
- o **Attractive to businesses and consumers.** Businesses prefer to move to pleasant, attractive, and often-frequented areas—thriving downtowns. Shoppers also prefer the downtown shopping experience to those encountered in malls or other shopping centers.
- o **Focus on existing community.** Emphasizing downtown redevelopment will take the focus away from using solely rural land to accommodate residential growth.
- o **Attractive to tourists.** Healthy downtowns with lots to see and do attract more tourists to the area.
- o **Celebrate heritage and history.** Cultivating downtowns preserves historical sites and creates a sense of regional pride. Tourists will also be enticed by the chance to engage in celebrations of regional heritage.

2.5 Tourism

Capitalize on local heritage and regional beauty to attract tourist dollars.

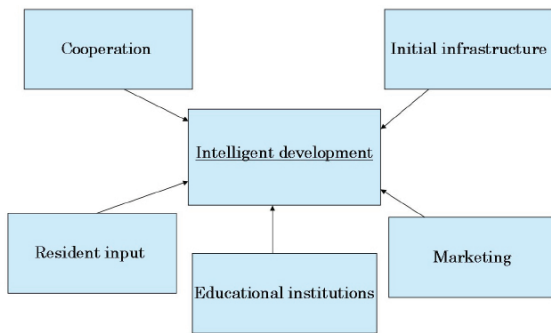
Tourism is the second largest industry in PA with a total economic impact of \$37.2 billion supporting 618,000 jobs and \$ 13.3 billion in wages. Promotion of the Slate Belt as a tourist destination would bring in revenue while encouraging cooperation, self-investment, and pride.

What does the Slate Belt have to offer tourists?

- o **Location.** Proximity to metropolitan areas and easy access to I-80 provide tourists with an interesting, affordable, and convenient option for field-trips and vacations.
- o **Natural beauty.** Unlike some other parts of the Lehigh Valley, the Slate Belt is endowed with scenic landscapes and a great deal of open land; this is an attraction for visitors. The scenery of the Slate Belt along with its agricultural past also imply opportunities for agrotourism and ecotourism.
- o **Rich heritage.** The Slate Belt's rich heritage is reflected in its historic buildings, neighborhoods, and landscapes. These resources are tremendous assets to the region and can help provide a strong sense of identity, authenticity, and pride. The renovation and restoration of unused historic buildings contributes to the attraction of tourists.

3. Approach

This section describes the general approaches that can facilitate *intelligent* economic growth and help achieve the outlined objectives. We identify five approaches: building on existing cooperation, promoting resident input, supplying appropriate initial infrastructure, improving interactions with educational institutions, and enhancing advertising and marketing.



3.1 Build on Existing Cooperation

Build on existing cooperation between local governments, businesses, and development organizations

First and foremost, cooperation is vital to stimulating progress. We use the concept of cooperation to define a multi-level coordinated effort between municipalities, economic development organizations, local businesses, activists, and residents to shape change collectively in the most beneficial ways.

Cooperation is encouraged at multiple levels:

Residents:

- o Though culturally distinct, communities within the Slate Belt have a common history and share many of the same challenges. Communities and their residents can and should maintain their unique identities while cooperating and working together towards common objectives.

- o Mobilizing individuals throughout the Slate Belt at a grassroots level represents an effective means of achieving shared goals.

Boroughs and townships:

- o The boroughs and townships that make up the Slate Belt must work together to accomplish large-scale goals. The more ambitious the goal, the more cooperation is likely needed.

- o Important tools to unite communities in the Slate Belt are government institutions such as the Slate Belt Council of Governments (COG). This group is composed of representatives of the county, boroughs, townships, and school districts.

- o To unite the Slate Belt, municipalities can consolidate communal event planning and announcements, preferably on the internet.

3. Approach

3.2 Promote Resident Input

Economic development organizations:

- o Partnerships between organizations like the COG, Slate Belt Economic Development organization, and the LVEDC could prove extremely fruitful.
- o The region would benefit from consolidation of local economic development organizations. These organizations include Bangor Economic Development Organization, Bangor Area Economic Development Organization, Slate Belt Chamber of Commerce, Green Knights, and Lehigh Valley Economic Development Corporation.

3.2 Promote Resident Input

Promote resident participation to stimulate enthusiasm and a sense of ownership over the region's evolution.

Our second approach is to promote resident input and participation. Providing opportunities for residents to voice their opinions, suggestions, and concerns stimulates enthusiasm and a sense of ownership, which is essential to building strong and supportive communities.

Who knows what a given town needs better than its residents? Projects fueled by resident input will reflect local needs and desires. Without consulting a broad range of sources, many are underrepresented. Participation in community affairs will generate feelings of personal investment in the area.

Provide opportunities for meaningful resident input by:

- o Keeping residents informed about what is going on with town issues and development with print media and the internet.
- o Encouraging resident input during municipal meetings.

3. Approach

3.3 Provide Appropriate Initial Infrastructure

- o Providing an online discussion board where borough and township members can discuss local issues.



Fig. 12: Forks Action blog site.

- o Creating community organizations. A good model of an active community organization is the Forks Action group in Forks Township. This group ensures awareness of local issues and provides residents with information about important upcoming meetings.
- o Encouraging volunteer efforts.



Fig. 13: Example of volunteer effort: the 'Bangor Downtown Dust Off'.

3.3 Provide Appropriate Initial Infrastructure

Provide the foundation, others will build upon it.

Supplying basic initial infrastructure is our third approach. Improving road access and providing basic utilities are central to increasing the attractiveness of the Slate Belt to the right kind of investors.

Infrastructure refers to:

- o Road systems and transportation
- o Electricity
- o Gas connections
- o Phone/internet connections
- o Water and sewage

Transportation. Optimal road networks are essential for industry and generally healthy transit throughout the region. Some important components are:

- o Improving traffic flow.
- o Optimizing truck routes.
- o Access to public transportation.

Utilities. Ensuring availability of basic utilities is central to the competitiveness of the region. Some important components are:

- o Energy, water and sewage utilities.
- o Up-to-date internet service.
- o Access to utilities at industrial sites.

3. Approach

3.4 Promote Interaction with Educational Institutions

Industrial Sites. Identifying suitable sites and providing appropriate initial infrastructure will draw industrial clients. Some important components are:

- o Developing sites with electricity, water, sewerage, and gas connections ensured.
- o Easy access to information about available economic incentives such as tax exemptions and grants.
- o Distributing information about individual sites and the region in general.
- o Ensuring access routes from sites to major roadways.

Government support. Local governments play a large role in ensuring that proper infrastructure is in place. Some ways in which the government can provide support are:

- o Achieving sufficient infrastructure requires long term vision and significant funding.
- o Offering tax incentives facilitates development of industrial sites and reuse of abandoned buildings.
- o Redevelopment of grey-fields and brown-fields prepares sites for productive use.

3.4 Promote Interaction with Educational Institutions

Educational institutions are three-fold local assets - employers, clients, and partners.

There are ten institutions of higher education in close proximity to the Slate Belt. The region should take advantage of the benefits and synergies that regional colleges and universities offer. These institutions are valuable not only because they educate, but also because they employ local residents, produce a skilled labor force, facilitate exchange of information, act as consumers of local goods and services, and are partners for local businesses and volunteer initiatives. Strengthening the interaction between the Slate Belt and nearby educational institutions is an important means to boost the region's economy and sense of pride. These interactions also engage students in regional communities and help to retain a skilled young work force.

Regional colleges and universities:

1. Cedar Crest College
2. DeSales University
3. East Stroudsburg University
4. Lafayette College
5. Lehigh Carbon Community College
6. Lehigh University
7. Moravian College
8. Muhlenberg College
9. Northampton Community College
10. Penn State Lehigh Valley

3. Approach

3.4 Promote Interaction with Educational Institutions

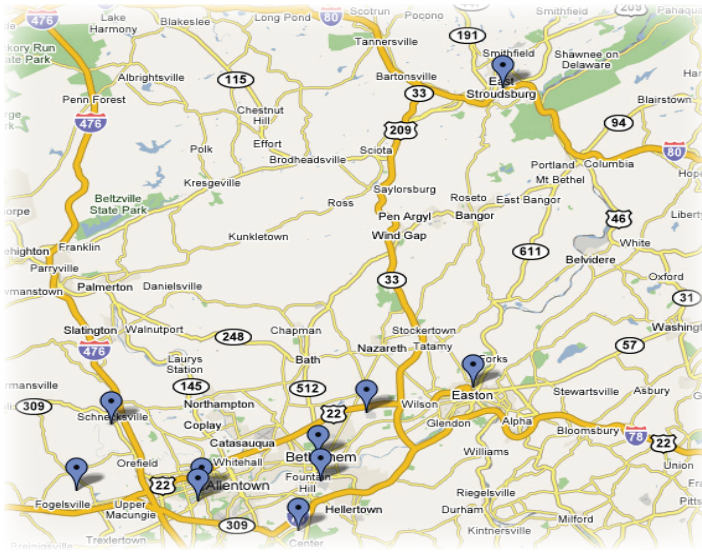


Fig. 14: Map showing regional colleges and universities.

These colleges and universities are:

- o **Major employers.** Three out of the top five major employers in Northampton County are educational institutions. The presence of universities and colleges in the area provides a great opportunity for local residents to find stable jobs within a reasonable commuting distance.
- o **Facilitators.** Universities have the means to facilitate information flow about employment opportunities between students and local businesses through Career Services, Career Fairs, etc. Cooperation between local businesses and universities is crucial to keeping young graduates and the skills they possess in the region.
- o **Training providers.** Educational institutions have the potential to provide vocational workshops and retraining for regional workers that can reduce structural unemployment. This type of unemployment is caused by a mismatch between skills demanded by employers and those possessed by potential workers. Training can make the Slate Belt's work force more competitive in terms of skill set (more service and technology rather than manufacturing oriented). A skilled labor force will encourage new businesses to start operations in the Slate Belt.

- o **Partners.** Local colleges and universities can serve as partners in sharing knowledge and technical expertise, providing lab and office space, and managing and organizing student run projects and volunteer initiatives. Undergraduate students could help maintain public websites and participate in local volunteer-based events while graduate students could get involved in developing new technologies, processes, and business plans for the region. Such endeavors would benefit both parties involved.
- o **Consumers.** Universities often buy seasonal produce from local farmers. This trend could be promoted to benefit the college dining services, the college communities, and the local farms.



Fig. 15: Lafayette College is a consumer of local farm products.

3.5 Advertise and Market

If it doesn't exist on the internet, or it can't be found easily, it doesn't exist.

Launching an aggressive marketing campaign could showcase the Slate Belt's assets and potential. Advertising via the internet and other media outlets can help reach out to a broader audience, thus attracting tourists and investors. On a local level, it is important to promote uniform and attractive signage that will not only help tourists navigate the Slate Belt, but will also create a welcoming atmosphere and a sense of common identity.

o **Regional identity.** A distinctive regional brand will unite the municipalities of the Slate Belt while appealing to residents and visitors alike. Creating a catchy slogan for the Slate Belt would add flavor to its regional identity and would help to promote the area as a tourist destination. We propose that a slogan contest be held to generate creative ideas for a new brand. Such a competition would be a great way to engage Slate Belt residents, high school, and college students in local issues.

The Internet:

The internet is an extremely important tool for advertising. Numerous local business owners informed us that utilization of the internet as a marketing tool had improved their visibility and increased revenue. The internet has also become a travel planning tool. Thus, the internet is important for advancing not only industrial and commercial development, but also tourism.

Internet presence. Many municipalities and businesses have recognized the importance of a strong presence on the internet. The following is just a sampling of the websites relating to the Slate Belt that already exist:

- o East Bangor Borough
- o Lower Mount Bethel Township
- o Pen Argyl Township
- o Plainfield Township
- o Portland Township
- o Roseto Borough
- o Upper Mount Bethel Township
- o Wind Gap Township
- o Slate Belt Council of Governments
- o Slate Belt Chamber of Commerce
- o Portland Industrial Park
- o The Committee for Slate Belt Economic Development

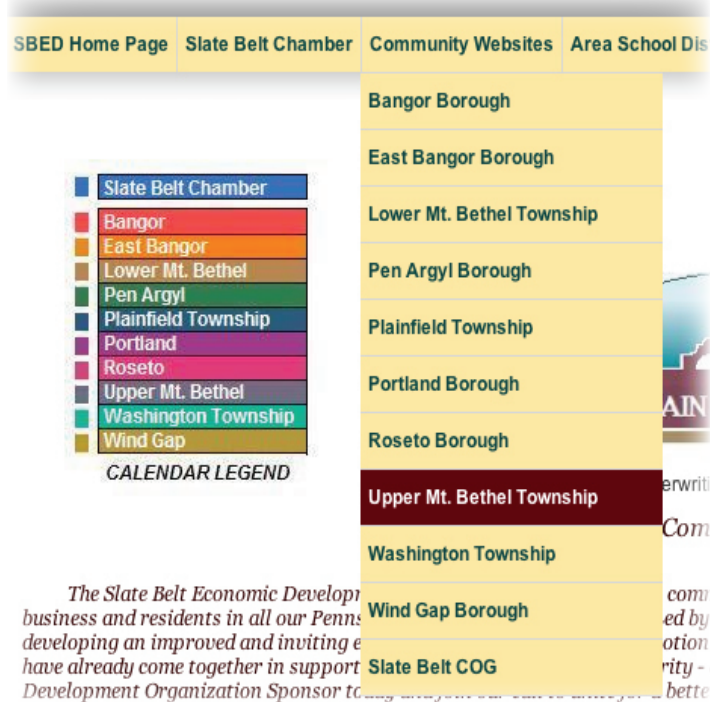


Fig. 16: Website for the Slate Belt Economic Development Corporation.

3. Approach

3.5 Advertise and Market

o **Linking websites.** Having websites is critical, but so is linking them together. Isolated sites leave the region fragmented; linked websites knit it together and promote cooperation. With its extensive webpage links, the SBED’s website is a good model to follow in this regard.



The Slate Belt Economic Development Organization is a business and residents in all our Pennsylvania counties. We are developing an improved and inviting environment. We have already come together in support of the Slate Belt Economic Development Organization Sponsor to...

Fig. 17: An example of linking websites of individual boroughs and townships together on the SBED website.

o **Search engine recognition.** While conducting research for this report, we realized the importance of “Google-ability” for websites. If a website doesn’t appear high or at all on a search, it is far less accessible than one that appears at the top. Indeed, some respondents found it difficult to access our Technology Clinic project website because it did not present itself on a Google search. Thus, we recommend that all websites—existing or to be made in the future—appear high in search engine results. In order for websites to appear high on search engine results pages, they must first contain basic keywords for the search engine to recognize. The main factor that determines where in a search list a website will fall are the number of websites that link to it and how much traffic the linking pages receive. The more other

webpages that link to a certain website, the higher that website will appear on searches. Cooperation on the internet will thus benefit each individual Slate Belt entity.

o **Other important characteristics.** Great websites are also:

- o Easy to navigate.
- o Informative.
- o Attractive and clear.
- o Regularly updated.

Signage:



Fig. 18: Uniform and attractive signage that point to local destinations.

o **Inter-borough and township signage.** Clear, distinctive, and uniform signs to delineate boundaries will unite the Slate Belt while providing information to visitors. Tourists and entrepreneurs driving through the region are, presumably, unfamiliar with the boundaries of the various boroughs and townships. Thus, the frequency and location of the signage becomes important.

3. Approach

3.5 Advertise and Market



Fig. 19: Example of distinct signage that can be made uniform throughout the boroughs and townships in the Slate Belt.

o **Individual signs.** Considering the area from an outside visitor's perspective, we found that signage for shops, historical sites, and areas of interest should be enlarged and refined. Locating a business for the first time is challenging without effective signage and advertising.



Fig. 20: Local businesses in the Slate Belt can consider investing in larger and bolder signs.

4. Strategies

The goal of this section is to outline strategies that may be employed in order to accomplish the outlined objectives. Some of the steps recommended here are quite simple; others will take significant time, effort and resources to implement. We will provide a list of specific recommendations in the conclusion that follows this section.

4.1 Manage Residential Growth

Apply smart growth.

Population growth in congested areas of New York and New Jersey will continue to result in housing pressures throughout the Slate Belt. Recently, the financial crisis in the US caused by the credit crunch has decreased the demand for housing. This decline, however, is only temporary. The Slate Belt can and should use this breathing space as an opportunity to develop a strategy to manage the residential growth that will inevitably return.

Working towards implementation of the principles of *smart growth* discussed in the Objectives section is the main route to effective management of residential growth. *Smart growth* is a grassroots movement that starts at the individual level. Therefore, networking between individuals and neighborhoods represents an important means to attain its constituent goals.

Strategies to attain *smart growth*:

Communicate. In order to manage residential development, communication is vital. Residents and town officials must realize that they are the ones most capable of influencing local development. The mobilization of individuals and communities in response to recent attempts at large scale development (e.g. unification against Wal-Mart and Marshfield) show that the people of the region share a notion of what is desirable. Communication is necessary to sustain community mobilization and to develop a shared vision for the future. The following are steps that *you* can take to promote *smart growth* in the region:

4. Strategies

4.1 Manage Residential Growth

- o Start talking with others from the region. Share ideas of what needs to be improved and how this improvement could take place.
 - Start a group consisting of like minded individuals and petition to other individuals, groups and institutions for support.
 - Contact your local government.

- o Develop a plan to reach the goal. Creating this plan should involve:
 - Collaboration with diverse community groups.
 - Examination successful case studies and examples from elsewhere.
 - Discussion of feasibility with developers.
 - Careful consideration of the future impact of development on residents and the region as a whole.

- o Implement the plan. Ideally, a plan should seek to incorporate the strategies that follow, and more.

Mix Uses. The most successful residential development will accommodate a diverse array of demographic groups while mixing residential and commercial spaces. It is important to integrate new developments into the community both physically and in terms of character. Strategies:



Fig. 21: Mixed land use of residential and commercial development.

- o Provide incentives for ground floor retail and upper level residential spaces in existing and future buildings.

- o Provide incentives for business to locate in appropriate sections of certain residential areas.

Incorporate compact design. Incorporating compact design refers to the creation of housing with an emphasis on space-efficiency and livability. Such development is an attractive alternative to the wasteful, sprawling residential neighborhoods that have become common in Pennsylvania. Strategies:

4. Strategies

4.1 Manage Residential Growth

- o Vacant warehouses or other unused industrial buildings can be renovated and subdivided into apartment spaces. These facilities could cater to a broad range of housing needs and could also include commercial spaces.

- o Regulations can be put into place by local governments to limit and minimize the consumption of land, in part, through regulating the size of housing lots. This strategy would serve to reduce pressure on undeveloped land in the Slate Belt.

Provide various housing opportunities.

This concept refers to the creation of communities capable of accommodating a broad array of resident types. Ensuring a healthy mix of affordable, middle-class, luxury, and senior housing options will create energetic and culturally diverse communities.

Strategies:

- o Offer tax exemptions and incentives to developers who are willing to incorporate diverse housing options.

Improve walkability. Pedestrian-friendly communities are more convenient for residents and decrease reliance on vehicles. Walkable communities are generally more desirable places to live and work.

Strategies:

- o Develop a pedestrian master plan. This plan can lay out short and long term goals for creating a community that is less reliant on motor-based transportation and is generally more pedestrian friendly.

- o Include traffic slowing measures in downtowns in order to create more pedestrian friendly environments. Examples of this type of measure could include brick walkways, narrow streets, and signs.



Fig. 22: Brick sidewalks in Easton.

- o Use green infrastructure (such as trees and bushes) to provide shelter, improve aesthetic quality, reduce heat in denser areas, and separate pedestrian spaces from motorways. Simply adding trees to a downtown can go a long way towards creating a more beautiful, safe and pedestrian-friendly community.



Fig. 23: Adding 'green' infrastructure enhances downtowns.

4. Strategies

4.1 Manage Residential Growth

Foster a strong sense of place. *Smart growth* seeks to create distinctive, attractive communities with a strong sense of place. Strategies:

- o A revolving preservation loan can be established. This loan could be used to renovate and restore historical buildings that contribute to the the character of a community. This type of loan works by issuing grants to worthy groups who then repay the loan at a low interest rate generally over a period of 10-20 years. Initial grant funds could be obtained from a grant, loan, or private investment.
- o Communities can install directories that direct pedestrians to local shops, restaurants, and sights.
- o Communities can create spaces for public display of art and can hold community event nights in public spaces.



Fig. 24: Example of public display of art and murals.

- o Use different developers and builders on contiguous blocks to ensure aesthetic diversity. This will create communities that don't look as though they were built from a "cookie-cutter" mold.

Preserve open space, community boundaries, and historical character. Preservation of the assets of open space, farmland, natural beauty, and historical sites is important to building healthy and distinct communities. Strategies:



Fig. 25: Beautiful Weona Park, Pen Argyl.

- o Take advantage of available grants to conserve open spaces.
- o Utilize open space for the creation of parks, bike, and walking trails and other recreational spaces.

4. Strategies

4.1 Manage Residential Growth

o Consider historic preservation while making community decisions in order to help maintain unique community character. The steps necessary for registering buildings as historic sites are provided in appendix section A.5.

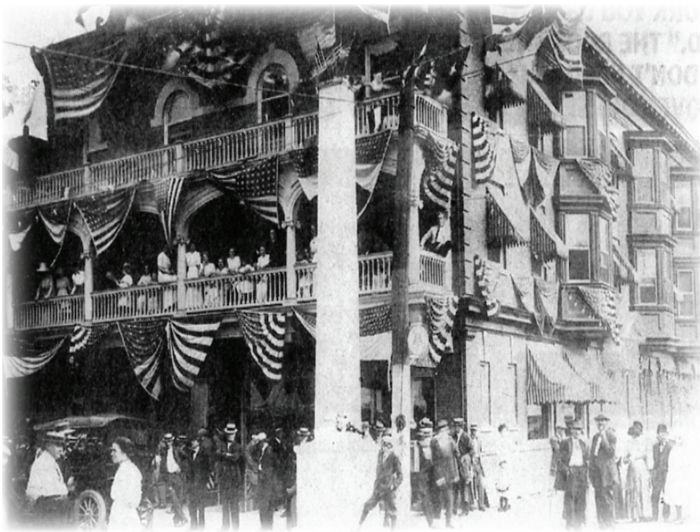


Fig. 26: The Colonial Hotel in its heyday.

o Consider promoting cluster development in communities. Cluster, or conservation development, is a form of land development in which principal buildings and structures are grouped together on a site in return for permanent preservation of the remaining land area for common open space, agriculture, recreation, and public uses. Advantages of cluster development over conventional subdivision include: preservation of natural drainage systems, vegetation, open space, and other significant natural features such as steep slopes, wetlands, waterways, woods or wildlife corridors. This technique also enhances a sense of community, allows parents to better supervise their children playing in common areas, promotes social interaction among neighbors, increases property value due to the growing demand for homes near preserved open space, and creates recreational spaces for walking, jogging, cross-country skiing, and nature study.

Residential sprawl has the following negative impacts:

1. Increases cost of roads, housing, schools and utilities.
2. Increases the cost of transportation.
3. Consumes agricultural land and other open spaces.
4. Concentrates poverty and accelerates socio-economic decline in communities.
5. Increases pollution.

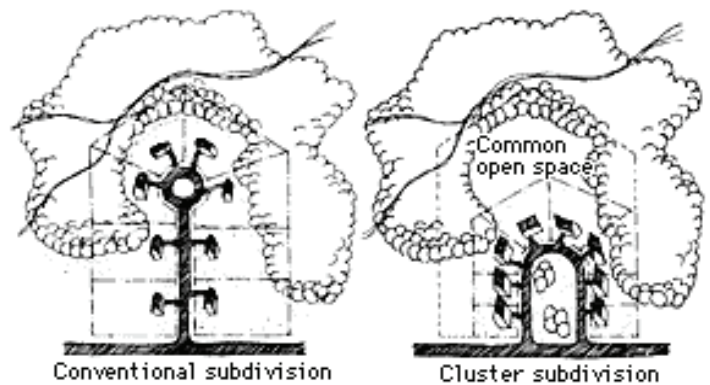


Fig. 27: Conventional subdivision versus Cluster subdivision.

4. Strategies

4.1 Manage Residential Growth

Incorporate transit. A livable community provides a variety of public transit choices and encourages the use of non-motor based means of transportation. Strategies:

- o Encourage carpooling and alternative forms of transportation. This could be done by providing bike paths to important destinations and simply equipping downtowns and businesses with bike-racks.



Fig. 28: Provision of bike racks encourages alternative means of transportation.

- o Incorporate community services (e.g. grocery stores, dry cleaners, etc.) into park and ride spaces. This way, commuters have access to necessary goods and services and don't need to make additional trips.
- o Use transportation funds to provide housing near transit. This could mean incorporating housing into already extant transit infrastructure or encouraging transportation lines near housing that is already in place.

Make decisions efficient and visible.

Strategic project management makes development decisions predictable, fair, and cost-effective while ensuring community and stakeholder collaboration in development decisions. Strategies:

- o Educate public leaders about *smart growth* principles.
- o Use available technology (such as GIS mapping) to streamline and organize the development process.
- o Establish an easily available planning and zoning map for the community.

4. Strategies

4.2 Improve Business Sector

4.2.1 Industry

4.2 Improve Business Sector

Attract and retain business by taking advantage of easily available opportunities and fostering business growth.

In the Objectives section, we discussed the characteristics that make the Slate Belt attractive to business. In order to reach goals in the industrial sector, it will be important to capitalize upon the strengths of the region. Economic growth in the region is vital to the preservation of livability. Without the revenue and jobs that the industrial sector provides, the region will have no alternative to balance rampant residential growth, the school systems will suffer, and residents will continue to be forced to commute long distances to work.

4.2.1 Industry

Make the region suitable to both employers and employees.

In order to attract and retain business, we suggest the following strategies: improve business/industrial sites, supply appropriate initial infrastructure, increase visibility of available sites and existing businesses through more aggressive marketing, and hire a business liaison as a contact person who would provide information to investors.

Address suitability. Ideally, the Slate Belt should be a great environment to both work *and* live in. This means that implementation of strategies of effective management of residential growth (outlined in section 4.1) will be crucial alongside industrial growth. Some things to take into consideration in regards to suitability of the region:

- o **Housing.** Large industrial employers should consider providing housing for their employees. There is an abundance of unused buildings in the Slate Belt that, after rehabilitation, could be great mixed-use

worker communities. This would be a solution to the problem of housing of workers and could prove quite profitable.

- o **Skill set.** Communicate with vocational schools and community colleges to develop appropriate training programs. Such programs will help workers develop skill sets that will prepare them for regional jobs in emerging fields.

Provide start-up information. The Slate Belt should make the process of moving into the area as simple as possible for interested industrial clients. Finding information or someone to contact should never be a limiting factor. Basic information about the area should be available in one convenient place, preferably on the internet.

Strategies:

- o Organizations such as the Lehigh Valley Economic Development Corporation, the Slate Belt Economic Development group and the Council of Governments provide businesses interested in moving into the region with information and support. This support should continue to be improved upon in the future.

- o Collaborations between the groups mentioned above and other support organizations could create a comprehensive network for funding and information.

- o The Slate Belt could work towards establishing a comprehensive source of information and contacts for potential business clients. Although a directory of available sites is accessible via the SBED website, it can be improved upon and marketed extensively.

- o To ensure that clients have easy access to information, the Slate Belt Economic Development group is working towards hiring a full time employee to provide information and assistance to businesses interested in moving into the Slate Belt. This position

4. Strategies
4.2 Improve Business Sector
4.2.1 Industry

would be an excellent asset to the region and would greatly facilitate industrial growth.

Develop business sites. Lower operation costs may attract industry to the Slate Belt, but heavy startup and infrastructural costs deter many potential clients. There are many sites available throughout the Slate Belt, but most need infrastructural development.



Fig. 29: Example of potential business site in need of infrastructural development.

Developing business/industrial sites that are ready to be built upon would attract new clients. To develop industrial sites, consider the following:



Fig. 30: Image showing locations of some available industrial sites.

o **Site infrastructure.** Work towards developing sites that are “shovel-ready” (can be built upon immediately). Sites that fit this criteria should have favorable topography and should have access to electricity, water, sewage and any other necessary utilities. A good example is The Portland Industrial Park:

- This park is located in Portland with excellent access to Route 80. While some topographical work would likely be needed for businesses interested in moving into the site, all basic utilities are already accounted for and the park is well advertised.



Fig. 31: Google Earth view of the Portland Industrial park.

4. Strategies

4.2 Improve Business Sector

4.2.1 Industry

o **Redevelopment.** Brown- and greyfields abound in the Slate Belt. These properties represent a significant opportunity as there are many grants available for developers interested in rehabilitating brownfield/ greyfield sites. A list of grants may be found in appendix section A.9.

o **Reuse.** Unused industrial buildings in the Slate Belt should not be looked at as eyesores, but as buildings that could house potential businesses or industries after some retrofitting. Building an industrial facility from the ground up is extremely expensive and remodeling an existing building is often cheaper. In Sections 4.2.2 and 4.2.3, we will discuss potential uses for abandoned buildings.



Fig. 32: Example of an existing unused building.

Develop regional infrastructure and transportation. It is important to provide a fundamental level of infrastructure for industry in the Slate Belt and to ensure that transportation networks are suitable and efficient.

o **Regional Infrastructure.** The following should be considered in regards to regional infrastructure.

- **Utilities.** The region should ensure that all utilities are up to date and easily accessible to industrial clients. Information about these services should be available online or through a business liaison.
- **Internet.** Based upon interviews over the course of our research, we found that at least some parts of the Slate Belt need improved access to high-speed internet service. In order for the region to market itself to high-tech industry, it will be vital to optimize this service.
- **Compromise.** It is important to note that the Slate Belt may not be able to get the types of businesses and industries that it desires immediately. But by cultivating a business-friendly environment, the Slate Belt will eventually become attractive to those industries it considers most desirable. Making these compromises will require significant long-term vision on the part of local leaders.

o **Transportation.** The road network throughout much of the Slate Belt presents a problem for export based industry. Trucks often have trouble making it through narrow, convoluted downtown passageways (such as those in Bangor) and residents don't appreciate the noisy traffic.



Fig. 33: Truck in downtown Bangor.

We propose that alternate truck routes be considered. Please see Appendix Section A.7 for a full elaboration on this subject.

4. Strategies

4.2 Improve Business Sector

4.2.1 Industry

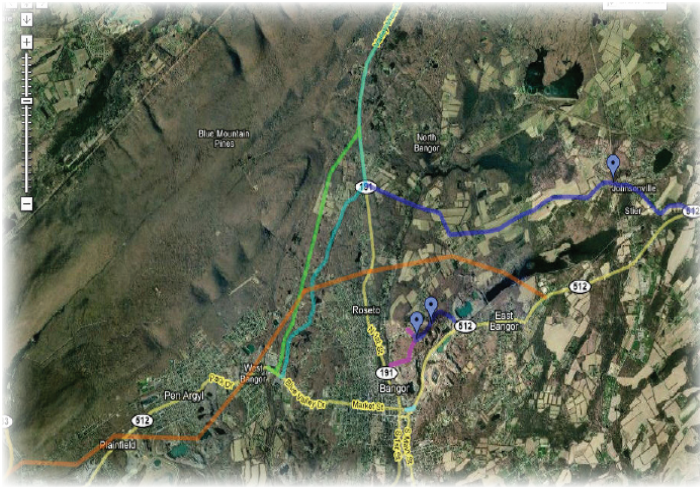


Fig. 34: Google Earth view of alternate routes in the Slate Belt.

Marketing. Marketing is invaluable. Prospective entrepreneurs may be unaware of the advantages of locating their business in the Slate Belt, and marketing is the way to inform them. This can be accomplished through word of mouth, print media, and internet advertising. General techniques for advertising are discussed in greater detail in section 3.5.

There are plenty of potential industrial sites available throughout the Slate Belt, but a common system of organization and advertisement is necessary to make them publicly visible.



Fig. 35: Example of signage for a local business in Rosetto.

Strategies:

- o **Internet.** Several organizations have done admirable work towards creating websites featuring available properties throughout the region. A single location with comprehensive data would be ideal, especially if linked with a broader site that provided access to and information about all of the townships of the Slate Belt (SBED.org is a website in progress that seeks to perform just this task).
- **Advertise.** Marketing at the Lehigh Valley Airport for regional services/websites/development organizations would be effective.



Fig. 36: Example of advertising on the internet: Ultra-Poly Corp.

4. Strategies

4.2 Improve Business Sector

4.2.2 Business Incubators

- o **Creativity.** Potential industrial sites can also be advertised in creative ways. For example, we found this table in a bank in Forks Township:



Fig. 37: Creative marketing: Forksopoly in Forks Township.

When deregulation occurs, energy prices in the region will no longer be notably less than those in neighboring states, but the Slate Belt's lower than average operation costs and attractive location combined with the implementation of some of the above suggestions will maintain the region's competitive edge.

4.2.2 Business Incubators

Facilitating local business start-ups.

Bringing mature industries to the Slate Belt is not the only way to promote commercial growth, tax base enlargement, and job creation. Another means to stimulate growth in the region is to build new businesses from the ground up. Starting new businesses is a challenging task especially when fixed costs are high. By providing space, management, and information, business incubators can support entrepreneurial activity in the Slate Belt.

What are business incubators?

- o Business incubators are sites that provide office and laboratory space for seed and startup businesses (often in the high-tech industrial sector).
- o Business incubators may be managed by private firms, universities, development organizations, or municipalities. Managers links early-stage firms as well as established manufacturers with space, funding, human resources, technology and universities.
- o Faculty and graduate students sometimes work directly with the incubator's clients in developing new technologies or in managing the organization.

Pennsylvania has a business incubator network covering 19 counties. In the northeastern part of the state, business incubators are managed by the Ben Franklin Technology Partners, a nonprofit corporation that is part of a four-center, state-funded economic development initiative.

The Ben Franklin Technology Partners in Bethlehem have contributed significantly to the northeastern PA's economy. In the period from 1989 to 2001, Ben Franklin business incubators:

- started 337 new companies.
- developed 580 new products and processes.
- boosted PA's economy by \$8 billion
- generated more than \$400 million in additional tax revenue.
- created 9,373 new jobs and helped to retain 17,266 existing jobs.

4. Strategies

4.2 Improve Business Sector

4.2.2 Business Incubators

Business Incubator Network of the Northeastern Pennsylvania

1. Ben Franklin TechVentures
2. Bloomsburg Regional Technology Center
3. Bridgeworks Enterprise Center
4. CAN BE Greater Hazleton Business Innovation Center
5. Carbondale Technology Transfer Center
6. East Stroudsburg University Business Accelerator
7. Pottsville/Schuylkill Technology Incubator
8. Scranton Enterprise Center Business Incubator
9. The Enterprise Center
10. The Innovation Center @ Wilkes-Barre

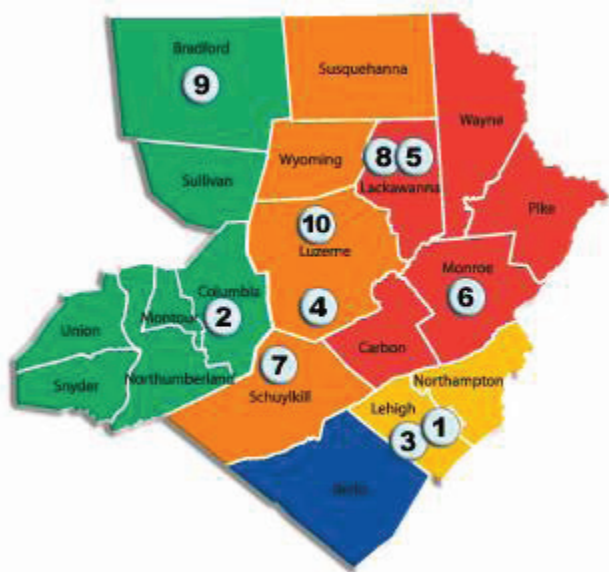


Fig. 38: Map of regional business incubators.

How to go about starting a Slate Belt business incubator:

- o **Refer to the feasibility study.** The *Business Incubator Feasibility Study for the Bangor - Slate Belt Area* was conducted in 1989 but still contains important and applicable information. At the time, the focus of the study was on three sectors: recycling invention, machine and computer repair businesses, and widget manufacturing. Since the target industries have remained similar, the strategies prescribed in the 1989 report are just as applicable today as they

were when first published. In this report, we suggest that the Slate Belt seek to attract light manufacturing, customer and information technology help desk services, and energy producing industries that recycle waste and biomass.

- o **Identify a location and manager.** The Bangor Incubator study contains pointers for how to pick the most convenient and efficient location for an incubator, how to organize the management, what clients to target, and how to market the available incubator facilities to the public. Although the idea of an incubator in the Slate Belt was previously deemed infeasible, there are a number of individuals interested in such an institution. The consensus among local activists is that setting up a business incubator in an unused building or in a newly constructed space would be both feasible and quite beneficial to the Slate Belt.

- o **Use existing structures.** Unused buildings in the Slate Belt can be recycled to host a business incubator. Once Majestic Athletic consolidates its operations in Palmer Township there will be six available buildings ranging from 1,800 to 22,000 square feet in Pen Argyl, Wind Gap and Bangor. Similarly, numerous buildings once used for manufacturing could be redesigned for alternative business or warehousing purposes.



Fig. 39: Example of unused existing buildings in the Slate Belt.

4. Strategies

4.2 Improve Business Sector

4.2.3 Call Centers

- o **Use parts of buildings.** Effective business incubators do not necessarily need a huge amount of space. They could instead utilize small pieces of vacant property such as empty storefronts or unused apartments
- o **Link up with regional universities.** Ben Franklin TechVentures' partnership with Lehigh University involves use of university space. Even though there are no educational institutions within the Slate Belt, it would be possible for a potential Slate Belt business incubator to collaborate with nearby colleges or universities. These institutions can still serve as providers of expertise and technical knowledge. They can also supply eager work force for internships and projects at local firms.

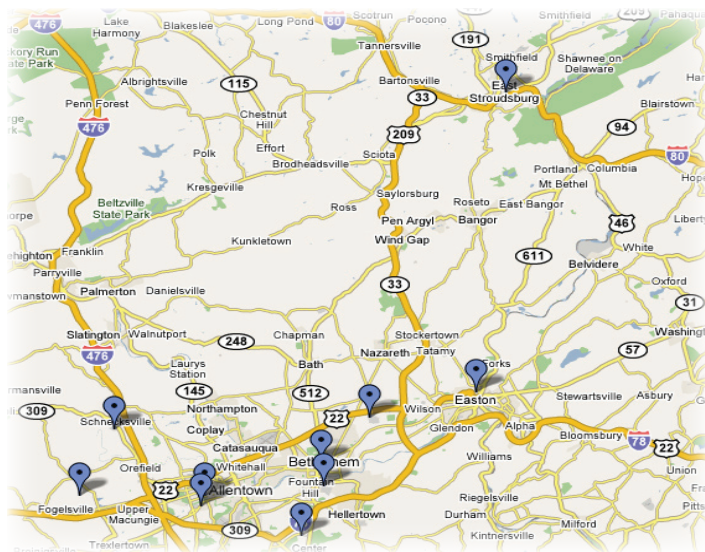


Fig. 40: Map of local educational institutions.

- o **Learn from others' experience.** Having access to established neighboring business incubators can facilitate the founding process and allow veterans in the business to share their experience, interests, and goals. In the Slate Belt, a new incubator could cater to types of business that do not directly compete with those in neighboring business incubators. Agricultural research and development, energy generation, and recycling of waste disposal could be the focuses of the new incubator.

4.2.3 Call Centers

Utilize vacant buildings and provide local jobs.

There are a number of benefits to introducing call centers in the region, both to service providers and to the Slate Belt itself. Call centers, however, are just one example of a service-based business that can be started in the Slate Belt. Other examples include information technology help desk services and other customer service businesses.

- o **Match skills.** Working at a call center is labor intensive but does not require a highly skilled labor force. For the business, this means a virtually guaranteed work force. For the Slate Belt, it could mean a reduction in structural unemployment since callers will not need specific technical knowledge or skills.
- o **Provide domestic service.** The north-eastern accent is an advantage that the region has in regards to call centers as customers tend to have more confidence in service providers who are local - not operating from faraway foreign countries.
- o **Improve communication networks.** Introducing call centers would benefit the Slate Belt in terms of infrastructure. Not only would they create jobs, they would also improve local telecommunications and, possibly, the internet service, by providing extra demand and higher customer requirements.

- o **Utilize existing structures.** Call centers can be located in unused buildings of various shapes and sizes in a wide range of locations.

4. Strategies

4.2 Improve Business Sector

4.2.4 Wall Street West

4.2.4 Wall Street West

Take advantage of expansion of financial service businesses.

An advantage of being close to New York is the opportunity associated with the Wall Street West initiative.

What is Wall Street West?

- o **Non-profit partnership.** Wall Street West is a not-for-profit partnership of more than twenty local, regional and statewide economic development agencies, technology investment groups, workforce development organizations, educational and research institutions, and experts from the private sector. The group aims to help attract New York City-based financial institutions to establish their back-up and back-room operations in northeast Pennsylvania.
- o **Federal initiative.** Wall Street West is a federal initiative that was started in response to the attacks of September 11th. It aims to encourage and sponsor financial service firms to transfer their backup operations away from New York city - outside its power grid, watershed and geographic region - to prevent future financial disasters.

How does Wall Street West relate to the Slate Belt?

- o **Target area.** The Slate Belt falls within the Wall Street West target area, meaning that the region is eligible to receive significant funding and investment for the expansion of New York-based financial service operations.



Fig. 41: Map of Wall Street West target area.

- o **Grants.** In February 2006, the U.S. Department of Labor approved a \$15 million Workforce Innovation in Regional Economic Development, or WIRED, grant to educate and develop a highly qualified workforce for the financial services industry in northeastern Pennsylvania.
- o **Goal.** The goal of the financial incentives is to improve the region's suitability as a location for back-up and secondary operations serving the financial services industry.
- o **Past financing.** Businesses and educational institutions in Northampton and eight other counties were able to participate in WIRED activities. Funding was provided for two years to the Ben Franklin Technology Partners, Bethlehem, who became the project manager and fiscal agent for the initiative and the implementation of the grant.
- o **Future financing.** In March 2008, Wall Street West allocated more than \$500,000 in WIRED funding to develop programs that will boost the skill set of workers in northeastern Pennsylvania. Additionally, Wall Street West has launched its Gap Investments program, developed to ensure the workforce and an aligned education and training system are in place to attract and sustain a financial services sector in northeastern Pennsylvania. In the future, additional financing will continue to be available from Wall Street West. Therefore, the Slate Belt should consider setting up programs that will be eligible for Wall Street West grants.

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4.2 Improve Business Sector

4.2.5 Alternative Energy

Strategies to take advantage of this initiative:

- o **Identify assets.** The proximity of the Slate Belt to I-80 is a major advantage. Good road access will be an incentive for a firm to expand and move secondary financial operations into and around the Portland area. Even if secondary operations are infrastructure-intensive and do not add employment opportunities, they will generate tax income and will help counterbalance the continuing residential sprawl.
- o **Identify opportunities.** Another advantage of the region is the proximity of numerous colleges and universities. Different programs can be set up in collaboration with the educational institutions related to:
 - professional development and curriculum planning
 - skills or subject certification
 - career development and training
 - summer institutes, seminars and workshops

Such projects would be suitable for WSW funding and would greatly benefit the local labor force and the local employers.

- o **Market the region.** As with any other kind of investment, proactive marketing efforts will be needed to attract new businesses and to secure grants.

4.2.5 Alternative Energy

Facilitate coordination between farmers and energy producers and address resident concerns.

As prices for conventional sources of energy reach record highs, the demand for alternative energy has soared. The Slate Belt is well positioned to take advantage of these trends and to engage in the production of various sources of alternative energy. Some strategies that the Slate Belt can adopt to attract alternative energy investors include facilitating interactions among farmers, energy producers, and local economic development organizations through the

services of a business liaison and addressing residents' environmental and health concerns.

What types of alternative energy industries should the Slate Belt attract to promote sustainable growth?

- o **Biodiesel.** This fuel is experiencing rapid growth in the state of Pennsylvania. Governor Rendell has created programs such as the Pennsylvania Security Fuel Initiative that both mandate and provide financial incentives for its use. In terms of biodiesel production, Pennsylvania's proximity to major fuel markets is a great advantage. Biodiesel is preferable to other fuels, such as petroleum diesel and corn ethanol, because it has a greater positive net energy balance. Moreover, biodiesel combustion produces less air pollution than petroleum fuels.

Strategies to attract a biodiesel facility:

- **Advertise.** The Slate Belt can market itself as a suitable region for alternative energy production based upon availability of appropriate crops and industrial sites.
- **Apply for grants.** State grants can be used to help set up biofuel production facilities in the Slate Belt.
- **Hire a business liaison.** A business liaison who understands the technical aspects of starting and running a biodiesel facility can address local interests and concerns with regard to business plans.
- **Facilitate interaction.** Interaction between farmers and energy producers can be facilitated by economic development organizations. These organizations could provide information about regional crops and available sites.
- **Attract crushing facilities.** Crushing facilities are sites where soybean oils used to make biodiesel are extracted from the bean. The nearest facility of

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4.2 Improve Business Sector

4.2.5 Alternative Energy

this type is approximately 100 miles from the Slate Belt. Building a regional crushing facility would reduce the producer's transportation costs, making biofuel production in the area more lucrative.

- **Incorporate varied uses.** Incorporating the various uses of biodiesel - as a heating and transportation fuel and a means to produce fertilizer - will increase the demand for alternative energy crops.
- **Use alternative feedstock.** In case of significant fluctuations in the price of soybeans, two alternative feedstocks from which biodiesel can be produced are available. These sources are yellow and trap grease (explained below).

The average price of petroleum diesel is currently over four dollars per barrel in the U.S. The price of petrodiesel has risen ~120% over the last year nationwide and ~140% in the northeast. This is more than twice the percentage increase of gasoline over the same period. This increase in price will improve the cost-competitiveness of biodiesel making it profitable without the aid of subsidies.

Explanation of potential feedstocks used to produce biodiesel :

- Oils derived from plants, particularly soybeans in the U.S., hold great potential. The Slate Belt is well positioned to cultivate and make use of this feedstock.
- Brown or trap grease can be collected off of waste water at local sewage treatment facilities.
- Yellow grease is a byproduct of industrial cooking oils. A processing facility would have an abundant supply of yellow grease due to proximity to major metropolitan areas.

o **Waste-to-Energy Processes:** Another form of alternative energy can be produced by using municipal waste. There are two processes for converting waste to energy: gasification and combustion.

1. Municipal Solid Waste (MSW) Gasification.

Based upon the abundance of MSW generated in the surrounding areas and the existing infrastructure provided by Waste Management, a gasification system could be of great economic benefit to the region. Gasification is a process that converts carbon-based materials such as solid waste into a synthesis gas (syngas). Syngas can be used to produce clean electricity, transportation fuels, and chemicals with numerous industrial applications. A description of the gasification process can be found in appendix section A.8.

Strategies to promote investment in gasification technology:

- **Advertise.** One strategy to promote investment in gasification technology is to advertise the Slate Belt as a region that is well-equipped to handle waste. The region can market gasification technology as a tool to reduce pressure on overflowing landfills. Gasification is an ultra-efficient process, achieving efficiencies up to 60% as compared to 40% limits with other power plants. The region can also emphasize the double benefit of waste management along with the

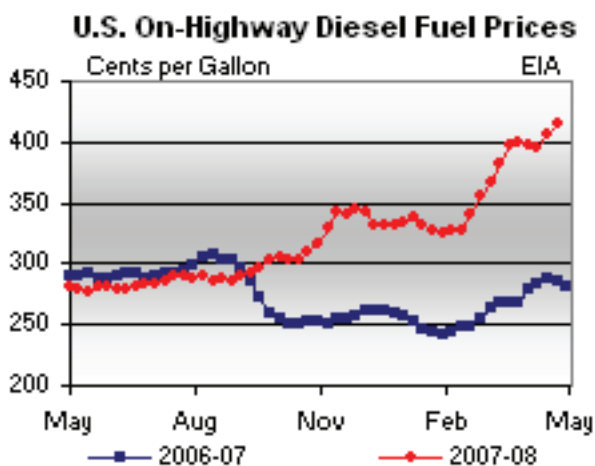


Fig. 42: U.S. DOE: Biomass Energy Data Book, 2008.

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creation of clean, versatile energy to potential investors.

- **Incorporate feedstock options.** The gasification process can use either MSW or a range of other low-value carbon feedstock including coal, high-sulfur fuel oil, petroleum coke, or biomass. This flexibility helps to minimize fluctuations in operating costs.
- **Address resident concerns.** The environmental impact of gasification is comparable to that of extant combustion processes that are already being used by Waste Management.

2. MSW Combustion. MSW Combustion facilities such as the Waste Management (Grand Central Sanitary) Landfill in the Slate Belt collect the gas generated by MSW and then burn it for “green” electricity.



Fig. 43: Green Knights Economic Development Corporation, Pen Argyl.

How is MSW combustion already being employed in the Slate Belt?

The Green Knight Economic Development Corporation (GKEDC) in Pen Argyl owns and operates a landfill gas energy project that collects methane gas. Methane is a byproduct of decomposing trash that was at one point flared into the atmosphere to generate electricity. The GKEDC has the capacity to generate 10mW worth of electricity (enough to power 8000 homes). By selling this electricity to Exelon Power Team, the local power grid, GKEDC earns profit that is used to fund grants, scholarships, and other forms of economic assistance for projects in the Pen Argyl area.

Strategies for expansion:

- **Advertise.** Advertise the potential benefits of implementation of a landfill waste-to-energy process. The GKEDC serves as a model to demonstrate that the benefits of waste processing can be not only economic but also social and can produce extra revenue for local communities.

- o **Incineration of Pelletized Woods and Grasses.** Increasingly, regulations on air emissions and pollution are making it harder for coal fired power plants to operate. Biomass energy crops can help to supplement energy needs by supplying carbon neutral electricity and heat. Switchgrass and willow trees are preferred for their low nutrient and labor requirements and relatively high electric conversion efficiency.

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4.3.1 Biomass Energy Crop Growth

Strategies to promote incineration of pelletized woods and grasses:

- **Contact Fuels for Schools.** Pennsylvania's Fuels for Schools and Beyond is a collaborative program backed by many state organizations and grants. The program promotes the use of on-site generators to heat schools. Its goals are to promote local economies and to provide environmentally and economically beneficial heating opportunities for schools and similar organizations.



Fig. 44: Example of a biomass boiler.

- **Advertise.** The Slate Belt can market pelletized woods and grasses as an environmentally-friendly energy source. This type of feedstock has a net-zero carbon cycle and low sulfur/acid rain output. As a heating source, pelletized woods and grasses are a cheaper alternative to oil, propane, and natural gas (that cost roughly two to three times as much).
- **Apply for state and national grants.** A partial list of available grants is given in appendix section A.9.

4.3 Stimulate Agriculture

Identify natural land-use opportunities that will create jobs, preserve open space, and retain the ecological balance of the region.

To preserve open space in an economically viable manner, we propose the following strategies: to grow biomass crops for energy production, to manage forestry that would sustain local ecology, to grow food and breed livestock for the promotion of local agriculture and husbandry, and to cultivate vineyards that would satisfy the growing local demand for grapes and attract tourist revenue.

4.3.1 Biomass Energy Crop Growth

Use available open land to capitalize on demand for alternative energy feedstocks.

As previously mentioned, the global energy outlook is constantly changing. Recently, a shortage in conventional fossil fuel resources has given rise to a great demand for alternative forms of energy. Much of this need is being met by harvesting various energy crops. Last year, American farmers converted millions of acres of farmland originally used for crops such as soybeans to corn in order to meet the rising demand for ethanol (a corn-based biofuel). As a result, the value of corn increased dramatically. This situation will almost certainly play out again as different biomass energy technologies are explored. Although there is currently no alternative energy industry in the area, the Slate Belt could benefit greatly from recognizing this trend and encouraging the growth of biomass crops.

Strategy to promote biomass growth:

- o **Advertise and provide coordination assistance between farmers and processors.** In order to increase the cultivation of biomass crops, the Slate Belt could spread awareness among local farmers and small scale

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4.3.2 Managed Forestry and Agriculture

growers about the increasing demand for perennial grasses, soybeans, and willows while simultaneously providing advice on their implementation.

Additionally, the Slate Belt can market the region to outside parties based upon its suitable climate and geography.

Benefits of cultivating biomass crops:

o Perennial grasses:

- The most popular type of biomass, perennial grasses are very resource efficient and would grow well in the Slate Belt.
- Greater soil and water preservation compared to annual row crops.
- Low nutrient demand and easier to convert to biofuel.
- Economically more affordable than annual row crops.

o Soybeans:

- There is an increasing global demand for soybeans.
- Decreasing American soybean production implies an opportunity for economic benefit.
- Demands less fertilizer when rotated with other crops due to nitrogen fixing.

o Willows:

- Willow is non-labor intensive crop that can be harvested every three years, replanted every twenty years, and needs only sparse amounts of agrichemicals in its first year of growth.
- Salix willow is especially suited to meet the environmental considerations of the northeast.

Based upon the strong agricultural history of the Slate Belt, the region stands to gain a great deal from implementing increasingly popular agricultural techniques. The following techniques focus on minimizing environmental impact from harmful fertilizers while maximizing output.

What techniques could the Slate Belt capitalize on to maximize profits from natural land use?

o Implement conservation tillage.

Conservation tillage is an agricultural technique in which land degradation and influence of natural systems are minimized by partially or fully eliminating tillage of the soil. Conservation tillage is an attractive alternative to standard tillage. Standard tillage has many negative side effects including soil erosion, loss of organic materials, air and water pollution, and waste of energy resources.



Fig. 45: Standard tillage (top) produces more pollution and dust when compared to conservation tillage (bottom).

4.3.2 Managed Forestry and Agriculture

Encourage implementation of improved agricultural techniques to optimize profit and sustainability.

Strategy to promote conservation tillage:

- **Spread awareness.** Inform local farmers of the future scarcity of water and fossil-fuel based

energy resources and the fact that this scarcity will be reflected in higher energy production costs.

Benefits of conservation tillage:

- **Suitability for resource intensive crops.** Conservation tillage greatly reduces consumption of water, fertilizers, and pesticides while maintaining the fertility of soil.
- **Greenhouse gas reduction.** There is potential to sequester atmospheric carbon through the soil and crop residue.
- **Soil erosion reduction.** Land development causes rain water to run-off to streams. Since the Slate Belt is in the Bushkill Creek watershed, soil erosion and water pollution are major concerns. Conservation tillage greatly reduces soil erosion by not exposing soil to the water run-off.



Fig. 46: Image of conservation tillage field.



Fig. 47: Example of sustainable and managed forests.

Managed Forestry. Managed forestry entails planting short-rotation trees that mature within 3-5 years and provide quick returns. This technique also involves collecting branches, foliage, live cull, salvageable dead material, and saplings while harvesting trees. In conventional forestry, often only the growing stock is harvested; nearly twice the yield can be gained by full collection.

Strategies for promoting managed forestry:

- **Provide information.** Provide information for local farmers about mixed-use and highly efficient methods of managing forested areas. Mixed use refers to planting a variety of tree types and incorporating them into agricultural land. This technique can therefore yield multiple sources of income.
- **Form partnerships.** Link up with organizations that advocate forest certification and sustainable forestry management to protect forested land and increase the value of wood and paper products. Forest certification is a mechanism used to ensure customers that the wood used in the products comes from sustainably managed forest. This process increases the product's retail value. Some organizations that support or certify sustainable forest management are:
 - **American Tree Farm System.** The American Tree Farm System is a program ran by the American Forest Foundation that promotes responsible forestry techniques among private land owners.

o **Sustainable forest management.** Effective forest management represents a means to use land in the most economically and environmentally efficient way. Whether it be through tree farming or carefully planned use of a natural forests, forest management is a technique that produces high yields and minimal environmental impact.

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4.3.3 Locally Grown Foods and Breeding Livestock

- **Sustainable Forestry Initiative.** The Sustainable Forestry Initiative is a forest certification group that aims to ensure a balanced approach to forestry that addresses environmental, economic, and community needs.

Benefits of sustainable forest management:

- **Spacial efficiency.** Sustainable managed forestry techniques are vital where there are spatial concerns. In the Slate Belt, where there are many small fragmented parcels of land, forest management could prove a profitable business opportunity.
- **High yield.** Slow-growth, lumber-grade trees can be surrounded by fast-growth trees, suitable for biomass energy and paper production. That way, the maximum yield can be gained from even a small tract of land.
- **Ecologically friendly.** Promoting tree farming improves waste-water treatment through tree irrigation, atmospheric carbon sequestration, flood mitigation, and soil preservation.

4.3.3 Locally Grown Foods and Breeding Livestock.

Provide economic incentives and promote organizations and local clients to cultivate land.

A study compiled by the Lehigh Valley Planning Commission in 2005 reported that the percentage of land that was unused or used for agricultural activities ranged from 17 percent in East Bangor to 74.5 percent in Lower Mount Bethel. The average percentage of land that was vacant or used for farming for all the boroughs and townships in the Slate Belt was noted to be 38 percent. It is obvious that availability of open space and land is one of the key assets of the Slate Belt. One of the strategies to safeguard this valuable open space is to emphasize growing food and raising livestock locally. Along with preserving open space, working local farms also contribute to the economic vitality of the region.

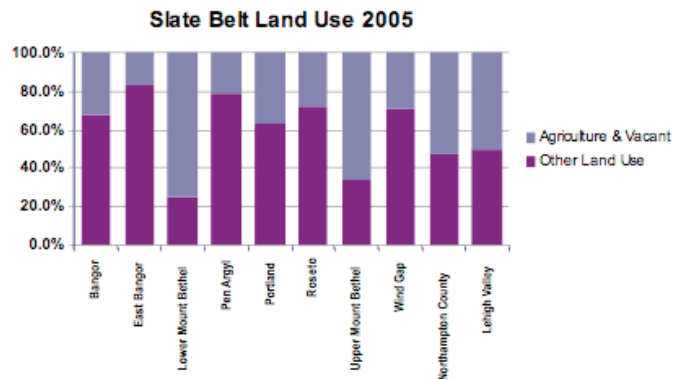


Fig. 48: 2005 Slate Belt Land Use and Growth Management Report, 2005.

The majority of food consumed in the U.S. travels an average of 1500 miles from farm to table. In fact, most fresh fruits and vegetables produced in the U.S. are shipped from California, Florida, and Washington. Considering that oil prices are over \$100/barrel, it is becoming increasingly expensive to transport food over such long distances. Growing food locally will help bring down transportation costs while providing inexpensive and healthy products.

Strategies:

- o **Seek support from local organizations.** There are numerous organizations and restaurants in the Slate Belt that support local farmers and create a demand for locally grown food. These organizations include:
 - **Pennsylvania Association for Sustainable Agriculture (PASA).** PASA is a not-for-profit organization that aims to create networks and markets while strengthening the ties between consumers and farmers. Its efforts are directed towards linking farmers with farmers, farmers with consumers, and consumers with markets. PASA's 'Buy Fresh Buy Local Campaign' provides a database of restaurants, grocers, caterers, bakers, bed & breakfasts, and other businesses that sell locally grown farm products.

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4.3.3 Locally Grown Foods and Breeding Livestock



Fig. 49: Buy Fresh Buy Local campaign by Pennsylvania Association of Sustainable Agriculture.



Fig. 50: Summertime Grill customers meet local farmers.

- **Agri-dynamics.** Agri-dynamics was founded in 1979 by Jerri Brunetti in Martin's Creek, PA. This organization provides natural products for livestock animals and seeks to educate as well as consult farmers transitioning from chemically dependent farming techniques to those that are ecologically friendly and sustainable.

- o **Strengthen linkages with local restaurants.**

There are numerous successful restaurants around the Slate Belt region that design menus to feature fresh seasonal ingredients from local farms. These restaurants help to:

- Improve the viability of local farms by providing growers with a steady source of income.
- Sponsor community enrichment programs such as live music, lectures, art openings, and films. One of the main events at the Summertime Grill (Montrose, PA) is the periodic 'Meet the Farmer Dinners' where patrons get together with local farmers. These dinners provide opportunities to foster interaction between farmers and their customers.

In 2007, within a 16 week period, the Summertime Grill (Montrose, PA) purchased significant amounts of produce from local farmers which included:

- 195 dozen fresh-as-can-be eggs
- 450 whole pasture raised chickens
- 100 pounds of exquisite micro lettuces
- 35 pounds of incredible honey
- 12 gallons of pure amber maple syrup
- 80 pounds of varietal onions from one small supplier
- 5 pounds of locally grown and blended beautiful herbal tea

- o **Connect with nearby educational institutions.**

Considering the large network of universities and colleges in the region, there is a definite potential for supplying local produce to educational institutions. Lafayette College already buys vegetables and fruits from some local farms. Recently, students have been demanding more locally grown food; this demand will only increase in the future.

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4.3.4 Wineries and Vineyards

o **Establish farmers' markets.** Growing food locally also provides opportunities for establishing Farmers' Markets. These markets are typically “producer-only” events where farmers gather on a regular basis to sell various fresh meats, fruits, vegetables, flowers, herbs, eggs, cheeses, and crafts directly to consumers. These markets circumvent middlemen and provide small-and medium-sized producers with an immediate, convenient, and economical sales outlet for their agricultural products.



Fig. 51: Example of effective advertising of farmers' markets.

In addition to providing a sales outlet for farm produce, these markets can also serve the following functions:

- Encourage agriculture and cooperation between local entities.
- Attract customers and vendors from neighboring towns.

4.3.4 Wineries and Vineyards

Preserve open space while making an economic impact and attracting tourist dollars.

Pennsylvania's moderate climate and rolling terrain provide excellent growing conditions for vineyards on the east coast. At present, about 104 wineries are established in PA and successfully produce a great variety of wines. The wine industry in PA has had a surprising economic impact. The economic benefits of the wine industry come not only from agricultural yields but also from other sectors such as tourism, manufacturing, and trade. In fact, the full impact of winegrapes and wine on the PA economy was estimated to be around 661 million in 2005. For further information on the wine industry, please consult appendix section A.10. The Slate Belt can take advantage of a growing national demand for wine by utilizing its open land to grow vineyards. Presently, there are 6 wineries in and around the Slate Belt region that have collaborated with each other to form the Lehigh Valley Wine Trail.

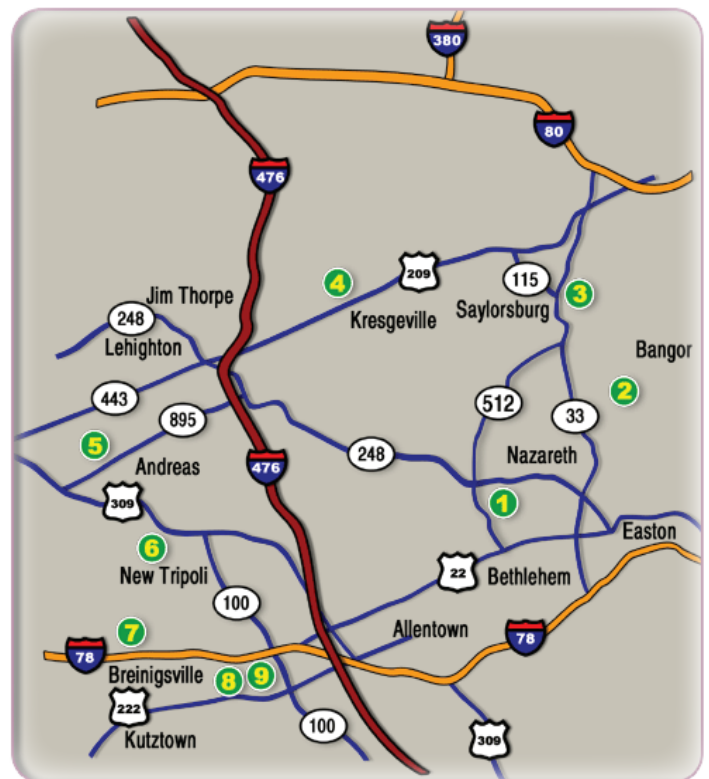


Fig. 52: Lehigh Valley Wine trail.

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4.3.4 Wineries and Vineyards

Strategies to market Slate Belt vineyards and wineries:

- o **Coordinate and collaborate.** One way to increase wine sales is to coordinate and collaborate with tourism agencies, serving establishments, and the Pennsylvania Liquor Control Board.
- o **Improve signage.** Another means to improve the local wine industry is to implement attractive and uniform signage across the region to advertise local wineries.
- o **Facilitate interactions.** The Slate Belt can also provide a means to facilitate interactions between farmers and wine producers through the employment of a business liaison or economic development organizations like the SBED.

Opportunities:

- o **Location.** The Slate Belt is in close proximity to a number of tourist destinations such as the Poconos and Wind Gap and is within a two hour driving radius of major cities such as New York and Philadelphia. Hence, vineyards located in the Slate Belt would make a premium day-trip destination for both tourists and locals.
- o **Safe long term investment.** Newly planted vineyards generally take between four and eight years to produce quality grapes that are suitable for wine. For this reason, they are considered a long-term investment that remain “tied” to a certain location. Once planted, vineyards cannot shift to a different area because of a better climate or tax incentives. Hence, there is no risk of such businesses packing up and moving out of the region.

- o **Tourism.** The wine industry opens up avenues for agrotourism that include generation of new satellite industries such as restaurants, high-quality boutique

shops, and hotels. California’s Napa Valley, Ontario’s Niagara Peninsula, New York’s Long Island, and eastern Washington are all examples of areas that have gone from low-income rural communities to trendy agrotourist hubs following the introduction of wineries.

- o **State government support.** Since 2001, the Pennsylvania State Legislature has allocated \$100,000 in funds annually for wine marketing and wine grape research and education. The Pennsylvania Wine Marketing and Research Program and agricultural experts at Penn State University are valuable resources available that can perform research and develop marketing strategies capable of promoting the local wine industry.

- o **Rising demand.** The Slate Belt can benefit from America’s steadily increasing demand for wine. A recent study showed that U.S. wines sales grew by nearly 10% from June 2005 to June 2006.

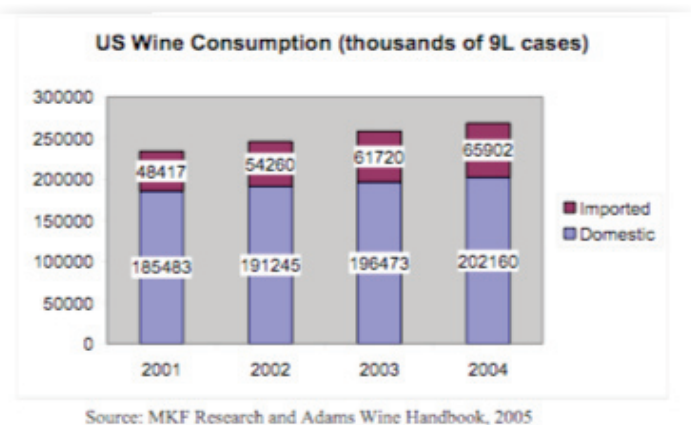


Fig. 53: U.S. Wine Consumption.

At present, the percentage growth of wine sales have exceeded those of beer in the U.S. While wine sales have increased by around 10%, beer sales fell by 5% over the period from 2000 to 2006.

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4.3.4 Wineries and Vineyards

Successful Models in/near the Slate Belt:

o **Franklin Hill Winery in Bangor.** The 13-acre vineyard at Franklin Hill is located on a stately hillside in Lower Mount Bethel Township overlooking the Delaware River Valley. The grapes were first planted in early 1976 and by 1982, the winery was already established and producing 2,000 gallons of wine a year. This vineyard is one of the oldest in the state. Today, Franklin Hill Vineyards (see image below) produce over 30,000 gallons of award winning wine per year, sold at a number of regional wine and gift shops. Organized tours of the vineyards and wine production facilities are given every Wednesday, all year round. It is worthwhile to note that their wine sales have gone up consistently and the business has been continually expanding.



Fig. 54: Medals and décor in the Franklin Hill Winery.

o **Cherry Valley.** The Cherry Valley Hill vineyards are located close to the Slate Belt region and are characterized by their aesthetically pleasing setting. The winery has capitalized on its scenic location by the Appalachian trail by organizing guided tours and renting out the space for weddings and special events.



Fig. 55: The wedding pavilion at Cherry Valley Hill vineyards.

Challenges:

o **Building a reputation in a crowded wine market:** The wine market is very competitive; there are well over 60,000 wine labels registered in the U.S. It is a commonly held belief that among the U.S. wine producing regions, only California produces a high quality product. Therefore, marketing strategies would need to be undertaken to popularize wine from the Slate Belt.

4.4 Enhance Downtowns

Augment aesthetics, ambiance, and signage.

In order to enhance downtowns as centers of community life, we suggest the following strategies: emplace signage that would unify the region, form design committees with the goal of improving aesthetics and ambiance, improve walkability, and address parking issues.

Strategies for downtown revitalization:

o **Improve signage.** Signage should be noticeable and consistent throughout a designated area. A unified system of signage for the Slate Belt would visually knit the region together. Gratifying welcome signs, perhaps with slogans, are fundamental. Improved signage should be a priority for downtowns and municipalities and will serve as a means of advertisement.

Good signage should:

- Alert passer-bys that they have entered or left an area of interest.
- Serve as a marketing mechanism by promoting the municipality and its downtown.
- Reflect a community's sense of pride and dedication to itself.

o **Hold a design contest.** To generate new signage and slogan ideas, we propose the COG sponsor a signage contest for the best sign design and slogan. Recently, the NE Pennsylvania School Bus Safety Competition Committee, the Bangor Area School District, and Krise Bus Service's Bangor Terminal sponsored a bus logo competition. The competition winner, a Bangor student, learned of the contest from a teacher. This is a perfect example not only of how competitions engender creative, original work but also of how they can involve partnerships between diverse resident groups.



Fig. 56: Bus logo competition sponsored by Bangor Terminal.

o **Create downtown directories.** Downtown directories throughout town centers would educate tourists and area residents alike as to where stores, restaurants, and historical and recreational points of interest are located. Like mall directories, downtown directories will guide one's experience of the downtown.



Fig. 57: Example of a mall directory that a downtown directory could emulate.

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o **Create design committees.** Forming design oversight committees will ensure that façade renovations, store displays, landscaping changes, and public improvements are aesthetically pleasing and consistent with the character of the downtown.

- The Bangor Main Street Coalition has a Design Committee, which exemplifies the type of group that would be responsible for guiding the development of downtown design.

Design oversight committees might consider the following strategies:

- Start an Adopt-a-Block program to ensure that local streetscapes are clean and inviting.
- Increase use of riverfront and creekfront areas.
- Use empty building sides as venues for public art. Murals and mosaics in urban areas have been shown to increase the visual appeal of downtowns.



Fig. 59: Artist in the Window.

o **Improve pedestrian-friendliness.** Pedestrian-friendliness can be augmented with artistically interesting, distinguishable crosswalks. Brick crosswalks are internally consistent with the appearance of Bangor sidewalks, for example, as Bangor’s sidewalks have brick inlays.



Fig. 58: Mural in downtown Easton.

- Implement Artist-in-the-Window or similar programs to utilize empty storefronts. The Artist-in-the-Window program leases storefronts to artists for little or no money. This way, an otherwise vacant space is occupied, passers-by can enjoy watching the progression of works of art, and the value of the property may eventually increase due to increased traffic in the area.



Fig. 60: Comparison of crosswalk styles.

o **Address parking issues.** One large obstacle to visiting downtowns is the perceived lack of parking. While some respondents claim that parking truly is limited in the downtown areas, others say that parking

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4.4 Enhance Downtowns

is not an issue. Whether or not a lack of parking really exists is irrelevant. If it is perceived as a problem, the problem must be addressed.

How to address the perceived parking problem:

- Effective signage will clearly point to available parking.



Fig. 61: Large, attractive downtown parking signs.

More parking strategies:

- Try “No Meter” days when drivers do not have to pay to park when they go downtown. This has proven very effective as a marketing tool for the Easton Business Association and other groups that want to draw people to the downtown.

- o **Convert to two-way streets.** The Slate Belt could consider converting certain one-way streets to two-way streets. Though one-way streets were intended to quicken traffic flow in the downtown areas, they have rendered many streets less accessible. For those familiar with the local roads, one-way streets may be an inconvenience. For those visiting the area for the first time, they may be extremely confusing. Overall, one-way streets make downtown navigation a frustrating experience. Designating current one-way streets as two-way streets, where possible, will make driving in the downtowns more straightforward and will slow traffic, creating a more pedestrian-friendly environment.

In appendix section A.11, we present suggestions for converting one-way to two-way streets.



Fig. 62: Example of a cluttered one-way street.

- o **Create alternate routes.** Creating alternate traffic routes is central to improving the livability of the downtowns. Many streets that run through Slate Belt downtowns are utilized as major thoroughfares. Constant traffic, as well as its associated noise and pollution, detract from the overall pleasantness of downtowns. While traffic flow through the downtowns can't be completely cut out, it can be diverted. Doing so wouldn't inconvenience drivers and would make the downtown experience far more enjoyable.

In appendix section A.7, several alternate routes for the Slate Belt are proposed and discussed in detail.

- o **Incorporate chain stores into downtowns.** Incorporating “big box” chain stores and restaurants into the fabric of the downtown is an attractive alternative to locating commercial strip malls and chain stores in town outskirts. Those opposed to new strip malls may find it easier to embrace corporate stores and restaurants in a downtown setting.

4.5 Promote Tourism

Market the region as an agro- and ecotourist destination.

In an effort to develop the Slate Belt as a tourist destination, we put forth the following strategies: provide opportunities for agrotourism and ecotourism, preserve historic sites and architecture to celebrate the region's rich heritage, establish a visitor's center, organize a bus tour that would showcase local places of interest, publish a recreation guide, and take advantage of the falling value of U.S. currency by marketing to a broader audience, both domestically and abroad.

4.5.1 Agroutourism and Ecotourism

Market the Slate Belt's rich natural beauty and proximity to environmental areas of interest.

The Slate Belt is an area rich in natural beauty. Bordered by the Appalachian Mountains and the Delaware River, the region is well endowed with environmental assets appealing to outdoors enthusiasts such as wineries, organic and dairy farms, and even biomass energy crop projects. Not only can these establishments generate profit based upon agricultural activity, they can also attract significant tourist revenues. The following are strategies aimed at taking advantage of the scenic beauty of the Slate Belt.

Strategies to maintain scenic byways:

- o **Publicize scenic byways.** Scenic byways are roadways throughout the state designated for their natural and historic significance. Currently, Pennsylvania has designated 15 scenic byways around the state. The Slate Belt's byway is the Delaware River Valley Byway, a 17 mile segment along PA Route 611, Belvidere Highway, and Little Creek Road. Scenic byways are important as natural assets but also for their profit generating capacity: they bring tourists into the area. Scenic byways must be maintained



Fig. 63: Strip-mall style “Bed Bath & Beyond” (top) vs “Bed bath & Beyond” integrated into downtown (bottom).

4. Strategies

4.5 Promote Tourism

4.5.2 Heritage, Historical Sites, and Architecture

and advertised in an attractive, easily identifiable, and consistent way. By nature, byways span a large area and connect various sections of a region. Thus, their maintenance and advertisement provide the opportunity for inter-municipality cooperation.

Some key attractions in proximity to the Delaware River Valley Byway include:

- **Martin's Creek Environmental Preserve.** A 215-acre area adjacent to the Delaware River with 5-miles of wooded hiking trails.
- **Hunter-Martin Settlement Museum.** A regional museum located in Lower Mount Bethel Township.
- **Delaware Water Gap.** A national recreation area that consists of a 40 mile stretch along the Delaware River.
- **Appalachian Trail.** A hiking trail that spans the East Coast and passes near the Slate Belt.

Take advantage of grant money. The Slate Belt can continue to apply for grants to improve and maintain its scenic byway. Often these grants are of substantial size. In 2006, the grant total was nearly \$800,000 and in 2007 was slightly over \$350,000.

o **Extend existing bike trails.** A more extensive network of bike trails would be an excellent way to link the various boroughs and townships of the Slate Belt while showcasing the region's natural beauty. There is a large biking community in the Lehigh Valley and surrounding areas that already uses existing bike trails. As more bikers visit the area, they will be inclined to patronize shops, restaurants, and local places of interest. A feasibility study is to be finished in the fall of 2008 for a regional bike trail that will extend from Bushkill Creek Watershed up north towards the Slate Belt.

Strategy to promote bike trails:

- **Apply for grants.** Grants to establish biking trails are available through the Green Knight Economic Development Corporation and other environmental organizations. Improving transportation networks for bikers will encourage residents to drive less, thus reducing congestion and pollution.

4.5.2 Heritage, Historical Sites, and Architecture

Renovate historic buildings to preserve heritage and attract visitors.

The Slate Belt's rich history can be seen in the quaint old buildings and slate quarries that dot the region. One of the strategies we recommend to preserve these historic buildings and sites is to identify them as historic assets. Once identified, these sites can be protected and developers can be encouraged to rehabilitate and reuse them with respect.

Strategies for preserving historic resources:

o **Identify historic properties and list them with the National Register of Historic places.** Established in 1966, the National Register of Historic Places recognizes districts, sites, buildings, structures, and objects that are significant to American history, architecture, and culture. Achieving a status with the National Register helps to infuse places with a strong identity, a sense of history, and a sense of communal worth. A series of steps to list a site with the National Register are included in appendix section A.5.

o **Restore and reuse abandoned buildings.** Providing new uses for old buildings through adaptive reuse can contribute significantly to the region by maintaining the existing tax base, stabilizing downtowns, and maintaining the fabric and scale of each community. As an example, the Colonial Hotel in Bangor is a 103 year old building which fell into disrepair and closed after a fire in 2006. Recently, it

4. Strategies

4.5 Promote Tourism

4.5.3 Local Destinations

was bought by three young contractors who hope to restore the hotel and make it a destination for dining, banquets, and overnight visits. With plans to open on May 1, 2008, the contractors hope to transform the hotel from the local eyesore to a functional asset to the community.



Fig. 64: Historic building in need of restoration in the Slate Belt.

- o **Create an art, heritage, and historic trail in the Slate Belt.** Considering the numerous historic buildings and sites that dot the Slate Belt, we envision an organized tour that stops at all the heritage and historic sites in the region. Galleries, museums, and cultural facilities could be parts of this trail. An organized bus tour like this would not only help bring in tourist dollars, but would also encourage cooperation between individual towns and boroughs in the region while stressing common identity.

Why preserve historic resources?

- o **Viable economic strategy.** Preservation brings in new jobs, new businesses, good wages, attracts tourists and retirees, and generally contributes to enhancing the economic vitality of the region.
- o **Important for retaining a sense of identity, values, and cultural heritage.** The Slate Belt has

a rich history that contributes to a sense of integrity and identity within the region. As the physical record of past events, historic resources are worth being preserved in order to maintain local character.

4.5.3 Local Destinations

Identify and showcase local places of interest to increase attractiveness to tourists.

To facilitate the promotion of local heritage, the Slate Belt can invest in establishing a visitor's center. Such a center will help to compile information for tourists and distribute information about local accommodations, services, entertainment, and places of interest. Another option is to organize a bus tour that showcases the region's scenic and its historic assets.

- o **Start a Slate Belt information kiosk or visitor's center.** The establishment of a visitor's center (or centers) will ensure tourists are provided with a central location where they can find information about the region. Stations could be operated by local volunteers, thus ensuring increased resident participation and input.

4. Strategies

4.5 Promote Tourism

4.5.4 Publish a Recreation Guide



Fig 65: Example of a visitors' kiosk.

- One Room School House
- Our Lady of Mt. Carmel Church
- Portland Covered Bridge
- Portland Railroad Loops
- Scenic Overlooks
- Slate Belt Heritage Center
- Slate Belt Historical Museum
- Slate Quarries
- Weona Park and Historic Carousel in Pen Argyl

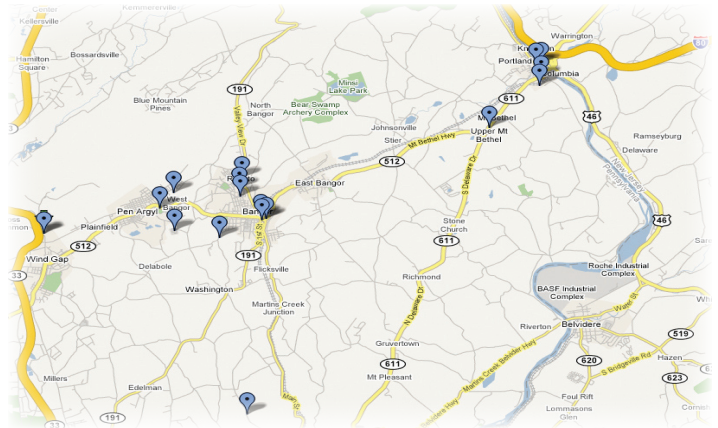


Fig. 66: Map of locations of destinations.

4.5.4 Publish a Recreation Guide.

Compile a database of regional recreation sites that is easily accessible by residents and tourists.

The Slate Belt is an ideal place for recreational tourism. A guide compiling all of its regional attractions will not only encourage more tourism in the area, but will also create a more unified and cooperative Slate Belt. The following should be considered in regards to the creation of a local recreation guide.

o **Online database.** An easily accessible database of recreational facilities and areas in and around the Slate Belt could greatly increase the visibility of the region to tourists. Compilations of this type already exist (see image), but a uniform and comprehensive list can be developed and made available online and in brochure form. This list might include a brief description of points of interest, directions, operating hours, pictures, and maps.

o **Organize a bus tour.** There are a plethora of historical sites, buildings, and scenic viewpoints scattered throughout the Slate Belt. To effectively showcase the region's natural beauty and heritage, a bus tour can be organized to provide sightseeing opportunities for tourists. A list of local destinations in the bus tour could include:

- Appalachian Trail on the ridge of Blue Mountain along Route 191
- Bangor Public Library
- Colonial Hotel
- Fairview Cemetery
- Franklin Hill Vineyard
- Frederick Duckloe & Brothers Furniture Store in Portland
- Green-Walk Trout Hatchery in Bangor
- Jayne Mansfield grave
- Le Donne's Bakery

4. Strategies

4.5 Promote Tourism

4.5.5 Market to a Broader Audience

Resource	Municipality	Description	Picture
Bangor Memorial Park	Bangor	Adult Baseball field, youth baseball field, track, outdoor basketball courts, sand volleyball courts, pavilions, playground, swimming pool, snack bar, picnic area.	Ex. 1.1
Pennico Park	Bangor	Youth Baseball Field, outdoor basketball court, playground	Ex. 1.1
East Bangor Dam	East Bangor	Lake, Fishing/Boating (no motors)	
Blaine Reimel Memorial Park	East Bangor	Youth Softball, Football practice field, playground, pavilions, outdoor basketball courts.	Ex. 1.1
Bryan Kiefer Memorial Field	LMBT	Youth Softball Fields	Ex. 1.1
Centerfield Gym	LMBT	Indoor and Outdoor Basketball, tennis courts, batting cages, playground, pavilion, bocci ball court.	Ex. 1.1

Fig. 67: Current recreational database on the COG website.

o **Local resident and business input.** The online database could be compiled and updated by residents or businesses. Such efforts will increase community participation.

4.5.5 Market to a Broader Audience

Take advantage of the weak U.S. dollar by creating a new identity and marketing to a broader audience.

The falling US dollar has special implications for the American tourism industry. A weak dollar makes it more expensive for Americans to take a vacation to London or other parts of Europe, but it also makes the U.S. a bargain destination for visitors from overseas. As such, the Slate Belt could capitalize on these trends by marketing to a broader audience, and bringing in tourist dollars from overseas. Moreover, the Slate Belt is conveniently located on the East Coast with close proximity to New York City and Philadelphia, which are major tourist destinations.

Strategies:

o **Implement aggressive marketing strategies.**

Marketing the Slate Belt to a broader audience is key to increasing its attractiveness to the outside world. The following steps can be undertaken to promote tourism in the region:

- **Internet presence and podcasts.** Set up a webpage as a part of the COG or SBED website that has episodes of downloadable podcasts. The podcast may be listened to while driving or walking through the region. These podcasts could be grouped in different ways; some could focus on individual municipalities and local destinations while others could focus on a special topic like the history of the slate industry in the region.
- **Media outlet.** Design and distribute attractive brochures that showcase the scenic and historic assets of the Slate Belt. Examples of effective brochure design are provided in appendix section A.12.
- **Accommodation.** Promote the newly remodeled Colonial Hotel in downtown Bangor and other facilities such as bed and breakfasts.
- **Link up with other hotels in the Lehigh Valley.** If the demand materializes, and the Slate Belt is unable to keep up in terms of accommodation, tourists can be hosted at neighboring hotels in the Greater Lehigh Valley with bus tours taking them to and through the Slate Belt region. Specifically, the Slate Belt can capitalize on the transportation facilities provided by Easton Motor Coach, owned by Mr. Charles Palmeri, who is also the President to the Slate Belt Board of Directors.
- **Creating a slogan for the Slate Belt.** Although the name “Slate Belt” means a lot to the residents of the region, the appellation might not be descriptive enough to interest and attract tourists. The Slate Belt could thus have a catchy slogan that would add flavor to its identity.

4. Strategies

4.5 Promote Tourism

4.5.5 Market to a Broader Audience

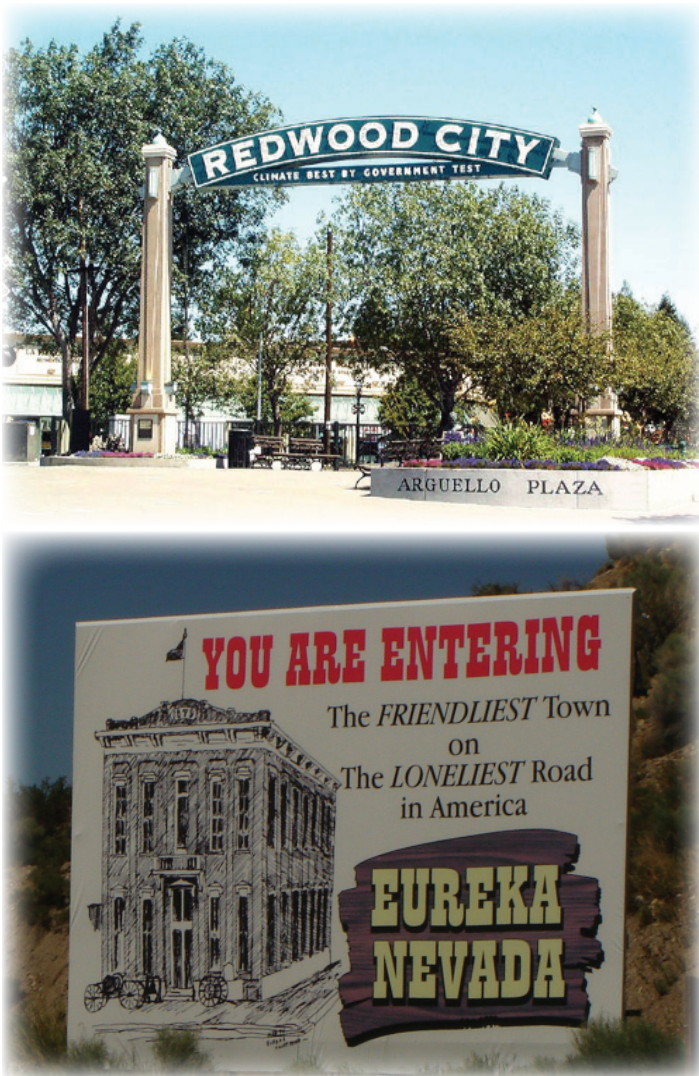


Fig. 68: Effective slogan advertising - Redwood City: Climate Best by Government Test (top), Eureka: The Friendliest Town on the Loneliest Road in America (bottom).

5. Conclusions

In closing, we recommend that feasibility studies be conducted in the following areas.

- o **512 alternate.** A supplementary study should be performed on the feasibility of constructing alternate routes for traffic on Route 512, especially around the Bangor area. Possible alternative routes are suggested in the Bangor area truck traffic study conducted in 2002 (see References section) and in appendix section A.7 of this report.
- o **Uniform signage.** Location and design of uniform welcome, parking, and other street signs should be considered for the entire region of the Slate Belt. A slogan contest should be considered to create a catchy phrase that could be used on welcome signs as well as in broader advertising of the region.

In addition to initiating feasibility studies, local governing bodies should consider the following infrastructural improvements.

- o **Two-way streets.** Converting some one-way streets in downtowns to two-way streets should be considered as a measure to calm traffic flow and provide a more pedestrian-friendly atmosphere.
- o **Business liaison.** An open discussion should be initiated to determine the role and specific functions of a business liaison, such as improving the existing online database of available business sites, providing start-up information for entrepreneurs, and facilitating interactions between local farmers and alternative energy producers. After these functions have been determined, coordinated efforts should be made to create a full-time position for this business liaison.

Finally, what follows is a list of recommendations for short-, medium- and long-term improvements. The three-tier structure represents three levels of ease in terms of investment of time and resources needed to implement certain projects. All three tiers of effort are worth considering immediately. “Long term” projects are not ones that should be put off for a long time; rather, they are projects that will take longer to complete than “short term” or “medium term” projects if they were to be started today.

I. Short-term. In the short term, efforts could be directed toward inexpensive projects that can be readily implemented.

- o Improve marketing of the region
- o Organize a Slate Belt slogan contest
- o Improve internet presence
- o Unified regional signage:
 - Parking signs
 - Municipal building signs
 - Scenic byway signs
 - Signs for local destinations (vineyards, parks, etc.)
- o Publish a recreation guide for the Slate Belt
 - Compile an online directory of local places of interest
- o Use media to raise awareness of local issues (regular regional newsletters, online discussion boards, etc.)

5. Conclusion

II. Medium-term. Larger scale projects that entail more resources and complex logistics are the focus for the medium term.

- o Hire a business liaison to:
 - coordinate and facilitate business start-ups (provide a one ‘stop-shop’ for investors)
 - create a database of all industrial sites and grants available (provide local, state, and grant help)
 - facilitate interaction between farmers and potential alternative energy producers
- o Adapt existing structures for use as:
 - business incubators
 - call centers, etc.
- o Consider conversion of aging heating systems in schools and/or municipal buildings to biomass-based heating systems
- o Determine optimal sites for farmers markets based on community input
- o Promote tourism by:
 - creating downloadable pod-casts
 - developing walking tours
 - encouraging storytellers to share local histories
 - organizing Slate Belt bus tour
 - establishing additional visitor’s centers/kiosks
 - maintaining scenic byways
- o Strengthen links with local academic institutions
 - Establish a career center/website
 - Communicate with vocational institutions and community colleges to develop appropriate training programs

III. Long-term. Long term projects will require significant resources and planning.

- o Prepare a strategy to manage residential growth (using *Smart Growth*)
 - Promote cluster development
 - Facilitate mixed use of land
 - Create parks, bike trails and other recreational areas
- o Develop industrial sites (by providing initial infrastructure)
- o Develop road network (e.g. alternate truck routes)
- o Redevelop brown and grey fields
- o Renovate buildings while preserving original architecture

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7. Appendix

A.1 What is Technology Clinic?

The Lafayette College Technology Clinic is a year-long project designed to grant students experience in solving real world problems. Participants form an interdisciplinary team composed of six students and two faculty advisors. Both students and faculty hail from varied academic fields in the hopes that their distinct knowledge sets may combine and synergize in unexpected and fruitful ways. The goal of the team this semester is to devise a means to stimulate responsible development in the Slate Belt region of Eastern Pennsylvania. Without further ado, the members of the team:

- o Laura Bochner is a sophomore Geology major from Bethlehem, Pennsylvania and a graduate of Liberty High School. She has lived in Northampton County since she was nine months old, and feels deeply connected to the area. Since enrollment at Lafayette College, Laura has become very interested in the environment, issues of environmental justice, and local government. Work with Bethlehem's newly established Environmental Advisory Council (EAC) combines these interests. She hopes to pursue environmental law and policy after graduation.
- o Viktorija Gečytė is currently in her senior year at Lafayette pursuing a double major in Mathematics-Economics and French. Raised in Lithuania, one of the post-soviet countries, Viktorija provides a different perspective on economic development and a social awareness of ways in which people accept economic advancement and change.
- o Nigel Martin is a sophomore student who is majoring in A.B. Engineering. The Bachelor of Arts in Engineering degree is one that is unique to Lafayette College and focuses on a broad, multidisciplinary education. Nigel sees connections between the workings of the Slate Belt region and his hometown, which is small. Nigel also brings to the group

knowledge of biofuels and sustainable development, which he gained over the summer while working as a research assistant at Lafayette. His research project involved studying the effects of ethanol production

- o Priyanka Nair is a senior Biology major with a minor in Biotechnology. Having grown up in India and traveled to several countries around the world, she offers an international perspective on economic and social development. Her training in biology has also afforded her a systems approach that enables her to analyze complex interactions between several components in a system.
- o Jason Urton is a senior Anthropology and Sociology major, Architectural Studies minor. In 2006, Jason conducted ethnographic research in the community of Tatamy and gained insight into the dynamic local atmosphere. He also has experience in and knowledge of a number of design related fields including architecture and planning.
- o Professor David Stifel is a Professor of Economics at Lafayette College. Much of his research focuses on development economics and labor markets, especially in developing countries. His areas of specialty are Madagascar and Southeast Asia.
- o Professor Dan Bauer is the Program Head for the Technology Clinic and a Professor of Anthropology at Lafayette College with interests in technology, historic preservation and adaptive reuse. He has worked in Peru, Ethiopia, and Mexico throughout his career as an anthropologist.

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A.2 Interview Compilation

(based on approximately 35 interviews)

During our interviews, Slate Belt residents and businesses identified the following as regional assets, opportunities, and challenges (with no particular system of organization).

ASSETS:

- o People in the Slate Belt are very supportive
- o Loyal customers
- o Bangor has so much potential but needs some cleaning up
- o It's a great town, it's not too late
- o Good employees have kept their business going
- o Certain events like Santa coming to the downtown bring people out
- o Successful established local businesses: furniture, machinery, chocolates, bakery
- o Internet presence of some businesses, boroughs, townships, the SBED, the COG
- o Sales of local wine are going up and the business has been continually expanding
- o I like everything about Roseto, the strong community
- o Close to large roadways
- o Close to major cities
- o Available land
- o Affordable property
- o Five economic development organizations in the region: Bangor economic development organization, Bangor area economic development organization, Chamber of Commerce, Green Knights, LVEDC
- o Ease of living in small towns
- o High-speed fiber line
- o Cheaper operations costs than in NJ: insurance, health care, energy

OPPORTUNITIES:

- o Town needs grants
- o Good leaders

- o Good, stable, nice, decent businesses to draw people back
- o More good retail
- o Professional offices and commercial businesses
- o Parking improvements
- o Enforcement of good neighborly business behavior – shoveling your sidewalk and not leaving garbage out on the street
- o A committee to approve aesthetic changes that maintain the character of the downtown
- o It seems like no one cares, but I know people care
- o There is no recession in the area, if someone wants to work, they can easily find a job
- o Agrotourism, tourists come to wineries from the Poconos
- o Wine making capacities exceed grape production
- o Industrial farming is a potential avenue for development
- o Important to preserve rapidly disappearing farmland
- o More industry
- o Stronger community organizations, a committee to organize communities
- o Cooperation between neighboring towns
- o Better advertising
- o Unite the existing development organizations under the Slate Belt Economic Development organization, get a non-profit status
- o LANTA willing to expand services if demand for transportation increases
- o Opportunities for work and play
- o More service provider industries
- o Needs to think better of itself, hold itself in a higher esteem
- o Needs to define its identity and vision
- o Provide opportunities for youth to be creative
- o Business incubators are a good thing
- o Potential for fragmented, small buildings to host businesses
- o Provide shell buildings
- o Potential for light manufacturing and distribution from companies in NJ and NY
- o Incentives for new businesses
- o Potential for customer service, IT help desk type businesses

7. Appendix

- o Using biomass to produce energy
- o Off-road bicycle lane between towns
- o Rails-to-trails
- o Make development an “open process”
- o Promote environmentally friendly industry: build a biofuel plant, recycle plastics
- o Diversify the tax base
- o Market the land near Ultra Poly to energy-intensive industries
- o Look into using land south of 512 for growing crops for biofuels
- o Need to pitch a diverse, intelligent plan for residential development – people will get on board behind this
- o Low-cost loans and grants available through the LVEDC
- o Fireworks company is looking at properties near bridges between PA and NJ
- o Local Farmers’ Market
- o Local flea or antique market
- o Uninterested in development, prefer the quiet, quaint nature of the region
- o Nothing for the kids in the area
- o Now have to buy everything out of town
- o It’s like a retirement community with a commuting population on the side
- o People aren’t invested in the area
- o Industry has left, now Majestic is leaving too
- o History of disunity
- o Unclear identity of the Slate Belt: stepchild of Lehigh Valley or independent?
- o Fragmentation and competition among groups, boroughs
- o Majestic leaving hurts taxes, jobs, and leaves vacant buildings that may not be recyclable
- o Residents’ rejection of Wal-Mart gives a negative impression for other potential investors
- o Reassessing property according to the “highest and best use” criteria can happen – would inflate property prices and destroy agriculture
- o Congested roads and trucks passing through towns
- o Not many service businesses now
- o There’s nothing to keep youth in the area
- o “Cookie cutter” development models
- o Marshfield has retracted only temporarily
- o Residential development is inevitable
- o Cost of crossing the Portland - Columbia bridge is now \$1.75 – a hindrance to commerce
- o There is talk of Route 80 becoming a toll road

CHALLENGES:

- o Town has no money
- o Heavy traffic coming up 191 or down 512
- o Not enough here for a full day of shopping, no draw
- o Problem with skilled labor in the area – need to train own employees
- o Slow internet deters businesses and industry
- o Open property not easily accessible
- o Deregulation of energy prices in 2009
- o Difficult topography
- o There’s always a problem with parking
- o Easton and Bethlehem get everything
- o Feasibility studies end up sitting on the shelf
- o Bangor looks dingy, it looks dirty
- o We just want our business to survive
- o Cannot think of any valuable trait of the Slate Belt
- o Slate Belt needs an attitude make-over
- o Unattractive
- o Many empty storefronts
- o No high power source
- o No high-tech trained labor force

A.3 SWOP for the Slate Belt

Creating a SWOP is an intellectual exercise designed to enumerate Strengths, Weaknesses, Opportunities and Pressures related to a given issue. We used this exercise to examine Slate Belt's readiness and potential for economic development. Below is our most recent SWOP.

Strengths

- Land
- Rainfall agricultural background
- Beauty
- Near markets
- History, pride in heritage
- Low labor/energy costs
- Local colleges
- Close to Routes 80 and 33
- Enthusiasm of some
- Potential sites
- Good internet connection in some places
- COG
- LVEDC
- Main Street leadership for Bangor (SBED)

Weaknesses

- Disunity, lack of pride
- Localized road
- Not walkable/pedestrian-friendly
- Lack of parking
- Lack of public transportation
- Lack of funds
- Floods
- Bad internet connection in some places
- Not easily transferable labor skills
- Lack of long-term vision among some
- Weak local institutions (county wide)
- Truck access (bridge too low, intersection in Bangor)
- Lack of signage
- Empty storefronts
- No clear common positive identity
- Lack of local jobs

Opportunities

- Manufacturing
- Rebranding
- Brown/grey field reuse and grants
- Recycling of old buildings
- Tourism
 - Ecotourism
 - Agro-tourism
- Biofuels
- Gasification
- Wall Street West
- Business incubator
- Call centers
- Vineyards
- Outdoor recreation, bike trails
- LVEDC, Green Knights, Main Street Program, etc.
- Available sites
- The Colonial Hotel

Pressures

- Lack of political unity
- Deregulation of energy
- Credit crunch
- Failure to see the big picture (to see sacrifices as an investment)
- Bureaucratic obstacles (PennDOT)
- Residential development
- Individualistic behavior
- Lack of threat

A.4 Land Use in 2005

Land Use 2005 (%)

	Residential	Commercial	Industrial	Wholesale & Warehousing	Transp., Comm. & Utilities	Publi & Quasi-Public	Parks & Recreation	Agriculture & Vacant
Bangor	37	4	3	2	14	3	6	32
East Bangor	39	16	3	0	7	0	18	17
Lower Mount Bethel	12	0	5	0	6	0	2	75
Pen Argyl	25	1	29	0	16	5	3	21
Portland	26	2	11	0	19	1	4	37
Roseto	45	5	1	0	14	5	2	27
Upper Mount Bethel	18	1	1	0	4	1	10	66
Wind Gap	34	9	9	0	14	1	4	29
Northampton County	26	2	3	0	7	2	7	52
Lehigh Valley	25	2	3	0	8	3	8	50

A.5 Steps for Registering Historic Properties

The National Register listing process in Pennsylvania includes the following steps:

1. Identify a historic property.
2. Complete a Pennsylvania Historic Resource Survey form.
3. The Pennsylvania Historical and Museum Commission (PHMC) evaluates the property to see if it meets National Register criteria.
4. Explore the availability of funds to prepare a nomination.
5. Prepare the nomination form.
6. Make suggested revisions.
7. Submit the corrected form to the Pennsylvania Historic Preservation Board.
8. Celebrate the listing in the National Register of Historic Places.

A.6 Available Grants Relating to Biofuels

o **Pennsylvania H.B. 1202 of 2007.** “Clean Fuels and Energy Independence Act”. This act aims to improve air and water quality, reduce greenhouse gas emissions, stimulate in-state job growth, increase in-state biofuels production, and create energy independence and security for the state of Pennsylvania. To achieve this, biofuel blends of ethanol and biodiesel will be required to meet certain minimum percentages as in-state production increases. Governor Rendell’s goal for this act is that 1 billion gallons be produced, in Pennsylvania, annually by 2017. All diesel sold as transportation fuel must be blended with 2% biodiesel by volume when in-state production reaches 30 MMgy, 5% at 75 MMgy, 10% at 150 MMgy, and 20% at 300 MMgy.

o **Pennsylvania Act 166 Of 1992.** “Alternative Fuels Incentive Grant Fund (AFIG)”. This act aims to promote the use of alternatively fueled vehicles. It funds up to 20% of new alternative fuel projects. To date it has helped fund 291 projects involved with technologies in E85 ethanol, methanol, hybrid cars and fueling stations, and various other technologies. Grant applications can be submitted to the state government. A biodiesel production facility could take advantage of this grant.

o **Pennsylvania S.B. 255 of 2003.** This addition to the earlier established AFIG adds a 5 cent reimbursement to biofuel producers for their first 12.5 million gallons produced.

o **Pennsylvania Energy Harvest Grant.** This grant is funded by the state through the Pennsylvania Department of Environmental Protection. It provides grants to innovative renewable energy projects including biomass energy projects. The grant puts emphasis on projects that are market driven and help create jobs and economic development, as well as protect the environment by improving air or water quality. Biodiesel production meets all of these criteria and would be a viable candidate for an Energy Harvest Grant.

o **Pennsylvania Energy Development Authority (PEDA) Grants.** PEDA is a public financing committee that issues grants and loans to eligible clean, advanced energy projects in Pennsylvania.

o **Pennsylvania State Energy Program.** This is a program funded by the Pennsylvania Department of Environmental Protection and the U.S. Department of Energy. It promotes renewable energy projects that address economic, environmental, quality-of-life, and security concerns.

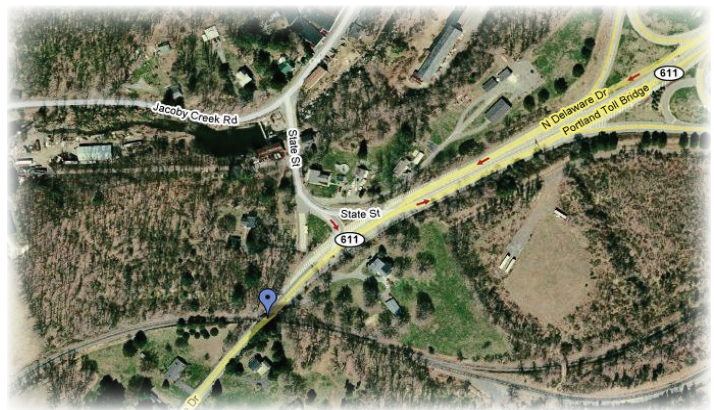
A.7 Alternate Routes

Traffic and Transportation Concerns for the Slate Belt:

o The first concern is that heavy traffic going through the towns makes the towns feel like “bumps on a highway.” Furthermore, something is lost from the downtown experience when traffic competes with streetscapes for your attention. Ideally, major thoroughfares should not run through the downtowns.

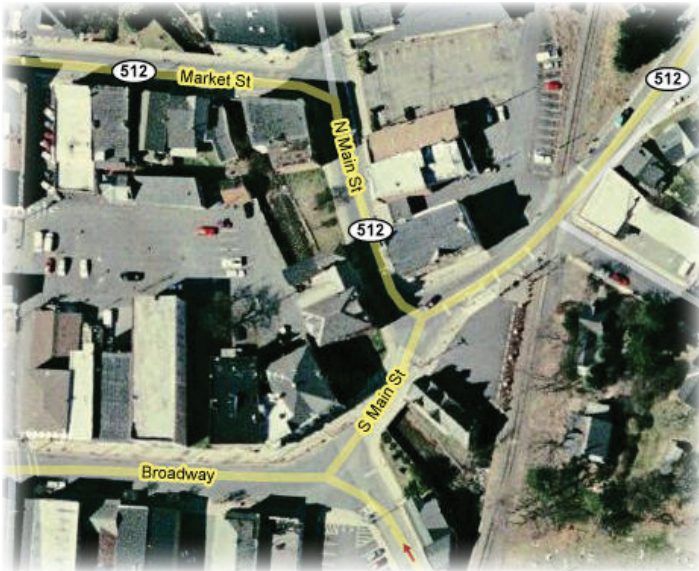
o The second concern is that trucks have difficulty moving through the Route 512 corridor.

- The railway underpass on route 611 between the end of 512 and Portland is one point of difficulty. Long trucks find the clearance too low.



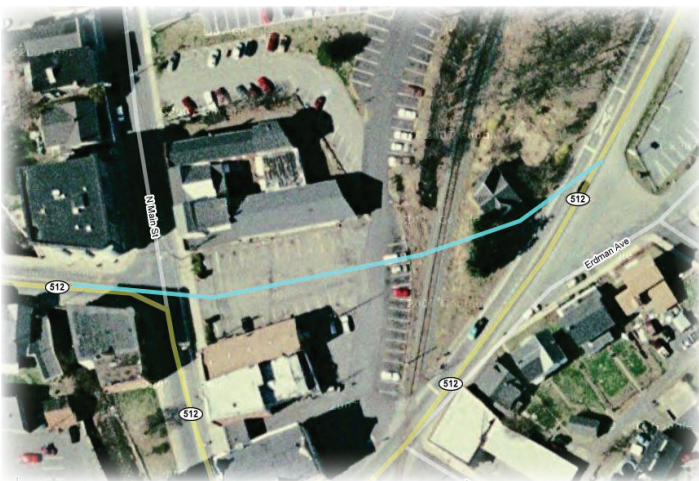
7. Appendix

- Route 512 requires two sharp turns at the eastern end of Bangor at the corners of Market Street and North Main Street, and again at North Main and South Main Streets.



To address concerns over congestion and vehicle maneuvering difficulty, the Tech Clinic has put together several alternate routes. Possible solutions:

1. Proposal I. Route 512 continues eastbound down Market Street which is extended across the rail line to the existing 512.



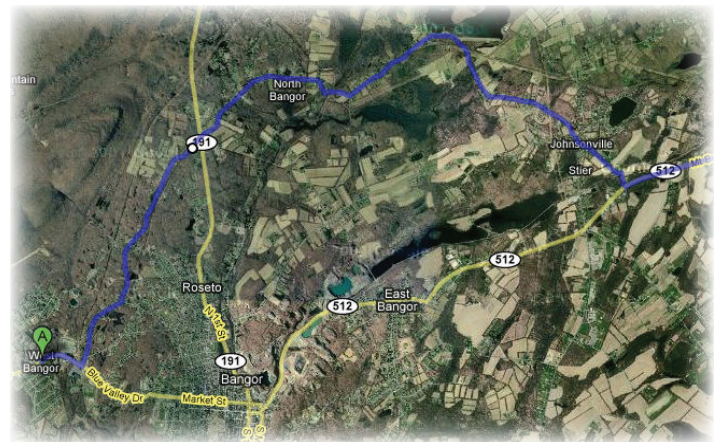
Pros:

- o Access will be improved because the two jogs involving North and South Main Street are eliminated.

Cons:

- o Even more truck traffic is likely to pass through the center of town. Presumably, making the road more navigable for trucks will encourage more trucks to use it.

2. Proposal II. Use an existing route by leaving 512 Bangor Junction Road, crossing Route 191, and continuing past North Bangor to return to 512 near Johnsonville.



Pros:

- o This Alternate requires no new construction and reduces traffic in Bangor and East Bangor.

Cons:

- o Using this route adds 1.5 miles to the trip.

3. Proposal III. Create Alternate routes around Bangor and East Bangor with some new construction.



Pros:

- o Trucks need no longer go through East Bangor or Bangor when coming west from 611.
- o Trucks too long to get under the 611 rail crossing near Portland may get access to the 512 corridor by coming down Route 191 from I-80 and then going east or west on this new “512 Alternate.”
- o Nearly all of the new 512 Alternate involves existing roads.
- o The 512 Alternate involves no new grade crossings, though an argument could be made for creating one at the eastern end.
- o Only about 0.2 mile of additional travel is required to make the trip through the Slate Belt.
- o Access to the Bangor Business Park is improved.

Cons:

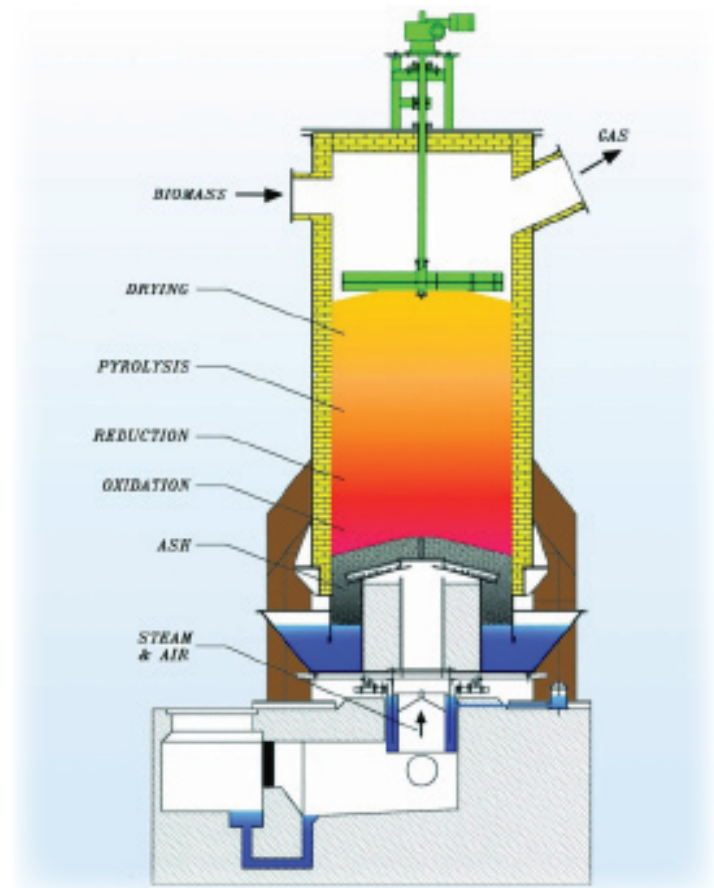
- o The Boroughs of West Bangor and Pen Argyl are not bypassed.
- o 0.9 miles of new construction are required. However, this construction is over relatively flat land.

Conclusion:

Transportation through the Slate Belt can be improved and traffic flow can be reduced within towns

by constructing a 512 Alternate Route. The proposed Alternates have different costs and benefits. However, because the second and third proposals bypass the downtown area, their Alternates are preferable to the first. Indeed, the first Alternate improves conditions for trucks but not necessarily for people in the downtown.

A.8 Explanation of MSW Gasification



Process Description:

- o Feedstock is fed to the gasifier in either a dry form or as a slurry (mixed with water).
- o Feedstock reacts with steam and oxygen at high temperature (2,600°F) and pressure (1000 psi) in the gasifier.

- o This condition produces the Syngas which is primarily H₂ and CO plus trace amounts of methane and CO₂.

- o The inorganic material left behind, slag, is of a coarse, glassy consistency.

Feedstock:

- o Biomass – Any type of wood, crops, or other type of agricultural residue.

- o Municipal Solid Waste (MSW) – landfill garbage and animal waste, helps to reduce pressure on landfills by greatly reducing the volume of waste.

- o Coal – Most commonly used, much cleaner than conventional, coal-fired power plants.

- o Oxygen – Used to react with Syngas in gasification process.

- o Steam – Used to control quality and temperature of the reaction.

Potential Uses:

- o Syngas (as is) can be used as an industrial alternative for natural gas or can be converted to:

- o Engine or Gas Steam Turbines – Syngas is burned to create electrical power.

- o Water-gas Shift – Pure hydrogen is extracted for use in fuel cells.

- o Fischer-Tropsch Process (Gas Synthesis) – H₂ and CO are combined with gas to create liquid fuels (e.g. ethanol, diesel).

A.9 Partial List of Available Grants

Financing options and programs available in PA:

- o **Pennsylvania Economic Development Financing Authority (PEDFA)**. Issues bonds and then uses proceeds to give low-interest loans to growing businesses.

- o **Pennsylvania Capital Access Program (PennCap)**. guaranteed loan to all businesses up to 500k.

- o **Pennsylvania Industrial Development Authority (PIDA)**. long-term, low-interest loans for economic growth in high unemployment areas.

- o **Opportunity Grant Program**. grants to help retain/create jobs in an area.

- o **Small Business First Program**. low-interest loans to small businesses that help create/retain jobs, up to 200k.

- o **Machinery and Equipment Loan Fund (MELF)**. low-interest financing for purchase of machinery and equipment < 500k.

- o **Pennsylvania Infrastructure Investment Authority (PENNVEST)**. low-interest loans for water system infrastructure, 11 mil. For one town, 20 mil. For two municipalities.

More grant resources are available on the LVEDC website (www.lehighvalley.org).

A.10 Wine Industry

Economic impact of wine industry in PA:

**ECONOMIC IMPACT OF
PENNSYLVANIA WINE AND WINEGRAPES 2005**
EXECUTIVE SUMMARY

Table 5
Total Economic Impact (Sum of Total Spending)
of Wine and Wine Grapes

Revenue:		
Winery Sales	\$	27,857,000
Wine Grape Sales		6,683,000
Tourism		166,581,000
PLCB Sales of PA Wine		1,631,000
Restaurant Sales of PA wine		679,000
Winery Suppliers		2,280,000
Vineyard Suppliers		1,125,000
Wine Research/Education/Consulting		1,035,000
Charitable Contributions		949,000
Tax Revenues – Federal		28,717,000
Tax Revenues - State & Local		37,538,000
Indirect (IMPLAN)		115,702,000
Induced (IMPLAN)		110,484,000
Total Revenue	\$	500,228,000
Wages:		
Winery Employees	\$	13,053,000
Vineyard Employees		3,639,000
Tourism		64,376,000
PLCB Sales of PA Wine		220,000
Restaurant Sales of PA wine		17,000
Winery Suppliers		187,000
Vineyard Suppliers		94,000
Wine Research/Education/Consulting		820,000
Indirect (IMPLAN)		40,867,000
Induced (IMPLAN)		37,634,000
Total Wages	\$	160,907,000
Total Impact	\$	661,135,000

A.11 One-way streets

One-way streets sometimes facilitate automobile traffic flow but often reduce pedestrian safety and divide communities. The 1960s and 1970s saw an increase in the use of one-way streets Nationwide. It may be time to questions some of the decisions about one-way street that were may decades ago.

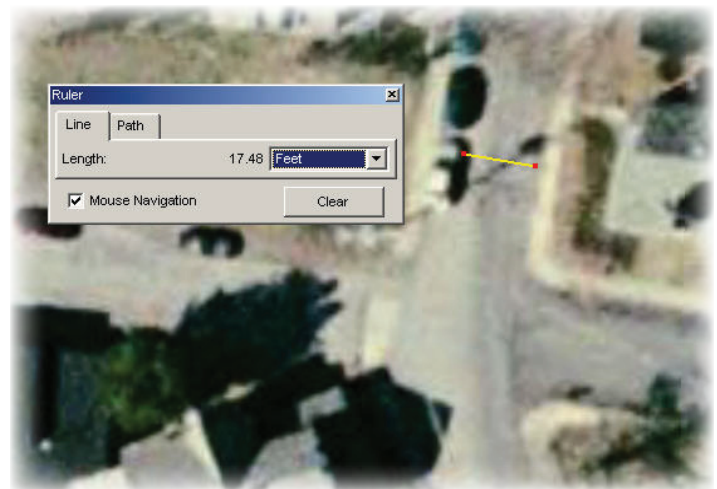
Traffic calming:

- o Automobiles tend to move more slowly when confronted by on-coming traffic.
- o Slower traffic is safer for pedestrians.

Shorter travel distances create better connections:

- o Pedestrians may walk.
- o Drivers may visit an area if it is perceived as “close.”

South Main Street in Bangor is a case in point. South Main Street between Messenger Street and the Center of Bangor has a cart way which exceeds the 16 feet required by law for a two-way street by nearly two feet, yet is one way.



Now we must consider the advantages and disadvantages of a two-way street at this point.

7. Appendix

Disadvantages to the current situation:

- o One negative of the one-way street is that traffic is likely to move faster on this street than it might were it one way.
- o However, there is a second point. The one-way street separates the South Main Street area from the rest of town. A person wishing to drive from 200 South Main Street to 270 South Main Street must travel nearly a mile.
- o To some the South Main Street area seems almost as though it were a separate town from Bangor itself. The next two images illustrate the point. If we think of the feeling of being in “center” of Bangor as dropping off with distance, then South Main is in the third ring out.



With the one-way street in place for South Main Street, all of the South Main area is in “Zone 4”, as defined by distance traveled to reach it. Once, the one-way restriction is lifted the picture changes radically.



Much of the South Main area becomes part of zones 2 and 3.

Advantages of a two-way street:

- o The South Main area rejoins Downtown Bangor.
- o A larger retail area may help in Bangor’s revival.

Disadvantages of a two-way street:

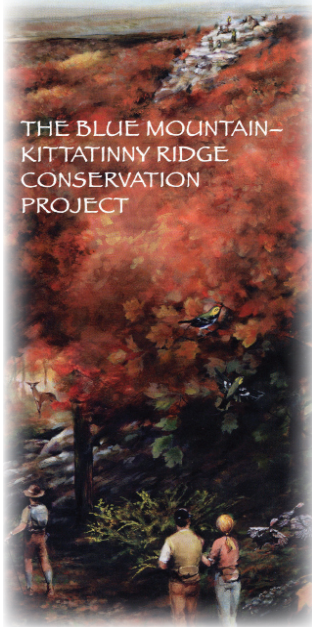
- o Other than increasing the incentive to improve the “Aqueduct” bridge there seem to be few.

Conclusion:

Many towns in America have experienced the effects of traffic dividing them into two sides of a road, or in this case, two “ends” of a road. Slate Belt communities have recognized the problem and taken steps to combat it, such as proposing textured cross walks and other traffic calming measures. We would like to add this suggestion to the mix.

A.12 Brochure Design

The following images are meant to demonstrate what we see as effective brochure based advertising.



The Blue Mountain - Kittatinny Ridge Conservation Project is a collaborative effort of local, regional, and state organizations and agencies focusing public attention on the importance of the Kittatinny Ridge. The project will also help foster good stewardship of the Ridge for future generations.



WHAT IS THE KITTATINNY RIDGE?

Blue Mountain and Kittatinny Ridge are names for long mountain ridges that run over 200 miles from northern New Jersey down through central Pennsylvania, to the Maryland state line. The ridge crosses 10 counties, where it is known locally in eastern Pennsylvania as Kittatinny Mountain, and in central Pennsylvania as Blue or North Mountain.

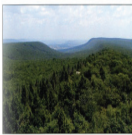
The Ridge is one of Pennsylvania's most prominent natural features, forming the eastern-most edge of its 'ridge and valley' region—a treated series of hills, the earth's crust that uniquely defines the landscape in the southeast quadrant of Pennsylvania.

Traveling north and west from the more populous urban and suburban regions of southeast Pennsylvania, the landscape, wild areas encountered is the Kittatinny Ridge. Nearly 300,000 people live in the numerous towns and hamlets along the Ridge, and another 15 million people live within 20 miles of the Ridge and have regularly as a part of their landscape.

A growing number of Pennsylvanians depend on the natural resources of the Ridge for their business, their recreation, their drinking water, or their homes.

GOALS OF THE PROJECT:

- Develop a long-term conservation vision for the Ridge as a unique natural corridor.
- Provide tools and resources to help citizens, local governments, landowners, and civic groups implement the vision at the local level.

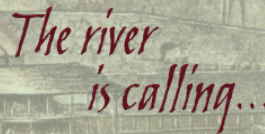


State game lands, state forests, and state parks along the Ridge are important places for many forms of outdoor recreation. It is also an increasingly popular destination for hiking and backpacking.

"Kittatinny" comes from the Lenape Indian word for "endless mountain"

Since the beginning of time, the river has been a magnet—a natural force, drawing people to its banks: explorers, travelers, merchants, industrialists, and those just passing through. In modern times, the river still beckons: to adventure seekers, nature lovers, trailblazers, outdoor enthusiasts, and those "just passing through."

The Delaware & Lehigh National Heritage Corridor is more than a series of connecting waterways and rails—it connects you to more than you ever imagined. Come, take a journey that will inspire, invigorate, and invoke a deep appreciation of the past and a renewed vitality for the future.

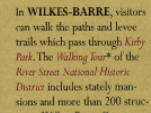


LUZERNE COUNTY Anthracite's Legacy Awaits



The historic tracks of the Lehigh and Susquehanna Railroad are positioned between the banks of the mighty Susquehanna and scenic Lehigh Rivers. They link the intense legacy of the anthracite coal industry to the Philadelphia marketplace via the Luzerne County and the Wyoming Valley hold hidden treasure—a rich and dynamic past.

Uncovering its rich history and breathtaking scenery provides a vivid look at the County's many ethnic cultures and proudly dramatic landscapes. From the vibrant city of Wilkes-Barre, south to the solitude of *Esley Mines Village*, Luzerne County's bounty awaits your discovery.



In WILKES-BARRE, visitors can walk the paths and levee trails which pass through *Kirby Park*. The *Walking Tour* of the *River Street National Historic District* includes stately mansions and more than 200 structures. Wilkes-Barre Commons, the *Kirby Theatre*, Irem Lempke and the mighty Susquehanna River are all nearby. Visit the *Historical Museum* on Franklin Street to view permanent Native American exhibits, anthracite coal displays and rotating presentations which highlight important natural and cultural events of the Wyoming Valley. The *Luzerne County Courthouse* is one of Pennsylvania's most impressive architectural masterpieces.

Completed in 1909, this grand structure exemplifies the area's craftsmanship and offers a glimpse at inspiring artwork—both inside and out.



The *Swanland Homestead* in WEST WYOMING contains an original settler's 1797 cabin. Modeled after the family's ancestral New England home, the 1769 *Deming House* in FORTY FORT is a colonial era landmark. It was home to one of the original forty settlers who came to the Wyoming Valley from Connecticut.

Special events at the Homestead include an encampment of the 24th Connecticut Regiment and the reenactment of the 1778 Battle of Wyoming. Both homes are listed on the National Register of Historic Places.

About Your Visit

To help ensure a safe and enjoyable trip on the lower Delaware and Lehigh rivers, the surrounding communities, the National Park Service strongly recommends that all river users observe local laws and the following rules and regulations.

Fishing and Boating

Valid fishing licenses are required everywhere on the Delaware River. Special fishing regulations for the interstate waterway involving licensing, seasons, size, and creel limits should be obtained from State sources. Proper boat registration is required.

Safety

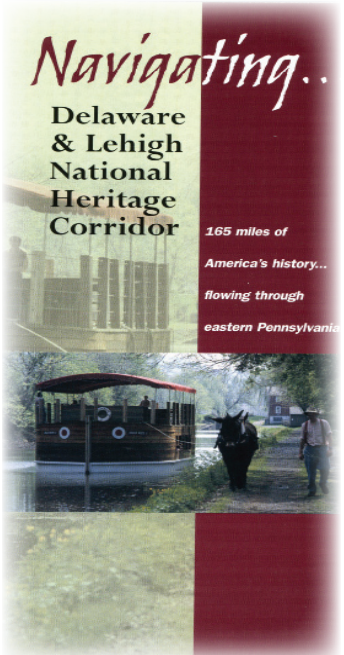
Always wear a properly fitted, Coast Guard-approved life jacket while boating, swimming, wading, or tubing on the river. A life preserver is useless unless you wear it. Guard against hypothermia by wearing protective clothing when the water is cold. Even in late spring when the air temperature is warm, the water is still frigid. Loss of body heat is 25 times greater in cold water than in air of the same temperature. Wear a wetsuit or clothing made of wool or polypropylene. If you go on the river, you should know how to swim.

Never canoe alone. A minimum of two canoes is recommended, with one as lead canoe and another as sweep or drag canoe. Stay in view, but keep a safe distance between canoes. If you capsize, keep upstream from the craft. A current of 3 mph can hold a swamped canoe against a rock with a force of more than a ton. If conditions worsen and you must leave your canoe, float with your feet pointed downstream and near the surface, to cushion yourself against large rocks and to prevent a foot or leg from getting caught on submerged branches or between rocks. Carry a throw line and first aid kit with you. Do not drink alcoholic beverages before or during boating. Alcohol consumption and drug abuse have contributed to many drownings. Tie a plastic bag into the boat, and carry out your trash. Guard against sunburn with sunscreens and appropriate clothing.

More Information

Most towns along the river are small with varying degrees of visitor services. New Hope, Lambertville, Stockton, Frenchtown, Milford, Easton, Phillipsburg, and Belvidere are the most developed portions of the river with a range of visitor facilities. Resources for more information include the following:

- Delaware and Raritan Canal State Park
625 Canal Road
Somerset NJ 08873
732-879-3959
www.dandrcanal.com/park_index.html
- Delaware and Lehigh National Heritage Corridor
1 South Third Street, 8th Floor
Easton, PA 18042
610-923-2548
www.nps.gov/delvalphimilcorants.html
- Delaware Canal State Park and Ralph Stover State Park
11 Lost Hill Road
Upper Merion PA 18972
610-982-5100
www.dcnr.state.pa.us



A.13 Industrial Sites

o Portland Industrial Park:



o Wind Gap Site:



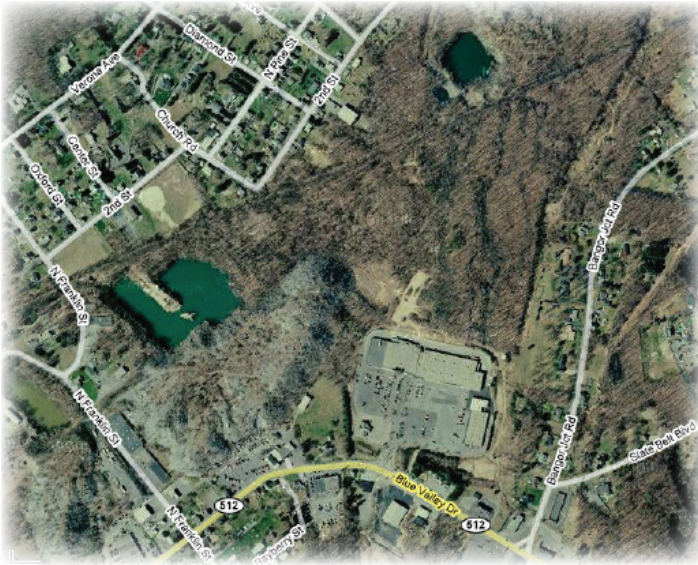
o Marshfield Site:



o NAPA Site:



o Slate Hills Quarry Reclamation Site:



o Bangor Business Park:

