BETHEL TOWNSHIP BERKS COUNTY 2015 COMPREHENSIVE PLAN

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CHAPTER 1

INTRODUCTION

This amendment and update to the Bethel Township Comprehensive Plan adopted in May 2005 is intended to reflect the changes which have occurred during the past 10 years, as well as to provide an updated direction for the future based upon these changes, and based upon the current objectives and interests of the Township's leaders and residents.

A. PURPOSE OF THE PLAN

A municipal comprehensive plan is an expression of good community sense and forethought. Comprehensive planning illustrates a community's interest in current and future events both within and beyond municipal boundaries. It is also a demonstration of civic pride because it represents substantial efforts and funds invested by residents and public officials in developing the means to protect significant features of the municipality while addressing the inevitable consequences of growth. Essentially, a Comprehensive Plan evaluates resources, identifies community objectives, then develops implementation strategies to promote the objectives and allocate resources. This Comprehensive Plan has been prepared to help local officials administer the Township's land use planning program, based on objective data and clear goals.

The Comprehensive Plan is intended to promote a level of certainty and stability for local neighborhoods and businesses. For a healthy community to prosper, people need reassurance that their environment will maintain its "sense of place". For example, the stability and compatibility of surrounding land uses are crucial issues to most homeowners. Also, farmers seek assurance that nearby growth will not adversely affect their ability to farm the land. Likewise, prospective developers must be able to understand the municipality's plan for future land use in order to prepare development proposals which will complement the community. A secure investment and business climate must be maintained through reasonable adherence to the Comprehensive Plan.

The Plan does not intend to prevent growth. By nature, it encourages well-planned and appropriate growth, while striving for a balance between conflicting or competing interests. Arriving at such a balance is not a simple task. Many residents, landowners, consultants and officials have contributed to the Plan, because its effectiveness is contingent upon broad political support. The Plan represents many compromises among groups with different goals, interests and philosophies. As a result, the Plan's goal is to utilize sound land use planning principles to achieve acceptable levels of satisfaction for Township residents while conforming to the regulations established in the Pennsylvania Municipalities Planning Code (MPC) and reflected by the evolving body of case law precedents.

A comprehensive plan is not a "one time", static document; it is intended to be flexible and accommodate inevitable changes and allow appropriate responses to unforeseen events. The Plan should be a dynamic and evolving tool that must be periodically reviewed and revised so that it may continue to guide the Township in the Twenty-first Century. This Plan represents an update to the 1975 Bethel Township Comprehensive Plan.

B. CONTENTS OF THE PLAN

This Plan is organized to facilitate its easy use and interpretation. The Plan includes a Statement of Community Objectives which represents the general policy environment from which more specific recommendations and policies are developed. Background studies of major issues relevant to growth and development provide an analysis of the conditions which influenced the current development of Bethel Township. Physical analyses, demographic analyses, and reviews of existing land use, public utilities, and transportation are part of the background studies. Finally, broad plans are suggested for the Township's future land use which are intended to direct growth and conserve resources. Implementation policies then provide specific steps to achieve the major goals and plans.

This Plan includes a number of maps, which are a basic planning tool for the Township. These maps contain information with which the Township can develop and implement its goals, but can also be used on a continuing, day-

to-day basis by the Supervisors, Planning Commission, Zoning Hearing Board, private citizens, builders, business owners, service providers, and others. Other parts of the Plan, including population studies, physical analyses, and transportation analyses can be similarly utilized.

C. REGIONAL SETTING

Bethel Township is located in the extreme northwest corner of Berks County in a physiographic region known as the Great Valley, an area of gently rolling to hilly countryside that is devoted primarily to farming. The Blue Mountain to the north separates Bethel Township from Schuylkill County. Bethel Township in Lebanon County forms the Township's western boundary, and the Little Swatara Creek divides Bethel Township from Upper Tulpehocken and Tulpehocken Townships to the east and south.

Bethel Township is approximately 20 to 25 miles from Reading which explains why much of the area is more oriented toward Myerstown and Lebanon. Myerstown is eight miles from Bethel and Lebanon is 15 miles from Bethel; many of the residents of the Bethel area shop and work in these two Lebanon County communities.

Interstate 78 provides local residents excellent access to Harrisburg some 35 miles to the west and Allentown 50 miles to the east. North-south travel is provided by Routes 501, 645 and 419. Lancaster is 35 miles to the south via Route 501 while Pottsville is approximately 25 miles to the north via Route 419. Route 183 provides the principal access to the Reading area.

CHAPTER 2

COMMUNITY GOALS AND OBJECTIVES

To be effective, this Comprehensive Plan must reflect the common goals of the residents of Bethel Township. These goals range from physical policies, such as the appropriate use of land, to social and educational policies. Once these goals are formed, they represent a context within which decisions can be made regarding the use of land and the conservation of resources.

Work on the 2005 Comprehensive Plan began in Spring 2005, with the Supervisors and Planning Commission of Bethel Township working with concerned citizens and technical experts to prepare that Plan. Since 10 years had passed since that Plan was adopted, the Township Planning Commission and Board of Supervisors determined that it was time to update the Plan, and began holding joint workshops in the June of 2015. As representatives of the residents in Bethel Township, the Planning Commission and Board of Supervisors must make some critical decisions about where, when, and how the Township will grow. The first and most important section of this Plan is to clearly articulate the goals and objectives of the Township in terms of comprehensive planning for conservation and development.

A. COMMUNITY PARTICIPATION

Resident's Survey

The Bethel Township Board of Supervisors and Planning Commission decided to seek input regarding this update from all of the Township's residents. Therefore, in August, September and October 2015, a Resident's Survey was made available to all households within the Township. The content of the survey was intentionally left, in large part, in the same format as the survey that was distributed in 2005 for the previous Plan so as to provide a better gage of the similarities or changes in public opinion since that time (Additionally, the 2005 survey results are included after the 2015 survey results for reference). The following represents a summary of the survey responses:

BETHEL TOWNSHIP COMPREHENSIVE PLAN SURVEY 2015

GENERAL

 How long have you less than 1 year 10-25 years don't live in Bethe 	14 1-5 yea 84 more tl	rs		 <u>7</u> 6-10 years <u>1</u> NA landlord
2. Were you born in If not, when did you more 1945-1949 1 1960-1964 1 1975-1979 4 1990-1994 9 2005-2009 3	ve here? 1950-1954 1965-1969 1980-1984 1995-1999	1 3 7 6	43 yes 1955-1959 1970-1974 1985-198 2000-200	9 <u>2</u> 4 <u>3</u> 9 <u>12</u>
Why did you move her closer to work woodlands and rural closer to family when we got married more affordable home parents owned found property that su enjoyed area to farm near state game lands rural setting to raise faprivacy and quiet Appalachian Trail Tulpehocken School Emilder weather escape New Jersey downsized highway 81 moved us renting then bought in owned mountain land to teach at Bethel access to I-78 business purposes lower taxes	ited needs amily District from Pine G		1 1 1	

hunting 1 lost job 1 sold other place 1

PROPERTY DESCRIPTION

3. What is the total acreage of the land that you own in Bethel Township?

<1 acre: <u>25</u>
1.1 – 5.0 A: <u>62</u>
5.1 - 10.0 A: <u>14</u>
10.1 – 25.0 A: <u>25</u>
25.1 – 50.0 A: <u>4</u>
50.1 – 100 A: <u>6</u>
>100 A: <u>7</u>

4. How is your property presently used? Please rank all items below that apply. Rank the most used as #1.

Use 1 2 4 5 3 6 **Agriculture** 7 8 1 Woodland 5 6 6 1 Residential 6 66 Recreation 2 1 2 1 Commercial 2 4 1 Other 2 1

- Are there special features on your property that you consider noteworthy for their natural, historic, or other significance?
 33 yes 92 no
- 6. What are they?

Blue Mountain view 11
Appalachian Trail 4
stream 4
historic barn 3

historic home 3 (1 said rear of house was the third in

Bethel, while the front of home built in 1901-1910)

springs and dam-water supply 2

Fort Henry 1 Clean and Green 1

solar home	1
church	1
log cabin	1
egret nesting	1
old growth timber	1
environment	1
organic property	1
nicely landscaped	1
tours of gospel gardens	1
large pond	1

- 7. What is the most likely thing(s) that will happen to your land within the next ten years?
- 98 remain in present ownership and in near present condition
- 19 transfer to heirs and remain in family
- __0_develop total parcel yourself
- 1 subdivide and sell some lots
- 24 sell as single parcel
- 12 preserve with conservation easements or other means (i.e. clean and green, ag security, etc.)
 - 1 other (please specify)
 - 3 don't know

WORK

8. What is the primary occupation of each person in your home?

		in just a partie in a casin	porour in your r	1011
homemaker	<u>16</u>	laborer <u>11</u>	teacher	9
office/clerical	8	self-employed 8	supervisor	7
farmer	<u>5</u>	nurse <u>5</u>	mechanic	4
sales	4	truck driver 4	it tech	4
military	<u>3</u>	production $\frac{\overline{3}}{3}$	electrician	3
hair stylist	3	software eng. 2	machinist	2
cna	<u>2</u>	business owner 2	missionary	2
accountant	2	construction $\frac{\overline{2}}{2}$	maintenance	2
TOTAL C		-		O COUNTRY OF

The following were also listed:

i didd ilotodi		
insurance	dock foreman	library assistant
musician	custodian	administration
group leader	school worker	unemployed
actuary	wood worker	statistician
landscaper	police	security
counselor	pilot	utility line worker
	insurance musician group leader actuary landscaper	insurance dock foreman custodian group leader actuary wood worker landscaper dock foreman custodian school worker police

customer service taxidermist information architect director of operations heavy equipment operator tech theater director rehab specialist business asst.

auto body speech therapist veterinary tech barber subrogation specialist office manager internet retail mechanical engineer massage therapist web developer

9. Is your work located in:

Bethel Township 41 outside Berks Co. 65 Berks Co.

(excluding Bethel Township) 34 retired 97

BUSINESS

10. Do you own or operate a business in Bethel Township?

<u>24</u> yes <u>120</u> no

If no, do you plan on opening a business in the next 10 years? **0 yes 74 no 1 may be**

10-b. If yes, how many employees do you have?

6 are self-employed 2 have 4 employees
 2 have 2 employees
 1 has 23 employees
 1 has 20 employees
 1 owner said they have 1 employee

11. If yes, do you have plans on expanding your business in the next ten years?

5 yes 24 no

If you or your family is engaged in agriculture please answer the following questions. If not, please skip to question #18.

AGRICULTURE

12. What percentage of your family income would you say is derived from farming?

1-10%: $\underline{5}$ 11 - 25%: $\underline{3}$ 26 -50%: $\underline{1}$ 51 - 75%: $\underline{2}$ 76 - 99%: $\underline{0}$ 100%: $\underline{2}$

- 13. Do you consider yourself a full-time farmer? 3 yes 21 no
- 14. How many acres do you farm?

1 - 5 A: 4 6 -10 A: 1 11 - 25 A: 3 26 - 50 A: 2 51 - 75 A: 1 76 _ 100 A: 3 more than 100 A: 2 land rented to farmer 3

- 15. Have you adopted an approved soil conservation plan for your farm?

 11 yes 7 no
- 16. Have you been or will you be required to implement nutrient management plan?

<u>6</u> yes <u>10</u> no

WATER SUPPLY AND PUBLIC SERVICES

17. What is your primary water source?

Have you ever experienced periods when your spring or well ran dry? 8 yes 132 no If yes: Does this happen often? No responses When does it occur? when filled hot tub, when draught, when water was left on Do you use well or bottled water for drinking? 118 well water 33 bottled water 5 other (of which 3 said spring) 20. Do you treat your water to eliminate contaminants? 78 yes 60 no 21. How old is your septic system? 10 6- 10 yrs 6 0-5 yrs 16 11 -20 yrs 63 over 20 yrs 20 do not know 22. How often do you have your septic tank pumped? 4 0-6 months 2 6 months to 1 yr 44 1-3 years 36 3 -6 years 23 more than 6 years 1 never 1 don't know LEISURE AND RECREATION 23. What are your 3 major forms of outdoor recreation in Bethel Township?

41 hunting 16 fishing swimming 10 53 hiking 4 winter sports 18 nature study

62 running/walking 67 gardening 29 bikina

Following are additional outdoor recreation that was mentioned: riding ATV on farm working on house no time for leisure always working no leisure horseback riding boy scouts exercise center school airl scouts pistol shooting golfing motorcycle riding kayaking camping boating viewing God's creations

- 24. List one or more recreation or leisure facilities you would like to see in Bethel Township that does not currently exist?
 - 23 hiking biking walking trails
 - 22 children's park

- <u>14</u> pool
- <u>5</u> recreation center with organized activities with staff: ex, yoga, evening hours.
 - 3 picnic area
 - 3 no need for facilities
 - 3 lighted tennis courts
 - 2 fields for all sports

The following are other items to consider:

camping facilities lighted ball field not afford leisure Frisbee golf connection to rails to trails lake improve facilities we have a place to ski racket ball quitar school shooting range archerv a park similar to Jefferson Township's some kind of shows, carnivals and fairs widen shoulders on Old Route 22 for bike trail fine arts studio to exhibit, gather to work and take lessons

QUALITY OF LIFE ISSUES

25. Which are the most important qualities of life in Bethel Township? Rank your choices with 1 being most important.

Qualities	1	2	3	4	5	6	7	8
Rural	61	20	13	5	2	2	0	1
Peace, quiet	38	32	10	8	3	1	0	1
Family ties	15	7	12	1	2	4	5	4
Natural beauty, scenery	17	21	22	16	7	1	4	0
Natural wildlife	14	11	17	10	8	11	1	1
Agriculture areas	12	7	8	12	11	8	3	0
Economic employment	0	3	4	1	9	5	5	13
Recreation opportunities	2	4	2	2	5	1	11	6

Other – all of the above are important, safety, school, scouts, Christian orientation, educational opportunities

26. Do you consider Bethel Township rural? 131 or suburban? 11

Bethel Township Comprehensive Plan – 2015 2-8

27. Which of the following public services are needed in Bethel Township?

Please rank the items you checked from most important to least important

using 1 as most important.

Service	1	2	3	4	5	6	Not needed
24 hr Police protection	30	9	8	4	1	0	4
Minor road improvements	41	18	9	2	2	0	0
Township park	22	10	6	5	4	0	3
Township sewer	3	3	3	0	1	4	8
Major road improvements	44	9	5	3	1	2	0
Public water	2	2	0	1	3	4	8
Recreation center	9	10	8	8	5	2	1

Other services mentioned on survey:

sound barriers along I-78 exit 10 one story apartments nursing home keep local police no state police natural gas all options to expensive

better internet connectivity

better recycling system swimming pool

senior transportation no water or sewer improve Old Route 22 lower taxes and sewer winter road maintenance on 501 community activities bridges

Are there any things that detract from Bethel Township? 18 responses state warehouses, 15 responses state properties in need of repair, 9 responses state taxes too high, 6 responses state they don't like lights from tower and industrial park, 6 responses state bad roads, 5 responses state heavy truck traffic, 5 responses state highway noise, 3 responses state post office needs to be cleaned up, 3 responses state lack of eating places, 3 responses state trash along the roads, 2 responses state sewer is too expensive, 2 responses state jake brakes, 2 responses state travel to obtain goods and services, The following responses have been stated by 1

need for sidewalks. lower income housing, chicken houses, people not as friendly, doesn't have economic opportunities. doesn't have shopping center with stores doesn't have jobs. lack of 24 hour police. closed bridges. manure smell. Frystown intersection poorly laid out, traffic in the square. recognition for folks three miles away from the square, clean out adult book store. township roads mow more drain areas. often in summer. Gables property, crime. drug use. I-78 bridge weeds. zoning red tape. trucks missing industrial park entrance, trucks crossing bridges with weight town of Bethel itself looks safety of our schools, limits. holes in allevs which dirty on Legion Dr. from the intersection. are dangerous, alleys need to be repaved. cinders and properties especially around post office need to be cleaned up, too much conventional farming, more of the land is zoned industrial/commercial, higher paying jobs, need pharmacy and medical services, too many rental properties sitting empty, lack of adequate facilities for too many tax free businesses. smelly pig and chicken recycling, safety on 501 in winter, farmland used up with developments. no public pool or houses. closing of public roads, attempting to turn into city by forcing public sewer and water. all day kindergarten, abandoned gas stations, people burning what they shouldn'thealth hazard. lack of a noise ordinance, lack of organized recreation for children

29. Are emergency services in Bethel Township adequate?

114 yes 7 no

If no, why? Police response could be better.

Response time could be better.

- 30. Name three things about Bethel Township that have changed since you lived here?
- 56 Industrial Park
- 25 more traffic
- 21 traffic lights
- 16 sewer
- 10 higher school taxes
- 8 more houses
- 7 more intensive ag operations
- 7 more business growth
- 6 lost farmland

5 more population

more population
worse roads
no more farming wildlife cover
library
used to know all the town folk
growth
more employment
improved roads
public schools
improved schools
township office changed location
police department township office changed location

police department

The following were stated by 1 or 2 responders:

big tower Old Route 22 went to hell more regulation not conservative in spending

new bridge **Dollar General retail store**

Fire Company addition snow removal is better recycling program good to bad post master

better cable school renovation

more public services not as many power outages more small convenient stores more houses on the mountain

lose electric more often loss of woodland

loss of grocery/food services more manure

more rentals foreigners live here

new municipal building dollar store open on Sunday

roller skating rink less police presence light pollution less volunteering

less civility among neighbors tv

cabin stores closed or moved

had a park and bingo fire companies should consolidate

implement a fire tax truck stop

no grocery stores no enforcement of depressed

properties Horning's Market larger library

Airport Road bridge repair government stick their nose in everything we do more trash along highways

fire house siren is broken more crime

road resurfacing manure smells zoning ordinance more rescue equipment

more ag and auto service centers soil conservation projects different clientele Flying J's lighted sign

prompt handling of manure by farm limited access to highway

I-78 is worse cleaned up more out of area school teachers school taxes

some places in town have y to a t intersection, good thing businesses in to help with high more law and economically driven

home owners not taking care of their properties commercial garages with scrap trucks/tires etc spoiled view of Rough mountain and good farmland

- 31. What are some things you hope never change in Bethel Township?
- 45 a rural setting
- 14 protected farmlands
- 11 small town
- no water or sewer for outlying areas
 undeveloped mountain
 neighbors helping neighbors
 peace and quite
 wildlife
 no developments
 fire company
 shops in town

- 2 no higher taxes/may be lower

The following were stated by 1 responder:

friendly library good school responsible ag practices keep well for water supply water supply green zoning keep i/c along I-78 availability to recycle community events access to public places no close by neighbors warehouses and LERTA no big housing developments no more chain stores and never change number of businesses closed on Sunday raise a family safe from evil and corruption, down to earth living style

- 32. If you could change anything about Bethel Township, what would it be?
- 11 lower taxes
 - 6 junky yards and homes
- 6 kid friendly township park
- better roads and bridges
 reduce litter/less land and water pollution
 more meeting and eating places
 more shops and restaurants
 lights from warehouses
 love it the way it is

- 3 more community events
- 2 reduce sewer bills
- 2 limit the intensive ag
- <u>2</u> better board of supervisors with concerns for citizens and next generation
 - 2 left turn lanes for Dollar General Store and Horning's Market
 - 2 enact rules to protect environment
 - 2 residential noise pollution

The following were stated by 1 responder:

remove towers new post master fix pot holes on Old Route 22

eliminate LERTA eliminate taxes prompt snow removal

install sound barriers at I-78 exit 10 manure smell

riparian buffers along streams

I-78 corridor back to pre-1960 condition

no further industrial development

public transportation for seniors

moderately priced with good medical services nursing home

do away with police department lower taxes by raising per capita big businesses for opportunities for young people to be involved in

helping others more businesses at I-78

rejuvenate villages refuse disposal and recycling

get rid of old gas stations give Frystown a face lift

use the township lot for parking better communication to citizens

and planning for emergency if it ain't broke don't fix it

let the racetrack build less intensive animal and poultry farming

rezone I-78 commercial stop warehouses improve sidewalks township to clean banks along the roads drug free township

respect for people's property eliminate tax abatement for businesses

Bethel page in the merchandiser get rid of warehouses

know who is running for office prior to getting to the poll location

evening exercise building for working class

pay people on community boards rid of I-78 noise

more educational and cultural activities

better traffic pattern at truck stop more police presence less industrialize farming

keep historical aspect of towns and improve appearance

help seniors with taxes motion lights not dusk to dawn lights

community volunteers to help maintain homes in need

trails for street/dirt motorcycles

biking trail and Route 183 additional lanes for traffic and sound barriers

33. Do you feel there is a good cross-section of housing (low – middle – upper income) available in Bethel Township? 78 yes 12 no
We seem to have too many low income and they tend to bring down the quality of life since they are not able to keep up with their property.

The upper seems to be towards Bernville as in the past.

There aren't any upper income homes.

No MC Mansions which is good.

Lower income housing means higher crime.

Need low income housing for senior citizens.

Inadequate low income housing.

Too many rental properties.

Eliminate low income housing.

- 34. Should there be additional housing development in Bethel Township? 47 yes 83 no yes, if reduces sewer limited development single homes no developments townhouses middle income or higher
- 35. Where should additional housing development occur?

 45 Village District 7 not applicable 7 no 43 other in another town in a restricted area rebuild abandoned properties fields currently for sale minimum of one acre lots wherever applicable near school
- 36. Should there be additional commercial development in Bethel Township? <u>65</u> yes <u>51</u> no
- 36a. What type of commercial development do we need in Bethel Township?
 - 22 retail and commercial development along I-78
 - 16 good eating places
 - 9 incentives for more local businesses in villages
 - 6 none
 - **6** industry for jobs, afraid taxes go to County and Harrisburg

- 4 Doctor office
- 3 light manufacturing
- 3 car wash
- 3 bank
- grocery store
 laundromat
- 2 tax revenue
- 2 dentist
- 2 Cabela's, we had the opportunity to have that and everything that goes with it but you blew it.
- 2 tired of large companies leaving after tax break allotment is over

The following were stated from 1 responder:

pizza shop benefit local businesses pharmacy nursery close Grime's exit fix Airport Road bridge and make a full exit Horning's Market addition better paying jobs daycare center other professionals anything to create jobs storage units and whatever business wants to settle here but don't be tax free or over tax

- 37. Where should commercial development occur?
- 22 Village District 53 I-78 corridor 8 other
 - 37a. Should existing commercial districts be expanded?
- 57 no 5 as needed 23 yes
- 38. Should agricultural areas in Bethel Township be protected from mass development? <u>122</u> yes <u>4</u> no 4 some
- 39. Where and how should agricultural protection occur?
- 52 expand existing areas 13 create new areas 24 both lower taxes to the farmer maintain the existing
- 40. Should there be additional industrial development in Bethel

Township? 40 yes 76 no

shrink the I-78 corridor

light pollution should be addressed prior to approval providing it has minimal effect on infrastructure, roads, sewer water use etc.

for tax relief and jobs

keep Bethel Township rural farmland

yes but carefully if out by I-78 only where it is already zoned

41. Where should industrial development occur?

44 expand existing areas 9 create new areas 15 keep as is 2 outside the township

42. Please enter the number of people in each of the following age groups who live in your household.

<u>50</u> 0-18 <u>14</u> 19-24 <u>24</u> 25-34 <u>21</u> 35-44 <u>42</u> 45-54 <u>44</u> 55-64 <u>81</u> 65-74 <u>17</u> 75-84 <u>8</u> 85 and over

43. Do you have any additional thoughts, comments, or concerns? Please discuss them below or on additional sheets.

no LERTA
offer LERTA to small businesses
support library
need sidewalks
repair Old Route 22
need speed bumps at playground
Post Office clean up

Are trailers allowed on relative's yards and then live in them? remove burned out Eddie Bashore property on Old Route 22 curb and sidewalk on both sides to the school

too much manure on fields

corn planting in field too close to roads for sight distance high taxes

include Little Mountain in EP Zone

newsletter

put a Dollar General Warehouse sign along 501

properties to be clean and neat

why high taxes with warehouse zone

BOS to focus on residents needs with policies and enforcement not just the industrial development

park for recreation

recycle dumpsters full NO CARDBOARD?

younger Board of Supervisors

ethical and moral guidelines

personal communication with residents

they appreciate the snow plowing think about how the changes will affect grandchildren need a new post master make Exxon station clean up get rid of police force, too expensive spend money on road improvements Commercial district between Village and Ag Ag and Industrial should be created leaf collection enforce speed limits do not close Church Road/Airport Rd treat others as you want to be treated mow banks on Schneck Rd grow Police Department grow services/ no more truck traffic on Route 645 overall nice place to live

warn residents that spraying for weeds is harmful to the environment, only burn paper no plastics in late afternoons and evenings due to wash hanging outside

thank you for all you do reduce sewer fees noise barriers for I-78 people want freedom

BETHEL TOWNSHIP COMPREHENSIVE PLAN SURVEY RESULTS - 2005

Number of Surveys returned 150

GENERAL

1. How long have you lived in Bethel Township? <u>5</u> less than 1 year <u>14</u> 1-5 years <u>10</u> 6-1 <u>41</u> 10-25 years <u>85</u> more than 25 years.									6-10 y	years
2. Were you born in Bethel Township? 44 yes 98 no If not, when did you move here?										
AFTER E	BIRTH	IN HO	SPITA	.L						
<u>1933</u> 1	<u>1943</u> 1	<u>1944</u> 2	<u>1945</u> 1	<u>1948</u> 2	<u>1949</u> 1	<u>1950</u> 1	<u>1952</u> 6	<u>1953</u> 1	<u>1954</u> 1	
<u>1955</u> 1	<u>1958</u> 3	<u>1960</u> 1	<u>1961</u> 1	<u>1962</u> 1	<u>1963</u>	<u>1964</u> 1	<u>1966</u> 1	<u>1967</u> 2	<u>1968</u> 2	<u>1969</u> 1
<u>1970</u> 1	<u>1971</u> 1	<u>1974</u> 1	<u>1975</u> 1	<u>1977</u> 1	<u>1978</u> 3	<u>1979</u> 2	<u>1982</u> 1	<u>1983</u> 3	<u>1984</u> 1	1985 4
<u>1986</u> 1	<u>1987</u> 3	<u>1988</u> 1	1989 3	<u>1990</u> 3	<u>1991</u> 2	<u>1992</u> 1	<u>1993</u> 3	<u>1994</u> 2	1995 5	1996 1
<u>1997</u> 2	<u>199</u> 3	99 <u>20</u> 2	000 <u>2</u> 1	<u>2001</u> 2	<u>2002</u> 3	<u>200</u> 4	3 <u>20</u>	004 2	2005	
Country living 8 Parents moved here Price of property fit our budget 7 Bought property Jobs 3 None of your business Closer to work 3 To be near Airport To farm 7 Church & Vocation Was raised in Rehrersburg 1 Got Married									2 8 17 1 1 1 10 2	

PROPERTY DESCRIPTION

3. What is the total acreage of the land that you own in Bethel Township?

<1 acre: <u>26</u>
1.1 – 5.0 A: <u>60</u>
5.1 -10.0 A: <u>19</u>
10.1 – 25.0 A: <u>12</u>
25.1 – 50.0 A: <u>10</u>
50.1 – 100.A: <u>9</u>
>100 A: 9

4. How is your property presently used? Please rank all items below that apply. Rank the most used as #1.

type	1	2	3	4
agriculture	28	4	6	2
residential	22	8	2	0
commercial	6	2	0	0
woodland	15	18	5	0
recreational	2	1	4	3
other	1	0	0	0

5.	Are there special features on your property that you consider
	noteworthy for their natural, historic, or other significance?
	What are they?

3

2

Special features Seclusion

Stone Grist Mill

Neighbors sand mound

Landscape (i.e. pond/creek large trees) 3

Wilderness, hiking trails at Appal. Trail Log home, mill stones from the site

Many native herbs

Scenic beauty

Location

Fort Henry 2

Home built 1912

3rd oldest residence in Bethel

- 6. What is the most likely thing(s) that will happen to your land within the next ten years?
 - 109 remain in present ownership and in near present condition
 - 21 transfer to heirs and remain in family
 - 0 develop total parcel yourself
 - 2 subdivide and sell some lots
 - 16 sell as single parcel
 - preserve with conservation easements or other means (i.e.clean and green, ag security, etc)
 - other (please specify)

Comments for this question:

- At the rate school taxes are increasing who knows if I'll be able to keep ownership of this property for the next 10 years.
- Add addition if taxes stop going up
- Remain in present ownership or move because we cannot afford the taxes.
- More than likely move. Dislike the poor roads
- Foul smells from so called farms, tremendous amounts of horse flies that ruin any outdoor activities such as picnics or swimming. It is pretty bad when grandchildren come and state it smells bad here.
- Unknown
 3
- Maybe split 5 acres off and sell barn separately
- Build home on lot

WORK

7. What is the primary occupation of each person in your home? postal employee truck driver contractor government/state employee

student	part t	ime worker	farming	housewife	farm related
11	8	1	14	28	3
handicappe	<u>ed</u>	<u>business</u>	laborer	medical field	<u>banker</u>
4		5	34	14	2
clean hous	es	restaurant	owner r	estaurant worker	office work
2		1		5	17
diesel med	<u>hanic</u>	specialist	wareho	ouse supervisor	retired
6		5		2	47

	1	bus driver self employed 1 10 10 supervisor production w			ed <u>school employee</u> 12 vorker <u>maintenance</u> insp		5 2				
		6 1				4 1				3	
	inforr	nation 4	techn	ology	store 5		<u>elec</u>	trician 2	exca		_
	cosm	etolog 2	<u>iist</u>	socia	l work		onstr	uction 2	CEO 2		<u>der</u>
8.	Bethe	el Tow de Be	locate nship rks Co		<u>73</u> <u>103</u>						
	(exclu Retire		Bethel	Towns	ship)	<u>61</u> <u>49</u>					
9.		is the Numb		al rou	te(s) y	ou tak	e to w	vork?			
	<u>12</u> 01	<u>22</u> 11	<u>54</u> 01	<u>61</u> 04	<u>72</u> 01	78 80	<u>81</u> 10	<u>83</u> 01	183 25	<u>222</u> 04	343 03
	419 24 Road	422 20 Name	<u>501</u> 61	<u>645</u> 23	<u>743</u> 01	<u>934</u> 01					
	A	Strau 03		Pine 0	<u>Grove</u> 4	Swor 01	<u>oe</u>	Winters 04	<u>sville</u>	Fort I	Henry 3
	Grave 0	el Pit 1		d <u>22</u> 22	Re	ehrersl 07	burg	7	lew So	chaeffe 04	<u>erstown</u>
	Hill C	<u>Top</u> 11	Kutzt 01		Little 0			town 2		<u>Sc</u>	<u>hrack</u> 01
	Myer 03	:	Mt Zie	<u>on</u>	School 01	<u>ol</u>	Mt A	Aetna 1			port 05
	Beag 01	<u>le</u>	Grebl 01	<u>e</u>		Richl 01		Schu 01			

BUSINESS

10. Do you own or operate a business in Bethel Township? 37 yes 110 no

If no, do you plan on opening a business in the next 10 years? 3 yes 83 no 2 maybe

11. If yes, how many employees do you have?

0	1	2	3	4	5	6	9-14	20	28	30	<u>Self</u>
8	6	4	1	2	1	1	2	1	1	1	4

12. If yes, do you have plans on expanding your business in the next ten years?

12 yes 21 no 1 don't know

If you or your family is engaged in agriculture please answer the following questions. If not, please skip to question #18.

AGRICULTURE

13. What percentage of your family income would you say is derived from farming?

- 14. Do you consider yourself a full-time farmer? 8 yes 15 no
- 15. How many acres do you farm?

- 16. Have you adopted an approved soil conservation plan for your farm? <u>13</u> yes <u>7</u> no
- 17. Have you been or will you be required to implement nutrient management plan? 12 yes 8 no

W

WATER SUPPLY AND PUBLIC SERVICES							
WATER SUFFET AND PUBLIC SERVICES							
18. What is your primary water source?							
$\underline{2}$ spring $\underline{0}$ cisterns $\underline{146}$ drilled well $\underline{0}$ other $\underline{4}$ hand-dug well							
19. Have you ever experienced periods when your spring or well radry?	ın						
1 yes 150 no if yes: Does this happen often? When does it occur?							
Never in 34 years that I owned a home here. I used my well to fill my 13500 gallon swimming pool. Couldn't pump it dry in July and August. I have so much water that it floods my basement. Never ever do I want a shy city water system.							
20. Do you use well or bottled water for drinking?							
132 well water 29 bottled water 3 other							
21. Do you treat your water to eliminate contaminants? 63 yes 89 Comments: 2 filter water 1 distill water 1 absolu							
22. How old is your septic system?							
16 0 -5 yrs 13 6-10 yrs 31 11 -20 yrs 70 over 20 yrs 22 do not know							
23. How often do you have your septic tank pumped? 1 0-6 months 8 6 months to 1 yr 54 1-3 year 47 3-6 years 26 more than 6 years Comments: 2 never 2 softener 1 prior home every two years	s rs						

LEISURE AND RECREATION

24. What are your 3 major forms of outdoor recreation in Bethel Township?

57 37 77	hiking	19 4 79	fishing winter sports gardening	17 17 22	swimming nature study biking
2	youth sports	<u>2</u> wa	atch speeders	<u>1</u> b	ird watching
1	observing mankind	<u>1</u> mi	ini golf	The state of the s	wn care
1	horse	<u>2</u> ca	mping	<u>2</u> k	ayaking
1	motorcycle				

25. List one or more recreation or leisure facilities you would like to see in Bethel Township that does not currently exist?

more things for children	01	park for children to play in	13
theater	01	motorcycle practice facility	01
biking trails	06	playground	07
4 wheeler track or trail	01	walking running trail	13
auto racing	01	car wash	01
ice/roller skating	01	none keep as it is	02
Bethel History Museum	01	park with baseball/soccer	03
rec. center for youth	06	swimming pool & picnic	17
golf course	02	boating	01
none	01	tennis courts	03
Indoor basketball courts	02	lighted basketball skate box	ard1
nature study	01		

Continuation of question 25 Comments:

- no property tax so we could relax at our own home, less roads, no construction, more education, hikes on our natural habitats. less emphasis on \$, more emphasis on vegetable farming
- elimination of all dumps posing as farms

QUALITY OF LIFE ISSUES

26. Which are the most important qualities of life in Bethel Township?

Rank your choices with 1 being most important

	Trank your choices with 1 being most important.									
Name	1	2	3	4	5	6	7	8	9	10
Rural	71	27	19	03	04	04	01	00	00	01
Lifestyle										
Peace &	29	44	31	14	04	03	01	00	00	00
Quiet										
Family	29	12	12	11	10	13	05	01	00	00
ties										
Natural	24	25	23	21	12	02	0	01	00	00
Beauty										
Natural	17	04	21	25	19	11	03	02	00	00
Areas										
Ag. Areas	23	06	07	11	17	18	05	02	00	00
Economic	03	01	00	01	00	07	13	31	00	00
opportuni										
ty										
Rec.	01	00	00	02	09	04	26	14	01	01
opportuni									1	
ty										
other	01	01	00	00	00	00	00	01	00	00

Comments:

- Cheap stores like Horning's
- Some freedom from big rotten government as compared to living in Reading
- No corp., welfare, Govt. subsidized phony jobs
- The Blue Mt Scenery & Round Head
- 27. Do you consider Bethel Township rural 139 or suburban 6? Comments: a little of both getting more suburban agricultural

28. Which of the following public services are needed in Bethel Township?

24-hour police protection: 46
minor road improvements: 91
township operated park: 39
public sewer system: 30
major road improvements: 57
public water supply: 11
recreation center: 23
other (describe)

Comments:

- reduction of taxes
- agriculture
- reduction in taxes
- major road improvements to Little Mt Rd between Beagle and 645
- major road improvements to Little Mt Rd
- traffic light in Bethel, we really can do without the light, just exercise patience
- Frystown Road is in need of repair, sides of blacktop is breaking off & lands in our yards, from 501 to Frystown
- use State Police
- Police Protection can't get them now, I call State police
- Minor Road improvements Fix Road
- Major Road improvements teach how to take care of roads
- Don't need chief of police –waste of money
- Police Protection just improve the force we haveneed professionalism attitudes
- Major Road improvements Pine Grove Road
- More frequent recycling in summer would be great
- Major road improvement at Y 501 and the square in Bethel
- Clean farms grew up in a beautiful rural valley love farms if they are true farms not garbage dumps.
 Seagulls don't usually reside in Bethel Township
- Clean debris on highway off ramps regularly A post office actually in the county I live

- Public water supply
- · Other sport activities all year.

29. Are there any things that detract from Bethel Township? Comments:

- All the Township Ordinances for permit
- Yes, the Doutrich & Bicksler farm that was sold & planned on being developed
- Somewhere along the time-line, two sand mounds have been approved for 7761 Lancaster Ave & I know one other property.
- The scattershot, uncoordinated development of agricultural land in the Township. The potential threat of having an industrial park in my front yard.
- Gas station ownership by other nationalities
- The consequential increase in car traffic
- Outsiders moving in & trying to change things to their old home style.
- School has too much expense in administration (too many people) & lack of business makes for tax base.
- City People wanting to change the country to the city & you cater to them. High crime rate.
- Corporate farms water contamination
- Abandoned mobile home 20' from our yard distracts our view. It's used as a privacy fence.
- Traffic on 501
- Motor vehicles with very loud exhaust systems (or open exhausts)

3

- · Selling of liquor license
- Property with junk
- Distance to shopping center & malls
- Mess over at 645 & 78
- Farmland being sold for commercial use
- Too much traffic
- Adult book store speeding on country roads
- Poor roads
- Stinking raw manure on fields
- Lack of job opportunities
- School & Property taxes
- Truck stop

•	Has no water and sewer Junk yards Yes, that communist tyranny of innocent victims in Frystown & E North Korea. Weeds Flies Lack of Ordinance enforcement	Bethel. This only belongs in 2	
	Too much development	7	
	e emergency services in Bethel Too o <u>4</u> unsure	ownship adequate? 28 yes	
Comr	why? ments positive or negative: Ambulance yes Bethel Fire Company, no, need to with the community without bicke Poor response & quality of service 3 Who is there? Under trained fire personnel at 1 one. Can never find cops Need 24 hour police protection Police slow response Fire company slow to respond Lack of updated equipment I think so.	ering & arguing ce from ambulance	
sin	me three things about Bethel Towice you lived here? nments:	nship that have changed	
•	Excessive spending by Supervisor	sors	
•	More development	49	
•	Paved 645	20	
•	Major Taxes	33	

_	More crime	0
•	Water quality	9
•	Poor property quality	5
•	Alleys need repair	5
	Population	8
•	Lack of SEO	0
	Junk cars on property	
•	Water mining & warehousing	
•	Better government	
•	Things for children to do	
•	More traffic	26
•	More restrictions	5
•	Less police	5
•	Township police protection is a joke, need state p	olica
•	Commercial business along Old 22	4
•	Less farmland	8
	Poor roads	7
•	Place to vote, one location	,
•	Garment factories closed	
•	Gas station monopoly	2
•	Horning's	5
•	Enterprises in town of Bethel Township	8
•	Smells	
•	Speeding	
•	Proposed sewer system	
•	More churches	
•	Recycling	
•	improve school & personnel	
•	posted land	
•	public roads closed	
•	improved cable access	
•	increase in police force	2
•	liquor license	
•	cell tower installed	
•	78 limited access	
•	Mail delivery	
•	Lack of mowing	2
•	Public demand for more services	
•	Lights	2
•	Adult book store should not be here	

 Street signs Playground activities Not enough space to write it all No Christmas lights
32. What are some things you hope never change in Bethel Township?
QuietnessFarmingKeep BeautifulBlue Mountain52165Rural Atmosphere NatureSense of HistoryMail system47312No Sewage SystemLow traffic congestionCommercialized511Not a lot of rules & regulationsWoodlandNo large Corporations124Strong work ethicHelping othersFamily orientedHorning's1312Future consideration of residentsnot dominated by foreigners11
On lot water & sewer 2 2 Remain no development Maintain Farmland South Police Dept. Good Ambulance 1 Maintain Farmland South Police Dept. Maintain Farmland South Police Dept. Maintain Farmland South Police Dept. 1
33. If you could change anything about Bethel Township, what would it be? Comments: 10 Acre min. for houses in woodland Crime & drugs
 Crime & drugs Build 501 extension around Bethel Mo more new homes Let it be Improve roads I would dig out & destroy every trace of city sewer. Because of the tyranny oppressed on innocent home owners
Bethel Township Comprehensive Plan – 2015 2-30

2

2

More political

• Some improvements on roads

School taxes too high
Too many nosy questionnaires
Less rural area

•	Eliminate Truck Companies More Community events Improvements to un-kept properties Lower taxes Low income housing for seniors People who move to country & want us to adapt to Better communication with elected officials on our No development Combine Fire Companies Demolish trail park and motel shacks on Brown R	needs 5
•	24 hour Ambulance Staff Eliminate some rules & nosy ordinances Tax system	3
•	Taking land for housing Rely on state Police Get rid of Police Force – useless Better roads	2
•	Not have beer distributor Leave Berks County and Join Lebanon Stricter laws on ground contamination	
•	The Board of Supervisors Noise Ordinance for 400' of neighbor ATV & targe Outlaw raw sewage on fields – disgusting	et practice
•	Stop all new development It's laws & ordinances on the housing issue	3
•	Add business, sandwich shop, card shop, pizza si convenience store grocery store. All shopping do Reading or Lebanon Provide trash drop off locations	
•	Remove trucks from 183 More frequent recycling Limit # of large scale farming	
•	Street light at 501 and Rehrersburg Rd Garbage dumps pretending to be farms No liquor license	
•	Roads Incentives for historical preservation Make Chief of Police work for his pay & put his ne work Don't change	w car to

•	Stop sewage from coming – get a good SEO & make property
	owners responsible

•	Don't know,	live in	the stic	ks and	I mind	my own	business
---	-------------	---------	----------	--------	--------	--------	----------

34. Do you feel there is a good cross-section of housing (low – middle – upper income) available in Bethel Township? 81 yes 5 don't know Comments: Low to middle Middle Not enough upper
Should there be additional housing development in Bethel Township?yes 105 no 2 some, in area zoned residential
36. Where should additional housing development occur? 49 Village District 27 Other 5 non tillable ground 3 some other county
37. Should there be additional commercial development in Bethe

<u>63</u> yes

<u>61</u> no

3 don't know

Comment:

Yes, to help tax base

37a. What type of commercial development do we need in Bethel Township?
None

<u>None</u>	<u>Small</u>	<u>Business</u>	Fast Fo	<u>od</u>	Food Mar	<u>kets</u>	
18		11	1:	2	2		
Discount Stores		Professional Services		Health Care			
2			4			4	
Bakery		Better Pay	ing Jobs		Limited		Clean
2		12		2		1	
Local Hard	ware	Light Indus	stry		Retail	Bank	
2		5		2	1		
Car Wash		Gas (Shee	ts)		Activities 1	for Senic	ors
2			3		1		
Restaurants	<u>S</u>						
8							

- Clean, use mineral natural resources, (water, Sewer) Trash to steam, Electric generation plant. Ideal along I78 trash hauled constantly on interstate.
- You should have taken Cabela's when it was offered.
- 38. Where should commercial development occur?

 19 Village District
 75 I-78 corridor
 Old 22, 501 & 645
- 38a. Should existing commercial districts be expanded? 39 yes 56 no 1 some
- 39. Should agricultural areas in Bethel Township be protected from mass development? 132 yes 6 no 1 certain areas Comments:

Did the Supreme Court just say private property no longer exists?

Only real farms should be considered agriculture area

40. Where and how should agricultural protection occur?

93 expand existing areas

maintain

Comments:

Can happen in both but should be controlled & clustered Neither – Just keep existing farmland Create new areas if needed. Some limits on factory farming Areas with the best soils & productive flat farm ground Only to farms that are actually growing food or livestock None of the above, we need agricultural areas. We need agricultural across, but this needs a good mix to create jobs.

41. Should there be additional industrial development in Bethel Township?

 $\underline{57}$ yes $\underline{65}$ no $\underline{2}$ a little $\underline{1}$ maybe Comments:

Not pig farms & sewage dumps
It is not warranted, either presently or in the foreseeable

Within existing IC district Yes, only with careful consideration Yes, food processing/part of berks 20/20 plan

future.

42. Where should industrial development occur?

50 expand existing areas

24 create new areas 2 existing

areas

no where

3 along I 78

Comments:

Not in our Township

There are large enough areas set up they are currently not all developed

Only within existing IC District

Expand – but not too much that the serenity is gone.

Create – South of town on a main route

Ship it out to Reading, Lebanon, Harrisburg, and Pottsville Don't take additional area the present ones are not used for

vears

Create - but stay away from tillable land

43 Please enter the number of people in each of the following age groups who live in your household.

119 0-18

16 19-24 55-64

42 25-34 34 65-74

53 35-44 29 75-84

53 45-54

85 and over

44. Do you currently own a home computer? 96 yes (go to A) 49 no (go to B)

A. If yes, please answer the following questions:

Are you currently using the internet? 83 yes 22 no (go to

a.)

How are you connected to the internet? 60 dial -up 5 dsl 8 cable

5 wireless

a. Are you planning on obtaining internet capability in the next 3 years?

9 yes 16 no

B. If no, please answer the following questions:

Are you planning on purchasing a computer in the next 5 years? 8 yes <u>35</u> no

45. Do you have any additional thoughts, comments, or concerns? Please discuss them below or on additional sheets. (There were several comments concerning various aspects of the Township. The responses are available at the Township Office for review.)

B. STATEMENT OF COMMUNITY OBJECTIVES

The Pennsylvania Municipalities Planning Code (MPC) has established the basic requirements for a comprehensive plan, the first of which is a statement of community goals and objectives:

Section 301. Preparation of Comprehensive Plan.

- (a) The municipal, multimunicipal or county comprehensive plan, consisting of maps, charts and textual matter, shall include, but need not be limited to, the following related basic elements:
- (1) A statement of objectives of the municipality concerning its future development, including, but not limited to, the location, character and timing of future development, that may also serve as a statement of community development objectives as provided in section 606.
- (2) A plan for land use, which may include provisions for the amount, intensity, character and timing of land use proposed for residence, industry, business, agriculture, major traffic and transit facilities, utilities, community facilities, public grounds, parks and recreation, preservation of prime agricultural lands, flood plains and other areas of special hazards and other similar uses.
- (2.1) A plan to meet the housing needs of present residents and of those individuals and families anticipated to reside in the municipality, which may include conservation of presently sound housing, rehabilitation of housing in declining neighborhoods and the accommodation of expected new housing in different dwelling types and at appropriate densities for households of all income levels.
- (3) A plan for movement of people and goods, which may include expressways, highways, local street systems, parking facilities, pedestrian and bikeway systems, public transit routes, terminals, airfields, port facilities, railroad facilities and other similar facilities or uses.

- (4) A plan for community facilities and utilities, which may include public and private education, recreation, municipal buildings, fire and police stations, libraries, hospitals, water supply and distribution, sewerage and waste treatment, solid waste management, storm drainage, and flood plain management, utility corridors and associated facilities, and other similar facilities or uses.
- (4.1) A statement of the interrelationships among the various plan components, which may include an estimate of the environmental, energy conservation, fiscal, economic development and social consequences on the municipality.
- (4.2) A discussion of short- and long-range plan implementation strategies, which may include implications for capital improvements programming, new or updated development regulations, and identification of public funds potentially available.
- (5) A statement indicating that the existing and proposed development of the municipality is compatible with the existing and proposed development and plans in contiguous portions of neighboring municipalities, or a statement indicating measures which have been taken to provide buffers or other transitional devices between disparate uses, and a statement indicating that the existing and proposed development of the municipality is generally consistent with the objectives and plans of the county comprehensive plan.
- (6) A plan for the protection of natural and historic resources to the extent not preempted by federal or state law. This clause includes, but is not limited to, wetlands and aquifer recharge zones, woodlands, steep slopes, prime agricultural land, flood plains, unique natural areas and historic sites. The plan shall be consistent with and may not exceed those requirements imposed under the following:
- (i) Act of June 22, 1937 (P.L.1987, No.394), known as "The Clean Streams Law".
- (ii) Act of May 31, 1945 (P.L.1198, No.418), known as the "Surface Mining Conservation and

Reclamation Act".

- (iii) Act of April 27, 1966 (1st SP.SESS., P.L.31, No.1), known as "The Bituminous Mine Subsidence and Land Conservation Act".
- (iv) Act of September 24, 1968 (P.L.1040, No.318), known as the "Coal Refuse Disposal Control Act".
- (v) Act of December 19, 1984 (P.L.1140, No.223), known as the "Oil and Gas Act".
- (vi) Act of December 19, 1984 (P.L.1093, No.219), known as the "Noncoal Surface Mining Conservation and Reclamation Act".
- (vii) Act of June 30, 1981 (P.L.128, No.43), known as the "Agricultural Area Security Law".
- (viii) Act of June 10, 1982 (P.L.454, No.133), entitled "An Act Protecting Agricultural Operations from Nuisance Suits and Ordinances Under Certain Circumstances".
- (ix) Act of May 20, 1993 (P.L.12, No.6), known as the "Nutrient Management Act," regardless of whether any agricultural operation within the area to be affected by the plan is a concentrated animal operation as defined under the act.
- (b) The comprehensive plan shall include a plan for the reliable supply of water, considering current and future water resources availability, uses and limitations, including provisions adequate to protect water supply sources. Any such plan shall be generally consistent with the State Water Plan and any applicable water resources plan adopted by a river basin commission. It shall also contain a statement recognizing that:
- (1) Lawful activities such as extraction of minerals impact water supply sources and such activities are governed by statutes regulating mineral extraction that specify replacement and restoration of water supplies affected by such activities.
- (2) Commercial agriculture production impact water supply sources.

- (c) The municipal or multimunicipal comprehensive plan shall be reviewed at least every ten years. The municipal or multimunicipal comprehensive plan shall be sent to the governing bodies of contiguous municipalities for review and comment and shall also be sent to the Center for Local Government Services for informational purposes. The municipal or multimunicipal comprehensive plan shall also be sent to the county planning commissions or, upon request of a county planning commission, a regional planning commission when the comprehensive plan is updated or at ten-year intervals, whichever comes first, for review and comment on whether the municipal or multimunicipal comprehensive plan remains generally consistent with the county comprehensive plan and to indicate where the local plan may deviate from the county comprehensive plan.
- (d) The municipal, multimunicipal or county comprehensive plan may identify those areas where growth and development will occur so that a full range of public infrastructure services, including sewer, water, highways, police and fire protection, public schools, parks, open space and other services can be adequately planned and provided as needed to accommodate growth.
- (Article III, Section 301, *Pennsylvania Municipalities Planning Code* (MPC); Act 247, P.L. 805, of 1968, as amended.

As empowered and directed by the sections referenced in the Pennsylvania MPC, and based on the public hearings and the analysis of community participation, the Board of Supervisors and the Planning Commission of Bethel Township have developed the following set of community development objectives:

- 1.To preserve the rural character of the Township.
- 2.To coordinate the Township's plan for future land use with the conservation of natural resources including prime agricultural lands, surface and groundwater resources, steep slopes, woodlands, natural areas, and ecological resources.
- 3.To direct growth to those areas where there are adequate infrastructure without adversely impacting the Township's cultural and natural heritage.

- 4.To promote the implementation of the Township's Sewage Facilities Plan by:
 - a)Continuing to evaluate existing sewage facilities to address problems as they arise in order to avoid groundwater degradation and adverse health effects.
 - b)Significantly limiting growth in areas which are not planned for future increased density with public sewers.
- 5.To coordinate future growth with the following Township objectives for the provision of public water service:
 - a)To continually monitor water quality and supply needs and take whatever steps are necessary in the future to protect or enhance existing Township groundwater quality.
 - b)To significantly limit growth in areas which are not planned for higher densities served by public water service in the future.
- 6.To encourage the retention of the Township's prime agricultural lands by discouraging fragmentation or conversion to non-agricultural uses.
- 7.To protect historical and archaeological resources.
- 8.To protect groundwater recharge areas of existing or potential public and private water supplies.
- 9.To provide the opportunity for the Township's "fair share" of all basic forms of housing with varied densities.
- 10.To promote affordable housing for all ages within the context of compatibility with other community development objectives.
- 11.To ensure public welfare by providing a sound basis for the economic opportunity of Township businesses and residents.
- 12.To promote rural trade and commerce.
- 13. To provide for the safe and efficient movement of people and goods.
- 14.To encourage future growth in a manner which is consistent with the Township's road classification system.
- 15. To maintain adequate ambulance, fire, and police service.

- 16.To encourage the provision of recreational opportunities to satisfy the recreational needs of Township residents of all age groups.
- 17.To actively participate in cooperative efforts which support the Township's community development objectives.

CHAPTER 3

NATURAL AND HISTORIC RESOURCES

There is a practical implication to viewing land as a resource rather than as a commodity. The unique and irreplaceable beauty, characteristic, and sense of community in the Township has been recognized as a resource worth protecting. Land use management should occur in a framework of stewardship and in harmony with the long term preservation of the land.

This Comprehensive Plan represents a vision for conservation and development within Bethel Township. Before land is allocated for future growth, it is important to identify important characteristics which require conservation. This Chapter will address the following resources:

- Historic Resources
- Geology and Groundwater
- Surface Waters
- Ecological Resources
- Topography
- Soils

A. HISTORIC RESOURCES

Historic Resources

The historic resources of Bethel Township are primarily represented by the land, streams and mountain slopes that helped to define the lives of the early residents, whose original structures have almost all been obliterated by the passage of time.

The Lenape Indians – a Native American tribe known as the Delaware Indians by the first Europeans to inhabit that river valley – hunted in what is now the Bethel area for generations before the arrival of William Penn in the New World in 1683. However, they are now represented in material terms only by arrowheads, spear points and other small objects. Farmers from the Palatine region of Germany who began clearing the area's forests as early as 1730 built sturdy log dwellings, barns and churches, but these buildings have been abandoned or replaced over the years by more modern structures.

Remnants of one of the buildings from the 1700's -- "Spring House," a stone dwelling constructed above a spring on property known as the "Lion's Den," which was warranted by Andreas Graff in 1739 and occupied for many years by the Swope family – are still visible. A few existing farm houses associated with the Moyer, Merkle (Merkill), Snyder (Schneyder, Sneider), Brown (Braun) and Fox families are believed to have been built before 1800. In addition several structures from the first half of the nineteenth century remind us of the early settlers. Most notable of these buildings are the house of Michael Miller (founder of the village of Millersburg, now Bethel) constructed soon after his purchase of the property in 1804, Salem Reformed Church erected in 1810, the Center House (1817) and Peiffer's Store (1820) in Bethel, Schubert Mill (begun in 1848), and Merkey Meeting House built by the Church of the Brethren in 1848...

Location and Name

Located in the northwestern corner of Berks County, Bethel Township is bounded on the north by the top of the Blue Mountain, on the east and south by the Little Swatara Creek and on the west by the Lebanon County line. The original Bethel Township was formed in 1739 from the northern part of Lebanon Township in Lancaster County which at that time extended from the Schuylkill Ricer to the Susquehanna River and north to the top of the Blue Mountain, beyond which land not yet purchased from the Indians.

Until 1752, the township included land as far west as the (Big) Swatara Creek, but when Berks County was established, it was cut into two municipalities by the western boundary line of Berks. The township in Lancaster (now Lebanon) County also retained the name Bethel, possible a Biblical reference applied to the area by the early residents.

In 1749 and 1754, the Six Nations of the Iroquois sold land north of the Blue Mountain to the Province of Pennsylvania, expanding the boundary of Bethel Township almost to the west branch of the Susquehanna. When Pine Grove Township was formed in 1771 (then within Berks County), Bethel's northern border again became the top of the mountain, now the south boundary of Schuylkill County (established 1811).

Records of the circumstances that gave the name Bethel to the large original township in 1739 have not been found. An early history book states that "it was, no doubt, so called after a colony of Moravians, who had a small

establishment on the Swatara, in this township, called Bethel." However, the first mention in this area of the United Brethren (as Moravians called their congregations: was the visit of Count Nicholas Ludwig Zinzendorf in 1742. The first settlers established German Reformed and Mennonite congregations north of the Little Swatara before 1739, soon followed by the Moravians and German Brethren. Lutherans worshiped in homes and churches in adjacent townships as early as the 1720s and 1730s. However, none of these congregations was known by the name Bethel before the establishment of the township.

A less inspiring possibility is that Samuel Blunston, the most politically powerful resident of Lancaster County in its early days, persuaded the Commissioners to name that county's new township in honor of his favorite niece and her husband, a Lancaster tavern owner and politician, Samuel Bethel.

But there may have been a religious significance, after all. Blunston, a Quaker, had named his own property Mount Bethel after a nearby cemetery maintained by the Society of Friends. The Biblical reference to Bethel as the House of God was much respected by the Quakers, who gave that name to one of the first townships in Pennsylvania (originally in Chester County, now Delaware County) in 1683, the year William Penn arrived in the New World. Early Settlement

When the first white settlers began clearing the towering old-growth forest, planting crops and providing pasture for their livestock, the area was a Lenape hunting ground. In 1732, the Lenape sold their claim to the entire Schuylkill Valley, including the Tulpehocken, where the Palatine settlement nine years earlier had crowded out the Indian village there. In 1736, the Iroquois, who had begun to reassert their influence over territory occupied by neighboring tribes, relinquished control of all land south of the Blue Mountain to the Province of Pennsylvania in a treaty negotiated publicly and enlarged privately by Conrad Weiser.

The primary means of communication between the Iroquois chiefs and the Pennsylvania authorities at this time was the Tulpehocken Path, which led from the Council Fire at Onondaga southward through the important Indian town of Shamokin (site of present-day Sunbury) to the gap in the Blue Mountain in northern Bethel Township. From there, the trail passed through the sites of today's Bethel, Rehrersburg, and Womelsdorf, then on

to Reading (founded 1748) and Philadelphia, the colonial capital. A spring near the top of the mountain was named Pilger Ruh ("Pilgrim's Rest") – now a popular spot along the Appalachian Trail – by Count Zinzendorf after a wearying ascent from the valley below in 1742.

The first white landowners (although not residents) in today's Bethel Township were Richard Penn, Thomas Freame (a Penn in-law) and William Allen, who obtained a total of 16,000 acres. Soon thereafter, other individuals who had an impact on Pennsylvania history, including Conrad Weiser, Christopher (Stoffel) Stump, Leonard Feg and William Parsons, acquired land north of the Little Swatara. Among the first to establish farms in the township were the Basehair (Boeshore), Emerich, Fidler, Frantz, Graff and Merkill families.

In 1754, the taxable individuals residing in Bethel Township reported owning land totaling 2,230 acres, of which 168 acres had been cleared and sowed in grain.

Indian Attacks

The first attack on Berks County in what would become the French and Indian War occurred in Bethel Township along the Tulpehocken Path in November 1755 near the fortified house of Dietrich Six (or Sixt). Within a few days, at least 18 settlers – men, women and children – were brutally killed or kidnapped by Lenape warriors venting their long-suppressed anger at being crowded out of their hunting land.

Three months later Fort Henry, the most important military post between the Schuylkill and the Susquehanna, was constructed on Dietrich Six's property under the general direction of Conrad Weiser, commissioned a Lieutenant Colonel in the newly formed Pennsylvania Militia. In the far northeast corner of Bethel Township, near the summit of the Blue Mountain above Stone Creek was Dietrich Snyder's house, used as an observation post during the French and Indian War. The site can be reached from the Appalachian Trail.

Despite the presence of Fort Henry – and the armed men who ranged the countryside of Bethel Township in search of enemy Indians – the Lenape

attacks continued during 1756, 1757 and 1758. The greatest time of danger was during the planting and harvest seasons when many brave farm families returned. Peace with Pisquetomen, Shingas and their Lenape warriors was achieved late in 1758. During the war, more than three dozen people of all ages were murdered or abducted in Bethel Township.

Growth of the Township

From the time onward, the population of the township grew steadily, although during Pontiac's Rebellion (1763-1764) Lenape warriors attacked settlers only a few miles away in northeastern Berks County, causing great consternation in the Bethel area. Woodland continued to recede as farms expanded, new settlers arrived and timber was converted to charcoal for forges along the Tulpehocken, a few miles to the south.

In 1767, the township tax list had grown to include 83 property owners, with 7,730 acres of land, as well as five single men and eleven laborers. Although the typical landowner was assessed on 100 acres, the smallest property was listed at 25 acres, while the four largest were 200 acres. The residents on the tax rolls reported owning 148 horses, 173 cattle and 121 sheep. Four businesses were listed: three sawmills (owned by Daniel Kremmer, Leonard Miller and Christopher Neicomer) and Wendel Seyber's blacksmith shop.

The next year, a Provincial Road following the Tulpehocken Path was "laid out and surveyed" form Reading in a northwesterly direction through the middle of Bethel Township (now Salem Road and Route 501), over the Blue Mountain, and on to the Susquehanna River a few miles south of today's Sunbury. Actual clearing of the planned road of more than 160 miles was slow, and in 1772 a traveler descending the north side of the mountain reported that "the trail is only a for-path going between trees and rocks.

Bethel in the Revolutionary War

In April 1775, within a week after Paul Revere's ride and the Battle of Lexington, the citizens of Berks County began forming local militias to

provide aid to the Patriots of Massachusetts in the conflict that would soon become the Revolutionary War. Ennion Williams was appointed Mayor of the 1st Battalion of the Pennsylvania Rifle Regiment in March 1776, becoming the highest-ranking Revolutionary War office with links to Bethel Township.

The Berks County Battalion of Foot – composed of volunteers from Heidelberg, Tulpehocken and Bethel who had joined the Pennsylvania Military Association – was established in 1776 to confront a large British army that was expected to mount an attack near the city of New York. Commanded by Colonel John Patton, this battalion included nearly three dozen men with family names connected with Bethel Township, mostly notable Captain Michael Furrer (Forrer, Forry), Captain Michael Wolf, First Lieutenant Jacob Rehrer, Second Lieutenant John Anspach, Ensign Henry Battorf, Ensign Jacob Fortner (Bordner), Sergeant Wendle Seiber, Sergeant Michael Zerben (Zerby) and George Lechner, Battalion Quartermaster.

Bethel Township provided two companies of approximately sixty men each for the 6th Battalion of Berks County Militia from1777 until 1779. Captain George Battorf (Batdorf) commanded the 2nd Company, while the 7th Company was led initially by Captain Jacob Kremer (Kreamer) and later by Captain John Folmer (Fulmer). In reality, few militiamen saw combat duty. When called to active service, they were ordinarily assigned to guard Hessian prisoners or Pennsylvania's military supplies. For the most part, Bethel's farmers supported the Patriot cause by producing wheat, wool and meat for the Continental troops.

Bethel Township in the Late 1700s

The first store in Bethel Township was established by Ennion Williams, the Revolutionary War officer, "on the Shamokin Road, near Leonard Miller's mill" in 1783, the year that the treaty of peace was signed with Great Britain. The gristmill and occasional sawmill, later known as Weidner's Mill, was located just east of today's Salem Road (the old Tulpehocken Path) at the Little Swatara crossing.

By 1784, the number of landowners in the township had grown to 110, reporting 15,241 taxable acres. There were also forty-one single men and laborers, most of whom owned one or two cows. The tax list showed 289 horses, 368 cattle and 361 sheep. Five residents reported owning more than 300 acres. Nicholas Kern (who had been previously taxed on his hemp mill) and Peter Neycomer each operated both a gristmill and a sawmill in 1784, while Leonard Miller and Henry Shoemaker milled only grain. Members of the Berger, Bixler, Emert, Houtz, Kurr, Read and Wolf families reported stills on their property.

Before the Revolutionary War, travel from Bethel Township to nearby settlements was limited to horse paths. However, by the mid-1780s there was a recognized road from Easton to Harris's Gerry (todays Harrisburg) by way of Hamburg and Rehrersburg. Just south of the Little Swatara, this road joined the former Tulpehocken Path, which had been widened to become the Shamokin Road connecting Bethel Township with the growing number of settles north of the Blue Mountain and beyond to Sunbury. Soon thereafter, a second wagon trail was constructed over the mountain, joining the Easton-Harrisburg road just east of Rehrersburg and going northward through present-day Schubert (the predecessor of Route 419). Only many years later would an east-west road cross the township.

During the 1790s, James Wilson, Justice of the first Supreme Court of the United States and signer of both the Declaration of Independence and the Constitution, purchased land on the slopes of the Blue Mountain in Bethel Township for resale at an expected profit, but he soon went bankrupt from his excessive speculation in real estate in many areas of the country.

Nineteenth Century

The population of Bethel Township grew steadily from 924 in 1810 to 1294 ten years later, then to 1482 in 1830. In 1840 the number of residents declined slightly to 1458.

In 1840 census showed that township residents owned 463 horses, 1480 horned cattle, 836 sheep and 966 swine. Bethel's farmers harvested

25,880 bushels of oats, 18,822 bushels of corn, 16,491 bushels of rye and 11,852 bushels of wheat.

By 1844, according to I. Daniel Rupp's History of Berks and Lebanon Counties published that year, there were "four grist mills, six saw mills, one fulling mill [for making felt], and one woolen factory in the township; two tanneries and several distilleries – but at present, not in operation." Soon thereafter, a new State Road, the forerunner of Old Route 22 (and now I-78), was designated from Strausstown westward through Millersburg (Bethel) to Stumpstown (today's Fredericksburg).

Bethel Township had no center of commerce until 1814, when Michael Miller laid out 52 lots for the village of Millersburg (now Bethel) along the old Tulpehocken Path, which had become the main road from Reading to Sunbury and beyond. Two inns – Miller's village tavern, which was sold to the Kurr family in 1816 and became known as the Kurr House, and the Center House established in 1817 – served as stopping points for travelers and teamsters, including those going southward to Charming Forge and the Union Canal.

In 1844, there were between thirty and forty dwellings in Millersburg, as well as several stores. Early tradesmen included a pump-maker, carpenter, hatter, tailor, wagon-maker, cooper, weaver, coverlet-maker and blacksmith. A post office with the name Bethel — to avoid confusion with another Millersburg that already had a postal facility — was established in 1827. Although some maps from the mid-1800s began to show the village of Bethel, the name Millersburg was commonly used until 1900.

The village of Freystown (now Frystown) was laid out in 1830 by Martin Frey, who platted an ambitious 181 lots. The first ten building sites were assigned by lottery at ten dollars per ticket, and Frey vanished soon after the drawing. Seventy years later, only thirteen houses had been built. The main industry in the early days was a leather tannery, operated by the Frantz family that occupied two lots near the village center. Around 1860, the post office that had been established at Crosskill Mills in 1849 was moved to the Frystown Hotel. That postal facility was discontinued in 1905.

A post office was opened in Meckville in January 1873, but closed in December of that year. Although a 190 newspaper article claimed that a

post office was still active there at that time, government records state that the facility in Jonathan Meck's store was short lived.

Schubert had its own post office from 1884 until 1905, when rural free delivery eliminated many facilities in villages throughout the United States.

Our Heritage

By the start of the Civil War in 1861, Bethel Township had largely developed the present pattern of roads, farms and residential areas. The gristmills, sawmills and blacksmith ships built and operated with such great effort gradually closed, then fell into disrepair or disappeared completely. The old inns were converted to other uses.

Our present lifestyles and technology would have been incomprehensible to the early settlers of Bethel Township, who cleared acre after acre of forest with crude hand tools and established thriving farms and businesses to make a better life for themselves, for their children, and for later generations. Their hard work, fortitude and faith in the future are worthy of our respect and gratitude.

For a listing of early settles, details about the French and Indian War, notes on local victims of Lenape attacks, solders in the Revolutionary War and descriptions of historic sites, as well as more complete information about the early days in the township, see History section of the Bethel Township website.

Archaeological Resources

The Pennsylvania Historical and Museum Commission (PHMC) has established an inventory of archaeologically sensitive areas. Due to the confidential nature of this inventory, the PHMC is unable to produce township-wide sensitivity maps of known archaeological sites. However, substantial protection of these resources is provided within the subdivision and land development process. Applicants are typically required to obtain approval by the Township and the Pennsylvania Department of Environmental Protection (DEP) for a "Planning Module for Land Development". These Planning Modules generally require review by the PHMC to determine if any archaeological or historical resources are present

in or near the project area. Known sites are required to do additional archaeological or historical studies.

It is the general consensus of the Board of Supervisors and the Bethel Township Planning Commission that the Township's pattern of historic growth has not substantially impacted areas of high probability for archaeological resources. However, if in the future the Township determines that significant archaeological resources remain unprotected from development; additional requirements could be established within the Zoning Ordinance or through the adoption of a special ordinance.

B. GEOLOGY AND GROUNDWATER

The Township is located in two physiographic regions: the Blue Mountain region, which is located in approximately the northern third of Bethel Township, and the Great Valley region, which includes the remaining area of Bethel Township.

The geological formation underlying the major portion of the Township is the Martinsburg formation from the Ordovician period. This formation is described as gray to dark gray shale with sandstone interbeds. Some limestone may also be found in these areas. This formation is essentially impervious, however some folding and jointing has occurred and wells that are judiciously located along these folds or joints would probably be able to supply adequate amounts of water for industrial or municipal use. A few have reported over 200 gallons per minute.

The geology under the Blue Mountains consists of a Shawangunk formation from the Silurian geological era. These rocks are usually light gray to tan in color and consist of thick bedded impure quartzitic sandstone and conglomerate with thin shale interbeds. Ground water yields in this area are essentially unknown, but they are assumed to be adequate for domestic supplies.

C. SURFACE WATERS

Stream Quality

The Pennsylvania Department of Environmental Protection (DEP) established water quality standards through the adoption of Title 25, Chapter

93. Streams are classified according to the water use. Streams with the classifications of High Quality, Exceptional Value or Trout Stocking Fisheries possess fragile ecological characteristics. These streams require protection from the adverse effects of encroachment, sedimentation, and the removal of trees along stream banks which help maintain lower water temperatures. Conservation measures should emphasize protection of the entire drainage basins which feed these streams.

Based on the most recent Chapter 93 classification of streams, the Township does not contain any designated High Quality, Exceptional Value or Trout Stocking Fisheries streams. However, the Little Swatara Creek and its tributaries in Bethel Township are classified as Cold Water Fisheries.

Wetlands

As defined by DEP, the U.S. Environmental Protection Agency, and the U.S. Army Corps of Engineers, wetlands are those areas that are inundated or saturated by surface or groundwater at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

The Federal Emergency Management Agency (FEMA) has updated the floodplain data and maps (updated July 3, 2012) for Berks County through an effort called *Flood Map Modernization*. This multi-year project has reexamined flood zones using new topographic data and aerial imagery. The FEMA maps are valuable tools for planning purposes. However, field research by a trained expert is necessary to determine the prevalence or absence of wetlands.

D. ECOLOGICAL RESOURCES

In the past, attitudes toward preservation, protection and conservation of our ecological resources have not been a driving issue in comprehensive planning. As a result of education, and in response to the growing perception of the negative impacts of certain land use forms and practices, the preservation of wildlife and wild habitats has become a priority conservation objective.

The Department of Conservation and Natural Resources maintains a data system known as the Pennsylvania Natural Diversity Inventory (PNDI) which

identifies plant and animal species which are either endangered or threatened.

E. TOPOGRAPHY AND DRAINAGE

Topography

The topography of an area is one of the prime considerations for development. The actual elevation above sea level of an individual parcel is not generally important, however, the degree of slope on the parcel is usually significant. Slopes are defined here as the amount of vertical drop for each 100 feet of horizontal distance, expressed as a percentage.

Land that has very little slope can be a problem to develop since it is so level that it lacks good drainage. However, land with slopes ranging from around two to 10 percent usually poses few problems for a wide variety of development. Land with a slope of approximately 10 to 15 percent is generally better suited to residential development than to commercial or industrial development. Lands with slopes in excess of 15 percent begin to cause serious problems for proper development, and areas with greater than 20 percent slopes should not be considered generally suitable for any type of intense development.

In Bethel Township the general area of the Blue Mountain, Little Mountain and Rough Mountain contains slopes of greater than 20 percent. The mountains themselves are often surrounded by parcels of land with slopes ranging from 10 percent to 20 percent.

Generally, the remainder of the Township contains a mild and rolling terrain with slopes ranging between 5 and 15 percent throughout most of the area. As previously mentioned, these moderately sloping areas would pose limited problems for properly-planned development. However, there are significant areas within the Township that do have severe slope limitations for development and these limitations should be carefully considered in any future zoning regulations.

Drainage

Drainage is the natural downward flow of all water to the sea; and the mode by which it travels may be surface ditches, gullies, streams or rivers, subsurface water tables and solution channels or a combination of above or underground modes. The principal natural unit for physiographic studies is the watershed drainage basin. It is vital for sanitary sewer, storm sewer and most conservation planning. It is defined as that natural mold rimmed by sufficient topography elevations from which one major stream is fed.

Most of Berks County lies in the drainage area of the Schuylkill River however; Bethel Township is drained by the Little Swatara Creek and its tributaries. The Little Swatara is the eastern and southern boundary of Bethel Township. Drainage into this creek is carried to the Susquehanna River and eventually reaches the Chesapeake Bay.

An important facet of topography and drainage is that of floodplains and attendant soils. The floodplain area is defined as that area subject to frequent periodic flooding and is usually delineated as alluvial soil by the Soil Conservation Service, U.S. Department of Agriculture. Although infrequent floods will exceed the limits of alluvial soils, these alluvial soils, which are water-deposited soils, represent the area's most often inundated by flood waters and represent the most realistic floodplain.

The basic reasons for protecting floodplains include the following: (a) to prevent unnecessary property damage; (b) to minimize danger to public health by protecting the water supply and promoting safe and sanitary drainage; (c) to reduce financial burdens imposed on the community, its government, and its residents by frequent and periodic floods; (d) to provide sufficient drainage courses to carry abnormal flows of stormwater in periods of heavy precipitation; and (e) to provide area for groundwater absorption for maintenance of the subsurface water supply.

<u>Implications for Development</u>

- Urban development in areas with slopes 20% or greater should be prohibited. They should remain in their natural state in order to prevent soil erosion, provide for the enjoyment of open space, and serve as greatly needed recreation areas.
- •If industrial attraction is desired, relatively level sites should be reserved for future acquisition and development.

- •Wooded areas should be conserved and developed only in such a manner which minimizes impacts on their present condition.
- •Open space should be preserved to the greatest extent possible within areas with steep slopes.

F. SOILS

With concern for our natural environment rapidly increasing in recent years, more and more land use decisions are being made with soil characteristic in mind. Soil characteristics indicate much more than just agricultural suitability, they serve as an indicator in identifying potential on-lot waste disposal problems and determining the general suitability of various forms of development.

Soil Survey of Berks County.

A great deal of information was made available by the issuance of the <u>Berks County Soil Survey</u> in September, 1970. In addition to a description of various soil associations and individual soil types, this comprehensive document contains sections on the use and management of soils for crops and pastures, use of the soils for woodland, use of the soils for wildlife, use of soils for engineering and use of the soil survey in community development. It is the latter that is of primary concern in the preparation of the Comprehensive Plan and Zoning Ordinance for the Township. The Soil Survey lists all of the soils in the county and shows the kinds and estimated degree of limitation that affect use of these soils for various types of community development. Soil features that are relevant when considering community development are: depth to bedrock, degree of slope, permeability, incidence of flooding, depth to a seasonal high water table, texture and stoniness.

The degree of limitations for community development are rated as slight, moderate and severe. Slight limitations of development indicate that the degree of limitation can be none to slight, but few soils have no limitations to use. A rating of moderate indicates soil limitations that require special practices to overcome these limitations during development, and a rating of severe indicates soil limitations that generally are very difficult to overcome.

Soil Associations

There are three soil associations found in Bethel Township: the Edgemont-DeKalb Association, the Laidig-Buchanan-Andover Association, and the Berks-Weikert-Bedington Association.

The Edgemont-DeKalb Association consists of steep to very steep soils in mountainous areas. In the Township it is only found on the upper slopes and crests of Blue Mountain and is mainly under forest. These soils are best suited for wildlife and recreational use.

The Laidig-Buchanan-Andover Association consists of deep soils found in colluvium on the lower slopes of Blue Mountain. Because of their position on the sides of the mountain, surface runoff is medium to rapid and less water moves through the profile than is the case in areas where runoff is slower. The stones and the seasonal high water table limit this association for both cultivated crops and urban development.

The Berks-Weikert-Bedington Association are shallow to deep, well-drained soils that were largely formed on weathered shale and sandstone. This Association occupies the lower two-thirds of Bethel Township. Most of the association is well-suited to general farming, however there are areas where the soils are steep, eroded or poorly drained and thus are better suited to pasture or woodland. The Berks-Weikert-Bedington Association is also generally suited to community development.

Soil Suitability for On-Site Disposal of Sewage Effluent

Knowledge concerning the ability of soils to handle effluent from septic systems is vital, for residents of Bethel Township are entirely dependent upon such facilities for liquid waste disposal. Since the Pennsylvania Sewage Facilities Act No. 537 became effective (January 1, 1968), increased attention has been given to the problems caused by improperly installed on-lot sewage disposal systems. With the aid of the Berks County Soil Survey, it is possible to identify general areas where the installation of on-lot systems may create problems.

The main limiting features of the soils for drainage fields for septic tanks are restricted permeability, steepness of slope, shallowness over bedrock, and the presence of a seasonal high water table. In addition, where soils are

underlain by cavernous limestone, the underground water can be contaminated by seepage through crevices in the rocks or through solution channels.

Soil permeability is the rate of water movement through the soil. Too rapid percolation rates can result in pollution of ground water reserves due to inadequate filtration, while too slow rates mean that the soil has a limited capacity to absorb septic tank effluent. Soils that have high groundwater levels become saturated with septic tank effluent and later turn into foulsmelling, unhealthy bogs. On-site disposal systems should not be located in close proximity to any stream, open ditch or other watercourse into which unfiltered and contaminated effluent could escape and spread. systems should never be located in floodplains. Rock formations and other impervious lavers should also be far enough below the trenches or seepage bed of a filter field to allow for the adequate filtration and purification of septic tank effluent. Slopes of less than 10 percent usually do not create serious problems in either the construction or maintenance of filter fields when the soils are otherwise satisfactory. On steep slopes, trench filter fields are more difficult to lay out and construct, while seepage beds become impractical. In addition, it may be difficult to control the lateral flow of effluent to the downhill soil surface.

Any one of the above factors can make an area unsuitable for on-lot sewage disposal systems. If negative conditions exist but are not critical, lots of a larger than normal size will be required to provide an adequate layout of filter fields.

As part of the recent Act 537 Plan Update for Bethel Township, soil suitability for on-site disposal of sewage effluent was mapped on a series of soil maps. Soils were rated as being suitable, potentially suitable or unsuitable for on-site disposal. Soils that have a rating of "suitable" generally have few or no limitations that affect their use as disposal fields for effluent from properly installed septic tanks. Those having a rating of "potentially suitable" may be borderline and should be investigated carefully at the exact site where a disposal field is to be installed.

A quick glance at the Suitability Map of the Township reveals that the area has serious problems for on-site disposal of sewage effluent. The majority of the Township land area has some restrictions.

Soil Suitability for Homes and Other Buildings of Three Stories or Less

Soils of the Township are also rated by the Soil Survey for their suitability for the locations of homes and other buildings. The ratings are for buildings that are three stories or less in height and require less than an eight-foot excavation for a basement. It is anticipated that this should include nearly all of the structures likely to be erected in the Township.

Five conditions that create severe restrictions were considered. These are: 1) areas subject to flooding, 2) severe high water table areas, 3) slopes over 15 percent, 4) areas with less than four feet to bedrock, and 5) stoniness. Soils that experience limitations from both flooding and a high water table included the Atkins soils which are common to nearly all the stream valleys. Edgemont-DeKalb soils are subject to restrictions from both slope and shallowness to bedrock. These soils are found on the upper slopes of Blue Mountain.

The only areas of severe stoniness and shallowness to bedrock are located on the upper slopes and crest of Blue Mountain, in the Edgemont-DeKalb Association. Areas of severe slope are found primarily along Blue Mountain and on Little Mountain and Rough Mountain. There are also small areas of steep slope adjacent to many streams. Soils subject to flooding are naturally found near the streams while soils with a severe high water table have primarily developed adjacent to the flood-prone alluvial soils or in the headwaters of small streams. There are also sizable areas of high water table soils at the base of Blue Mountain in the Laidig-Buchanan-Andover Association. It is important to mention here that nearly all of the remaining soils possess moderate restrictions to development.

In conclusion, the information on soils' suitability for home location and of disposal of sewage effluent, when weighed with other considerations, will be of great value in preparing the future land use plan and subsequent amendments to the zoning ordinance for the Township. The soil suitability groupings, however, are not a substitute for the detailed investigation needed on each site prior to undertaking specific construction projects.

CHAPTER 4

EXISTING LAND USE

The comprehensive planning process requires a careful evaluation of existing land use activities to evaluate past land use patterns and to avoid future land use conflicts. It is also important to evaluate the effectiveness of the Township's existing land use regulations in terms of its ability to implement the community objectives. Municipalities must have a thorough understanding of the development potential of areas which are slated for growth.

For a township to plan for its future, it must have a good understanding of its past, and of its resources. Prior Chapters of this document evaluated the physical and social aspects of the Township, and identified a number of resources and constraints.

One of the most important elements of this Comprehensive Plan is an analysis of how land has been historically, and is currently, being used. This section is an analysis of the Township's existing land uses, or how land is being used today. This information is necessary for the following reasons:

- 1. An existing land use analysis will provide a framework in which to understand the historic forces and trends that have resulted in the current arrangement of land uses.
- 2. The analysis will reveal constraints to future development.
- 3. The analysis will help identify areas suitable for future development.
- 4. The analysis will result in information regarding the size and use of property.
- 5. The analysis will determine the amount of land required for various types of use; the areas and locations within the Township best suited for various uses; and the appropriate types and boundaries of any proposed zoning districts.

- 6. The analysis can help to establish a framework for programming future activities and patterns of density.
- 7. The analysis will help to ensure that the Future Land Use Plan does not cause conflict with existing landowners.

The actual analysis utilized a number of different information sources. First, a map showing basic land information had to be created. This map was created from data provided by the GIS mapping department at the Berks County Planning Commission. This map also included roadways, major watercourses, parcel property lines, and Township boundaries.

A. CHARACTERISTICS OF EXISTING LAND USE

In general, land uses in Bethel Township include agriculture, woodland areas, single-family detached dwellings, scattered commercial/industrial areas, recreational areas, and community facilities.

For planning purposes, existing land use was divided into the following categories:

Woodland Commercial
Agriculture/Undeveloped Industrial
Residential Vacant Lots
Public/Quasi-Public

The Township's growth has been influenced by a number of factors, including its distance from areas of concentrated development, the existence of I-78, PA 183, PA 419 and PA 501 (major highway arteries in the region), and a history of agricultural activities. The pattern of land use is characterized as follows:

Woodland

As can been seen on the Existing Land Use Map, a significant portion of the total land area of Bethel Township is wooded. The largest contiguous tracts of woodland are located on or along the slopes of Blue Mountain, Little Mountain and Rough Mountain. Many of the numerous stream valleys in the Township are also wooded. The Township's woodlands encompass State Game Lands and Federal Government holdings and are the location for numerous permanent as well as seasonal dwellings, and hunting/outdoor recreational uses.

Agriculture/Undeveloped

This land use category includes farms, farm dwellings and structures, and large tracts currently not in agricultural production. Geographically, this area comprises the largest amount of land area in Bethel Township. The dominant types of agricultural activity include the raising of field crops, dairying and poultry operations. The agricultural areas take advantage of prime agricultural soils in the Township.

Residential

This land use category includes dwellings on lots in planned subdivisions, dwellings in older, established rural villages and hamlets, and individual dwellings elsewhere throughout the Township. Also included in this category are mobile homes - the majority of which are located on individual lots. There is also one small mobile home park in the Township. As further detailed in Chapter 6, the vast majority of the occupied dwelling units in Bethel Township in 2010 were single family detached (84%) or mobile homes (8%).

The three largest concentrations of residential development in the Township are the villages of Bethel, Frystown and, to a much lesser degree, Schubert. These villages are comprised predominantly of older structures on small lots. Most of the attached and multi-family dwelling units are located in these villages.

Frequently, residential lots have been created along the frontages of larger parcels, which remain farmed in the remaining interior areas. This type of land usage in economically attractive because it takes advantage of roadway access, but creates an impression of less open space than actually exists, because the developed frontage areas block views of farm areas. There are no significant large areas of this land use category.

Public/Quasi-Public

This category includes uses such as the Township building, churches/cemeteries, and other facilities which provide public/semi-public services. Also included in this land use category is utility and transportation related services. The Township Municipal Office and Garages are located on Klahr Road. located on Other community facilities include Union Fire Company of Bethel and Community Fire Company of Frystown, Bethel Community Ambulance, Leon Deck Post of the American Legion, Bethel (School) Center, several non-public schools and several churches/cemeteries.

The Public/Quasi-Public land use category also includes recreational uses such as membership clubs, campgrounds, seasonal cottages and camps, and state game lands. The largest amount of land in this land use category is comprised by State Game Lands. Other facilities include such lands and uses as the Appalachian Trail, Camp Swatara, Northwest Berks Rod and Gun Club, Blue Mountain Wilderness Park Association, Schubert Ball Field, Union Fire Company of Bethel Ball Field, Bethel Beagle Club, Lebanon Valley Motorcycle Club, Community Fire Company of Frystown Grounds, recreational facilities associated with schools and churches, along with several sportsmen's clubs, hunting clubs, and numerous seasonal dwellings.

Commercial

Commercial uses include such uses as retail stores, services, gas stations, motels, restaurants, offices, and similar facilities. These facilities typically require good vehicle access and/or good visibility. Therefore, they generally gravitate towards heavily - travelled roadways, so customers, clients, and employees can easily use the

facility. Due to its location in relation to major transportation routes, land area devoted to the commercial land use category in Bethel Township is for the most part clustered around the interchanges of I-78. Commercial uses are also located in the villages and in scattered locations throughout the Township. Several commercial ventures are operated as accessory uses to residences and/or farm operations.

Industrial

The industrial category includes uses such as manufacturing, warehousing, assembly, and wholesale trade activities. Industrial uses in Berks County include heavy industrial (i.e. large - scale) manufacturing and processing and light industry (small scale assembly and processing) and industrial parks. There are both heavy industrial (manufacturing/processing) and light industrial facilities in Bethel Township. In addition, there are several small scale storage, vehicle and machine repair, and similar facilities scattered throughout the Township. The I-78 Berks Park industrial park has been established.

Vacant Lots

Recorded individual, vacant tracts of land, primarily in residential subdivisions have been identified as a separate land use.

In the most general terms, development in Bethel Township is rural in nature, with scattered residential developments in what would otherwise be agricultural areas, and development along roadway corridors. Such a land use pattern results in a reduced distinction between agricultural and residential areas. As previously mentioned, the majority of the commercial and industrial uses in the Township are located in reasonable proximity to I-78. Of such uses, the few that are not located along I-78 are located in the villages of Bethel and Frystown or are either agriculturally-related or exist as accessory uses to residences and/or farm operations.

B. LAND USE CONFLICTS

The existing land use survey indicates that Bethel Township has a wide variety of land uses. To avoid future land use conflicts, it is important to analyze the compatibility of adjacent uses and the causes of existing land use conflicts.

A land use conflict exists when one land use is adversely affected by a neighboring use. One example of conflicting land uses would be an intensive industrial facility located in a predominantly residential area. In this example, both uses might be in conflict with each other. Nearby residents would be adversely affected by increased truck traffic, noise, and glare from lighting. In the same manner, the industrial use may be somewhat affected by residential vehicles and pedestrian traffic.

It is also important to recognize that dissimilar adjacent uses do not always represent conflicting land uses. For example, small-scale commercial establishments which primarily serve the needs of nearby residents may not come in conflict with adjacent residential properties. In fact, the proper combination of small-scale commercial uses and residential properties created the foundation for the most successful towns and villages throughout Berks County.

In Bethel Township, conflicting land uses are most prevalent along the Old Route 22 corridor. In this area, older residential properties are situated adjacent to large-scale commercial and/or industrial properties. To a lesser extent, residential/commercial conflicts exist in the Villages of Bethel and Frystown.

Throughout the Township, agricultural and residential uses are frequently found adjacent to one another. However, the most significant conflicts

between these two uses are generally limited to areas where larger scale residential subdivisions abut agricultural land.

C. LAND USE REGULATIONS

In2006, Bethel Township adopted a completely updated and revised Subdivision and Land Development Ordinance which is intended to "... provide uniform standards to guide the subdivision, re-subdivision and development of land ... in order to promote the public health, safety, and convenience and the general welfare of the residents and inhabitants of Bethel Township." There were further amendments to the SALDO in 2008 and 2010

The Township's Zoning Ordinance, initially adopted in July of 1977, was repealed and a completely new Zoning Ordinance was adopted in 2000. This Ordinance included Agricultural Preservation measures to promote agricultural activities and uses in most of the Township, and also included provisions to promote and allow for residential growth within the Bethel and Frystown village areas where the proposed sewage treatment facilities will be located. The new Ordinance also re-evaluated the commercial/industrial potential of the Township to take advantage of the existing interchanges of I-78 located within the Township. This Ordinance has been updated and revised several times since 2000 to account for changes to the Pennsylvania Municipalities Planning Code as well as changes in the land use needs of the Township

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CHAPTER 5

DEMOGRAPHICS

In order to effectively plan for future land use, it is important to understand past, present and projected populations within Bethel Township and the surrounding region. This information will be used to formulate a strategy for implementing allocation of resources identified in the Plan. Additionally, this information can be used to target objective land use goals and ensure that rational policies are formulated which will meet the needs of the Township and its residents.

The 2010 U.S. Census data provides the following overview of Bethel Township demographic composition:

Total Population = 4,112 (2004 Estimated Population = 4,375)

Age	2010 Census Number	2000 Census Number
Under 5 years	277	(Age 0 – 17)
5 to 9 years	346	(Age 0 - 17)
10 to 14 years	315	1239
15 to 19 years	301	1239
20 to 24 years	208	(Age 18-24)
25 to 34 years	579	
35 to 44 years	675	1885
45 to 54 years	631	
55 to 59 years	223	393
60 to 64 years	170	393
65 to 74 years	285	
75 to 84 years	131	441
85 years and over	25	
Median age (years)	36.0	36.0
18 years and over	3002	3033
Male	1502	1549
Female	1500	1484
21 years and over	2834	2884
62 years and over	671	524
65 years and over	494	441
Male	239	209
Female	255	232

Table 1 below indicates the population trends that have taken place in Bethel Township since 1900. The data is from U.S. Census records. In order to

provide a more accurate figure of average population trends, the first three decades, which experienced population loss, should not be included. Therefore, since 1930, the population of the Township has increased an average of approximately 15% per decade. It should further be noted that this figure is slightly higher than what has been experienced during the past two decades. It is important to recognize, the Township has construction two sewage treatment facilities which serve the villages of Bethel and Frystown, and therefore it is anticipated that through the remainder of this decade the population growth will more likely mirror the growth rates of the 1960's and 1970's. During the next decade, however, the growth rate would again be anticipated to slow to more recent decade levels.

	TABLE 1: PAST POPULATION TRENDS					
Year	Population	Change Since Past Decade	Percent Change			
1900	1931					
1910	1775	-156	-8.1%			
1920	1653	-122	-6.9%			
1930	1608	-45	-2.7%			
1940	1846	238	+14.8%			
1950	2038	192	+10.8%			
1960	2152	114	+5.6%			
1970	2600	448	+20.8%			
1980	3312	712	+27.4%			
1990	3676	364	+11%			
2000	4166	490	+13.3 %			
2010	4112	-54	-1.3%			

Table 2 is a comparison of projected population growth for Bethel Township taken from three different sources: the Comprehensive Plan for Bethel and

Tulpehocken Townships, Berks County (March 1973); the Comprehensive Plan for Bethel Township (December 1975); and the official Act 537 Plan, Bethel Township, Berks County, 1992. It is interesting to note that the 1975 Comprehensive Plan projections were extremely close to the actual year 2000 population. The updated projections are based on a detailed evaluation of Township growth potential, especially taking into consideration the construction of the previously mentioned sewage treatment facilities.

Population Projection Source					
	1990 (1)	1992 (2)	1997 (2)	2000 (2)	2010 (2)
Comp. Plan Bethel & Tulpehocken Twps. Berks Co., March 1973	4150	4399	5022	5395	7386
Comp. Plan Bethel Township Berks Co., Dec. 1975	3476	3608	3938	4146	4112
Official Act 537 Plan, Bethel Twp., Berks Co. 1992	3676	3775	3964	4080	4170

Projected population for the year 2020 = 4,800Projected population for the year 2030 = 5,300

CHAPTER 6

HOUSING

The history of Bethel Township indicates that residential development has been the most prevalent growth in land consumption. As a result it is important to evaluate existing housing characteristics so that the proper mixture of future housing opportunities can be established in Bethel Township. Additionally, population projections must be compared to the amount of available residential growth land to ensure that the Township has provided for its "fair share" of regional growth. The table which follows provides housing characteristics for Bethel Township from the 2010 U.S. Census.

The 2010 U.S. Census data is consistent with existing land use analysis of current Township housing stock. Single family detached units represent the clear majority of homes with very few multiple-family dwellings. Mobile home units are the second most prevalent form of dwelling,

Housing costs are considered to be affordable if a median income household is able to afford the median cost of housing. Affordable housing is available in Bethel Township in the form of mobile homes and rental units based on a comparison of median income and median rent. However, a median value home would generally be unaffordable to a median income household if the home was purchased at current value.

The disparity between median incomes and median value homes is characteristic of most municipalities in Berks County. However, Bethel Township does have a better ratio of median income to median value than many of the other municipalities since the median income is above the county median and the median value is below the county median.

DP-3. Profile of Selected Economic Characteristics: 2010

Data Set: Census 2010 Summary File 3 (SF 3) - Sample Data

Geographic Area: Bethel township, Berks County, Pennsylvania

NOTE: Data based on a sample excerpt in P3, P4, H3, and H4. For information on confidentiality protection, sampling error, nonsampling error, and definitions seehttp://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF

Subject	Number	Percent
EMPLOYMENT STATUS		
Population 16 years and over	3,172	100.0
In labor force	2,255	71.1
Civilian labor force	2,255	71.1
Employed	2,177	68.6
Unemployed	78	2.5
Percent of civilian labor force	3.5	(X)
Armed Forces	0	0.0
Not in labor force	917	28.9
Females 16 years and over	1,550	100.0
In labor force	928	59.9
Civilian labor force	928	59.9
Employed	886	57.2
Own children under 6 years	367	100.0
All parents in family in labor force	139	37.9
COMMUTING TO WORK		
Workers 16 years and over	1927	100.0
Car, truck, or van drove alone	1491	77.3
Car, truck, or van carpooled	335	17.4

Subject	Number	Percent
Public transportation (including taxicab)	0	0.0
Walked	29	1.5
Bicycle, Taxicab, motorcycle or other means	13	.7
Worked at home	59	3.1
Mean travel time to work (minutes)	29.8	(X)
Employed civilian population 16 years and over	2106	100.0
OCCUPATION		
Management, professional, and related occupations	573	27.2
Service occupations	276210	9.9
Sales and office occupations	416356	16.9
Farming, fishing, and forestry occupations	6053	2.5
Construction, extraction, and maintenance occupations	366344	16.4
Production, transportation, and material moving occupations	591570	27.1
INDUSTRY		
Agriculture, forestry, fishing and hunting, and mining	187	8.9
Construction	205	9.7
Manufacturing	478	22.7
Wholesale trade	95	4.5
Retail trade	210	10.
Transportation and warehousing, and utilities	173	8.2
Information	56	2.7
Finance, insurance, real estate, and rental and leasing	59	2.8
Professional, scientific, management, administrative, and waste management services	125	5.9

Subject	Number	Percent
Educational, health and social services	329	15.6
Arts, entertainment, recreation, accommodation and food services	44	2.1
Other services (except public administration)	78	3.7
Public administration	67	3.2
CLASS OF WORKER		
Private wage and salary workers	1,735	79.7
Government workers	189	8.7
Self-employed workers in own not incorporated business	225	10.3
Unpaid family workers	28	1.3
INCOME IN 2010		
Households	1500	100.0
Less than \$10,000	69	2.7
\$10,000 to \$14,999	84	4.9
\$15,000 to \$24,999	152	12.8
\$25,000 to \$34,999	167	18.8
\$35,000 to \$49,999	334	7.5
\$50,000 to \$74,999	415	20.0
\$75,000 to \$99,999	173	17.7
\$100,000 to \$149,999	46	8.9
\$150,000 to \$199,999	33	3.1
\$200,000 or more	0	3.5
Median household income (dollars)	55580	(X)
With earnings	1,306	88.7
Mean earnings (dollars)	49,655	(X)
With Social Security income	351	23.8
Mean Social Security income (dollars)	10,563	(X)

Subject	Number	Percent
With Supplemental Security Income	34	2.3
Mean Supplemental Security Income (dollars)	7,462	(X)
With public assistance income	11	0.7
Mean public assistance income (dollars)	4,364	(X)
With retirement income	141	9.6
Mean retirement income (dollars)	9,904	(X)
Families	1,166	100.0
Less than \$10,000	18	1.5
\$10,000 to \$14,999	38	3.3
\$15,000 to \$24,999	83	7.1
\$25,000 to \$34,999	111	9.5
\$35,000 to \$49,999	289	24.8
\$50,000 to \$74,999	391	33.5
\$75,000 to \$99,999	157	13.5
\$100,000 to \$149,999	46	3.9
\$150,000 to \$199,999	33	2.8
\$200,000 or more	0	0.0
Median family income (dollars)	52,115	(X)
Median earnings (dollars):		
Male full-time, year-round workers	35221	(X)
Female full-time, year-round workers	27768	(X)
POVERTY STATUS IN 1999 (below poverty level)		
Families	48	(X)
Percent below poverty level	(X)	4.1
With related children under 18 years	34	(X)
Percent below poverty level	(X)	6.1
With related children under 5 years	17	(X)

Subject	Number	Percent
Percent below poverty level	(X)	7.9
Families with female householder, no husband present	17	(X)
Percent below poverty level	(X)	26.6
With related children under 18 years	17	(X)
Percent below poverty level	(X)	73.9
With related children under 5 years	5	(X)
Percent below poverty level	(X)	100.0
Individuals	268	(X)
Percent below poverty level	(X)	6.5
18 years and over	161	(X)
Percent below poverty level	(X)	5.3
65 years and over	29	(X)
Percent below poverty level	(X)	6.7
Related children under 18 years	102	(X)
Percent below poverty level	(X)	9.4
Related children 5 to 17 years	82	(X)
Percent below poverty level	(X)	10.1
Unrelated individuals 15 years and over	77	(X)
Percent below poverty level	(X)	18.5

(X) Not applicable.

Detailed Occupation Code List (PDF 42KB)

Detailed Industry Code List (PDF 44KB)

User note on employment status data (PDF 63KB)

Source: U.S. Census Bureau, Census 2000 Summary File 3, Matrices P30, P32, P33, P43, P46, P49, P50, P51, P52, P53, P58, P62, P63, P64, P65, P67, P71, P72, P73, P74, P76, P77, P82, P87, P90, PCT47, PCT52, and PCT53

DP-4. Profile of Selected Housing Characteristics: 2010

Data Set: Census 2010 Summary File 3 (SF 3) - Sample Data

Geographic Area: Bethel township, Berks County, Pennsylvania

NOTE: Data based on a sample except in P3, P4, H3, and H4. For information on confidentiality protection, sampling error, non-sampling error, and definitions see http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF

Subject	Number	Percent
Total housing units	1629	100.0
UNITS IN STRUCTURE		
1-unit, detached	1333	83.8
1-unit, attached	40	2.1
2 units	14	2.5
3 or 4 units	61	1.4
5 to 9 units	0	1.4
10 to 19 units	0	0.4
20 or more units	0	0.5
Mobile home	181	8.0
Boat, RV, van, etc.	0	0.0
YEAR STRUCTURE BUILT		
2005 or later	67	4.1
2000 to March 2004	143	8.8
1990 to 1999	146	9.0
1980 to 1989	198	12.2
1970 to 1979	264	16.2
1960 to 1969	131	8.0
1950 to 1959	238	14.6
1940 to 1949	129	7.9
1939 or earlier	313	19.2

Subject	Number	Percent
ROOMS		
1 room	0	0.0
2 rooms	122	7.5
3 rooms	15	.9
4 rooms	197	12.1
5 rooms	373	22.9
6 rooms	365	22.4
7 rooms	186	11.4
8 rooms	110	6.8
9 or more rooms	261	16.
Median (rooms)	5.8	(X)
Occupied Housing Units	1500	100.0
YEAR HOUSEHOLDER MOVED INTO UNIT		
2005 or later	218	14.5
2000 to 2004	409	27.3
1990 to 1999	294	19.6
1980 to 1989	290	19.3
1970 to 1979	193	12.9
1969 or earlier	96	6.4
VEHICLES AVAILABLE		
None	66	4.4
1	377	25.1
2	378	25.2
3 or more	67	45.3
HOUSE HEATING FUEL		
Utility gas	15	1.0
Bottled, tank, or LP gas	143	9.5
Electricity	220	14.7

Subject	Number	Percent
Fuel oil, kerosene, etc.	847	56.5
Coal or coke	56	3.7
Wood	202	13.5
Solar energy	0	0.0
Other fuel	17	1.1
No fuel used	0	0.0
OCCUPANTS PER ROOM		
Occupied housing units	1500	100.0
1.00 or less	1500	100.0
1.01 to 1.50	0	0.0
1.51 or more	0	0.0
Specified owner-occupied units	1290	100.0
VALUE		
Less than \$50,000	86	6.7
\$50,000 to \$99,999	117	9.1
\$100,000 to \$149,999	209	16.2
\$150,000 to \$199,999	346	26.8
\$200,000 to \$299,999	317	24.6
\$300,000 to \$499,999	113	8.8
\$500,000 to \$999,999	102	7.9.
\$1,000,000 or more	0	0.0
Median (dollars)	183800	(X)
MORTGAGE STATUS AND SELECTED MONTHLY OWNER COSTS		
With a mortgage	828	
Less than \$300	0	0.0
\$300 to \$499	153	1.8
\$500 to \$699	56	6.8

Subject	Number	Percent
\$700 to \$999	177	21.4
\$1,000 to \$1,499	178	21.5
\$1,500 to \$1,999	154	18.6
\$2,000 or more	248	30.
Median (dollars)	1466	(X)
Median (dollars)	1466	(X)
SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME IN 2010		
15 to 19 percent	248	14.0
20 to 24 percent	117	10.6
25 to 29 percent	153	9.8
30 to 34 percent	51	9.3
35 percent or more	246	16.2
Not computed	13	
Specified renter-occupied units	144	100.0
GROSS RENT		
Less than \$200	0	0.0
\$200 to \$299	0	0.0
\$300 to \$499	61	42.4
\$500 to \$749	83	57.6
\$750 to \$999	0	0.0
\$1,000 to \$1,499	0	0.0
\$1,500 or more	0	0.0
No cash rent	0	0.0
Median (dollars)	570	(X)
No rent paid	66	
GROSS RENT AS A PERCENTAGE OF	144	

Subject	Number	Percent
HOUSEHOLD INCOME IN 1999		
Less than 15 percent	30	20.8
15 to 19 percent	61	42.4
20 to 24 percent	0	0.0
25 to 29 percent	14	9.7
30 to 34 percent	0	0.0
35 percent or more	39	27.1
Not computed	66	
	130.79	的特别 有。

(X) Not applicable.

Source: U.S. Census Bureau, Census 2010 Summary File 3, Matrices H1, H7, H20, H23, H24, H30, H34, H38, H40, H43, H44, H48, H51, H62, H63, H69, H74, H76, H90, H91, and H94

Bethel Township has provided opportunities for a wide range of dwelling types and densities for households of all income levels. The census data would indicate that housing types for the future should concentrate on housing which is more affordable, perhaps of the multiple family type, i.e. townhouse/condominium, as opposed to high density mobile home parks. This could be accomplished through public sewage availability, transferable development rights and cluster development in the future.

Housing Plan

The population of the Township is projected to continue to increase into the foreseeable future. In order to accommodate this increased population, additional housing units will need to be provided. There will be a need for a mix of types of housing units so that individuals of all age groups, family size and economic level have equal opportunities to reside in Bethel Township. The existing Township Zoning Ordinance - one of the techniques to implement the proposals of the Comprehensive Plan - provides the specific detailed regulations to support the accomplishment of the Plan's stated housing goals.

CHAPTER 7

PUBLIC FACILITIES AND SERVICES

A. WATER AND SEWER FACILITIES

The availability of various utilities in Bethel Township is important both in terms of its present development and its future growth. Residents and businesses in Bethel Township currently depend on individual groundwater sources of water supply (e.g. well and springs).

Bethel Township currently has two municipal wastewater collection, conveyance or treatment facilities. They are located in the villages of Bethel and Frystown. Additionally there are several private wastewater treatment facilities located in the Township. One is the Flying J Truck Plaza/Pilot facility which is located near the Frystown exit of Route 78. This facility is served by a package extended aeration treatment plant with a permitted capacity of 40,000 gallons per day (gpd), which discharges to an unnamed tributary to Crosskill Creek. This facility is currently intended to serve the commercial lots across from the truck stop.

The other facilities are – Camp Swatara, which is located in the northwestern portion of the Township and is served by a lagoon/spray irrigation treatment system with a permitted capacity of 22,400 gpd, with three (3) acres of spray fields,, and the Prologis collection system (located along Old Route 22) that joins the Bethel Township Municipal Authorities line along Old Route 22 and Legion Drive.

Due to the isolated location of the Camp Swatara facility, utilization of this facility for future development of the Township is not desirable or feasible.

All remaining areas of Bethel Township utilize on-lot sewage disposal systems.

Public utilities, especially sewer service, have profound effects on the ability to construct housing or non-residential development. Areas not served by public wastewater treatment systems must rely on on-site sewage disposal, usually in the form of a septic tank and drainfield. Areas outside of sewer service areas typically require relatively large lots to allow adequate area for

the necessary separation between the water sources (well or spring) and septic drainfield. As a result, density is low and these areas do not have much flexibility regarding subdivision layout or design.

The remainder of the Township outside of the proposed sewer service areas is intended to remain as areas served by on lot sewage systems.

There is currently one public water supply or facility located within the Township at the Industrial Park, Berks Park 78. It is solely the responsibility of the Industrial Owners Association. And while there are no current plans for providing public water at other locations, this issue should be regularly reviewed by the Township to assess the needs and feasibility of providing these services in the future.

There are also currently no ordinance requirements governing the location and installation of on-lot wells. Since on-lot wells are the sole source of water supply for the residents and businesses of the Township, protection of this critical resource has been determined to be a priority of the Township, and will be addressed by the adoption of a well ordinance as well as updating the Township's SALDO to adequately address future water supply issues when new development occurs.

B. POLICE PROTECTION

Police protection is an expected and appreciated service in the Township according to the Resident's Survey. The Township is part of the Berks County Emergency Management System and provides police services from its department office located at 60 Klahr Road. Seventy percent of the shifts are covered by members of the Bethel Township Police during which eighty five percent of all police service requests in the municipality are handled. The remaining thirty percent of the time is assigned to members of the State Police at Hamburg to respond to the remaining fifteen percent of such requests for service.

C. EMERGENCY SERVICES

Fire Protection

The Union Fire Company of Bethel and Community Fire Company of Frystown provide ample fire protection to the entire Township. In addition, volunteer fire companies from outside areas can be called upon to assist in fighting major fires or in emergencies.

These volunteer fire and rescue companies are an invaluable asset to the Township and should be assisted in every way possible as the need for their services increases with the Township's growth.

Ambulance Services

Bethel Community Ambulance is located along Lancaster Avenue just west of the Rehrersburg Road and Route 501 intersection. Leon Deck Post of the American Legion in Bethel sponsors the Bethel ambulance, which is on call whenever needed.

Medical Services

The Township does not contain a medical clinic or hospital. However, The Reading Hospital Medical Group Bernville Family Practice Center in Jefferson Township and the St. Joseph Health Network at Strausstown in Upper Tulpehocken Township are available to area residents. Major medical treatment can be obtained at the Wellspan Good Samaritan Hospital in Lebanon, the Reading Hospital and Medical Center, and St. Joseph's Hospital in Reading. Hospital within a relatively short distance is Penn State Milton S Hershey Medical Center in Dauphin County.

D. RECREATIONAL FACILITIES

Recreational facilities are a valuable resource which enhances the quality of life and attractiveness of a community. The amount of land devoted to recreational uses within a municipality should be compared to existing and projected populations to ensure that adequate land is available for such activities. In addition, the locations of parks should be evaluated with respect to their accessibility to existing and planned residential areas.

The <u>Berks County Open Space and Recreation Plan (January 1994)</u> provides open space and recreation standards based on guidelines established by the National Recreation and Park Association (NRPA). Bethel Township, with a population density of under 500 persons per square mile, is classified as a "rural" community under the Berks County standards. As stated in the County Open Space and Recreation Plan:

"Since open space is the norm in rural areas (not including farmland), an organized park system for local recreation is less critical than in suburban or urban areas. In fact, many rural dwellers satisfy their recreational needs on their own property. However, we recommend that a centrally located municipal park which provides facilities for organized activities, such as courts and fields, be available."

Bethel Township has acquired the Frystown Playground and numerous public and private organizations and groups provide a wide range of recreational opportunities for Township residents.

Extensive State Game Lands and several large camps in Bethel Township account for most of the existing acreage devoted to recreational facilities. The Union Fire Company of Bethel fairground and the Bethel Elementary School, and Frystown Playground serve the important function of providing the two villages with neighborhood recreation facilities. The Frystown Playground contains a ball diamond, open areas for other field sports, basketball courts and a variety of play equipment for young children. The Bethel Elementary School also has outdoor areas for active recreations, a playground and a gymnasium that is open to school district residents. There are also limited recreational facilities accessory to the non-public schools located throughout the township.

Camp Swatara (a Church of the Brethren camp), the Blue Mountain Wilderness Park Association, the NW Berks Rod and Gun Club, the Bethel Beagle Club, and the Lebanon Valley Motorcycle Club track are located in the Township. These, along with several small private picnic groves, provide a select range of recreation facilities that serve the needs of some

area residents. Hikers and campers can utilize the Appalachian Trail, while sportsmen have access to the State Game Lands (Nos. 80 and 110) located along Blue Mountain. Hunting can also be done on the numerous farms and woodlands of the Township.

Needs Determination

In order to determine the estimated needs, most municipalities base their park and recreational standards on guidelines established by the National Recreation and Park Association (NRPA). In 1995 the NRPA published a report entitled Park, Recreation, Open Space and Greenway Guidelines. The following is a summary of types relevant to Bethel Township as discussed in this report:

Park Types and Descriptions:

Mini-Park: The smallest park classification, used to address limited or isolated recreational needs.

Neighborhood Park: Basic unit of the park system, serving as the recreational and social focus of the neighborhood, accommodating a wide variety of age and user groups. Includes both active and passive recreation activities geared specifically for those living within the service area.

Community Park: Larger in size and serve a broader purpose than neighborhood parks. Their focus is on meeting the recreational needs of several neighborhoods or large sections of the community, as well as preserving unique landscapes and open spaces. May provide for more recreational opportunities than available at neighborhood parks, and should include both passive and active recreation activities.

There are several other park types and classifications (e.g. sports complex, special use park, urban park, etc.) which generally will not apply to a rural municipality such as Bethel Township. Again, the needs of the Township should be reviewed on a regular basis in order to determine the applicability of these other park classifications from time to time.

NRPA GUIDELINES

Park Type	Service Area Radius (miles)	Desirable Size (Acres)	Acres/1000 Pop Served
Mini-Park	0.25	0.25 - 1 (up to 5 acceptable)	0.50
Neighborhood	0.5	5 - 15	2
Community	3	15 – 50	8

It is important to remember that the above guidelines are just that – guidelines – and should be utilized for developing overall strategies for implementation of the Plan. The above table indicates that up to approximately 11 acres per 1,000 population would be required for the park types presented. Therefore, for the sake of this report and the preparation of initial acreage needs, 10 acres per 1,000 population will be utilized for the above park types. Specific circumstances will likely warrant modifications to these guidelines as the Plan is implemented.

Consideration must also be given to the rural nature of the Township, especially when evaluating the needs for mini-parks. These types of parks are a more valuable resource when located in more urbanized areas where dense residential development limits home site recreational opportunities typically associated with the mini-parks. For instance, if a residential development contains lots ¼ acre in size or larger (i.e. the size of a mini-park), the need for a mini-park is significantly diminished, as the typical mini-park facilities (e.g. swing sets and other tot-lot items) will most likely be provided at the home site. Additionally, numerous mini-parks can become a maintenance, financial and security burden to many rural municipalities with limited full-time staff and resources.

Therefore, based on population projections previously discussed, the overall needs through the design year of 2020 are approximately 50 acres for Community and Neighborhood Parks (10 acres/ 1,000 pop X 5,300 pop).

Again, since the Township currently has none of the above public owned facilities, other facilities will not be evaluated in detail for this plan.

Areas of Needs Determination

In order to determine the areas where recreational needs currently exist or will exist in the future, an analysis of the current and future land uses of the Township must be made. Utilizing the background information and general planning guidance presented earlier in this plan, and applying that information to the land use of the Township, should provide very good direction with regard to the location of the needs areas. The Comprehensive Plan along with recently adopted Zoning regulations provides valuable information regarding current and future land uses within the Township.

Based upon this information, there are generally 2 distinct areas of the Township where residential populations are more concentrated, and where this concentration is proposed to continue into the future – and therefore where additional recreational land should be located.

These areas include the area of the Township immediately surrounding the villages of Bethel and Frystown.

Based upon the analyses and considerations presented within this plan, it has been determined that, with regard to possibility of future land acquisition for recreational facilities, approximately 15 acres should be available for the Frystown area for Neighborhood Parks, and the remainder (25 acres) should be available for a the Bethel area which would serve as a Neighborhood Park as well as a centralized Community Park due to its central location within the Township.

It is also the determination of this plan; however that as land is acquired for this purpose and such land should be fully developed prior to the acquisition of additional lands.

Based upon similar communities in the area, such parks would include basketball and volleyball courts, multi-purpose baseball/soccer fields, a totlot area, pavilions and picnic areas, perimeter walking trails, and other community-specific facilities as would be determined by the local Recreation Board. The costs to fully implement the development of these types of park areas can generally range from \$50,000 up to and in excess of \$500,000. It is believed that these various recreation types will greatly enhance the Township's ability to meet the full range of activities that its diverse population desires.

In order to achieve the goals outlined herein to meet the Township's present and future recreational and open space needs, several steps must be taken. The continual review and re-evaluation of specific recreational components to be included within the various facilities will be the primary focus of the Recreation Board. Therefore, the most critical component of implementation and achievement for the development of the existing recreation area and for the acquisition of additional land in the future is the Township's Subdivision and Land Development Ordinance (SALDO). The Pennsylvania Municipalities Planning Code (MPC), which governs the content of municipal land development related ordinances, specifically allows for the SALDO to include provisions for open space and recreation considerations when new development occurs.

Municipalities Planning Code Provisions

From the MPC, SALDO's may include...

- "(11) Provisions requiring the public dedication of land suitable for the use intended; and, upon agreement with the applicant or developer, the construction of recreational facilities, the payment of fees in lieu thereof, the private reservation of the land, or a combination, for park or recreation purposes as a condition precedent to final plan approval, provided that:
- (i) The provisions of this paragraph shall not apply to any plan application, whether preliminary or final, pending at the time of enactment of such provisions.
- (ii) The ordinance includes definite standards for determining the proportion of a development to be dedicated and the amount of any fee to be paid in lieu thereof.
- (iii) The land or fees, or combination thereof, are to be used only for the purpose of providing park or recreational facilities accessible to the development.
- (iv) The governing body has a formally adopted recreation plan, and the park and recreational facilities are in accordance with definite principles and standards contained in the subdivision and land development ordinance.

- (v) The amount and location of land to be dedicated or the fees to be paid shall bear a reasonable relationship to the use of the park and recreational facilities by future inhabitants of the development or subdivision.
- (vi) A fee authorized under this subsection shall, upon its receipt by a municipality, be deposited in an interest-bearing account, clearly identifying the specific recreation facilities for which the fee was received. Interest earned on such accounts shall become funds of that account. Funds from such accounts shall be expended only in properly allocable portions of the cost incurred to construct the specific recreation facilities for which the funds were collected.
- (vii) Upon request of any person who paid any fee under this subsection, the municipality shall refund such fee, plus interest accumulated thereon from the date of payment, if the municipality had failed to utilize the fee paid for the purposes set forth in this section within three years from the date such fee was paid.
- (viii) No municipality shall have the power to require the construction of recreational facilities or the dedication of land, or fees in lieu thereof or private reservation except as may be provided by statute."

Of utmost importance is that the Township Recreation Board follows the comprehensive Park and Recreation Plan, which was adopted by the Township April 2006. Therefore, upon completion and adoption of this Comprehensive Plan revision to the Park and Recreation plan and the SALDO should be amended as needed.

Park and Recreation Plan Considerations:

Land Dedication

The values used for the amount of land to be dedicated per dwelling unit vary widely throughout the region, ranging from approximately 0.03 acre to 0.09 acre in area municipalities. Because of the very limited amount of municipal park and recreation areas, it is the recommendation of this plan that the value be 0.06 acres of land per dwelling unit developed. This would yield 6 acres of open space and park land for a 100 unit development – a development which, in mostly rural Bethel Township, would be considered a very significant residential development. This value should be reviewed from time to time to determine whether or not it is adequate as development patterns progress and change in the future.

The type of land to be dedicated, as stated in the MPC, should be suitable for the purpose intended. Areas such as wetlands, steep slopes, floodplains, stormwater management facilities, etc. should be largely excluded from the areas to be considered for dedication, and should be so outlined in the SALDO.

Fees In Lieu of Land Dedication

As an alternative to the dedication of land and recreation facilities, fees may be paid in lieu of such dedication. When this method of addressing the open space and recreation needs is utilized, the fee should be based on the value of the land and facilities that would otherwise be required to be dedicated. Since the land to be dedicated should be of equal, or at least similar, value as that of the actual lots or land being developed, the appraised value of the land or lots being developed could then be multiplied by the amount of land that would be required to be dedicated to determine the fees to be paid. For example, if the land values would be determined to be \$30,000 per acre, and the per-dwelling unit area value would be 0.06, the fees per lot would then be $$30,000 \times 0.06 = $1,800$. Additionally, assuming an estimated cost of \$500,000 necessary for the improvements to the neighborhood and community parks, and dividing these costs over the anticipated 2020 population of 5,300 yields approximately \$94 per capita cost. Utilizing the census data for average household size of 2.84, this would result in a cost of \$267 per household. Combining the two figures above would yield a fee-in-lieu-of cost of \$2,067 per dwelling unit (for simplicity, a rounded figure of \$2,000 will be utilized for purposes of this report).

In order to meet the requirements of the MPC, fees collected within the reasonable service area of each of the recreation area facilities should be restricted to use within those districts. For the purposes of this section, it has been determined that fees collected from developments located throughout the entire Township may be utilized for the central Neighborhood/ Community Park (Bethel village area) purposes, since this park is centrally located within the Township and it would have facilities that would be suitable for all residents of the Township. Generally, fees to be used for the Frystown area should come from development occurring adjacent to the village of Frystown, and fees to be used for the villages

should be used for publicly owned facilities in those vicinities (the Township may take into future consideration coordinating such improvements with private or other governmental organizations).

Variations and Combinations

The MPC clearly provides for various combinations of fees, land dedication, improvements, etc. by mutual agreement of the municipality and the developer. Depending on specific circumstances, such as subdivision or land development location, number of lots, type of development, etc., such variations and combinations may be beneficial to all parties involved. This option should always be considered with every application for a subdivision or land development that is submitted.

Suggested SALDO Amendment Content

None suggested during the Comprehensive Plan planning process.

Additional Measures for Achievement and Implementation

The Township should include within their annual budget funds to be utilized for the acquisition of land, for site planning, and the eventual development of improvements and on-going operation and maintenance of the facilities. Research on the availability of other funding sources, such as grants, matching funds, private donations, etc. should be an ongoing process.

E. SCHOOLS

Public education for Bethel Township is administered by the Tulpehocken Area School District, whose jurisdiction also includes Tulpehocken, Penn and Jefferson Townships and Bernville Borough. School District facilities currently consist of two elementary buildings and one junior high/senior high facility. Some 1450 pupils currently attend district schools.

One of the school district's schools, Bethel Elementary, is located in the Township. The Bethel School is located south of the Village of Bethel on Route 501 and occupies a site of 15.7 acres. It is used by elementary grades Kindergarten through 6th. Existing student enrollment is 360, while the building has a student capacity of 750.

The Tulpehocken Area School District has an administrative building in Tulpehocken Township. The District also has a new section and newly remodeled elementary school located in Penn Township. This was completed in 2002. It is used by elementary grades Kindergarten – 6th grades. Finally, the District has a Jr. /Sr. High School facility located in Jefferson Township. All students in grades 7th through 12th for the entire District attend the school. The Junior Section of the school was completed and attended in 1997.

Several non-public schools are also located in the Township. They include (1) the Dunkard Brethren School on Four Points Road, (2) the Blue Mountain View School on Salem Road and (3) the Lebanon Valley Mennonite School on Rt. 501.

F. UTILITIES

The entire Township receives electric service from First Energy.

G. OTHER COMMUNITY FACILITIES

Churches and other Religious Facilities

The important position religious facilities assume in rural Pennsylvania is hard to overstate. Most often the founding of a church in a wilderness signaled the start of growth for the area. Churches are often among the most historic structures of a community and, especially in rural townships, they are usually the most imposing man-made features. In addition to providing a place for worship, religious facilities serve as a social gathering point as well.

Presently the active religious facilities in Bethel Township include the following:

Assemblies of Yahweh (Airport Road)

Bethel Mennonite Church (School Road)

Blue Mountain Gurdwara (Schubert Road)

Dunkard Brethren Church (Four Point Road)

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Lebanon Valley Mennonite Church (Rt. 501)

Little Mountain Mennonite Church (Musselman Road)

Little Swatara Church of the Brethren (Chestnut Street, Frystown)

Meckville Mennonite Church (Meckville Road)

Merkey's Church (Rt. 501 North)

Salem United Church of Christ (Rt. 501, Bethel)

Salem Evangelical Lutheran Church (Lancaster Avenue, Bethel)

Schubert Mennonite Church (Schubert)

Tri-County Worship Center (Schubert Road)

Guru Nanak Sikh (Schubert Road)

Salem United Church of Christ, located one-half mile south of Bethel, was erected in 1810 for the exclusive use of the German Reformed denomination. Today the congregation is entirely United Church of Christ. Salem Evangelical Lutheran Church was erected in 1931. It is located on Route 501 at the southern end of the Village of Bethel.

At one time there were several active German Baptist Meeting Houses belonging to the Little Swatara Church of the Brethren. Merkey's Church, a fine stone structure that was built in 1856, is located several miles north of Bethel. The Frystown Meeting House was erected in 1874 and the Schubert Meeting House was built in 1912.

Libraries

The Bethel – Tulpehocken Free Public Library provides library services to local residents. The library is located in the Bethel–Tulpehocken Free Public Library Building.

CHAPTER 8

TRANSPORTATION

Bethel Township and nearby areas have been served by different forms of transportation from horse-drawn vehicles to automobiles. Through typical modernization, the automobile has developed into the primary source of transportation. There is no mass transit in Bethel Township. There are areas, particularly south of the Township, that maintains a limited amount of horse-drawn traffic typical of Amish population.

As transportation routes developed and became more heavily used, a formal network of roadways was established. This network evolved into a system of Federal, State, and local roads that provided access to almost every parcel of land in Bethel Township. Maintenance of these roads is generally the responsibility of the State and the Township. The State typically maintains those roads which connect population centers.

In addition to the road network, Bethel Township has a small airport (Grimes Airfield) which was established in 1946, and has maintained air traffic for small planes on a regular basis. The area has been proposed for other uses, but remains an airport despite attempts for other development. The airport has now become a showpiece for aviation history with the airfield itself and the non-profit Golden Age Air Museum. The airport averages three thousand operations per year (an operation is one take-off and one landing). The Township should ensure that the Penn DOT Aviation Bureau criteria for obstructions and specified clearways surrounding this licensed public airport are adhered to when updating ordinances or reviewing improvements proposed within the vicinity of the airport.

Historically, growth in rural communities has been directly proportional to the development of the automobile as the dominant form of transportation. The increased mobility provided by the automobile allowed development further away from services and employment opportunities. The initial impact on improved roadways was limited; however, as growth continues, automobile

traffic increases and congestion and damage occurs on roads that were not designed for heavy traffic. In addition, those roads which are accommodating traffic spur fragmented growth and create conflict between residential and agricultural uses.

As Bethel Township and surrounding rural areas grew, major roads developed including Route 22, Route 501, Route 419, Route 183, and Interstate 78. These roads, especially I-78, were developed because of through traffic and the desire to reach population centers as a result of increased mobility.

Interstate 78 is a limited access link to Allentown - approximately 40 miles east - and Harrisburg - approximately 35 miles west. Route 22 had previously served this same purpose but was substandard for the high volume of traffic. State Route 22 is I-78 through Bethel Township. The former Route 22 is a vital link for commercial and agricultural traffic between the Villages of Bethel and Strausstown.

Route 501 developed as a major route, particularly south of Bethel, as a link to Myerstown and Lebanon approximately 9 miles south - and on to Lancaster - approximately 35 miles south. Route 501 is also a link between Bethel and Pine Grove to the north. Route 419 and Route 183 have developed as major north-south routes also. These routes are direct links with Reading - approximately 25 miles south and east - and Pottsville - approximately 20 miles north.

Successful land use planning must consider the functional ability of a roadway system. Future land use is very dependent on a roadway's ability to accommodate specific uses.

A. ROAD CLASSIFICATIONS

Roadways are typically categorized based on mobility and accessibility. These two characteristics are inversely related. As mobility, or the ability to accommodate large volumes of traffic, increases, accessibility decreases.

For example, I-78 can and does accommodate large volumes of traffic while access is limited to interchanges. Inversely, Brown Road cannot accommodate large volumes of traffic; however, access from adjacent land is readily available.

Land use planning must ensure that growth occurs in a manner that accounts for the capacities and characteristics of local roadway systems with particular regard for the volume of traffic on the road, the type of trip provided, the destination, and the speed of the trip. The following are the four typical classifications of roadways.

Interstate/Other Expressways - These highways are designed to provide for the movement of the greatest number of vehicles over the longest distance in the fastest allowable time. Access to expressways is restricted to grade-separated interchanges and the flow of traffic is uninterrupted. These highways generally serve either inter-state and inter-regional traffic or cross-town traffic in densely developed areas.

<u>Arterials</u> - Arterials also provide for the movement of large volumes of traffic over longer distances; however, these highways generally operate at lower speeds due to the presence of traffic control devices and access points. They can be sub classified as Principal Arterials, which serve inter-city traffic, and Minor Arterials, which link smaller developed areas within areas of the County.

<u>Collectors</u> - Collector highways serve moderate traffic volumes and act to move traffic from local areas to the arterials. Collectors, too, can be subdivided into sub-categories. Major Collectors provide for a higher level of movement between neighborhoods within a larger area. Minor Collectors serve to collect traffic within an identifiable area and serve primarily short distance travel.

<u>Local</u> - Local roads and streets are, by far, the most numerous of the various highway types. These highways provide access to individual properties and serve short distance, low speed trips.

The classifications noted here are relative to the size and nature of the municipality. For example, the county may classify a road as a local road while the local municipality would classify the same road as a collector. This occurs because roads are classified based on a comparison to other roads within the municipal road network, for purposes of this plan, the classifications are specifically for Bethel Township. These classifications may differ from the Berks County Plan. The roads below that have an SR or T – TBD are part of a road swap with Penn DOT. Numbers will be assigned at a future date.

Interstates/Other Expressways

Interstate 78 (I-78)

Arterials

SR 183

SR 419

SR 501

SR 645

Major Collectors

-SR - TBD	Old Route 22 - Eastern Town	ship Line to SR 501
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SR 4007, 4005 Pine Grove Road (Entire Length)

Minor Collectors

SR 4006	Rehrersburg Road - SR 501 to Eastern Township Line
T - 912	Schubert Road - SR 419 to Eastern Township Line
T - 862	Brown Road - SR 501 to SR 645
SR 4002	Frystown Road - SR 501 to SR 4001
T - 680	Meckville Road - Frystown to County Line
T - TBD	County Line Roads - Frystown to County Line
T - 680	Meckville Road - Frystown to SR 645
T - 912	Schubert Road - SR 419 to SR 501

All other roads are classified as local roads. **BETHEL TOWNSHIP Highway Functional Classifications and Recommended Design Features**

Classification	General Provisions	Right-of-Way Width (ft.)	Cartway Width
Expressway	- 55 + MPH - Limited Access - No Parking - Noise Barrier/Buffer (where required)	- Minimum 120; however, may be wider based on local conditions and design	- Minimum four 12' wide travel lanes with 10' wide shoulders capable of supporting heavy vehicles
Arterial	- 35-55 MPH - Some access controls to and from adjacent development - Encourage use of reverse and side street frontage and parallel access roads to limit private individual access No Parking	60	- 12' – 14' wide travel lanes with shoulders in rural area and curbing in urban and developed areas
Collector	- 25-35 MPH - Some access controls to and from adjacent development more control on major collectors; less on minor collectors - Parking permitted on one or both sides	50	 12' wide travel lanes with stabilized shoulders or curbing 8' wide lanes provided for parking necessary
Local	- 15-35 MPH - No access control to and from adjacent development - Parking permitted on one or both sides	50	- 11' wide travel lanes with stabilized shoulders minimum 4' recommended - 8' wide lanes provided for parking when necessary

B. AREA TRANSPORTATION EVALUATION

Bethel Township has identified the following areas as areas of concern with regard to transportation. The major areas of concern include:

- Old Route 22 (SR TBD) From Rt. 419 east to the Township line. The road is too narrow for the size and volume of vehicles using the road.
- Daub Road (T-627) From Brown Road (T-862) to Rt. 645. The road is narrow and has an unimproved surface.
- Deck Drive (T-684) at the intersection with Frystown Road (SR 4002) There is very limited sight distance at this intersection making it
 dangerous specifically for movements from Deck Drive onto Frystown
 Road.
- Little Mountain Road (T-682) at the intersection with Rt. 645. Right turns from Little Mountain Road onto southbound Rt. 645 cannot be made without encroaching on the northbound lane of Rt. 645.
- Old Route 22 & SR 419 Intersection Sight distance is inadequate.
- SR 501 & Airport Road Intersection Sight distance is inadequate.
- Beagle Road between Little Mountain and Musselman Roads Dangerous curve exists in this area.
- Old Route 22 & Faust South Road Intersection Sight distance is inadequate.
- SR 419 & Faust North Road Intersection Sight distance is inadequate.

- SR 419 & Schubert Road Intersection Sight distance is inadequate.
- SR 645 & Frystown Road Intersection Sight distance is inadequate, and encroachments at intersection severely restrict turning movements for larger vehicles and trucks.
- Pine Grove Road Road surface is deteriorated, and drainage problems contribute to the deterioration as well as to unsafe conditions due to limited and dangerous shoulders, and winter icing.
 - SR 0645 and I-78 interchange tractor trailer congestion due to Flying J
- Township Bridges The following bridges are required to be inspected at least every two years under the Federal Bridge Inspection program, and the recommendations of the inspection reports should be followed:

Old 22 over Mill Creek
Gravel Pit Road over Swatara Creek
Little Mountain Road over Crosskill Creek
Legion Drive over Trib to Little Swatara Creek
Meckville Road over Trib to Crosskill Creek
Myer Drive over Crosskill Creek
Airport Road over Little Swatara Creek
Old 22 over Stone Creek
Bashore Street over Trib to Crosskill Creek
Schubert Road over Mill Creek

Other areas of concern include:

- Sight distance at the Schubert Road and Airport Road intersection.
- The series of small consecutive hills on Schubert Road.
- The curve on Airport Road at Mill Avenue.
- Sight Distance at the Beagle Road and Little Mountain Road intersection and the Beagle Road and Musselman Road intersection.
- The width and maintenance of the alleys in the Villages of Bethel and Frystown.
- The two stone bridges on Schubert Road east of Midway Road.
- The S-curves on Meckville Road and Little Mountain Road.

- The bridge on Bordner Road over the Swatara Creek.
- The short vertical curve on Bordner Road north of Martin Drive.
- Sight distance at Little Mountain Road and Frystown Road

C. RECOMMENDED IMPROVEMENTS

The improvements outlined in this plan are intended to address all areas of concern. However, the detailed recommendations will be focused on the major areas of concern. The recommended transportation improvements are as follows:

- Old Route 22 Widen Old Route 22 from Rt. 419 east to the Township line. This road is a popular route for local commercial and agricultural commerce. The road has been maintained but has not been upgraded to accommodate wider vehicles. In addition to widening, improved shoulders are recommended. The preferred configuration should include minimum 11 feet wide travel lanes with minimum 4 feet wide shoulders. Drainage improvements should also be made.
- Schubert Road poor base condition of road and the volume of traffic would dictate major improvements to the road. Proper drainage, pipe repair, widening of the road, solid base in place and replace asphalt should be made
- Deck Drive intersection with Frystown Road This intersection has very limited sight distance for the Deck Drive approach and westbound Frystown Road approach. The problem can be amplified in the growing season if crops such as corn are planted in the fields adjacent to Deck Drive. Options considered in the past included the installation of a convex mirror opposite Deck Drive and the property owner adjacent to Deck Drive was asked to avoid planting in a manner that would impair sight distance. Because the options were temporary or a burden to local property owners, limited improvements have been made. Consideration should be given to making several improvements including but not limited to embankment regrading, adjustment of both road grades, prohibition of left turns from Deck

Drive, or making Deck Drive "right-in/right out only" permissible movements. There does not appear to be one simple solution. The area should be studied with input from Penn DOT, local property owners and the police department.

• Little Mountain Road - Little Mountain Road should be realigned at the intersection with Rt. 645. The area surrounding Little Mountain Road is heavily wooded and was mostly undeveloped until approximately 1988. The area had few permanent residents. The area was typically used for hunting camps or seasonal residences. The recent increase in development of the area has resulted in increased use of the Little Mountain Road and Rt. 645 intersection. The skew of this intersection makes right turns from Little Mountain Road onto Rt. 645 difficult for passenger vehicles and impossible for delivery trucks (i.e., fuel oil, etc.). Many larger vehicles need to back-up before completing the turn creating a safety hazard on Rt. 645.

There is open area adjacent to the road that would permit Little Mountain Road to be realigned in a manner that would permit the road to intersect Rt. 645 at a right angle or near right angle. The realignment may require condemnation of private property. Any proposed improvements should be discussed with the adjacent property owners and Penn DOT.

Intersections Identified as Sight Distance Related Areas of Concern – The
causes for the sight distance reductions vary from road alignment to
physical obstructions such as embankments. Whenever possible, the
Township should attempt to work with adjacent property owners to
eliminate the physical obstructions which may exist. Additionally,
when the Township is proposing work on the adjacent roads, or when
new development is proposed, road realignments should be
considered to eliminate or reduce the adverse impacts of the
alignment.

- Beagle Road between Little Mountain and Musselman Roads Realigning
 the road may be difficult if not impossible due to the adjacent terrain.
 While the speed limit has been lowered in recent years, better
 delineation of the curve and providing additional warning signs may
 help to alert those using the road of the curve.
- SR 645 & Frystown Road Intersection This restriction to sight distance and turning movements at this intersection is primarily due to structures which are located close to the intersection. While providing a full traffic light at this intersection would make it safer from a sight distance aspect, the only options for improving turning movements would be to eliminate the buildings to allow for the intersection to be adequately widened. The Township should continue to discuss this issue with Penn DOT, especially as development in the Frystown area continues to grow.
- Pine Grove Road The Township should continue to request that Penn DOT make this road a priority for the required drainage and surface improvements.
- Township Bridges As the bridges are inspected as required by Federal regulations, the Township should continue to prioritize and budget for the improvements that are recommended in the reports that are prepared and provided to the Township. An emphasis should be placed on performing the recommended routine maintenance in order to prevent or postpone more costly repairs.
- The remaining concerns previously listed in this plan should be prioritized and included in the Township's regular improvement program.

D. FUTURE TRANSPORTATION PLANNING

Bethel Township has taken a proactive approach to transportation and traffic planning. In 2009 the Board of Supervisors enacted a Traffic Impact Fee

Ordinance. Identified in the Ordinance has been intersections that could require improvements to keep the level of service to commuters at an acceptable level. Additionally the Developers are assessed a fee based on which area (East or West) they are developing. The fees in turn would be used to improve the intersections identified in the study that was prepared as part of the Ordinance. Bethel Township should continually assess the transportation improvements throughout the Township. The following are recommendations to be considered in the Township's future transportation planning.

- Develop a five-year road improvements program to be updated annually or biannually. The program should include prioritization of necessary improvements as well as normal maintenance issues.
- Encourage continued use of the Grimes Airport. The most recent data (1987) for the airport showed a total of 2,900 annual flights.
- Continually review the Township SALDO to assure it is up to date with regard to requiring improvements along existing roads adjacent to developments as allowed by the Pennsylvania Municipalities Planning Code (PaMPC).
- Expand efforts in both short and long range planning by identifying deficiencies and improvements required to correct these deficiencies.
- Work with Penn DOT and FHWA to promote continued maintenance and improvement of State and Federally-funded highways in the Township.
- Develop or revise local regulations (i.e., Zoning Ordinance, Subdivision and Land Development Ordinance, Driveway Ordinance, etc.) to limit the number of private intersections with Township roads, especially arterials and major collectors.

- Adopt and adhere to minimum roadway design criteria for both privately and publicly funded projects. Penn DOT and AASHTO guidelines are recommended.
- Use the options available under the Pennsylvania Municipal Planning Code to identify, obtain and preserve rights-of-way that may be required for future road construction and improvements.
- Re-evaluate the recommendations outlined in this plan on a 3-year to 5year basis.
- Coordinate projects involving State or Federal highways with Berks
 County, with the goal of having them included in Penn Dot's 12-Year
 Transportation Capital Improvement Program

CHAPTER 9

FUTURE LAND USE PLAN

The previous chapters of this comprehensive plan established community objectives and analyzed Bethel Township's land use patterns, important resources, demographics, housing characteristics, and infrastructure. The objectives identified in Chapter 2 specifically related to land use were the following:

To preserve the rural character of the Township.

To coordinate the Township's plan for future land use with the conservation of natural resources including prime agricultural lands, surface and groundwater resources, steep slopes, woodlands, natural areas, and ecological resources.

To direct growth to those areas where there are adequate infrastructure without adversely impacting the Township's cultural and natural heritage.

To promote the implementation of the Township's Sewage Facilities Plan by:

- a) Continuing to evaluate existing sewage facilities to address problems as they arise in order to avoid groundwater degradation and adverse health effects.
- b) Significantly limiting growth in areas which are not planned for future increased density with public sewers.
- To coordinate future growth with the following Township objectives for the provision of public water service:
 - a) To continually monitor water quality and supply needs and take whatever steps are necessary in the future to protect or enhance existing Township groundwater quality.
 - b) To significantly limit growth in areas which are not planned for higher densities served by public water service in the future.
- To encourage the retention of the Township's prime agricultural lands by discouraging fragmentation or conversion to non-agricultural uses.
- To protect groundwater recharge areas of existing or potential public and private water supplies.
- To ensure public welfare by providing a sound basis for the economic opportunity of Township businesses and residents.

To promote rural trade and commerce.

To encourage future growth in a manner which is consistent with the Township's road classification system.

Based on the previous chapters and these objectives, the Township has formulated a future land use plan which is intended to act as a guide for municipal land use decisions throughout the next decade.

The future land use plan must be evaluated for its consistency with other components of the Comprehensive Plan to properly assess its impact on the community. Additionally, the Township's plan for future land use should be compared to the comprehensive plans of adjacent municipalities and Berks County. This Chapter will provide a summary of the future land use plan and its impact on various plan components and adjacent municipalities.

A. FUTURE LAND USE PLAN

The Future Land Use Plan depicts the pattern of projected land use, targeting areas that are appropriate for urban growth and reinvestment, as well as areas that should be preserved/conserved for their agricultural, recreational or natural resource assets. The core purpose of the Future Land Use Plan is to manage the amount, intensity and character of the different land uses throughout the Township.

Agricultural Preservation

Land within this designation includes areas with existing agricultural productivity that are part of a large contiguous land area with suitable soils predominantly devoted to agricultural operations. An Agricultural Operation as defined by Act 247 is an enterprise that is actively engaged in the commercial production and preparation for market of crops, livestock and livestock product and in the production, harvesting and preparation for market or use of agricultural, agronomic, horticultural, silvacultural and aguacultural crops and commodities. The term includes an enterprise that implements changes in production practices and procedures or types of crops, livestock, livestock products or commodities produced consistent with practices and procedures that are normally engaged by farmers or are consistent with technological development within that agricultural industry. Farms preserved by agricultural conservation easements, regardless of the location, and/or size of the agricultural area, are also depicted. features taken into account when classifying this category were; land located within an area designated for agricultural use by local comprehensive plans; a zoning district that contains effective agricultural preservation techniques; lands that border an area of an adjacent municipality that is predominately agricultural; land that is composed of soil capability classes I, II, III or IV; land that is included within an approved Agricultural Security Area.

The objectives of this category are to strengthen the farm industry, promote the long-term viability of the agricultural economy, protect the agricultural land resource base, minimize land use conflicts in agricultural areas, and protect enough farmland so that a sufficient market remains for agricultural support businesses. Areas should be reserved primarily fo agricultural purposes, and are inappropriate for infrastructure extension and conversion to incompatible non-farm development. A variety of programs and tools can be used, including but not limited to: tax reduction programs, establishment of agricultural security areas, purchase or donation of agricultural conservation easements, and enactment of effective agricultural zoning. Effective agricultural zoning focuses on agriculture by permitting a wide variety of farm-related uses, including supplemental farm businesses and other uses that complement and further the objectives of agricultural

land protection, and by restricting non-farm activities that are disruptive to agricultural activities. Non-farm dwelling unit density is stringently limited; typically one dwelling per 20 – 50 acres, while homes are required to be built on small lots (one to two acres). The division of land into parcels too small to be farmed is typically restricted.

Intensive animal operations, including Concentrated Animal Operations (CAO's) and Concentrated Animal Feeding Operations (CAFO's) as defined by state statute, and other intensive agricultural uses, such as mushroom operations, are an important part of our agricultural economy and are becoming more accepted as normal agriculture. As the livestock industry experienced a trend towards larger and more concentrated operations, the state and federal governments enacted a number of statutes and regulations governing intensive agricultural operations. Some of these statues limit the authority of local municipalities to address such issues, and therefore, local comprehensive plans and zoning provisions addressing intensive animal operations should be compliant with applicable state laws and regulations.

Existing Development

This category consists of commercial, industrial, and institutional development, as well as residential development at a range of densities. A variety of reinvestment, rehabilitation, and revitalization efforts will be promoted to take advantage of the extensive infrastructure network, and to improve the tax base of the urban centers. These areas should function as multi-purpose centers providing for livable communities. Strategies should enhance the character of the existing community and be consistent with the historical heritage, scale and density of the area. Mining/quarry operations and landfills are also included in this category. Reasonable expansion of mining/quarry operations reflecting current production levels will be supported provided the expansion does not infringe on eased agricultural land.

Designated Growth and Future Growth

Vacant land that is appropriate for future urban high density and suburban median density development requiring a full range of public services and facilities and including a balance of residential, commercial, industrial, institutional and recreational uses. These multi-purpose areas are expected to accommodate the majority of the growth anticipated to occur in Bethel Township over the next two decades.

The Designated Growth areas, consistent with the Vision 2030 Comprehensive Plan, are growth areas contiguous to existing developed Village areas in Bethel Township where future development can maximize the existing investment in public water and sewer infrastructure facilities.

The designated Future Growth areas contained in this Bethel Township Comprehensive Plan are distinct from the Future Growth areas contained in the Berks County Vision 2030 Comprehensive Plan in that there is little potential for expansion of municipal infrastructure into these areas and the intended scope of development is not as intense as that characterized in the Vision 2030 Plan. The designated Future Growth areas designated herein are intended as transitional growth areas.

The contrasts between the intense commercial activities in the industrial areas, the traditional farming activities of the agricultural areas and the quasi-urban village areas are significant. In recognition of these contrasts, Bethel Township is proposing creation of two transitional-type areas. These are intended to have either predominantly residential or neighborhood commercial character. Both of these Future Growth areas encourage land uses including a blend of uses found in adjacent districts.

The residential areas are comprised of areas typically between agricultural and commercial areas where the predominant existing uses are residential in nature. While a mix of agricultural and commercial activities is found within the Residential area, the nature of those uses tends to be less intensive and more compatible with residential development than that found in the adjacent areas.

Likewise, the neighborhood commercial areas are comprised of a less intensive blend of uses typically found in adjacent village and commercial / industrial areas. Uses included in the neighborhood commercial areas tend to have a more business oriented character than the residential areas and tend to be located within areas accessible to arterial and collector roads within Bethel Township.

Permanent Open Space and Recreation

Lands within this designation include federal, state, county, and municipal parkland, recreation facilities, open space areas, as well as municipal water supply watersheds; permanent holdings of conservancies and other similar non-profit organizations for the purpose of conservation: and potential natural areas, parks, greenway and linear stream protection corridors. These areas should create a permanent network of adequate and diverse open space, park and recreational resources for the use of all Township residents. A wide range of recreational experiences should be provided, which consist of active recreation, passive park opportunities, and natural open space and conservation environments that irreplaceable, unique, or threatened natural features and resources. countywide greenway system interconnecting the Township's major park, recreation and open space resources through a network of open space corridors and linear parks and trails is advocated. Privately owned commercial recreation facilities such as fitness centers, bowling alleys, miniature golf, golf courses, and similar uses are not included in this category.

Rural Conservation

These lands are characterized by low density development, prominent forest cover, and may contain slopes greater than 15%, as well as fragmented areas of farmland and land eased for open space, natural resource or woodland conservation. Development should be subject to flexible siting standards, conservation design standards, and disturbance limitations designed to avoid the most critical environmental constraints, and allow land to be developed efficiently with the least degree of environmental impact. Rural development density depends on the environmental constraints present, and the area necessary to accommodate on-lot sewage disposal and water supply, but is less than or equal to one dwelling unit per acre. Village expansion, consisting of residential and locally oriented retail use and community service uses, will be encouraged to reflect the historical pattern of growth, scale and character of the area. Due to the scattered nature of the agricultural activity, aggressive agricultural preservation techniques are typically not practical.

Environmental Hazard

Lands in this category consist of floodplains, watercourses, and water bodies. The primary purpose of this designation is to encourage their proper management and sustain their natural functions and values. In most cases, these areas should not be disturbed, nor developed, because of their natural environmental importance, the associated environmental constraints and the substantial public interest in preventing damage due to floods, minimizing sedimentation and erosion, and enhancing water quality. The exception would be for the development of properly elevated/flood proofed buildings within redevelopment areas that are part of an economic revitalization initiative. Such redevelopment should be designed, located and constructed to have a minimal effect upon the flow and height of flood waters and does not increase the flood hazard to properties located upstream or downstream of the redevelopment site. Floodplains were delineated using FEMA Flood Insurance Rate Maps (FIRM) issued on July 3, 2012.

Included in this plan are two Natural Heritage Inventory site s that may be impacted by certain types of development within the Future Growth section. Location of NHA sites are behind maps.

B. INTERRELATIONSHIPS OF PLAN COMPONENTS

The future land use plan represents the preferred method by which Bethel Township will protect valuable resources while satisfying its responsibility to provide

adequate land for growth. When comparing the future land use plan to the various plan components it is apparent that the protection of all natural resources identified in the Plan would essentially prohibit any form of growth. This position is supported by the comparison between the Prime Agricultural Soils Map and the Environmentally Sensitive Areas Map, both of which are found in Chapter 3. Growth is also an integral factor in the feasibility of providing public sewer and water facilities to areas which are in desperate need of such services.

C. RELATIONSHIP WITH ADJACENT MUNICIPALITIES

Six (6) municipalities border Bethel Township. The northern border of the Township is comprised of Pine Grove, Washington and Wayne Townships, in Schuylkill County. To the west is Bethel Township, Lebanon County. The southern border of the Township is comprised of Tulpehocken and Upper Tulpehocken Townships. The Township is bounded on the east by Upper Tulpehocken Township.

Future land use plans and/or zoning ordinances of these adjacent municipalities were considered during the course of the development of this Comprehensive Plan for Bethel Township. For the most part the future land uses proposed for the Township are compatible with the planning activities of adjacent municipalities. The following is a brief discussion by municipality of the proposed land uses bordering the Township:

- Pine Grove Township, Washington Township, Wayne Township Bethel Township abuts these three Schuylkill County townships along the ridge of Blue Mountain. Since the Township is proposed for continued Environmental Protection (conservation) land uses in that area, there should be no adverse impact on the three townships. In addition, much of the ridge area of Blue Mountain is in Federal or State ownership.
- Bethel Township, Lebanon County Bethel Township, Lebanon County, borders the Township to the west. As identified in the Bethel Township, Lebanon County, Zoning Ordinance, all of the land adjacent to Bethel Township, Berks County, is zoned Agricultural. The Agricultural District, while primarily encouraging agricultural activities, is also designed to provide for single family residential and limited non-residential uses in a rural setting. This zoning is generally compatible with the proposed Environmental Protection and Agricultural Preservation categories in this Plan.
- **Tulpehocken Township** The Little Swatara Creek forms Bethel Township's southern border with Tulpehocken and Upper

Tulpehocken Townships. The Tulpehocken Township Zoning Ordinance has an EP (Environmental Protection) Zoning District along the entire floodplain of the Little Swatara Creek adjacent to Bethel Township. Immediately to the south of the narrow EP District is AG (Agricultural) zoning. The two Tulpehocken Township zoning classifications are very similar to the Environmental Protection and Agricultural Preservation land uses (and zoning) located in Bethel Township north of the Little Swatara Creek.

Upper Tulpehocken Township - The Little Swatara Creek also forms Bethel Township's border with Upper Tulpehocken Township in the southeast and east. Upper Tulpehocken Township is zoned A-P (Agricultural Preservation) from the Tulpehocken Township line east to T-496 (South Road); from that point east (and north) to Old Rt. 22 is zoned R-1 (Low Density Residential). From Old Rt. 22 to I-78 is zoned R-2 (Medium Density Residential). Upper Tulpehocken Township from I-78 north to the Schuylkill County Line is zoned R-P (Rural Preservation) and W-P (Woodland Preservation). The W-P District is similar to the Bethel Township EP Zoning District, while the R-P District is similar to Bethel's Rural Residential designation.

Berks County - The Berks County Comprehensive Plan Revision (Vision 2030) included a proposed Berks County Land Use Plan. The County Plan identifies the slopes of Blue Mountain and the stream valleys as Environmentally Sensitive and Environmental Hazard Areas, respectively. These areas are generally consistent with the Township's Environmental Protection land use category. The vast majority of the Township is proposed for Agricultural Preservation in the County Plan. These areas are proposed for Agricultural uses in the Township's Plan. The exception is the areas along I-78 that the County designates as Agriculture Preservation. The Township has the I-78 area designated as an Industrial Commercial District. Future growth areas in both the County's and Township's plans are proposed around the villages of Frystown and Bethel.



CHAPTER 10

PLAN IMPLEMENTATION

This Comprehensive Plan will serve as a guide for future municipal decisions including the review of proposed developments, improvements in public facilities, and amendments to land use regulations. Certain objectives established within this Plan will require specific actions which must be undertaken by the Township to ensure proper implementation.

The preceding chapters identified specific goals and objectives based on an analysis of the community and extensive input from Bethel Township residents and municipal officials. Methods of achieving these goals and objectives must now be considered. The Township should consider approaching this from two viewpoints. The first should be a program of carrying out the goals at the Township level, and should include those desirable elements which will not adversely affect neighboring communities.

The second approach involves a broader regional viewpoint. Many long-range goals and policies involve not only the Township but adjacent and nearby municipalities as well. Bethel Township can carry out those programs which affect the local community only, but it must participate with larger government bodies in order to carry out an overall program which would best suit the region as a whole.

A. SHORT- AND LONG-RANGE PLAN IMPLEMENTATION STEPS

One of the required elements of a municipal Comprehensive Plan is a discussion of short- and long-range plan implementation strategies, which may include "... (1) implications for capital improvements programming, (2) new or updated development regulations, and (3) the identification of public funds potentially available, to develop and incorporate transitional zoning districts into the Zoning Ordnance."

Short-Range Implementation Techniques

For the purposes of the Bethel Township Comprehensive Plan, recommended implementation actions proposed in the five (5) years following plan adoption have been designated short-range implementation techniques. They include the following proposals:

Review and amend, as necessary, the Township's Zoning Ordinance and Zoning Map. The existing Bethel Township Zoning Ordinance should be reviewed and amended, if necessary, to address the following objectives identified in Chapter 2:

.To preserve the rural character of the Township.

To coordinate the Township's plan for future land use with the conservation of natural resources including prime agricultural lands, surface and groundwater resources, steep slopes, woodlands, natural areas, and ecological resources.

To direct growth to those areas where there are adequate infrastructure without adversely impacting the Township's cultural and natural heritage.

To promote the implementation of the Township's Sewage Facilities Plan by:

Significantly limiting growth in areas which are not planned for future increased density with public sewers.

To coordinate future growth with the following Township objectives for the provision of public water service:

)To significantly limit growth in areas which are not planned for higher densities served by public water service in the future.

To encourage the retention of the Township's prime agricultural lands by discouraging fragmentation or conversion to non-agricultural uses.

To protect historical and archaeological resources.

To protect groundwater recharge areas of existing or potential public and private water supplies.

.To provide the opportunity for the Township's "fair share" of all basic forms of housing with varied densities.

To promote affordable housing for all ages within the context of compatibility with other community development objectives.

To ensure public welfare by providing a sound basis for the economic opportunity of Township businesses and residents.

To promote rural trade and commerce.

To encourage future growth in a manner which is consistent with the Township's road classification system.

Review and amend, as necessary, the Township's Subdivision and Land Development Ordinance. The existing Bethel Township Subdivision and Land Development Ordinance should be reviewed and amended, if necessary, to address the following objectives identified in Chapter 2:

To coordinate the Township's plan for future land use with the conservation of natural resources including prime agricultural lands, surface and groundwater resources, steep slopes, woodlands, natural areas, and ecological resources.

To promote the implementation of the Township's Sewage Facilities Plan by:

Significantly limiting growth in areas which are not planned for future increased density with public sewers.

To coordinate future growth with the following Township objectives for the provision of public water service:

To significantly limit growth in areas which are not planned for higher densities served by public water service in the future.

To protect historical and archaeological resources.

To protect groundwater recharge areas of existing or potential public and private water supplies.

To provide for the safe and efficient movement of people and goods.

To encourage future growth in a manner which is consistent with the Township's road classification system.

To encourage the provision of recreational opportunities to satisfy the recreational needs of Township residents of all age groups.

Work with and support the School District and local emergency services providers to ensure adequate emergency services and educational, recreational and cultural opportunities for all Township residents. This action would help to accomplish the following stated objectives in Chapter 2:

To maintain adequate ambulance, fire and police service.

To encourage the provision of recreational opportunities to satisfy the recreational needs of Township residents of all age groups.

To actively participate in cooperative efforts which support the Township's community development objectives.

Long-Range Implementation Techniques

For the purposes of the Bethel Township Comprehensive Plan, recommended implementation actions proposed beyond five (5) years following plan adoption have been designated long-range implementation techniques. This designation, however, does not preclude them from being instituted prior to that time frame. Long-range implementation techniques include the following proposals:

- •Review and update, as necessary, the Township's Act 537 Sewage Facilities Plan. The existing Township Act 537 Plan should be reviewed every ten (10) years and amended, if necessary, to address future growth and/or sewage disposal needs.
- Evaluate the effectiveness of existing building/housing codes to regulate new construction and ensure the maintenance/upkeep of existing structures.
- •Complete the preparation of a Comprehensive Open Space, Park and Recreation Plan for the Township to define needs and recommend programs, acquisition and construction, and to legitimize mandatory dedication of recreation land (or collection of fees in lieu of dedication) as part of future development proposals.
- •Prepare a Capital Improvements Program to finance public improvements such as road construction, recreational facilities, municipal buildings, etc.

B. PARTICIPANTS

Putting the proposals of a comprehensive plan into effect requires the active participation of many agencies at different governmental levels. Aside from the purely local controls which are available, many actions at county or state levels already are, or can be, interrelated with municipal action to implement local planning. Among others, the School District can become an effective planning ally, particularly in the provision of recreation facilities, since these are normally provided

as part of any school building and can readily be put to wider use outside of school hours. County and state health inspections and requirements can supplement Township efforts, as can highway planning at both county and state levels. Highway planning and development is the one activity at higher governmental levels which ordinarily has the greatest impact on local development. Alterations in the regional and road network can vastly change the situation in the community.

State and county programs for planning and development are becoming more important in Pennsylvania. The various components of the Pennsylvania Department of Community Affairs, the Department of Transportation, the Department of Environmental Protection, the Soil Conservation Service and the Berks County Planning Commission can be effective planning allies for any municipality.

Semi-official bodies, such as Industrial Development Authorities, Private Industry Councils, Transportation Authorities and Chambers of Commerce have specialized knowledge which they will willingly place at the disposal of local municipalities. Altogether, effective long-range planning depends not on purely regulatory measures and fiscal effort alone but on ingenuity applied to the solution of particular problems, especially on the merging of activities which form part of the planning concern of several municipal bodies.

In view of the suburbanization which has taken place in Central Pennsylvania in general, it would be fitting that local planning commissions meet together at intervals in an effort to resolve common problems, particularly highway and circulation problems, which are basically regional in nature. In Pennsylvania, as almost everywhere else, intermunicipal cooperation represents an underutilized area of problem solving. This lack of cooperation is unfortunate.

C. PRIORITIES

Some of the planning proposals presented assume a priority of implementation over the other proposals. This is the case for the following reasons:

- (1)the severity of need (as it relates to community health and safety)
- (2)the number of Township residents affected
- (3) funding availability
- (4)the degree to which a given proposal is interrelated to other proposals
- (5)the relative ease of implementation both from a legislative and timing standpoint

D. ORDINANCES AND REGULATIONS

In itself, a comprehensive plan has little direct power over what will come to pass in the future. The plan represents the results of surveys and studies of present conditions and prospects for future growth of the municipality.

The concepts and purposes of the comprehensive plan are embodied in ordinances specifically enacted to implement it. Two basic ordinances - zoning and subdivision/land development - are necessary to achieve safe, stable land development, according to the objectives established by the plan and by the planning enabling statutes.

In addition to the basic ordinances, other ordinances and regulations may be desirable to (1) preserve land for future roads and public facilities and (2) assure quality of construction in new buildings or, alternatively, to establish standards for occupancy and maintenance of existing buildings.

Zoning

Zoning is the primary means by which the uses of land are regulated. Underlying the concept of zoning is the idea that the health, safety and general welfare of property owners. The legal basis for zoning ordinances is found in the police power which permits governmental units to enact laws to provide and protect the health, safety and general welfare of the community. However, this power can never be used to restrict the use of private property in such a way that the restrictions amount to an unconstitutional deprivation of property without due process of law.

The existing Bethel Township Zoning Ordinance contains regulations which protect environmentally sensitive areas, including floodway controls, as well as steep slope (greater than 25%) provisions. The Environmental Protection District in the Ordinance also addresses the protection/preservation of ecologically critical factors such as the headwaters of streams and the surrounding watersheds, wildlife habitats, and extensive wooded areas.

With respect to sewage facilities planning, it is important to examine the existing zoning provisions relating to wastewater facilities. Minimum lot size requirements and the location of planned growth areas are of particular importance. Minimum lot sizes must accurately reflect the area which is needed to ensure long range suitability for on-lot sewage disposal. The Zoning Ordinance provides for increased minimum lot sizes where public/community sewer and water are not available. The proposed Future Land Use Plan and the resultant preparation and adoption of amendments to the Zoning Ordinance and Zoning Map will direct growth to areas which can ultimately be served by such public/community wastewater (and water) facilities.

Subdivision and Land Development

Subdivision and land development regulations are concerned with establishing locational controls which ensure sound community growth while at the same time safeguard the interest of all property owners. Such regulations can assure that the subdivision and development of land will create permanent assets for the Township. Since the subdivision and/or development of land is both a technical and a business venture, affecting not only the return to investors in land but also Township finances, consideration of subdivision and development proposals should be very thorough.

The Bethel Township Subdivision and Land Development Ordinance, as amended, govern subdivision and land development activity in the Township. The provisions of the ordinance are administered by the Township Board of Supervisors with advisory input from the Township Planning Commission and the Township Engineer. This ordinance should also be updated after adoption of the Comprehensive Plan to reflect the current situation.

The Bethel Township Subdivision and Land Development Ordinance contains regulations pertaining to sewage disposal methods. These regulations set forth standards relating to demonstration of compliance with the Pennsylvania Sewage Facilities Act for individual on-lot sewage disposal systems. The Township's Subdivision and Land Development Ordinance also contains requirements for stormwater management.

Official Map

One of the proposals relating to future transportation facilities in the Township calls for the consideration of adoption of an Official Map. The legal basis for adoption of an Official Map lies in the Pennsylvania Municipalities Planning Code. An Official Map would show the exact location of the lines of existing and proposed streets (after detailed surveys are conducted) for the whole of the Township. The purpose of an official map is to notify property owners in the Township of the intention of the Township to develop or expand the street network at some time in the future. Under the provisions of an official map ordinance, when a parcel of land identified for future street construction is proposed for development, the Township would have the opportunity to acquire that portion of property needed for the future street, or to begin condemnation proceedings to acquire such property.

However, as mentioned previously, a detailed study and survey is required to identify the exact geographical limits of the proposed road network. This study/survey would require the expenditure of Township funds for technical assistance in its preparation.

Building Controls

Bethel Township has available to it numerous other powers that it may employ to implement the proposals of the Comprehensive Plan. Among these are building, housing and fire codes. A building code provides minimum requirements designed to protect life and health and yield a maximum of structural safety. Specific provisions apply to construction, alteration, equipment, use and occupancy, location, and maintenance of buildings and structures.

A housing code is concerned with individual structures and is one of only a few retroactive regulatory devices. It establishes minimum housing standards relating to health and safety. It does so by governing dwelling facilities (such as plumbing and heating systems), providing minimum standards relating to safe, sanitary maintenance of dwelling units, specifying the responsibilities of owners and occupants, and indicating minimum space, use and location requirements. Since a housing code provides a legal basis for condemnation, it is particularly useful in arresting or removing conditions of spot blight.

In 2004 the state of Pennsylvania required all building in the state to adhere to the Uniform Construction Code, and gave individual municipalities the choice to "opt in" or "opt out" of the administration and enforcement of such regulations. Bethel Township opted in, and therefore is currently administering and enforcing the Uniform Construction Code within the Township.

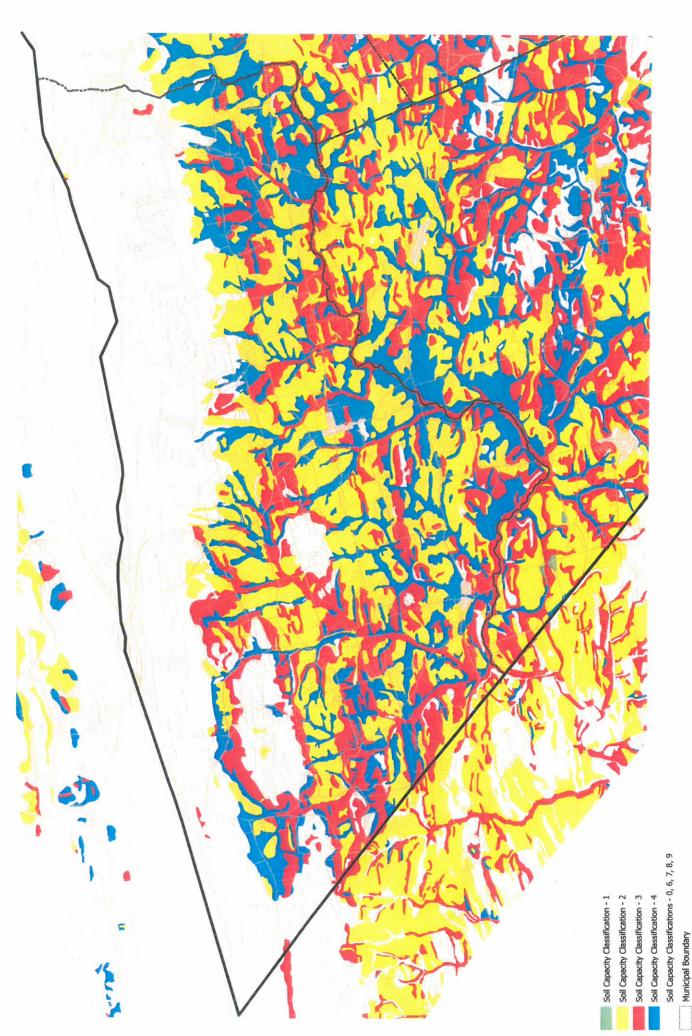
E. CAPITAL IMPROVEMENT PROGRAMMING

Capital improvement programming is the scheduling of public improvements over a given period of time. Scheduling is based on a series of priorities which are established according to need, desire and/or importance of the improvements, and on the present and anticipated ability of the community to pay for those improvements.

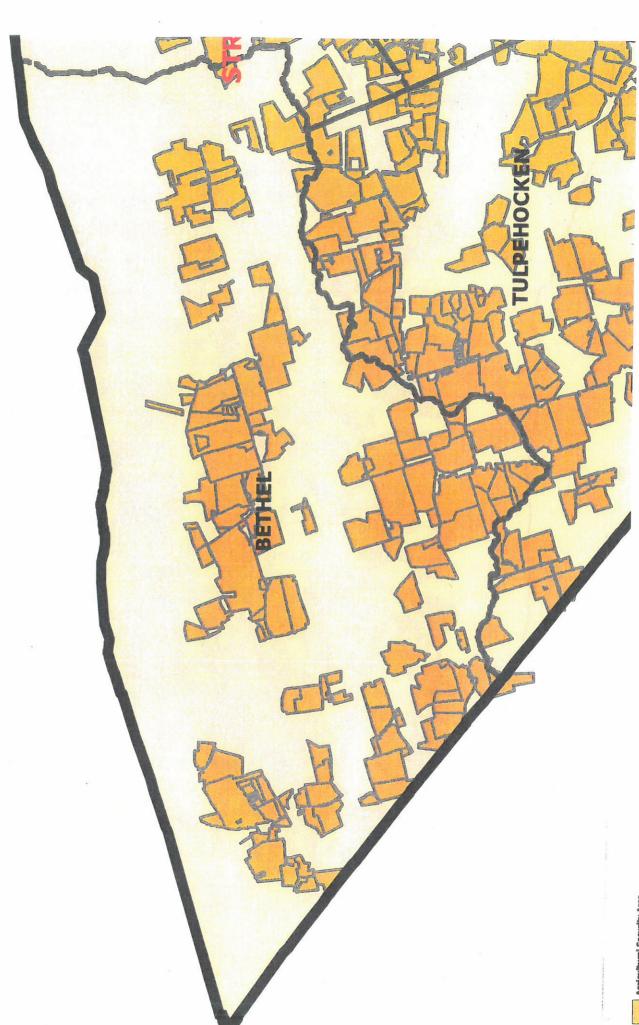
Capital improvement programming is the vital bridge between the Comprehensive Plan and the actual accomplishment of public improvements. Because the provisions, nature and location of public facilities exert a great influence on the pattern of community growth, a well-conceived capital program is probably the most important plan implementation tool available to the community. While ordinances concerning zoning and subdivision and land development are guides for private development, a capital improvement program gives direction to public development.

F. CONTINUING PLANNING

Continuing review of specific problems and proposals forms an essential part of the planning process. Implementation of the policies contained in the Comprehensive Plan and related ordinances and regulations will demand subsequent and repeated re-evaluation, addition, and modification, as circumstances dictate. It is the responsibility of Township officials to see that the Township regulations continue to reflect established policy decisions. If particular problems cannot be solved in the light of such policies, changes or additions will be necessary in policy, and these will once again be subject to review by the public and adoption by the Board of Supervisors.



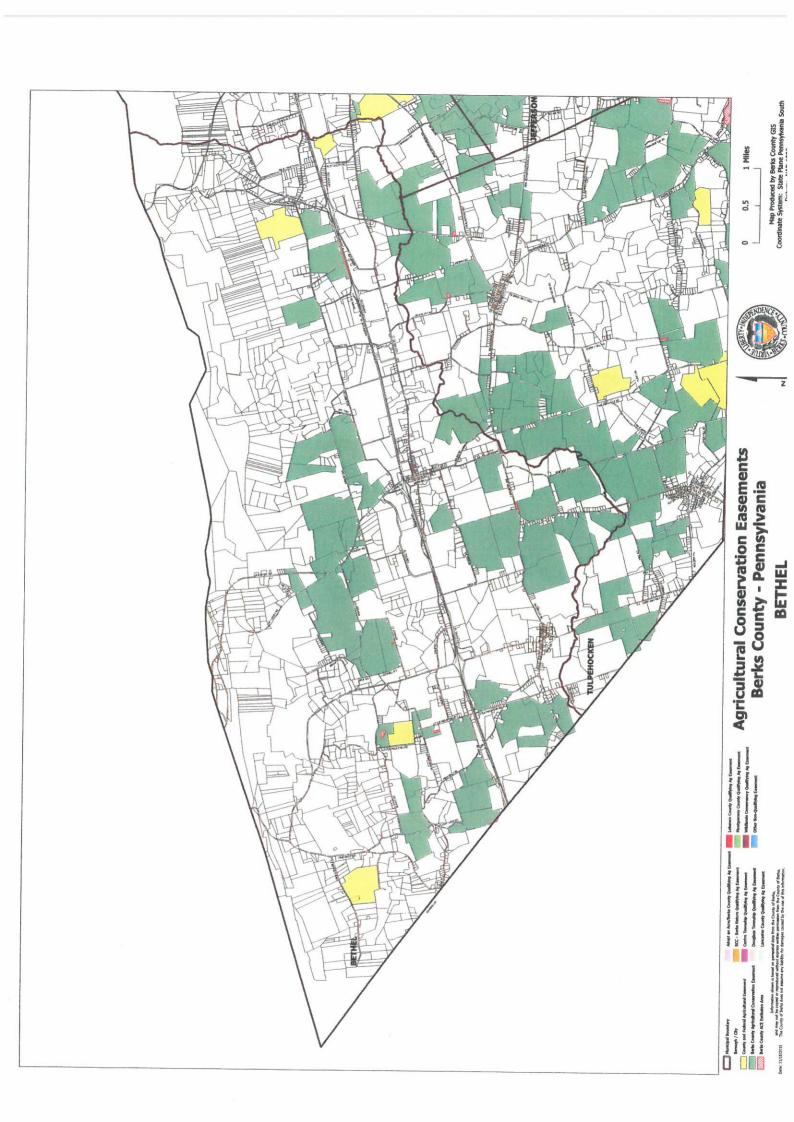
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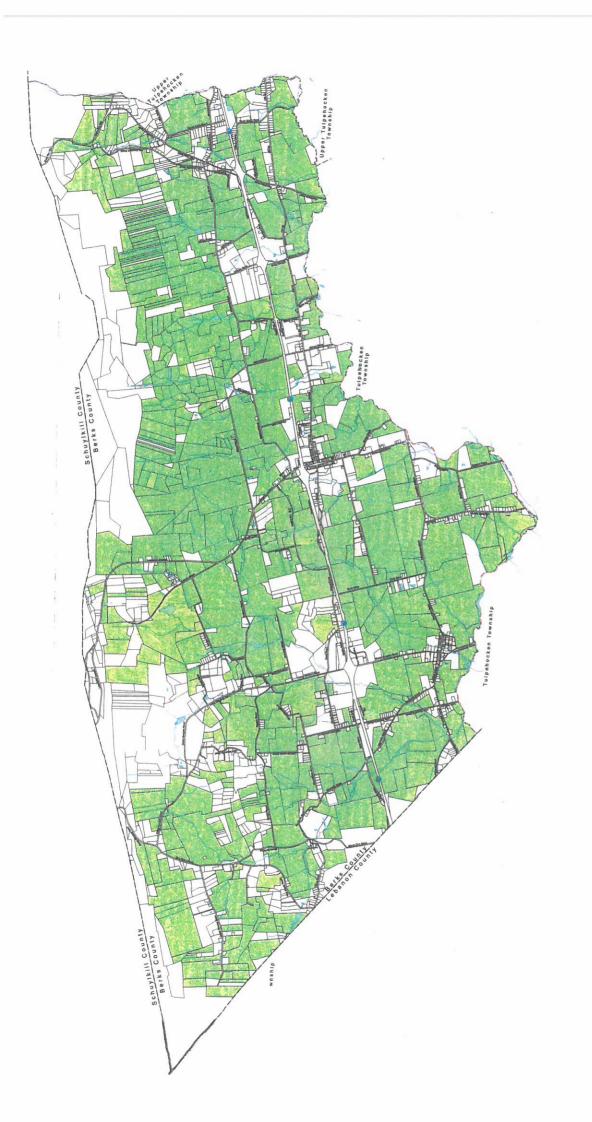


Agricultural Security Area Borough / City

Borough / City Township

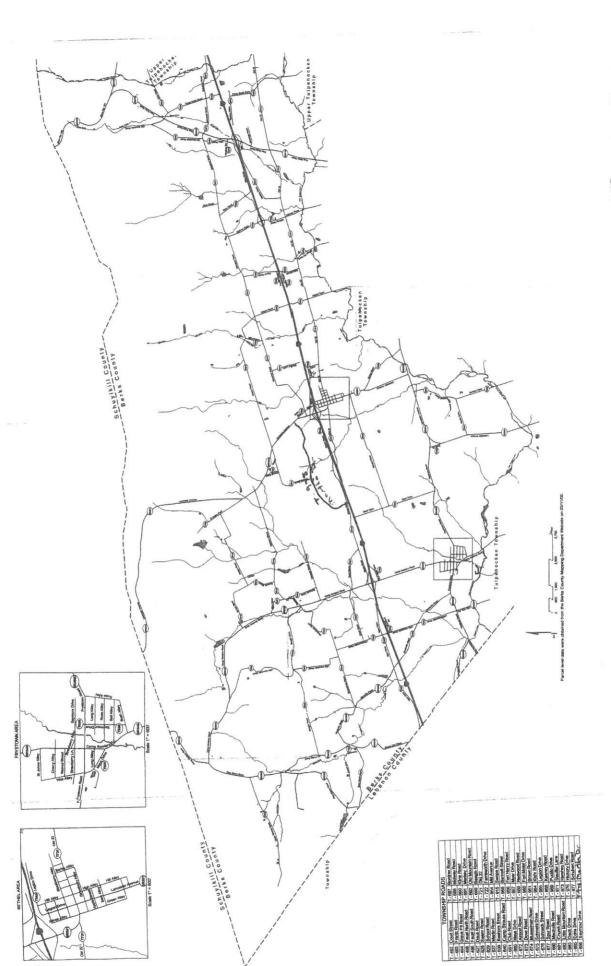
Map Produced by Berks County GIS Coordinate System: State Plane Pennsylvania South



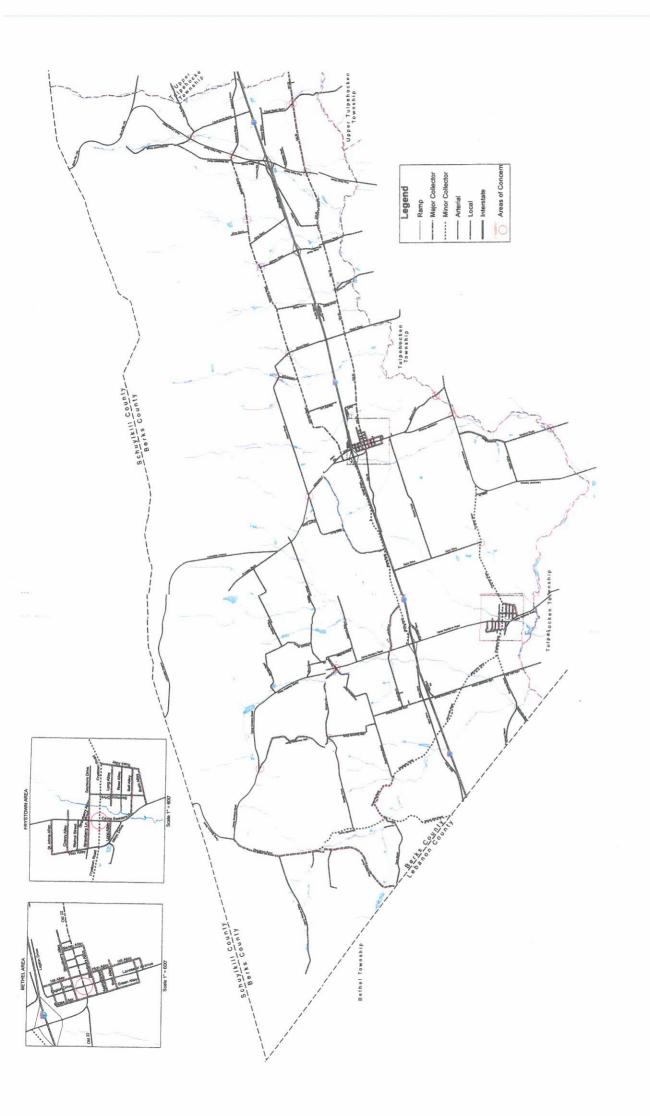


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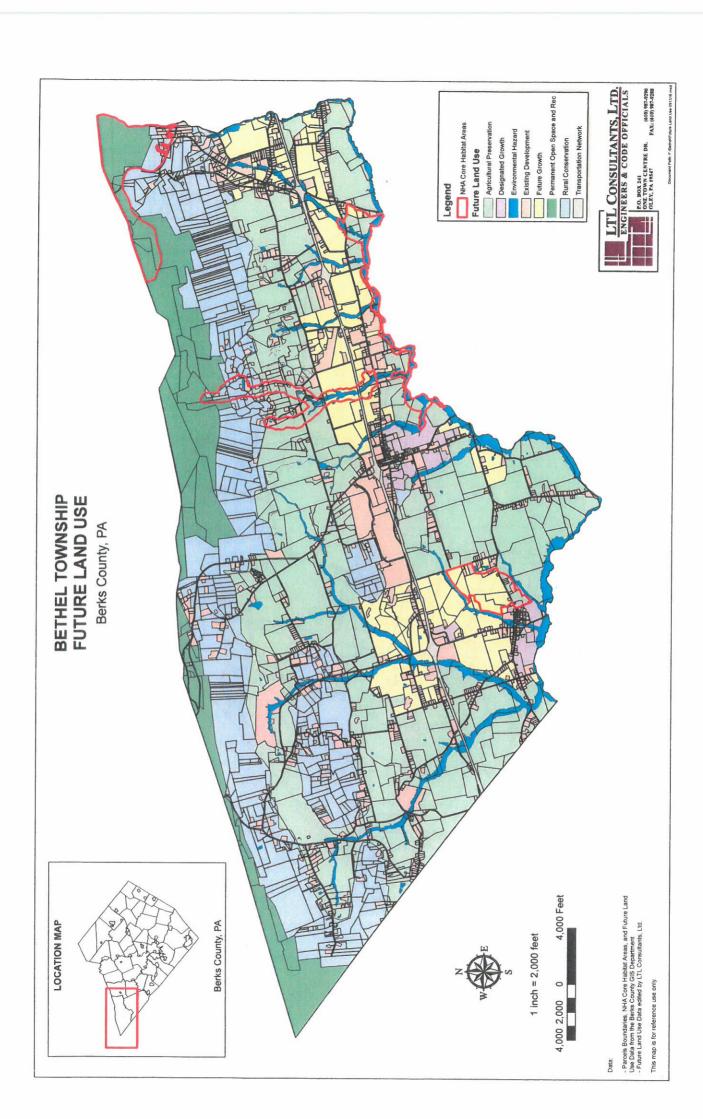
Comprehensive Plan Bethel Township, Berks County December 31, 2015

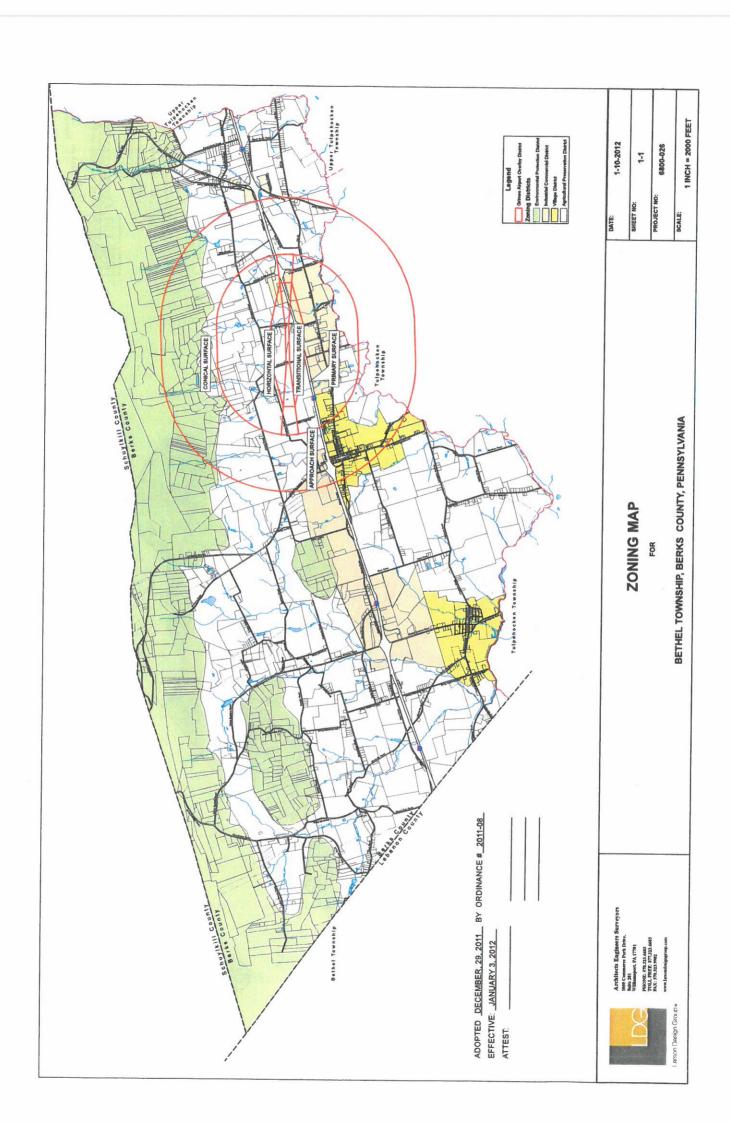


Township Roads Comprehensing Plan Bethel Twp, Berks Co



Road Class freation
Compared Two Barles Co





Frystown Road Fields NHA

PNHP Significance Rank: State

Site Description

This NHA is located in western Berks County and includes agricultural and grassland habitats northeast of the intersection of Frystown Road and State Route 645 in Bethel Township. Lands maintained through agricultural land use support a population of a **sensitive species of concern**, which is not named at the request of the jurisdictional agency overseeing its protection.

Species or natural communities of concern that can be found in this NHA include the following:

		PNHP Rank ¹		PA Legal	Last		
Species or Natural Community Name		Global	State	Status ¹ Seen	Quality ²		
Sensitive species of concern A ³	S				7/12/2012	. Е	

See the PNHP website (http://www.naturalheritage.state.pa.us/RankStatusDef.aspx) for an explanation of PNHP ranks and legal status. A legal status in parentheses is a status change recommended by the Pennsylvania Biological Survey.

Threats and Stresses

Specific threats and stresses to the elements present at this site include:

- Loss of open, agricultural habitat and suitable breeding sites due to changes in farming practices and development.
- Risk of collision with automobiles, buildings, power lines and towers, and other objects while foraging.
- Risk of mortality from pesticides or other chemical contaminants from poisoned prey items.

Conservation Recommendations

The entire site is privately owned and landowners in the Core Habitat should be aware of the conservation and habitat needs of the sensitive species of concern.

The following steps are recommended to ensure the persistence of these species at this site:

- Protect and enhance locations within Core Habitat that represent suitable breeding sites.
- Maintain and improve agricultural lands that provide suitable breeding sites and adequate food resources by avoiding development and row crop farming techniques within the Core Habitat.
- Reduce vehicular traffic through agricultural lands to minimize collisions within the Core Habitat and Supporting Landscape.
- Avoid the use of pesticides to control mammalian and avian pest populations within the Core Habitat and the larger Supporting Landscape.

Location

Municipalities: Bethel Township

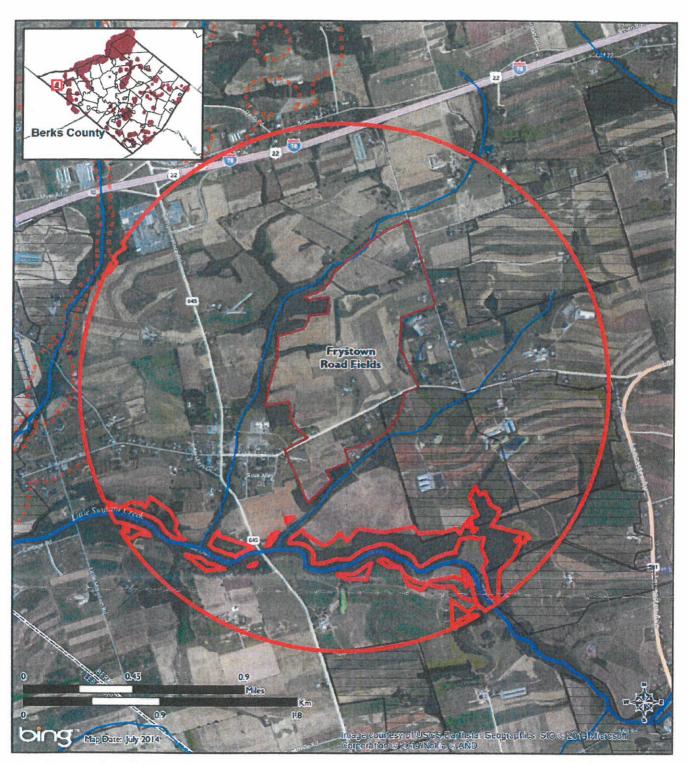
USGS quads: Bethel

Previous CNHI reference: None

Overlapping Protected Lands: A small portion is preserved with a Berks County Agricultural Conservation Easement

²See NatureServe website (http://www.natureserve.org/explorer/eorankguide.htm) for an explanation of quality ranks.

³This species is not named by request of the jurisdictional agency responsible for its protection.



Frystown Road Fields Natural Heritage Area

Agricultural lands support a sensitive species of concern.

Significance Rank: STATE



Pennsylvania Natural Heritage Areas

Core Habitat

Supporting Landscape
Other Supporting Landscape

Mill Creek NHA

PNHP Significance Rank: State

Site Description

Mill Creek's headwaters begin high atop Kittatinny Ridge, dropping nearly 700 vertical feet in under a mile. Where the waters slow in the gentle slope of the valley floor, Mill Creek flows through a mix of agricultural fields and small woodlots. A sensitive species of concern, not named at the request of the agency overseeing its protection, was found adjacent to the creek. This species is rarely found far from water, and relies on high water quality to maintain stable food sources.

Species or natural communities of concern that can be found in this NHA include the following:

		PNHP Rank!		PA Legal	Last		
Species or Natural Community Name		Global	State	Status ¹ Seen	Quality ²		
Sensitive species of concern A ³	S				9/9/2007	E	

See the PNHP website (http://www.naturalheritage.state.pa.us/RankStatusDef.aspx) for an explanation of PNHP ranks and legal status. A legal status in parentheses is a status change recommended by the Pennsylvania Biological Survey.

Threats and Stresses

Degradation of water quality and loss of riparian habitat are the overall threats to this site since clean water and suitable streamside habitat are imperative to the survival of the species of concern inhabiting this site.

Specific threats and stresses to the elements present at this site include:

- The riparian zone of Mill Creek is partially wooded, but along some stretches it is farmed very near to the banks of the creek.
- Water pollution in the forms of non-point source pollutants and sedimentation can have negative impacts on the species of concern that inhabits this area.
- Introduction of non-native species can create competition for resources and alter the population dynamics of native food sources.
- Over browsing by white-tailed deer is a serious threat to the overall understory plant diversity. An overabundance of deer can create the effect of park-like forests in which the native plant understory and vertical stratification are greatly reduced.

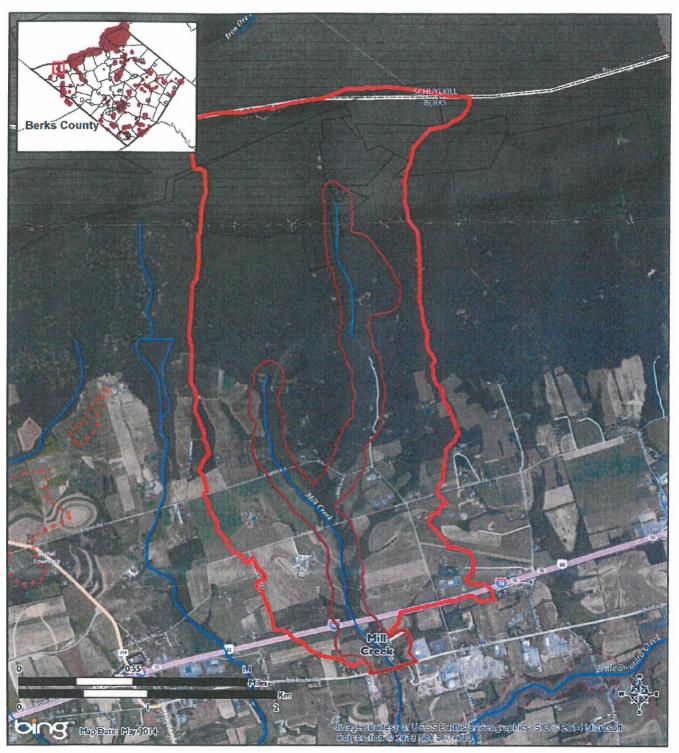
Conservation Recommendations

While the majority of stream frontage in this site is buffered by a riparian zone, initiatives should be taken to restore the damaged and nonexistent portions of riparian forest. Streams flowing through forested areas should be considered high priority for conservation. The forested riparian corridor helps to regulate the temperature of the stream and creates streamside conditions that contribute to improved water quality and aquatic habitat.

The following steps are recommended to ensure the persistence of these species at this site:

²See NatureServe website (http://www.natureserve.org/explorer/eorankguide.htm) for an explanation of quality ranks.

³This species is not named by request of the jurisdictional agency responsible for its protection.



Mill Creek Natural Heritage Area

Riparian habitats at this site support a population of a sensitive species of concern.

Significance Rank: STATE



Pennsylvania Natural Heritage Areas

Core Habitat

Supporting Landscape
Other Core Habitat

Other Supporting Landscape

Conservation Lands

Little Swatara Creek NHA

PNHP Significance Rank: State

Site Description

This NHA is located in northwestern Berks County and contains riparian forests along Stone Creek and Little Swatara Creek between State Route 419 and Salem Road just south of Old Route 22. The site's forests and aquatic habitats support a **sensitive species of concern**, which is not named at the request of the jurisdictional agency overseeing its protection.

Species or natural communities of concern that can be found in this NHA include the following:

Species or Natural Community Name		PNHP Rank ¹		PA Legal	Last		
		Global	State	Status ¹	Seen	Quality ²	
Sensitive species of concern A ³	S				2009-04	E	

See the PNHP website (http://www.naturalheritage.state.pa.us/RankStatusDef.aspx) for an explanation of PNHP ranks and legal status. A legal status in parentheses is a status change recommended by the Pennsylvania Biological Survey.

Threats and Stresses

Specific threats and stresses to the elements present at this site include:

- The sensitive species of concern is vulnerable to human disturbance. Significant additional human disturbance within 1000 feet (305 meters) could trigger permanent abandonment of the area.
- The species of concern at this site rely on good water quality, and are vulnerable to siltation and chemical pollution.

Conservation Recommendations

Additional development within the Core Habitat should be avoided to protect the sensitive species of concern. Disturbance within the Core Habitat should not be a problem for this species if it occurs during non-breeding season (August – May).

The following steps are recommended to ensure the persistence of these species at this site:

- Avoid or minimize human disturbance to the Core Habitat during the June through July breeding season.
- Maintain at least a 100 foot buffer of woody vegetation along streams to help reduce erosion, sedimentation, and pollution. Nearby streams through non-forested areas should be restored with native trees and shrubs appropriate to the habitat.
- Additionally, best management practices (BMPs) that focus on limiting the introduction of nonpoint sources of pollution into surface and groundwater should be applied to the surrounding area
- Avoid fragmenting the existing forested areas with additional buildings or infrastructure.

Location

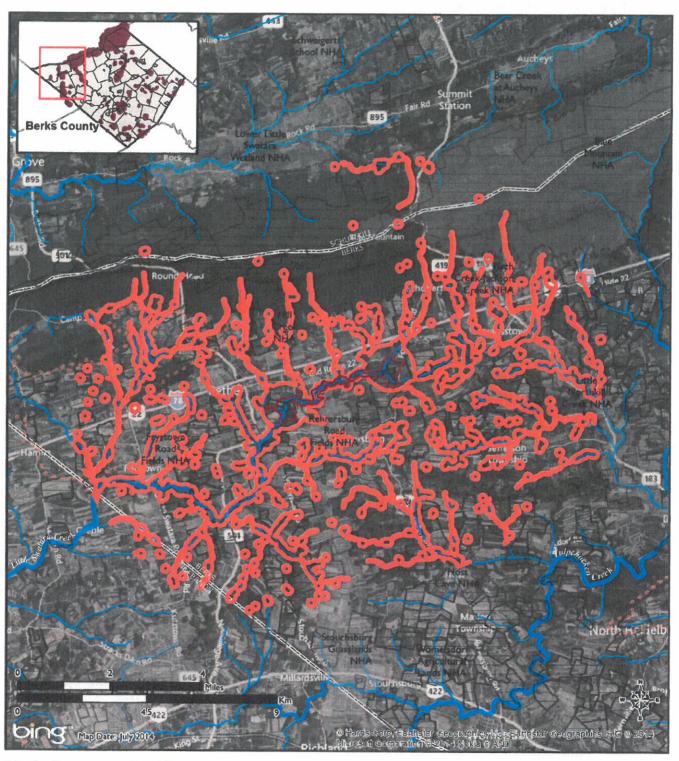
Municipalities: Bethel Township, Tulpehocken Township

USGS quads: Bethel, Strausstown Previous CNHI reference: None

Overlapping Protected Lands: Some farms within the core habitat are preserved with Berks County Agricultural Conservation Easements

²See NatureServe website (http://www.natureserve.org/explorer/eorankguide.htm) for an explanation of quality ranks.

³This species is not named by request of the jurisdictional agency responsible for its protection.



Little Swatara Creek Natural Heritage Area

Aquatic and riparian habitat at this site supports a population of a sensitive species of concern.

Significance Rank: STATE

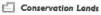


Pennsylvania Natural Heritage Areas

Core Habitat



Supporting Landscape Other Core Habitat Other Supporting Landscape



Blue Mountain NHA

PNHP Significance Rank: Global

Site Description

This NHA includes a heavily forested section of Blue Mountain stretching more than 17km (11mi) along the Berks and Schuylkill County line between Port Clinton and State Route 183. Forest cover consists primarily of dry oak, but also includes pine-oak forest on southeast slopes, and hemlock-northern hardwoods along streams. Embedded within this site is a Red Maple – Highbush Blueberry Palustrine Woodland as well as a complex of nine vernal pools. Vernal pools are seasonally filled depressions that are characterized by a lack of flowing



Adult female Flypoison Borer Moth.

water, relatively small size, shallow depth, and presence of plants and animals that can withstand a period of drought (Brown and Jung 2005). Their seasonal nature is important because it excludes fish that would otherwise prey upon the eggs and larvae of amphibians breeding in them.

This site has Global significance because it supports the globally vulnerable **Flypoison Borer Moth** which is endemic to Pennsylvania. This moth depends on the flypoison lily (*Amianthium muscitoxicum*) as its host plant – serving as a place for laying eggs and a food source during its caterpillar stage. The forested ridge in this Core Habitat hosts a healthy population of flypoison. Forests and wetlands at this site also provide habitat for **three sensitive species of concern**. These species cannot be named at the request of the jurisdictional agency overseeing their protection.

Species or natural communities of concern that can be found in this NHA include the following:

		PNHP Rank ¹		PA Legal	Last	
Species or Natural Community Name		Global	State	Status	Seen	Quality ²
Flypoison Borer Moth (Papaipema sp. 1)	A	G2G3	S2	N (N)	9/05/2013	AC
Rice Cutgrass - Bulrush Vernal Pool	C	GNR	S2	N (N)	8/14/2013	AC
Red Maple - Highbush Blueberry Palustrine Woodland	C	GNR	S5	N (N)	2006	BC
Sensitive species of concern A ³	S				6/30/2009	Е
Sensitive species of concern B ³	S				6/4/2013	Ε
Sensitive species of concern C ³	S				7/1999	Е

See the PNHP website (http://www.naturalheritage.state.pa.us/RankStatusDef.aspx) for an explanation of PNHP ranks and legal status. A legal status in parentheses is a status change recommended by the Pennsylvania Biological Survey.

Blue Mountain NHA is part of the Kittatinny Ridge, one the most significant raptor migration corridors in the northeastern U.S. and provides breeding habitat for a number of forest interior birds which require large tracts of unfragmented forest to maintain healthy populations. This site is part of the Audubon recognized Important Bird Area.

Threats and Stresses

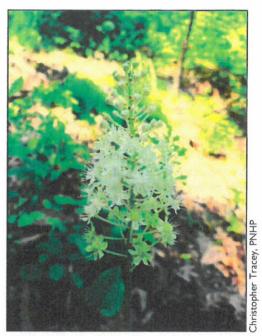
²See NatureServe website (http://www.natureserve.org/explorer/eorankguide.htm) for an explanation of quality ranks.

³This species is not named by request of the jurisdictional agency responsible for its protection.

The most serious threats to the Flypoison Borer Moth are habitat loss and fragmentation due to development and fires, and pesticide use to control Gypsy Moth (Lymantria dispar dispar) damage.

Specific threats and stresses to the elements present at this site include:

- Development activities can fragment contiguous mature forest leading to habitat loss and degradation. Spatial configuration of fragmenting features will also impact how much core forest is lost.
- Fires pose the highest threat during the dormant season for the Flypoison Borer Moth, from September through early May, when eggs are exposed on the host plant. Fire-related mortality at this time of year would be expected near 100%.
- Spraying of Bacillus thuringiensis (Bt) and diflubenzuron (i.e. Dimlin) for control of Gypsy Moths can lead to mortality of nontarget insects, like the Flypoison Borer Moth.



Flypoison Lily in flower.

- The sensitive species of concern is vulnerable to human disturbance. Significant additional human disturbance within 1000 feet (305 meters) could trigger permanent abandonment of the area.
- Multiple species rely on good water quality and are vulnerable to siltation and chemical pollution.
- Hemlock wooly adelgid (Adelges tsugae), a sap-feeding insect native to Asia, threatens to destroy
 eastern hemlock (Tsuga canadensis) forest cover statewide.
- Human disturbance during breeding season can negatively impact reproductive success of sensitive species.
- Threats to the vernal pools include filling, spraying of pesticides to control mosquito populations, logging, and the practice of throwing slash from logging into the pools.

Conservation Recommendations

The vast majority of the NHA is contained by State Game Lands #110 and Weiser State Forest, likely offering it protection from future development pressure, but improvements to infrastructure, additional utility ROWs, and logging could pose challenges for the species of concern in the future.

The following steps are recommended to ensure the persistence of these species at this site:

- Additional development within the Core Habitat should be avoided.
- Maintain intact forest to prevent habitat fragmentation resulting in habitat loss and degradation by planning development activities outside the Core Habitat area.
- Prevent the spread of wildfire and avoid prescribed burns in the Core Habitat during September through early May when Flypoison Borer Moth eggs are most vulnerable to fire.
- Avoid use of pesticides in Core Habitat until after Flypoison Borer Moth eggs have hatched and larvae are inside the host plant, which occurs May-September. Avoid use of Dimlin altogether, if possible, as it persists on treated foliage until leaf-drop in fall and then moves into leaf litter and streams.

- Conserve and expand forested riparian buffers. Streams and wetlands through forested areas should be considered high priority for conservation. The forested riparian corridor helps regulate stream temperature and creates streamside conditions contributing to improved water quality and aquatic habitat.
- Establish at least a 100 foot (30 meter) buffer of woody vegetation along streams and wetlands to help reduce erosion, sedimentation, and pollution. Streams through non-forested areas should be restored with native trees and shrubs appropriate to the habitat.
- Best management practices (BMPs) that focus on limiting the introduction of non-point sources
 of pollution into surface and groundwater should be applied to the surrounding area.
 Maintaining high quality aquatic habitat is important to this species.
- Available treatments for hemlock woolly adelgid do not seem economically feasible at a scale suitable for large natural areas. At a smaller scale, continued applications of horticultural oil or insecticidal soap can control hemlock woolly adelgids. Biological controls are being researched, though they have so far had limited success at keeping adelgid populations in check.
- Avoid disturbance from human activities within the Core Habitat near sensitive species A during the breeding season (December July).
- Avoid or minimize human disturbance to the Core Habitat during the May through July breeding season for sensitive species C.
- Conduct further biodiversity and inventory monitoring at this site as this area may support
 other species or natural communities of concern.

Location

Municipalities: Berks Co: Bethel Township, Tilden Township, Upper Bern Township, Upper Tulpehocken Township; Schuylkill Co: Wayne Township, West Brunswick Township, South Manheim Township USGS quads: Auburn, Friedensburg

Previous CNHI reference: Berks CNAI 2003: "Northkill Creek", "Blue Mountain Ridgetop", "Bloody Spring Wetland"; Schuylkill CNAI 2003: "Schuylkill Gap in Blue Mountain", "Blue Mountain Ridgetop"

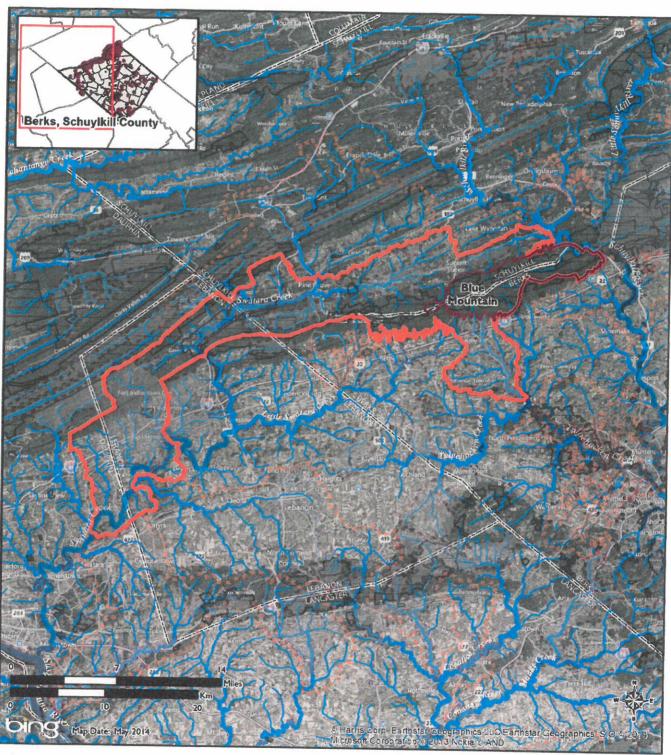
Overlapping Protected Lands: Appalachian National Scenic Trail, State Game Land #110, Weiser State Forest

References and Additional Reading

Brown, L. J. and R.E. Jung. 2005. "An introduction to Mid-Atlantic Seasonal Pools," EPA-903-B-05-001. U.S. Environmental Protection Agency, Mid-Atlantic Integrated Assessment, Ft. Meade, Maryland. epa.gov/bioiweb1/pdf/EPA-903-B-05-001AnIntroductiontoMid-AtlanticSeasonalPools.pdf

Butler, L. 1998. Nontarget Impacts of Gypsy Moth Insecticides. Center for Agriculture, Natural Resources, and Community Development, West Virginia University Extension Service.

NatureServe. 2008. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.0. NatureServe, Arlington, Virginia. Available http://www.natureserve.org/explorer. (Accessed: July 17, 2008).



Blue Mountain Natural Heritage Area

This densely forested section of Blue Mountain has two state rare natural communities, supports a population of the globally vulnerable fly poison borer moth, as well as 3 sensitive species of concern.

Significance Rank: REGIONAL



Pennsylvania Natural Heritage Areas

Core Habitat
Supporting Landscape
Other Core Habitat
Other Supporting Landscape