

Whitehall Township Comprehensive Plan

Whitehall Township
Lehigh County, Pennsylvania

August 2005

Adopted by the Whitehall Township Board of Commissioners on 8 August 2005
Resolution #2436

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INTRODUCTION

Whitehall Township is a large, urban/suburban township to the immediate north of the City of Allentown in eastern Pennsylvania. Since the mid-20th century, Whitehall Township has grown from a collection of small villages to a major residential suburb and the regional commercial center for the Lehigh Valley metropolitan area, an area of more than 600,000 residents.

THE NEED FOR A COMPREHENSIVE PLAN

Whitehall Township adopted the last comprehensive plan—the document which provides the basis for local land use law in Pennsylvania—in 1972. The plan was updated in 1990, but the update was never formally adopted by the Board of Commissioners. The 2005 *Whitehall Township Comprehensive Plan* builds on the work of the previous documents by reexamining the township's land use, land use policy, and provision of public services to form the basis of future township land use policy.

Whitehall Township is an older municipality and a suburb to the third-largest city in Pennsylvania. Issues such as redevelopment, commercial revitalization, and village development are important land use issues affecting the township. Recognizing the importance of planning even when a considerable portion¹ of the township's land has been developed, the Whitehall Township Board of Commissioners, in 2003, authorized the Whitehall Township Planning Commission to undertake a new comprehensive plan for the township.

PREPARING THE PLAN

The planning commission retained the consulting firm of Urban Research and Development Corporation (URDC; Bethlehem, PA), with assistance from Keystone Consulting Engineers (Wescosville, PA) to assist in preparing the plan. URDC began attending regular monthly meetings of the planning commission in May 2003. The planning commission soon realized that the process of preparing the plan warranted separate monthly workshops, which continued into early 2005.

Throughout the process, URDC conducted extensive background studies, including personal interviews with key community leaders. The township also sponsored a survey which was mailed to every township household. URDC compiled the survey results, which are incorporated as part of the plan.

¹ Approximately 64.7 percent of the township is developed. The remaining 35.3 percent is used for either agriculture or parks/recreation or is vacant.

UNDERSTANDING THE PLAN

The *Whitehall Township Comprehensive Plan* begins with an examination of the community and its many characteristics, from population and other demographic information to public services (such as water, sewer, and recreation) to public opinion, in the form of the community survey. The *background studies* (*chapter 2*) identify the issues which are addressed in the plan policies.

The *plan* (*chapter 3*) was developed to address the issues identified in the background studies. The focus of any comprehensive plan is land use. The plan also includes recommendations that lend support to and guide community efforts in housing, transportation, and community services. Nevertheless, the legally binding tools which emanate from the comprehensive plan are local ordinances—typically a zoning ordinance and a subdivision and land development ordinance—that address the use, development, and, increasingly in Whitehall, redevelopment of the land. Therefore, land use and land use policy are the strongest elements of the comprehensive plan.

The *action program*, which is also a part of *chapter 3*, provides additional recommendations relating to the implementation of the plan. The recommendations in the action program offer guidance on the tools available to help further the goals and objectives of the plan through land use regulation, public involvement, and the roles of various local entities. The *appendices* of the plan include detailed results of the townshipwide survey and information about available planning and community development funding and technical assistance programs.

BACKGROUND

A comprehensive plan requires a thorough understanding of the elements which make a community. The following chapter presents background information for the *Whitehall Township Comprehensive Plan* which pertains to the following subjects:

- Regional Location
- Lehigh County and Regional Policies
- History and Major Historic Buildings
- Population
- Housing
- Existing Land Use
- Natural Features
- Community Facilities and Services
- Transportation
- Current Land Use Policy
- Adjacent Municipalities
- Community Survey

REGIONAL LOCATION

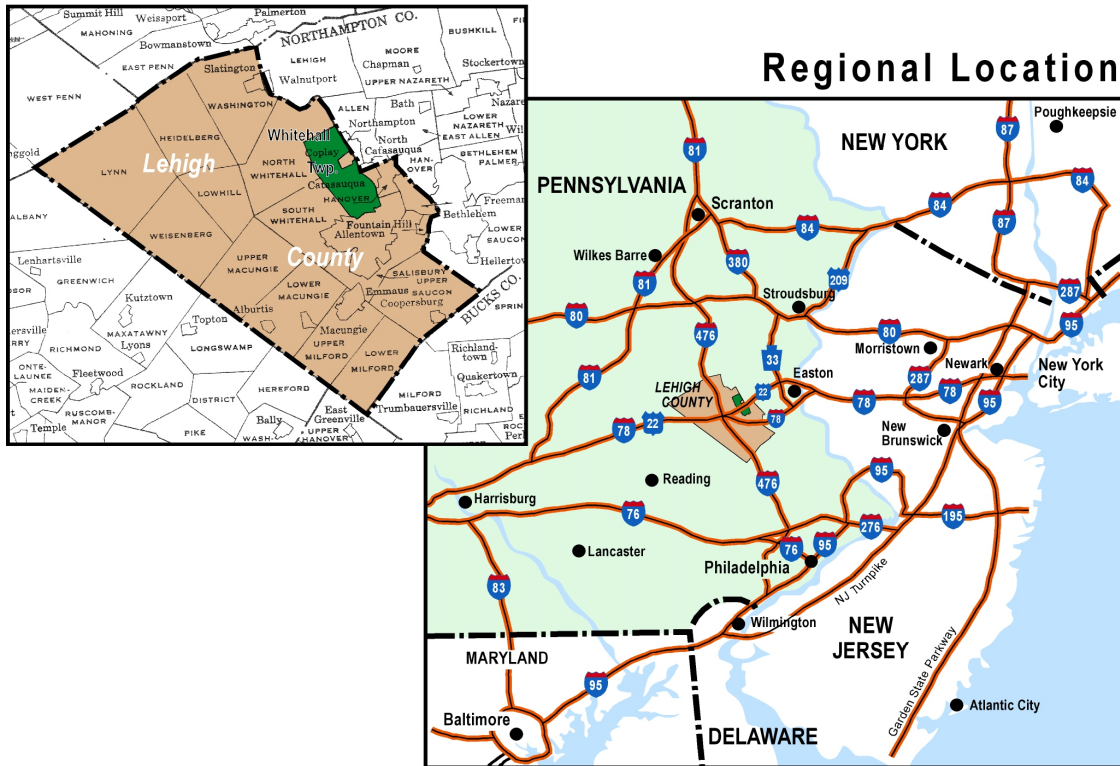
Whitehall Township is located in Lehigh County, Pennsylvania, along the west bank of the Lehigh River. The municipality is near the center of the Lehigh Valley, which includes both Lehigh and Northampton Counties. Whitehall is bounded on the south by the City of Allentown, on the west by South Whitehall Township, and on the north and west by North Whitehall Township. Along Whitehall's eastern border, across the Lehigh River, are the Boroughs of Northampton, North Catasauqua, and Catasauqua, and Allen Township. Whitehall also surrounds the Borough of Coplay on three sides, creating a "notch" within the township.

The villages of Cementon, Egypt, Fullerton, Hokendauqua, Stiles, and West Catasauqua, as well as other areas outside of the villages, are all part of Whitehall Township. Historically, the villages have developed strong identities, even though all the villages were governed as part of a single municipality. The township government is working to develop a strong, single identity as Whitehall Township while retaining the heritage of the individual villages and the surrounding areas.

Several major roads serve Whitehall Township, the most significant being U.S. 22, which connects the northern areas of Allentown, Bethlehem and Easton, and extends eastward into New Jersey (Map 2.1). PA 145, also known as MacArthur Road, serves as the township's primary north-south artery, providing access south to Center City Allentown and north to parts of Lehigh County. A less-traveled state route (PA 329) crosses east-west in the northern part of the township. U.S. 22 provides easy access to the Pennsylvania Turnpike's Northeast Extension, which leads south to Philadelphia and north to the Pocono Mountains region. U.S. 22 also connects with I-78, leading west to Harrisburg and east to New York/New Jersey metropolitan area. Whitehall Township is approximately 62 miles north of Center City Philadelphia and 87 miles west of New York City (Manhattan). The township is also 3-5 miles west of the Lehigh Valley International Airport.

Map 2.1 Regional Location

Whitehall Township - Lehigh County, PA



LEHIGH COUNTY AND REGIONAL POLICIES

The Lehigh Valley Planning Commission (LVPC) recommends regional planning policies for Lehigh and Northampton Counties in the report, *The Lehigh Valley...2010*. Under the regional plan (Map 2.2), a majority of Whitehall Township is recommended for “urban development,” which includes all types of land uses at relatively high densities with community water and public sewer service.

Areas surrounding Bridge Street in the west-central part of the township, and areas north of Egypt are recommended for “rural development,” which calls for primarily residential development on lots no smaller than one acre, as well as agriculture, recreation and open space, quarrying, and commercial or industrial uses that require a rural setting. On-lot sewer and water services are recommended, except for areas with public use, in which central systems are recommended.

Sensitive floodplain and steeply sloped lands are designated as “natural features” that should be protected from inappropriate development. Recommended uses include parks, open spaces, pasture, and single-family detached housing at extremely low densities. Concentrations of natural resource land are located along the Lehigh River, Jordan Creek, Coplay Creek, and Spring Creek, and along hillsides north of PA 329.

HISTORY

The area now known as Whitehall Township has evolved through several phases of development to become one of the leading municipalities of the Lehigh Valley. The following short history is based on local publications, including past comprehensive plans, *A Brief History of the Lehigh Valley* by Charles Kiernan, and *History of the Lehigh Valley* by Professor Ross W. Yates.

The Lehigh Valley was originally inhabited by the Lenni Lenape people; specifically, the Unami tribe. Originally, the landscape consisted of hardwood forest with occasional clearings. In 1681, a time when Europeans were settling the tidal areas along the east coast, King William II granted William Penn all of the land that is now Pennsylvania, meaning “Penn’s Woods.” Europeans started settling the Lehigh Valley in the 1730s, arriving from the south and east via river valleys and Native American trails. Relations with the Lenni Lenape were strained, especially after the unbalanced 1737 English land acquisition known as the Walking Purchase. Indian raids were common until the 1750s, when the French and Indian War displaced most of the Lenni Lenape to the west of the Appalachian Mountains.

Settlement increased rapidly after 1750. Most new immigrants were German farmers seeking fertile land similar to that of their homeland. Farmers typically settled near streams and springs, building homes and barns from the trees and rocks that were removed to create farm fields. Some built sawmills and grist mills along the area’s streams, including Helfrich’s Mill (1753), now a National Historic Site. At major crossroads, settlers built taverns and inns for the increasing numbers of travelers to the area. Additional houses and stores were clustered near the taverns, creating small villages. Among the earliest villages in Whitehall were Egypt, Siegfried’s Ferry (later called Whitehall, now Cementon), Hartman’s Ferry (now Hokendauqua), Mickley’s, and the “Clapboard Town” on Jordan Creek near Allentown. Churches were mainly Reformed and Lutheran “Union” churches, as opposed to the closed settlements of Moravians and Mennonites found elsewhere in the valley. School was often taught at the churches, and the first separate schoolhouses appeared near the close of the 18th century.

Whitehall Township was created politically in 1753 and consisted of all land currently found in Whitehall, North Whitehall, and South Whitehall Townships, and Coplay Borough. Grain farming, milling, and livestock raising flourished, with wheat being the principal cash crop. Direct access to the Lehigh River facilitated the movement of goods downstream to Philadelphia markets. Though some area residents fought in the battles of the American Revolution, Whitehall itself was largely

unaffected by the war. In 1810, Whitehall Township was separated into North Whitehall and South Whitehall Townships.

Whitehall became a center of industrial activity from the very start of the Industrial Revolution in the 1830s, largely due to an abundance of limestone and iron. The Thomas Iron Works was established in 1854, and housing for the ironworkers became the village of Hokendauqua. The McKee and Fuller Iron Works created the village of Ferndale, later renamed Fullerton. The local limestone, ideal for cement-making, was quarried in mass quantities in the northern half of the township. Cement plants were built in Egypt, Cementon, and Coplay. By the mid- to late-19th century, industry had well surpassed agriculture as Whitehall's primary economic activity. The need to transport large amounts of raw materials and finished products stimulated the construction of three railroads: The Lehigh Valley Railroad, Catasauqua and Fogelsville Railroad, and Ironton Railroad. All three lines provided freight transportation from Whitehall to the core cities of the Lehigh Valley and to surrounding states. Immigrants poured into Whitehall to satisfy the demand for manpower in the industries, spurring increased residential growth and construction of more schools, mainly in the villages. In 1867, in response to a voter referendum, East Whitehall Township was formed out of North and South Whitehall Townships. The year 1869 saw the formation of Coplay Borough, and East Whitehall was renamed Whitehall Township in 1876. By 1900, Whitehall Township housed enough residents to be designated a first-class township, giving the municipality the right to provide public infrastructure at public expense.

Industrial and residential development slowed at the beginning of the 20th century. The Thomas Iron Works, as well as other plants, closed or drastically cut operations. Quarries and mines ceased operations due to the discovery of higher-quality and more abundant mineral resources elsewhere. Retail commercial development had no place in the township yet, as many residents were shopping in the thriving commercial center of Allentown. The Great Depression of the 1930s exacerbated the economic slump and caused a population decline in the township.

After World War II, Whitehall Township saw a completely different type of growth. Increased availability of the automobile, better roads, and easy access to financing caused suburbanization. Housing additions formed along the edges of the existing villages, filling in much of the southern third of the township. In the Lehigh Valley, Whitehall Township became one of most developed suburban areas due to relatively flat land, proximity to existing public utilities, and easy access to the newly-completed Lehigh Valley Thruway (U.S. 22), and PA 145. Residents could now live in houses with yards and easily drive to sources of employment in other municipalities. With the movement of population from the inner cities came an overwhelming need for goods and services in the new suburban areas. The shopping center was born, and MacArthur Road became a commercial corridor unmatched in the Lehigh Valley. The Lehigh Valley Mall, completed in the mid-1970s, remains the largest shopping center in the valley. Office buildings and distribution warehouses soon followed retail commercial development, also taking advantage of the township's location near major roads.

Beginning in the early 1990s, the Lehigh Valley started to see increased residential growth as people relocated from the Philadelphia and New York/New Jersey metropolitan areas. Many residents continue to work in major metropolitan areas, either commuting up to two hours each way or residing in the valley on weekends. The extension of PA 33 and the advent of scheduled and charter passenger bus lines have also made Philadelphia and New York more accessible. In Whitehall Township, the resultant residential growth has included new single-family detached subdivisions in the central and northern parts of the township as well as infill apartment and townhouse developments in the southern part.

Major Historic Sites

Historic sites tell many of the stories of Whitehall's heritage (Table 2.1, Map 2.3). Four sites in the township are officially listed in the National Register of Historic Places (NRHP) and one site is eligible to appear in the NRHP. In addition, the Whitehall Historic Preservation Society (WHPS) has identified 24 other historic sites of local significance.



The Troxell-Steckel House near Egypt

POPULATION

Total population is one of the most commonly recognized measures of community size (Table 2.2). Changes in population illustrate how an area grows or declines over time. Population trends also help in making assumptions about future growth. The population in Whitehall Township grew 71.4 percent from 1960 through 2000, and 9.3 percent from 1990 through 2000 (Table 2.3). Both figures are significantly larger than the statewide growth rates. In the immediate area, only North Whitehall Township saw more percentage growth since 1960.

The population of Whitehall Township is expected to continue increasing through 2010, although to a lesser extent than some of the surrounding municipalities (Table 2.4). According to forecasts from the Lehigh Valley Planning Commission, population in Whitehall Township is expected to grow by five percent by 2030.

Population density is the number of people living in an area of specified size (usually square mile). The amount of land in Pennsylvania municipalities can only change through the annexation process, so land areas in Whitehall Township are not likely to change in the foreseeable future. Therefore, changes in population result in corresponding changes in population density. Whitehall Township,

**Table 2.1
Major Historic Sites**

#	SITE NAME	LOCATION	STATUS
1	American Cement Company	Chestnut Street, west of MacArthur Road	WHPS Recognized
2	American Cement Company Vault	Coplay Creek, west of MacArthur Road	WHPS Recognized
3	Civil War Monument/Fairview Cemetery	East of Range Road	WHPS Recognized
4	Cold Spring Bridge	2 nd Street, north of Cementon	NRHP Listed
5	Dent Hardware (smokestack)	3 rd and Union Streets, Fullerton	NRHP Listed
6	Egypt Church and Cemetery	South Church Street, Egypt	WHPS Recognized
7	English School	Bridge Street, Egypt	WHPS Recognized
8	Feldhege Silk Mill	Roosevelt Street, Egypt	WHPS Recognized
9	Fort Deshler	SE corner, Chestnut St./MacArthur Rd.	WHPS Recognized
10	Fullerton Railroad Station	Lehigh Avenue, Fullerton	WHPS Recognized
11	Helfrich Springs Grist Mill	Mickley and Lenhart Roads	NRHP Listed
12	Helfrich Springs and Cave	Mickley Road north of Lenhart Road	WHPS Recognized
13	Ironton Railroad Caboose	Church Street south of Willow Street	WHPS Recognized
14	Ironton Railroad Office	Front and Iron Streets, Hokendauqua	WHPS Recognized
15	John Jacob Mickley Grave	Eberhart Road, east of MacArthur Road	WHPS Recognized
16	L. V. Agricul. Chemical Works/Altwn. Mfg. Co.	Mickley Road, south of Route 22	WHPS Recognized
17	Lehigh Valley Cooperative Farmers Dairy	MacArthur Road, north of Allentown	NRHP Eligible
18	Lehigh Valley Railroad	West bank of Lehigh River	WHPS Recognized
19	Limekiln	Church Street, north of Egypt	WHPS Recognized
20	Mickley Log House	Church Street, north of Egypt	WHPS Recognized
21	Mickley's Church and Cemeteries	MacArthur Road and Eberhart Road	WHPS Recognized
22	Newhard's Bridge	Mickley Road at Jordan Creek	WHPS Recognized
23	Saylor Cement Company	Coplay Road, south of West Coplay Road	WHPS Recognized
24	Schadt Schoolhouse	Mauch Chunk and Gallagher Roads	WHPS Recognized
25	Steckel Hotel	Route 329 and Church Street, Egypt	WHPS Recognized
26	Thomas Iron Company	Lehigh River, Hokendauqua	WHPS Recognized
27	Thomas Mansion and Carriage House	Front Street, Hokendauqua	WHPS Recognized
28	Troxell-Steckel House	Reliance Street, Egypt	NRHP Listed
29	Whitehall Cement Company	Route 329 and Coplay Road, Cementon	WHPS Recognized

Source: Whitehall Historic Preservation Society, Pennsylvania Historic and Museum Commission, 2004

**Table 2.2
Total Population, 1960–2000**

	Population				
	1960	1970	1980	1990	2000
Whitehall Township	14,528	18,323	21,538	22,779	24,896
North Whitehall Township	5,061	6,819	8,820	10,827	14,731
South Whitehall Township	10,932	13,971	15,919	18,261	18,026
Borough of Coplay	3,701	3,642	3,130	3,267	3,387
City of Allentown	108,347	109,527	103,758	105,301	106,632
Lehigh County	227,536	255,304	272,349	291,130	312,090
Northampton County	201,412	214,545	225,418	247,105	267,066
Pennsylvania	11,319,366	11,800,766	11,864,751	11,881,643	12,281,054

Source: U.S. Census

Table 2.3
Population Change, 1960-2000

	Change, 1960-2000		Change, 1990-2000	
	Number	Percent	Number	Percent
Whitehall Township	10,368	71.4	2,117	9.3
North Whitehall Township	9,670	191.1	3,904	36.1
South Whitehall Township	7,094	64.9	(235)	(1.3)
Borough of Coplay	(314)	(8.5)	120	3.7
City of Allentown	(1,715)	(1.6)	1,331	1.3
Lehigh County	84,554	37.2	20,960	7.2
Northampton County	65,654	32.6	19,961	8.1
Pennsylvania	961,688	8.5	399,411	3.4

Source: U.S. Census

Table 2.4
Population Forecasts, 2010–2030

	2000 Population	Forecasted Population			Change			
					2000-2010		2000–2030	
		2010	2020	2030	Number	Percent	Number	Percent
Whitehall Township	24,896	25,379	25,786	26,139	483	1.9	1,243	5.0
North Whitehall Township	14,731	17,425	19,530	21,120	2,694	18.3	6,389	43.4
South Whitehall Township	18,025	19,702	21,413	23,005	1,677	9.3	4,980	27.6
Borough of Coplay	3,387	3,387	3,387	3,387	0	0.0	0	0.0
City of Allentown	106,632	106,652	106,665	106,673	20	0.0	41	0.0
Lehigh County	312,090	329,552	347,286	362,460	17,462	5.6	50,370	16.1
Northampton County	267,066	290,919	316,052	342,518	23,853	8.9	75,452	28.3
Lehigh Valley	579,156	620,471	663,338	703,978	41,315	7.1	124,822	21.6

Sources: 2000 — Population Statistics from the U. S. Census

2010–2030 — Lehigh Valley Planning Commission

when compared to surrounding municipalities, has the highest change in population density from 1990 to 2000, with 166 more people per square mile (Table 2.5) Whitehall's population density increased at a rate more than two and a half times the rate found in Lehigh County, and more than three times the rate in Northampton County.

Information about the age of residents is important because many community services, such as recreation, senior center programs, and volunteer efforts, focus on specific populations based on age. In general, Whitehall Township has an older population than most of the surrounding municipalities, as evidenced by the median age of the population (Table 2.6). A majority of the population in Whitehall Township is between the ages of 25-44. A similar trend is seen throughout the area.

Table 2.5
Population Density

	Area (sq. mi.)	1990		2000		Change, 1990-2000 (persons/sq. mi.)
		Population	Pop./Sq. Mi.	Population	Pop./Sq. Mi.	
Whitehall Township	12.79	22,779	1,781	24,896	1,947	166
North Whitehall Township	28.80	10,827	376	14,731	511	136
South Whitehall Township	17.20	18,261	1,062	18,028	1,048	(14)
Borough of Coplay	0.70	3,267	4,667	3,387	4,839	171
City of Allentown	17.90	105,090	5,871	106,632	5,957	86
Lehigh County	348.34	291,130	836	312,090	896	60
Northampton County	377.36	247,105	655	267,066	708	53
Lehigh Valley	725.70	538,235	742	579,156	798	56

Source: U. S. Census

Table 2.6
Age Distribution, 2000

	Under 5		5-19		20-24		25-44		45-54		55-64		65+		Total #	Median Age
	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
Whitehall Township	1,374	5.5	4,401	17.7	1,336	5.4	7,607	30.6	3,264	13.1	2,397	9.6	4,517	18.1	24,896	39.5
North Whitehall Twp.	905	6.1	3,622	24.6	487	3.3	4,598	31.2	2,266	15.4	1,347	9.1	1,506	10.2	14,731	37.7
South Whitehall Twp.	751	4.2	3,444	19.1	507	2.8	4,035	22.4	3,007	16.7	1,867	10.4	4,417	24.5	18,028	45.9
Borough of Coplay	172	5.1	624	18.4	157	4.6	989	29.2	452	13.3	289	8.5	704	20.8	3,387	39.7
City of Allentown	7,353	6.9	22,431	21.0	8,130	7.6	32,020	30.0	12,777	12.0	7,777	7.3	16,144	15.1	106,632	34.5
Lehigh County	18,762	6.0	63,776	20.4	17,339	5.6	91,114	29.2	43,721	14.0	27,944	9.0	49,434	15.8	312,090	38.3
Northampton County	15,087	5.6	55,543	20.8	16,418	6.1	75,702	28.3	38,114	14.3	24,299	9.1	41,903	15.7	267,066	38.5
Lehigh Valley	33,849	5.8	119,319	20.6	33,757	5.8	166,816	28.8	81,835	14.1	52,243	9.0	91,337	15.8	579,156	38.4

Source: U.S. Census

HOUSING

A “household” is an occupied housing unit, and the term refers to all persons living in the unit, regardless of relationship. Average household size is another indicator of population changes. According to the 2000 census, Whitehall Township has one of the smallest household sizes in the region at 2.43 people per household. The City of Allentown has the smallest in the area with 2.36 people per household (Table 2.7). The state average is 2.57 persons per household, while the Lehigh County average is 2.51.

Table 2.7
Household Size, 1990-2000

	Persons Per Household		Change, 1990–2000	
	1990	2000	#	%
Whitehall Township	2.43	2.37	-0.06	-2.5
North Whitehall Township	2.71	2.74	0.03	1.1
South Whitehall Township	2.63	2.45	-0.18	-6.8
Borough of Coplay	2.46	2.36	-0.10	-4.1
City of Allentown	2.36	2.42	0.06	2.5
Lehigh County	2.51	2.48	-0.03	-1.2
Northampton County	2.62	2.52	-0.10	-3.8
Pennsylvania	2.57	2.48	-0.09	-3.5

Source: U.S. Census

Consistent with trends throughout the nation, household size decreased during the 1990s in every municipality of the region and surrounding area with except for North Whitehall Township and the City of Allentown. The largest drop was in South Whitehall Township.

Demographic data also describe the housing stock of an area. Information on the composition of the housing stock in Whitehall and surrounding areas (Table 2.8) yields the following conclusions:

- The total housing stock increased between 1990 and 2000 in all areas shown in the table, including Lehigh and Northampton Counties.
- The majority of the housing stock in all areas consists of single-family dwellings.
- Half of the units in Whitehall Township and in Lehigh and Northampton Counties are single-family detached homes. The largest percent change in Whitehall Township's housing stock from 1990 to 2000 was in structures with five or more units (apartments and townhouses).

Home ownership and vacancy are two important measures of the quality of a community's housing stock. Owners have a larger stake in caring for property than renters, so a large proportion of owner-occupied housing is desirable. Vacancy



A variety of housing types along Presidential Drive

**Table 2.8
Housing Type, 1990 and 2000**

	Single-Family Detached				Single-Family Attached				2-4 Unit Structures				Structures with 5+ Units				Mobile Homes/ Others			
	1990		2000		1990		2000		1990		2000		1990		2000		1990		2000	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Whitehall Township	4,663	48	5,280	49	1,687	17	1,988	19	469	5	531	5	2,760	28	2,824	26	183	2	111	1
North Whitehall	2,746	68	3,843	70	303	7	550	10	155	4	275	5	195	5	159	3	660	16	646	12
South Whitehall	5,272	80	5,438	76	711	11	722	10	200	3	111	2	358	5	850	12	48	1	33	0
Coplay	675	50	767	52	439	33	439	30	117	9	103	7	98	7	175	12	21	2	0	0
Allentown	9,879	22	10,461	23	17,498	38	17,383	38	8,286	18	8,082	18	9,476	21	9,913	22	524	1	121	0
Lehigh County	54,050	46	61,617	48	29,089	25	31,108	24	12,820	11	12,782	10	18,205	15	20,205	16	4,171	4	3,198	2
Northampton County	53,652	56	62,018	58	19,151	20	20,866	20	9,921	10	10,824	10	8,203	9	9,579	9	4,418	5	3,423	3
Lehigh Valley	107,702	50	123,635	52	48,240	23	51,974	22	22,741	11	23,606	10	26,408	12	29,784	13	8,589	4	6,621	3

Source: U. S. Census

is needed to offer choice within the housing market, but high vacancy rates indicate that local housing may not be desirable on the open market.

Whitehall Township has a relatively high rate of owner-occupancy (Table 2.9). North Whitehall Township has the highest share of owner-occupancy in the region, followed by the Borough of Coplay.

**Table 2.9
Housing Tenure and Vacancy, 1990–2000**

	Owner-Occupied				Renter-Occupied				Vacant Units		Vacancy Rate (percent)			
	1990		2000		1990		2000		1990	2000	1990		2000	
	#	%	#	%	#	%	#	%			Sale Units	Rental Units	Sale Units	Rental Units
Whitehall Township	5,950	64	6,746	65	3,385	36	3,630	35	427	368	1.3	6.5	1.3	3.6
North Whitehall	3,351	85	4,578	87	597	15	672	13	111	223	0.9	3.4	1.3	7.0
South Whitehall	5,524	85	5,723	82	997	15	1,220	18	168	211	1.0	3.0	1.1	4.4
Coplay	1,063	80	1,079	75	262	20	352	25	25	53	1.0	1.9	0.3	1.6
Allentown	24,230	57	22,286	53	18,545	43	19,746	47	2,861	3,928	2.0	8.1	2.6	8.4
Lehigh County	78,428	69	83,896	69	34,639	31	38,010	31	5,448	7,004	1.4	6.7	1.5	6.6
Northampton County	67,003	74	74,451	73	23,952	26	27,090	27	4,390	5,169	1.4	5.7	1.5	6.0
Lehigh Valley	145,431	71	158,347	71	58,591	29	65,100	29	9,838	12,173	—	—	—	—

Sources: U.S. Census, URDC

Typically, suburban and rural townships have a higher share of home ownership than cities and boroughs. More densely-developed areas (e.g., cities, boroughs, and parts of Whitehall Township) provide valuable public services (e.g., central water and sewer) which can accommodate a higher density of housing. Higher-density housing, such as apartments, tends to be rental units. Therefore, as expected, Whitehall Township and the City of Allentown have a higher share of rental properties than the surrounding areas, which do not have the infrastructure to serve higher-density development.

Vacancy rates were higher in Allentown than anywhere else in the surrounding area, which is also to be expected because people move from rental properties more frequently than from owner-occupied units. Therefore, a higher proportion of rental units (as opposed to units for sale) are vacant at any point in time. In general, the tenure of the housing stock did not change significantly during the 1990s.



1990s-era homes in the Egyptian Hills development

Age is another measure of housing stock. New housing construction is a sign of economic health. Whitehall Township's housing stock is relatively new compared to the housing in surrounding municipalities (Table 2.10). Allentown has the oldest housing stock in the area, with 1946 as the median year of construction. Again, the finding is not surprising. Cities and boroughs, as activity centers and the focus of public services, were developed before the rural areas in the townships.

Table 2.10
Age of Housing Stock, 2000

Year Built	Whitehall Township	North Whitehall Township	South Whitehall Township	Borough of Coplay	City of Allentown	Northampton County	Lehigh County	Pennsylvania
1999 to March 2000	155	147	26	0	152	1,584	1,680	53,595
1995 to 1998	578	655	93	20	263	5,068	5,187	196,676
1990 to 1994	546	790	300	79	546	6,801	5,991	247,276
1980 to 1989	1,505	1,002	1,383	121	2,599	12,378	14,708	486,764
1970 to 1979	1,883	883	1,240	65	4,996	12,793	18,766	656,020
1960 to 1969	1,723	508	1,030	101	5,024	10,863	15,042	541,916
1940 to 1959	2,138	494	2,111	466	11,742	20,347	27,016	1,166,897
1939 or earlier	1,848	771	760	579	16,710	31,707	33,516	1,427,859
Total	10,376	5,250	6,943	1,431	42,032	101,541	121,906	4,777,003
Median Year Built	1967	1979	1966	1946	1947	1958	1960	1956

Sources: U. S. Census, URDC

According to the 2000 census, Whitehall Township's housing value was slightly above the level for Lehigh County (Table 2.11). North Whitehall Township had the highest median housing value and the greatest increase in value during the 1990s of all surrounding municipalities. Whitehall Township had the second largest jump in housing value in the area with a 17.2% increase.

Table 2.11
Housing Value, 1990–2000

	Median Value Of Owner-Occupied Housing		Change, 1990–2000	
	1990	2000	Number	Percent
Whitehall Township	\$99,300	\$116,400	\$17,100	17.2
North Whitehall Township	\$123,300	\$160,000	\$36,700	29.8
South Whitehall Township	\$129,300	\$139,100	\$9,800	7.6
Borough of Coplay	\$88,300	\$97,000	\$8,700	9.9
City of Allentown	\$76,600	\$76,900	\$300	0.4
Lehigh County	\$97,800	\$113,600	\$15,800	16.2
Northampton County	\$105,400	\$120,000	\$14,600	13.9
Pennsylvania	\$69,700	\$97,000	\$27,300	39.2

Source: U.S. Census

Household income levels are good indicators of the economic vitality of an area, and can also indicate the strength of current and future housing markets. The median household income is that value at which half of census-defined households earn more money and half earn less (Table 2.12). The median household income in Whitehall Township is \$43,070, which falls above the state median value, and slightly under the county median. The surrounding townships exhibit higher median income values, while nearby urban areas show lower values.

Table 2.12
Household Income, 1999

Location	Median Household Income
Whitehall Township	\$43,070
North Whitehall Township	\$60,618
South Whitehall Township	\$54,759
Borough of Coplay	\$38,679
City of Allentown	\$32,016
Lehigh County	\$43,449
Northampton County	\$45,234
Pennsylvania	\$40,106

Source: U.S. Census

EXISTING LAND USE

An inventory of the current use of land is essential in preparing a comprehensive plan. URDC prepared an up-to-date base map that depicts roads and property lines in the township using GIS information from the LVPC. URDC conducted field surveys to verify and update the LVPC information and categorize parcel use as of June 2003 (Map 2.4). The analysis identified the following categories of land use, each of which is discussed below in more detail:

- Residential Uses
- Commercial Uses (Retail, Service and Office)
- Industrial and Quarry Uses
- Community Facilities
- Parks and Public Open Space
- Institutional Uses
- Undeveloped and Agricultural Uses

Residential Uses



Main Street, Egypt

Whitehall Township is largely suburban and is the most densely-populated township in the Lehigh Valley. The township contained 10,744 housing units in the 2000 census, with a relatively even distribution of structure age. Development occurred in an outward pattern from neighboring cities and boroughs. Whitehall's oldest homes are found in villages, such as Fullerton, Hokendauqua, Stiles, Cementon, and Egypt, which, in earlier times, were stand-alone communities. Post-war booms in residential development helped create many of the neighborhoods found between MacArthur Road and the Lehigh River, especially near Fullerton, and south and west of the Borough of Coplay. In later decades, residential additions came in the form of builder-developer subdivisions, many of which are west of MacArthur Road. In the southern part of Whitehall Township, subdivisions with single-family homes such as Walnut Gardens, Walnut Ridge, and

Peachtree Village have added much of the newer housing stock. In the north, Egyptian Hills and Timberidge added significantly to the population of its namesake village.

Like many suburban townships, Whitehall exhibits a variety of housing types (Map 2.4). Single-family detached homes, while being the most prevalent type of housing in the township, constitute only 49% of all housing types. The other half of Whitehall Township housing units are attached and/or multifamily structures, such as duplexes and townhouses. Concentrations of older, traditional townhouses are found in the older villages, especially in Fullerton and Hokendauqua. The township also has newer townhouse developments, such as Peachtree Village and Presidential Village along Presidential Drive. Another new cluster, Chestnut Ridge Estates, is situated just west of Coplay off of Columbia Street.

Units in structures with five or more units constitute 26% of all housing units in Whitehall Township. Most multifamily structures are in apartment complexes. A large concentration of such complexes is found south of Route 22, near the border with the City of Allentown. Spring Ridge, Olympic Gardens, and Mickley Run Apartments are found west of MacArthur Road, while Jordan Park, Parkview, and Lehigh Valley Apartments are on the east. Other major complexes in the township include Brooke Apartments and Helfrich Springs Apartments near Presidential Drive and Barkley Village in Hokendauqua. The only mobile home park in Whitehall Township is Stone Terrace on Coplay Road.

Commercial Uses (Retail, Service and Office)

Whitehall Township contains one of the most developed commercial areas in the Lehigh Valley. Approximately 2 ½ miles of MacArthur Road is lined with intense strip commercial development and features several large shopping centers (Map 2.4). Grape Street is a shorter road with similar commercial development. The Lehigh Valley Mall, built in the mid 1970s and occupying the northeast corner of Routes 145 and 22, contains the greatest concentration of stores. Whitehall Square, Whitehall Mall, and other shopping centers contain several large chain stores mixed with smaller chain and independent businesses. The Whitehall Shopping



MacArthur Road, the “Golden Strip of the Lehigh Valley”

Center, containing Wal-Mart, Sam’s Club, and other stores on the east side of MacArthur Road, is one of the largest shopping centers by square footage of shopping space. Many newer chain stores, including Borders bookstore, Kohl’s department store, Best Buy discount store, and Home Depot home improvement store, have chosen to locate stores in the MacArthur Road corridor due to its established presence as a key commercial hub of the Lehigh Valley. The main retail district’s northern boundary has essentially been established as Mechanicsville Road and Lehigh Street. Smaller-scale, sporadic commercial development has occurred northward, including a relatively new Weis grocery store and bank on the west side of MacArthur Road at Columbia Street.

Service businesses are also prevalent on MacArthur Road, including gas stations, auto repair shops, and restaurants. Popular casual restaurant chains have located in the Grape Street area. In addition to several standard-size gas stations, large convenience stores with gas pumps are being developed on MacArthur Road, including a Sheetz at Chestnut Street and a new Wawa to be built at Mechanicsville Road.

Smaller-scale commercial uses can be found on the main streets of Fullerton, Hokendauqua, Cementon and Egypt. Here, independent businesses are the rule, many of which are in the same structure as residences. Third Street in Fullerton and PA 329 in Egypt are good examples of such areas. Small-scale and niche businesses continue to operate successfully in the township, despite the presence of large chain stores.

Office uses are scattered in the township and are not as prevalent as retail and service commercial uses. Most offices in Whitehall Township are stand-alone, one-story banks, professional offices, and similar businesses. Larger offices include radio station headquarters on the northwest corner of Routes 22 and 145 and an isolated technology office on West Coplay Road.

Industrial and Quarry Uses

Industry in Whitehall Township developed largely around cement-making in the nineteenth century, and quarry operations continue in the northern half of the township. Northern Whitehall Township is underlain by shall-limestone rock formations, which are ideal raw materials for cement. Quarry operations are found on large tracts in northern Whitehall Township, along South Church Street, Chestnut Street, Coplay Road, and Willow Street. Lafarge, Essroc, and the Whitehall Cement Company all own cement quarries. Ciccone Brothers and Eastern Industries both own stone quarries in the same vicinity. Lafarge also operates its cement manufacturing facility in the township, on the west bank of the Lehigh River just south of PA 329. Some quarries are more heavily used than others, some have been converted to other uses, such as recreation, and still others have been abandoned.



LaFarge cement plant, Cementon

Other large industrial uses include the Bon-Ton department store central distribution warehouse, located in the Whitehall Industrial Park on Church Street. In the southern part of the township, petroleum “tank farms” are situated on either side of Main Street. The Bridesburg Foundry is located on a strip of land along the Lehigh River on Front Street in Fullerton. The railroad paralleling the Lehigh River is largely unused, with nearly all rail cargo transport taking place on the east (Northampton County) bank of the river.

One industrial use in neighboring South Whitehall Township may have some effects on Whitehall township. Mallinckrodt Chemicals produces industrial and biopharmaceutical chemicals at a facility immediately adjacent to vacant agricultural land on Mauch Chunk Road in Whitehall Township.

Community Facilities

Public/semipublic uses include land on which public services are provided, such as municipal offices, public libraries, fire and ambulance headquarters, and public schools. The Whitehall-Coplay School District operates a campus of schools at the corner of MacArthur Road and Mechanicsville Road, including Gockley Elementary School, Steckel Elementary School, Whitehall-Coplay Middle School, and Whitehall High School. The Whitehall Township Public Library is also located near the school campus.

The Whitehall Township Municipal Building is located along on the east side of MacArthur Road to the north of the school campus. The new public works building and the Coplay Whitehall Sewer Authority building are on the same tract as the municipal building. The township police department

is located on Lehigh Street in the Hokendauqua area. Other municipal operations in the township include a fire department training facility on Eberhart Road, a police firing range on West Columbia Street, and the Whitehall Township Authority on Schadt Avenue.

Parks and Public Open Space

Whitehall Township contains a significant amount of recreation space to serve residents. Parks and public open space include active and passive recreation areas, on both township- and county-owned tracts. The largest concentration of park land is the county-owned Jordan Creek Parkway in the southwestern portion of the township. The 200-acre parkway contains walking trails, athletic fields, and a community garden.

Whitehall Parkway is another large tract of park land, located on Church and Chestnut Streets. Whitehall Parkway contains an abandoned quarry, wetlands, floodplain, and the ruins of a late 19th-/early 20th-century cement plant. Smaller parks in residential areas include the Jefferson Street Park and Public Pool in Fullerton, the Victor Talotta Park in Cementon, Egypt Memorial Park, Hokendauqua Park, West Catasauqua Park and Playground, Zephyr Park adjacent to the schools, and the township-owned driving range on Eberhart Road.



The Ironton Rail Trail

Whitehall Township is also fortunate to contain several linear recreation lands, including the continually-developing Ironton Rail-Trail and the soon-to-be-developed Delaware and Lehigh Trail. The Ironton Rail-Trail is a township-owned gravel trail being designed on former rail beds. Overall, the trail is 9.2 miles long and contains a 5.2-mile loop section. The trail connects many neighborhoods and several park lands in Whitehall Township, North Whitehall Township, and Coplay Borough. The loop section is currently being paved.

The Delaware and Lehigh Trail is a large trail scheme that will eventually connect Wilkes-Barre with Philadelphia via abandoned canal towpaths and rail lines. Lehigh County has secured lands for the trail north of PA 329, but land south of PA 329 is owned by the Norfolk Southern Railway Company. Efforts to secure public ownership of the section from PA 329 south to Race Street are ongoing.

Institutional Uses

Institutional uses include churches, cemeteries, private schools, private nursing homes and private social organizations. Cemeteries serve many community objectives, including land preservation, open space, visual relief, and green barriers in developed areas. Arlington Memorial Park, at the corner of MacArthur Road and Lehigh Street, is the largest cemetery in the township. Other large cemeteries include Fairview Cemetery off of Pine Street and the Hillside Cemetery on Fullerton Avenue.

Institutional uses also include life-care, nursing, and other residential developments for the elderly. One of the largest institutional tracts in the township is the Bible Fellowship assisted living and retirement community on Mauch Chunk Road, which has recently developed new housing units.

Undeveloped and Agricultural Uses

Whitehall Township still contains large tracts of agricultural land and private undeveloped land. Agricultural land in the township is commonly used to grow corn and soybeans and is found in large patches north and west of the intersection of MacArthur Road and Mechanicsville Road. Several contiguous areas of farmland are located in the extreme northern portion of the township.

Privately-owned undeveloped land is less common in the township, as many large tracts house active or dormant quarries. The largest undeveloped tracts that are not designated for public recreation or quarry use can be found in the extreme northern section of the township.



A farmstead in West-Central Whitehall

The Commonwealth of Pennsylvania offers several programs to protect farms and other undeveloped land statewide. Under the Agricultural Conservation Easement Purchase Program, a county or municipality may purchase the development rights of a particular farm, as long as that area has already been officially designated as an Agricultural Security Area. Whitehall Township contains one agricultural security area on Bridge Street, and no agricultural easements. However, numerous tracts are enrolled in other state preservation programs, including the Act 319 Clean and Green program, and Act 515, another preferential tax assessment option (Map 2.5). Act 319, the more commonly used program, is administered at the county level. Under the program, property owners are awarded a lower tax assessment based on the tract's land use value, rather than its current market value. In exchange, owners are legally bound to keeping the property in its undeveloped state indefinitely. Those who deviate from the program are subject to at least seven years of rollback taxes. Any type of open space use is allowed, including farmland, forest and water supply. A minimum tract size is either 10 acres or an annual crop yield of \$2,000, whichever is greater. Whitehall Township contains 41 parcels totaling 731 acres in Act 319, and 8 tracts totaling 116 acres in Act 515.

NATURAL FEATURES

Identifying the natural features of Whitehall Township is important in determining land use compatibility. The characteristics and limitations of the underlying landscape must be respected when considering the potential for all types of development. Natural features described below include physiography, geology, soils, steep slopes, streams and drainage basins, floodplains, wetlands, and woodlands.

Physiography

Whitehall Township occupies an area of generally low, rolling hills dissected by small creek valleys. The eastern border of the township is formed by the Lehigh River, whose bluffs rise 300 feet above the river in places. Physiographically, the area is part of the Great Valley Province, a broad lowland bounded by Blue Mountain to the north and South Mountain to the south. The Great Valley in Pennsylvania extends from the Maryland border near Chambersburg to the Delaware River in Northampton County. Elevations in the township range from 240 feet above sea level on the Lehigh River to 663 feet on a knoll north of Egypt.

Geology



“Cement rock” at an abandoned Whitehall quarry

Underlying rocks in Whitehall consist primarily of limestones and shales typical of the Great Valley Province. Limestone is a carbonate mineral that is easily eroded over time, creating sinkholes, caves and other karst features. In Whitehall Township, limestone rocks are found in the Allentown, Beekmantown, and Epler formations (Map 2.6). Helfrich Springs Cave, near the corner of Mickley and Lenhart Roads in the southwestern portion of the township, is one example of a karst feature. The cave is listed as a “unique natural area” in the *Natural Areas Inventory*.¹ Shales can be found in the Martinsburg formation, along the northern edge of the township. The Jacksonburg formation,

underlying much of the northern half of the township, is a transition shale-limestone often called “cement rock” because the combination of shale and lime is an ideal raw material for making cement. All of Whitehall’s cement quarries can be found in the Jacksonburg formation.

High Yield Groundwater Areas

Individual geologic formations tend to exhibit uniform groundwater yield characteristics, as measured from wells in the area. In Whitehall Township, wells in the Allentown and Beekmantown geologic formations yield a median of 1,000 gallons per minute or greater,² considerably more than other formations in the area. Development has historically taken place on top of the Allentown and Beekmantown formations (Map 2.7). The Allentown formation, in particular, is known for its plentiful supply of groundwater. While much of Whitehall Township is connected to public water

¹ Lehigh Valley Planning Commission, April 1999

² Wood, C. R.; Flippo, H. N., Jr.; Lescinsky, J. B., Water Resources of Lehigh County, Pennsylvania, United States Geological Survey, 1970

and sewer, it is nevertheless important to keep high yield groundwater areas free of substances that may cause groundwater pollution.

Soils

Much of the undeveloped land in Whitehall Township that is not steeply sloped or quarried is used for some form of agriculture (see Map 2.8). The *Lehigh County Soil Survey*³ rates soil types by agricultural capability. Class I and II soils are the best farmlands. Class III soils are still considered prime but typically are not as productive. Classes IV through VII are less productive for crop farming. Soil class designations are based on the expected yield of corn, wheat, and other crops. Other types of agriculture—such as Christmas tree farms, horse farms, and poultry operations—do not need highly productive soils.

Soils not suitable for development include alluvial and high-water table soils. Alluvial soils deposited in the past by flooding are a reliable indication that heavy runoff conditions will probably create flooding in the future. Most of the alluvial soil areas are within the 100-year floodplain areas, as officially mapped by the Federal Emergency Management Agency (FEMA). Floodplains must remain undeveloped to absorb stormwater runoff and to avoid potential flooding. High water table soils also are found in Whitehall Township, primarily in the lower lying areas adjacent to the streams and drainage channels. Development of high water tables, or “wet soil” areas, could result in poor foundation stability, ponding, and chronic wetness in homes and other buildings.

Soil characteristics also determine the suitability of land for on-site septic systems (Map 2.9). Depth to bedrock, depth to groundwater, and permeability determine how well a soil processes matter. Soils that percolate too rapidly can degrade groundwater because impurities are not sufficiently absorbed before reaching the water table. Conversely, soils that drain too slowly can cause unhealthy surface ponding of wastewater.

Steep Slopes

Slope is a major consideration when deciding how a tract of land should be used and managed. Steep slopes can add significantly to the hazards and costs of constructing and maintaining roads and buildings. Steep slopes (Map 2.10) are very susceptible to erosion when soils and vegetation are disturbed. Steep slopes are prevalent along the Lehigh River, particularly in bluffs north of Cementon. Smaller creeks are often surrounded by steep slopes that define the floodplain and riparian areas. Coplay and Jordan Creeks have steep slopes that rarely exceed 50 feet in height, though the slopes along the Jordan are generally steeper and more abrupt. In contrast, Spring Creek is surrounded by 200-foot high valley walls, creating the greatest concentration of steep slopes in the township. Man-made steep slopes, many



Steep slopes along Coplay Creek

³ U. S. Department of Agriculture, Soil Conservation Service, November 1963

of which remain unvegetated, have been created near the cement quarries. Special precautions must be taken to alleviate erosion when developing steep slopes, whether for recreation or other, more intense uses.

Woodlands

Woodlands (Map 2.10) add character and visual relief to the landscape, help preserve the water quality of creeks and provide important wildlife habitats. Trees also are important to purify the air and control erosion. Forest once covered all of



Wooded slopes in Jordan Park

Whitehall Township, but the suitability of the land for agriculture, mineral extraction, and suburban development has left few tracts of woodland. In Whitehall Township, most woodlands are very young, and many contain thick, scrubby undergrowth. Most woods are found in linear areas along streams and in steep areas that are not suitable for farming. Some of the former cement quarries are starting to fill in with trees, especially in the township-owned Whitehall Parkway. The Jordan Creek and Coplay Creek valleys also maintain a notable amount of woodland, both of which are protected as parks.

Streams and Drainage Basins

Whitehall Township is drained entirely by the Lehigh River and several of its tributaries. Drainage basins, delineated by ridge lines, are logical areas for planning and designing water treatment and storm drainage facilities. Stream health is an important issue in Whitehall Township because the township has large, impervious surfaces and quarry operations.

The Lehigh River flows along the entirety of Whitehall's eastern border (Map 2.11). One of the Delaware River's major feeders, the Lehigh begins on the Pocono Plateau in Wayne County and flows southward, cutting through several mountain ridges before entering Lehigh and Northampton Counties. Throughout the Lehigh River watershed, coal mining and industrial operations have added acidic pollutants to the river, and water quality remains an issue. Nonetheless, the river remains a fishing and boating destination for local residents.

Several smaller streams flow through Whitehall Township. The largest, Jordan Creek, begins at the base of Blue Mountain in northwestern Lehigh County and flows southeasterly through rolling farmland to reach Whitehall's southern section. From South Whitehall Township through Whitehall Township to 4th Street in Allentown, the Jordan has a vegetative buffer as it crosses county parkland. However, much of the lower portion of the Jordan Creek watershed includes the impervious parking lots and roadways of Whitehall's shopping areas. Coplay Creek, a smaller stream, flows generally east from North Whitehall Township, emptying into the Lehigh River near Hokendauqua. Coplay

Creek drains much of Whitehall's quarry areas and is paralleled entirely by the Ironton Rail-Trail. Spring Creek, along Whitehall Township's northern border, is a shorter stream that drains a steep-walled valley of residences and pastureland.

Pennsylvania's water quality standards designate protection categories for streams, which are the basis of water quality criteria (Table 2.13). Water quality classifications are important in regulating wastewater discharge into streams. Cold Water Fisheries are streams that should be protected as habitat for cold water fish and other fauna and flora indigenous to cold water. High Quality Cold Water Fisheries are cold water fisheries with excellent water quality and other environmental attributes. Trout Stock Fisheries are streams that qualify for trout stocking by the Pennsylvania Fish and Boat Commission. Migratory Fisheries are streams that should be protected for the passage of fish species.

Table 2.13
Whitehall Township Stream Designations, 2003

Stream	Stream Segment	Designation
Lehigh River	Main stem from Jim Thorpe to Allentown Dam	Trout Stocking Fishery
Lehigh River	Unnamed tributaries — Jim Thorpe to Allentown Dam	Cold Water Fishery
Spring Creek	Basin	Cold Water Fishery
Coplay Creek	Basin	Cold Water Fishery
Jordan Creek	Main stem	Trout Stocking Fishery, Migratory Fishery
Jordan Creek	Basin, except for Mill Creek	High-Quality Cold Water Fishery, Migratory Fishery

Source: Commonwealth of Pennsylvania, September 2002

Floodplains

The 100-year floodplain is the area that would be inundated in a storm large enough to occur only once in 100 years, according to FEMA. Besides providing natural habitat, floodplains carry floodwaters to help moderate flood heights. All of the aforementioned streams are surrounded by 100-year floodplains (Map 2.11). Jordan Creek, in particular, has a wide floodplain band, most of which lies in county parkland. Floodplains in Whitehall Township are mostly undeveloped, with the exception of some abandoned industrial operations along the Lehigh River and portions of residential properties along Coplay and Spring Creeks. Current regulations prohibit further development of floodplains due to the risk of extensive property damage and possible loss of life as well as the potential for habitat destruction and stream pollution.

Wetlands

Wetlands are areas that have vegetation and soil characteristics of a permanently or frequently saturated environment, including swamps, marshes, bogs, high water table soils, and similar areas. Wetlands are important groundwater recharge areas that support wildlife, fish, and other aquatic life. Wetlands reduce flooding by retaining stormwater discharge and help filter impurities that contribute to surface water and groundwater pollution.

The National Wetland Inventory, performed by the U.S. Fish and Wildlife Service, identifies the approximate location of prominent wetlands based on reflectivity from aerial remote sensing. Wetlands are found along portions of the rivers and streams and near man-made lakes and ponds (Map 2.11). The water-filled environments of quarry pits are often designated as wetlands in the national inventory. Since the National Wetland Inventory uses remote sensing to identify wetlands, precise wetland definition requires on-site observation.

COMMUNITY FACILITIES AND SERVICES

Public services in Whitehall Township include fire and police protection, public schools, public library, community water service, and central sewer service. Some services are provided directly by Whitehall Township, while other services are provided by separate authorities or by other entities under contract to the township. The following section provides a discussion of several community services and facilities:

- Government Administration
- Township Buildings
- Capital Improvements
- Police Protection
- Fire Protection
- Emergency Medical Services
- Library
- Recreation and Open Space
- Schools
- Sanitary Sewer Service
- Water Service
- Other Services

Government Administration

Whitehall Township is chartered as a First-Class Township (and Home Rule Community) in Pennsylvania. As with all local governments, the township operates as a collaboration between elected and appointed officials, paid staff, and advisory committees. The township actively recruits volunteers for additional advisory committees, including an environmental advisory committee (EAC). The township continually works to provide the most cost-effective, high-quality services.

Whitehall enjoys significant revenue from its large commercial tax base. The township's annual revenue ranged from \$14.4 to \$16.2 million from 2003 to 2005 (Table 2.14).

Table 2.14
Whitehall Township Budget, 2003-2005

Category	2003		2004		2005		Change, 2003–2005	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
REVENUE	\$11,946,222	100.0%	\$12,433,318	100.0%	\$13,261,808	100.0%	\$1,315,586	11.0%
EXPENSES								
Legislative	\$77,193	0.5%	\$69,993	0.5%	\$75,993	0.5%	(\$1,200)	-1.6%
Administration	\$729,918	5.1%	\$727,898	4.9%	\$747,837	4.6%	\$17,919	2.5%
Benefits/Insurances	\$1,604,006	11.2%	\$1,843,552	12.4%	\$2,003,414	12.4%	\$399,408	24.9%
Treasurer	\$322,318	2.2%	\$332,009	2.2%	\$353,197	2.2%	\$30,879	9.6%
Police	\$3,502,979	24.4%	\$3,687,589	24.7%	\$3,784,340	23.3%	\$281,361	8.0%
Fire	\$353,949	2.5%	\$360,329	2.4%	\$367,860	2.3%	\$13,911	3.9%
Development	\$745,567	5.2%	\$779,100	5.2%	\$860,120	5.3%	\$114,553	15.4%
Traffic Control	\$620,377	4.3%	\$638,433	4.3%	\$648,843	4.0%	\$28,466	4.6%
Public Works	\$3,296,126	23.0%	\$3,341,728	22.4%	\$4,247,428	26.2%	\$951,302	28.9%
Recreation	\$725,171	5.1%	\$743,206	5.0%	\$779,948	4.8%	\$54,777	7.6%
Debt Service	\$802,402	5.6%	\$805,537	5.4%	\$710,000	4.4%	(\$92,402)	-11.5%
Capital Reserve Transfer	\$1,175,000	8.2%	\$1,175,000	7.9%	\$1,175,000	7.2%	\$0	0.0%
Nondepartmental	\$405,840	2.8%	\$421,894	2.8%	\$459,179	2.8%	\$53,339	13.1%
TOTAL	\$14,360,846	100.0%	\$14,926,268	100.0%	\$16,213,159	100.0%	\$1,852,313	12.9%

Source: Whitehall Township final budgets

The two largest public expenditures in Whitehall Township are police and public works. Together, the two items account for slightly less than half of the township's expenses. Comparing the 2001 and 2003 budgets, benefits/insurances increased by 11.1 percent, while the annual set-aside for capital expenses fell by 12.3 percent.

Township Buildings

The Whitehall Township administration operates in a modern structure at 3219 MacArthur Road. The building was renovated in 1994, including an overhaul of the heating system, and the creation of more office space. A new public works building was completed in 2004, adjacent to the township building. The additional garage and office space in the new building will create more available space in the municipal building, where public works operations were previously housed. Public water service is handled separately by the Whitehall Township Authority, located at 1901 Schadt Avenue, and by the Northampton Borough Water Authority. Township police administration offices are housed at 3731 Lehigh Street. The Whitehall Township Fire Police share a facility at 2342 Pine Street with the Cetronia Ambulance Corps, which maintains at least one ambulance and response

team on-site at all times. The township's volunteer fire service operates from five privately-owned fire houses. The Whitehall Township Public Library is located at 3700 Mechanicsville Road, close to the Whitehall-Coplay Public Schools. The township also owns a small exercise facility for township employees and fire volunteers on South 3rd Street in Hokendauqua. The specialized facilities noted above, as well as Whitehall's numerous park and recreation spaces, will be explored in later sections of the chapter.

Capital Improvements

Whitehall Township pays for its services and facilities through a five-year capital improvements program. The most recent program addresses facility, service and equipment needs for the years 2003 through 2007. The plan is reviewed, adjusted, and approved annually.

Police Protection

The Whitehall Township Police Department operates from a single headquarters located at 3731 Lehigh Street. The department includes 48 sworn officers and nine civilian personnel in three divisions (detective, patrol, and administrative) providing 24-hour protection. Whitehall has the second largest local police force in Lehigh County, behind the City of Allentown. The current annual budget for the department is approximately \$3.8 million.

The unique nature of Whitehall Township presents unique challenges for the police department. As a regional commercial center, the township sees a large increase in daytime transient population compared to nighttime population. As a retail center, the township also sees much different activity levels on weekends than on weekdays, and much more activity during the holiday shopping season than at other times during the year. Large infusions of population on a temporary basis increase the potential for crime and calls for police service.

The police chief reports that the current budget is sufficient for current needs. The department should grow as the community grows, which will require future increases in operating efficiency, personnel, technology, ease of access to the community, and security.

The department's current facilities are outmoded. Long-range planning calls for the construction of a new police building in the 2010–2011 time frame. The township intends to construct the new building adjacent to the current municipal offices and public works facility, creating a more efficient and convenient total government complex.

Fire Protection

The Whitehall Township Fire Department consists of a full-time fire chief, employed by the township, and 151 volunteer personnel. Sixteen of the volunteers are members of the Whitehall Township Fire Police, a body that oversees public safety and order during emergencies and special events. The fire police operate from a facility shared with the Cetronia Ambulance Corps at 2342 Pine Street. The remainder of the fire department is based in five privately-owned firehouses that

are leased to the township and located in Cementon, Egypt, Fullerton, Hokendauqua, and West Catasauqua. The department vehicle fleet consists of:

- Nine (9) pumping trucks.
- Two (2) boats.
- Several specialized trucks, including a dive truck and a 95-foot ladder truck.

Equipment is replaced by township-reserved capital funds on a 25-year rotation schedule, with a new vehicle purchased approximately every two years.

Response times are quick throughout Whitehall Township due to the geographic dispersion of the fire stations and volunteers. The southern stations (Fullerton, Hokendauqua, and West Catasauqua) receive nearly five times as many calls annually as the northern stations (Egypt and Cementon). The department maintains mutual aid agreements with all adjacent municipalities. As of 2003, water pressure for fire fighting is sufficient, as is hydrant distribution throughout the township. As a result, the township does not have a need for a tanker truck.

Fire officials have stated that while equipment and funding is adequate, the biggest challenges lie in volunteerism. Current initiatives to attract fire department volunteers include yearly stipends, a generous length-of-service program, and other benefits. Recognizing the benefits of maintaining a volunteer fire service, the township may provide additional future incentives to reward existing volunteers and attract new volunteers.

Emergency Medical Service

Through mutual agreement, Whitehall Township has designated the Cetronia Ambulance Corps (CAC) as the primary provider of emergency medical services in the township. CAC is the largest nonprofit emergency medical service in the Lehigh Valley, and one of the largest in Eastern Pennsylvania. In addition to being the only EMS provider in Whitehall Township, CAC also serves the entirety of Coplay Borough, South Whitehall Township, and Upper Macungie Township, and portions of Lower Macungie, Weisenberg, and Lowhill Townships. CAC also provides paramedic intercept service for nearly all of Lehigh County.

Most trauma patients are transported to Lehigh Valley Hospital on Cedar Crest Boulevard in Salisbury Township. Vehicles are regularly replaced using capital funds. Replacement is based on maintenance history, mileage, and age. While the company does not take part in any pooling purchase agreements, CAC always requests bids from three different companies.

Whitehall Township, in conjunction with Coplay Borough, signed a five-year Ambulance Services Agreement with CAC in 1999. The contract stipulates that CAC will operate at least one ambulance truck with certified EMS staff and essential equipment in Whitehall Township, stationed at the Fire Police Building on Pine Street. Among other provisions, the CAC must provide monthly activity reports, maintain an internal quality assurance program, and periodically train township police officers in CPR and use of defibrillators. CAC has exceeded the contract terms, posting two ambulances and four staff people in Whitehall Township at all times. CAC not only provides

refresher courses, but also certifies police officers in first aid and maintains medical equipment at no cost to the township. Whitehall police officers are dispatched to all ambulance call sites.) Contract service with CAC has proven to be a high-quality, efficient means of providing EMS in Whitehall Township.

The biggest challenges facing CAC are volunteerism, funding, and reimbursement, which all reflect nationwide trends. Paramedics are hard to recruit and maintain. Technology costs are rising, and personnel are generally looking for more benefits and higher wages. Meanwhile, reimbursement at the state and federal level is decreasing as Medicare payments are being reduced, and noncollectible accounts are becoming more frequent. In an attempt to attract new personnel, CAC is offering a scholarship program for college students who would work 24 hours per week for CAC. To raise additional funds, the CAC holds fund-raising events and also solicits a subscription program, whereby residents in the primary response area contribute an annual donation. CAC officials hope that municipalities served eventually adopt EMS taxes to provide a reliable, continuing funding stream.

As Whitehall Township grows, the need for additional stationed personnel increases. In 2004, CAC located an additional vehicle and crew in Cementon to address service demand in the northern half of Whitehall Township. CAC encourages and appreciates any efforts to publicize and market the company for monetary or volunteer contributions, such as posters or information brochures at township facilities.

Library

The Whitehall Township Public Library opened in 1965 within Whitehall-Coplay School District's school campus on Mechanicsville Road. All local funding for the library comes from the school district. Fifty percent of Whitehall and Coplay residents have library membership, and $\frac{1}{3}$ of total library membership comes from other municipalities through the Access Pennsylvania program. Both membership measures are relatively high, which library officials attribute to a diverse collection, longer hours, and location near the MacArthur Road commercial area. The library employs 24 paid part-time persons and receives help from 32 part-time volunteers. In addition to a large collection of books, periodicals, and other literature, the library contains 15 internet stations and an audio-visual collection. The library catalogue is web-based, available worldwide, with a borrow-status information system.



The Whitehall Township Public Library

While library officials report that the library is above average in overall quality compared to other libraries of its size, certain improvements are needed, such as additional storage space, additional group meeting space, and increased accessibility for the disabled. The maintenance shop, staff

offices, and inventory storage rooms are all relatively small. Officials report that an additional, smaller meeting room would be an ideal solution to the shortage of meeting space, which often forces some community groups to meet in the library kitchen. The library entrance and main restrooms do not comply with the Americans with Disabilities Act. Other desired improvements include:

- More lounge space for public reading.
- More community bulletin board space.
- New public computers.
- An updated phone system.
- Self-serve coffee machines for visitors.

The flat-roofed building, older than many other area public libraries, is in fair shape but contains many antiquated physical elements, including heat pumps. A recent school district feasibility study recommended aesthetic improvements to the library, as well. Minor capital improvements are funded through the library's annual budget. Larger projects, such as the recent parking lot resurfacing, are funded by the school district and township.

Recreation and Open Space

The Whitehall Township recreation and open space system is composed of land, people, and other resources at several different levels. The following information discusses major aspects of the system:

- Parklands/Open Space
- Administration
- Staffing
- Programs
- Funding
- Issues

Parklands/Open Space

Whitehall Township contains an extensive system of publicly-accessible recreation and open space sites, from small playgrounds or "tot lots," to large regional parks (Map 2.12, Table 2.15). Park types are generally characterized as follows:

- Tot lot: Small park, usually less than one acre, with playground facilities
- Neighborhood park: Somewhat larger than a tot lot with several different recreation facilities, such as playground and ball field, drawing users from the immediate neighborhood
- Community park: Larger than a neighborhood park, drawing users from throughout the community, with a larger variety of athletic and other recreation facilities

Table 2.15
Recreation and Open Space Sites

NAME (Site numbers refer to Map 2.12)	OWNERSHIP	PARK TYPE	SIZE (ac.)	NUMBER / TYPE OF FACILITIES																	
				Tennis Courts	Soccer Fields	Baseball Fields	Batting Cages	Softball Field	Hockey Rink	Football/Soc/LaX	Pavilions	Playground	Pond	Tables	Wading Pools	Swimming Pools	Handball Courts	Concession Stands	Restrooms (Yes/No)	Maintenance Building	Parking (Paved/Grass)
4 Allencrest Playground	Township	Neighborhood	0.64										1	1	Y			S	N		
37 Allencrest Pool	Private	Neighborhood	0.64												1	1	S	N			
34 Bob Warke Field	Park Assn.	Neighborhood	4.50	2										N			S	1	P	1	
38 Circuit City Ballfield	Private	Community	1.25	1																	
1 Delaware and Lehigh National Heritage Corridor	County	Linear (future)	21.26																		
7 Eb-Water Park	Township	Neighborhood	0.89	1										N			S		N		
35 Egypt Memorial Park	Park Assn.	Community	11.00	3	1	2	1	3				1	1	Y			P	1	Y	1	
8 Elmhurst Tot Lot	Township	Tot lot	0.75									1		N			S		N		
10 Grim Homestead/Helfrich Springs Grist Mill	Township	Special Use	3.51											N			P		N		
36 Hokendauqua Park	Park Assn.	Community	12.22	4				2	2			1	1	Y			1	P		P	
11 Ironton Rail-Trail	Township	Linear	89.81						Y					N			P		N		
12 Jefferson St. Pg'd	Township	Community	13.37	2	2	2	1		W			1	1	1	Y	1	1	P	1	Y	1
13 Jefferson St. Pool																					
9 Fullerton Legion Field																					
14 Jordan Creek Parkway	Township	Regional	22.19						Y												
15																					
16 Memorial Park	Township	Special Use	0.81																		
17 Millen Conservancy	Township	Open space	4.74																		
18 Mulligan's Family Golf Center	Township	Special Use	21.37										1	Y			G		Y		
19 Parkview Pool	Township	Community	17.47												1	1					
20 Peachtree Playground	Township	Tot lot	1.88				1	1					1	1	Y		S		N		
21 Pershing Park	Township	Open space	3.40																		
23 Presidential Ballfield	Township	Neighborhood	2.07	1										N			S		P		
24 Presidential Tot Lot	Township	Tot lot	0.39										1	N			S		N		
25 Riverwalk Park	Township	Neighborhood (future)	1.14																		
27 Saint Elizabeth Field	Township	Neighborhood	1.72	2										N			S		N		
26 Schadt Avenue Park	Township	Community	15.91	4		2	2	2				1	1	Y			P	1	Y		
28 Stiles Playground	Township	Neighborhood	1.83	1				1	1				1	N			S		P	1	
29 Tate Meadows Tract	Township	Open space	6.84																		
30 Victor Talotta Park	Township	Community	14.41	2		2	1	2				1	1		N	1		P	1	Y	1
6 Cementon Steckel Pool																					
31 West Catasauqua Park	Township	Community	17.23	2				2	2				1	1	Y		G	1	Y		
32 Whitehall Parkway	Township	Open space	107.58											N			G		N		
33 Wood Street Playground	Township	Neighborhood	3.24					1					1	1	N		S		N	1	

Source: Whitehall Township

- **Regional park:** Large park that draws users from the entire Lehigh Valley, featuring a variety of active and passive recreation opportunities
- **Linear:** A narrow belt of land, often along a stream or river, and often containing a trail
- **Open space:** Undeveloped land preserved for environmental and passive recreation purposes
- **Special use:** Sites with a specific purpose, such as historic sites, memorials, and golf courses.

Recreation sites are owned by public agencies (e.g., township, state), semipublic organizations (e.g., clubs or other membership organizations in which anyone can become a member at a reasonable fee level), and private entities (e.g., commercial businesses, homeowners' associations, or membership clubs with exclusive fee levels). In addition, the Whitehall-Coplay School District campus offers numerous athletic fields available to organized sports groups by permission.

Two of the recreation sites in the township represent developing recreation corridors: the Ironton Rail Trail and the Delaware and Lehigh (D&L) Trail. The Ironton Rail Trail is multiple-use recreation trail open to walkers, joggers, and bicyclists. The 5.2-mile loop section of the trail encircles Coplay Borough and the Hokendauqua/Stiles neighborhood, with a leg that extends westward through the Whitehall Parkway and into North Whitehall Township. Plans call for paving the entire loop section of the trail, anticipated to be completed in 2005. The remaining western section will retain its crushed gravel surface.

The D&L Trail is part of the 150-mile Delaware and Lehigh National Heritage Corridor, a mixture of recreational and cultural resources telling the story of the canals along the Delaware and Lehigh Rivers. Trails, such as the D&L Trail, are an important part of the corridor. Lehigh County has acquired the Lehigh River waterfront from PA 329 northward and may acquire much of the railbed and much of the waterfront south of PA 329 in the future. The entire Whitehall portion of the D&L Trail consists of abandoned railroad tracks passing through both active and inactive industrial sites, along with wooded floodplain areas.

Whitehall Township officials have identified five sites for possible future recreation use (Map 2.12):



The Lehigh River and abandoned Lehigh Valley Railroad

- Lands of the Norfolk Southern abandoned railroad along the Lehigh River western shore from PA 329 in Cementon to Race Street in West Catasauqua that would extend the D & L Trail
 - A tract of land west of Egypt Memorial Park and north of the Troxell-Steckel House that would connect the two existing parks and provide additional athletic fields
 - All or part of the 49 acres of the Thomas Iron Works now known as the Dinbokowitz Tract (for riverfront parkland and historical significance)
1. A five-acre parcel located along Range Road adjacent to Mulligan's Family Golf Center
 2. A strip of land that would connect Mulligan's Family Golf Center with West Catasauqua Park.

Whitehall Township will also continue to acquire additional land and develop facilities to meet the recreation needs of future residents through the use of mandatory dedication of land for recreation within new developments. As permitted by state law, the township will also continue to accept a fee in lieu of land for recreation, depending on the negotiations with individual developers.

Administration

The Whitehall Township Recreation Bureau administers recreation facilities and programs in the township with the extensive and valuable assistance of many volunteer organizations. In addition to being part of the bureau's organizational structure, the volunteer groups provide diverse, localized representation. Township officials report that the current recreation system works well, in large part because of the assistance of the volunteer groups and the input provided by the Whitehall Township Recreation Commission and the Whitehall Township Park and Recreation Board.

At the most localized level, the township is composed of nine different recreation districts (Map 2.12):

- | | | |
|---------------|----------------|---------------------|
| 3. Allencrest | 6. Egypt | 9. Schadt Avenue |
| 4. Central | 7. Fullerton | 10. Stiles |
| 5. Cementon | 8. Hokendauqua | 11. West Catasauqua |

The recreation districts are generally organized around a major park facility. A nonprofit organization called a playground association or athletic association operates within most districts. Operating under varying organizational structures, most of which are 501(c)(3) corporations, the associations organize youth sports, coordinate facility and scheduling needs with the recreation bureau, and assist in maintenance and park development within district boundaries. The only district with no organization is the largely unpopulated Central District. When development and population in the Central District establish a need, a major park will be developed on a site already secured by the township (Site #34 on Map 2.12), and a new playground/athletic association will likely be formed.

The Whitehall Township Park and Recreation Board is composed of a representative from each playground/athletic association. The board is advisory and represents the individual and collective interests of the member organizations in the overall recreation planning of the township. The board meets monthly with the recreation bureau chief and other interested parties.

The nine members of the Whitehall Township Recreation Commission are appointed by the Board of Commissioners and represent a broad range of public recreation constituencies. One member is selected from each of the following interests, and three members are selected at-large:

- | | | |
|----------------------------------|---|---|
| • Park and Recreation Board | • Senior citizen community | • Disabled/handicapped community |
| • Beautification and Garden Club | • Whitehall Historical Preservation Society | • Ironton Rail Trail Oversight Commission |

The recreation commission advises the administration and the Whitehall Township Board of Commissioners on matters related to the recreational needs of the community. The commission also oversees the portion of recreation impact fees not dedicated to a specific recreation district, as dictated in the township's park, open space, and recreation plan.

Staffing

The Whitehall Township Recreation Bureau employs a full-time recreation director, part-time secretary, and a 10-week summer intern assistant. At township recreation facilities, staffing is organized on a seasonal basis. During the summer, the township employs 15 camp counselors, 39 lifeguards, and 14 cashiers. In the winter months, the township employs 12 lifeguards at the Whitehall-Coplay High School indoor pool. The township subcontracts work throughout the year for the instruction of summer basketball, summer adult softball, and year-long volleyball, aerobics, and aqua-aerobics. Five full-time park maintenance employees work out of the township public works building, and security is handled by the Whitehall Township Police Department.

Programs

Among numerous offerings, the Whitehall Township Recreation Bureau sponsors the following recreation programs for all ages:

- | | |
|-------------------------------|------------------------------|
| • Adult softball | • Camp Whitehall summer camp |
| • Aerobics | • Coed volleyball |
| • Aqua-aerobics | • Swimming lessons |
| • Basketball leagues (summer) | • Whitehall Waves swim team |
| • Boys wrestling | |

In addition, Whitehall's neighborhood-based athletic associations offer football, baseball, softball, winter basketball, soccer, and cheerleading programs. The Township and/or the numerous volunteer organizations (with varying degrees of township assistance) also organize and sponsor special events, which included the following in 2004:

- Whitehall Community Day
- Recreation Forum
- Historical Hikes on the Ironton Rail Trail (2)
- Community Egg Hunt on the Ironton Rail Trail
- Super Senior Golf Events (2)
- Fullerton Carnival
- Ironton Rail Trail 10k Walk/Run Race
- Youth Fishing Contest
- Hokey AA Carnival
- National Rail Trail Day
- Civil War Weekend
- Cementon Fair
- Cementon Jazz & Blues Fest
- Wacky Water Games
- Free Open Air Concert
- Fall Festival and Parade

To publicize its programs and events, the recreation bureau posts flyers and pamphlets at the township building and at recreation events. The bureau also places notices in newspapers, runs television advertisements, and operates a telephone information hotline. Township officials have noted that residents have voiced some desire for additional activities for seniors, special events, and adult education.

Funding

In the fiscal year 2003-2004, the Whitehall Township Recreation Bureau received approximately 5% of the total township budget. Part of the bureau's funding comes from development impact fees, which are earmarked for recreation improvements. Current development regulations require developers to either dedicate 1,107 square feet of land per proposed dwelling unit for recreation purposes or pay \$2,000 per proposed dwelling unit to the township, in lieu of land. Developers negotiate with township officials to decide exactly how and where the contribution is used. Land contributions are used for new recreation or open space land. Fees may be used either to pay for land acquisition, or to improve facilities at existing parks. Under the current system, 50 percent of the funds are allocated for block park and neighborhood park and playground development within the recreation service area and the park planning district in which the new development is located. The remaining 50 percent is earmarked for the development/redevelopment of any and all township parks based upon recommendations from the Whitehall Township Recreation Commission.

For acquisition of land and for the development and improvement of new and existing facilities, Whitehall Township has and will continue to apply for and utilize funds from the recent Lehigh County bond issue under its Green Future Fund program. Grant funding from a wide variety of other intergovernmental sources is and will continue to be a significant source of revenue.

Issues

Major recreation/park/open space issues, identified through interviews and the Whitehall Township public survey, are:

- The need for a township-owned indoor recreation facility with a swimming pool, basketball courts, and other features. To cover capital and operating costs for such a project, township staff suggest a public-private partnership with a Whitehall-based corporation or a YM/YWCA-type enterprise.

- The need for more township-owned open space and passive recreation areas, containing wooded natural areas, nature trails, and bicycle/jogging paths.
- Acquiring additional land for recreation and open space as residential development continues, and doing so in a manner that creates continuous, connected areas of green space.
- Working with Lehigh County in acquiring and developing the Lehigh River waterfront.
- Updating the township parks, recreation and open space plan, including adjustments to the fair share system of fund allocation, the fund allocation between park types, the developer fee for recreation, and the recreation district boundaries.
- Providing additional recreation programming, especially for adults and seniors.

Schools

Whitehall Township is served by the Whitehall-Coplay School District. The district operates four schools, an administration building, a transportation center, and a shipping/receiving building, all in a consolidated campus on the south side of Mechanicsville Road in Whitehall Township. The district is composed of four schools:

- Gockley Elementary School (Grades K-1)
- Steckel Elementary School (Grades 2-4)
- Whitehall-Coplay Middle School (Grades 5-8)
- Whitehall High School (Grades 9-12)

The school district had a total enrollment of 4,024 during the 2003-2004 school year. Enrollment increased 17% (593 students) between 1994 and 2004, with annual increases ranging from 0.3% to 2.8%. Current projections show 4,287 students in the year 2013, a 6.5% increase over 2004, with lesser annual growth than in the previous 10 years.¹ School district officials are concerned that the projections may underestimate future enrollment. In addition, the district is experiencing an enrollment “bubble,” in the form of an unusually large Class of 2007 and Class of 2008.



Whitehall High School
(courtesy of WCSD)

Whitehall-Coplay School District sets its own standards for building capacity that are more strict than Pennsylvania Department of Education guidelines. The high school is operating beyond its desired capacity, while the elementary schools are very close to capacity (Table 2.16). To meet the challenges of capacity and increasing enrollment, the school district has hired an architectural and planning firm to recommend physical and organizational improvements. Officials also plan to gradually hire more staff to keep student/teacher ratios at acceptable levels.

¹ *Whitehall-Coplay School District Feasibility Study*, The Ray Group, November 2003.

Table 2.16
School Enrollment and Capacity, 2003

SCHOOL	ENROLLMENT (Nov. 2003)	CAPACITY (W-C S.D.)	PERCENT OF CAPACITY
Gockley Elementary School	510	554	92.1%
Steckel Elementary School	870	888	98.0%
Whitehall-Coplay Middle School	1,242	1,499	82.9%
Whitehall High School	1,287	1,258	102.3%

Source: Whitehall-Coplay School District Feasibility Study, The Ray Group, 2003

The school district budget for the 2004-2005 school year is \$35,701,248, a 6% increase over the previous school year's budget. The budget includes a 1.98 millage increase, resulting in a tax rate of 30.54 mills, which is the lowest school district millage rate in Lehigh County². The low millage can be attributed to the two municipalities' modest residential growth, older population with few school-age children, and a significant commercial tax base. Major expenditures for the Whitehall-Coplay School District include salaries (52.8%), benefits (17.0%), and buildings (10.3%). School district revenues are comprised of 74.0% local funding, 22.7% state funding, and 3.3% federal and other funding. School district officials feel that the current budget and millage rates adequately cover expenses for the foreseeable future.

The Whitehall-Coplay School District is a major transportation provider, operating a fleet of 56 vehicles.³ The planned reconfiguration of the MacArthur Road/Mechanicsville Road intersection will prohibit left turns into the Whitehall-Coplay School District campus from northbound MacArthur Road. Despite causing significant changes to campus access, school district officials feel the reconfiguration will be a much-needed safety improvement.

The school district is also planning to relocate its transportation center, which currently causes some problems of diesel fume emissions in nearby classrooms. The district hopes to relocate the center to the southwestern corner of the campus, near the shipping and receiving building.

Sanitary Sewer Service

The Coplay Whitehall Sewer Authority (CWSA) designs, installs, manages, and maintains the sanitary sewer system in both Whitehall Township and the Borough of Coplay (Map 2.13). The greatest amount of new construction in the service area took place during the 1960s and 1970s, and the CWSA continually expanded the system during the building booms in both the commercial and residential areas.

² Lehigh County Office of Assessment, July 2004.

³ Whitehall-Coplay School District Transportation Department, July 2004.

CWSA serves approximately 95 percent of the residents and businesses in Whitehall Township. The authority charges one of the lowest sewer rates in Lehigh County and maintains the system in excellent condition.

System Capacity

Capacity of the sewer system is measured in two ways:.

- The amount of waste processed through the treatment plant
- The amount of wastes conveyed through the collection system

The CWSA is currently allotted a treatment capacity of 3.6 million gallons per day (mgd) at the Allentown treatment plant. The amount of waste actually treated over the last several years has averaged between 2.4 and 2.5 mgd. The current allotment of 3.6 mgd appears to be sufficient for the foreseeable future.

The sanitary sewer collection system is comprised of laterals (from homes and businesses), mains (which carry waste from laterals), and interceptors (which carry waste from the mains). Interceptor lines are usually 18-inch diameter pipe or larger and often follow streams or rivers, which are at the low points through a given area.

The CWSA operates four interceptor lines:

- Lehigh River Interceptor north of Eberhart Road (LRIn) — The LRIn carries waste from the Cementon area, Home Park, the Borough of Coplay, and portions of Hokendauqua. The flows from the LRIn terminate at the lift station at the intersection of Lehigh Street and Eberhart Road. The LRIs was increased in size through the City of Allentown in the mid-1990s to reduce a potential surge condition in the future. The Eberhart Road lift station was rebuilt in the late 1990s. The LRIn is performing well, and CWSA has no plans to increase the size of the interceptor.
- Lehigh River Interceptor south of Eberhart Road (LRIs) — The LRIs ultimately carries the majority of waste from Whitehall to the Allentown plant. The JCI carries the remainder along the creek into the Allentown system, including flows from West Catasauqua and Fullerton. The LRIs is performing well, and CWSA has no plans to increase the size of the interceptor.
- Coplay Creek Interceptor (CCI) — The CCI carries waste from portions of Hokendauqua, Stiles, Egypt, and North Whitehall Township. A smaller main (tributary to the CCI) serves the municipal complex, the central portion of the township, the Whitehall Coplay School District campus, and points north and west along Mechanicsville Road.

The CCI is performing well. The CWSA is currently having a study performed to compare the capacity of the CCI with demand if the service area should achieve build-out. If and when development occurs to the west of PA 145 (Kasych and Ringer properties), the

tributary main to the CCI that runs parallel to Municipal Drive and beneath PA 145 will require a larger diameter than the current eight inches.

The CCI also carries flows from the Timberidge development in North Whitehall Township. Section 6 of Timberidge is currently under construction and will contribute to the existing flow. The village of Ormrod in North Whitehall Township is scheduled to be sewered in the next few years. The allotment for North Whitehall Township is 140,000 gallons per day (gpd). Flows from both Ormrod and Timberidge will be added to the CCI but are not expected to overload the CCI.

- Jordan Creek Interceptor (JCI) — The JCI carries waste from a portion of Fullerton, areas west of PA 145 (including Peachtree), and a portion of South Whitehall Township. The JCI is performing well, but a recently-completed CWSA study revealed that the JCI must be enlarged to accommodate the undeveloped portion of the interceptor service area. A tributary main to the JCI, which runs parallel to Woodlawn Street westward to the South Whitehall Township boundary, was experiencing surging during severe storm events. Since the completion of a 5-year storm sewer project from 14th Street to Overlook Road, which provided additional stormwater conveyance and containment, the surge flows in the sanitary sewer mains have eased.

Future Expansion

Future development in the township will affect the township's sewer system. If the Ringer property develops prior to the Kasych property, the sanitary main would be constructed to the low point of the property, then temporarily pumped to the last manhole in Columbia Street. If and when the Kasych property would be developed, the pump station would be removed.

If the northern tier becomes developed with a higher density than currently allowed by zoning, additional capacity will be required. Several options can be considered:

- A small area above the Egyptian Hills area can be developed to the ridgeline. Sewer service would be obtained by extending the mains from Vera Drive and Christina Drive.
- Areas contributing to Spruce Street would require a lift station to Roosevelt Street and on to Main Street (PA329). Similarly, areas contributing to the north end of Roosevelt Street would also require a lift station to the ridgeline in Roosevelt Street and then onto Main Street. From Main Street, the main along South Church Street to the CCI would need to be replaced.
- The alternative to the lift stations would be a gravity sewer interceptor along the Spring Creek to join with the LRIn in Cementon. The interceptor alternative would entail a higher initial expense but less ongoing maintenance.

Water Service

Public water service in Whitehall Township (Map 2.13) is provided by two public water authorities: the Northampton Borough Municipal Authority (NBMA) and the Whitehall Township Authority (WTA). Since the last writing of the comprehensive plan in 1990, township customers formerly served by the Allentown Water Authority and the Evergreen Park Water Company are now served by the WTA. No private water companies operate in Whitehall Township. Facilities not connected to the public water system are served by private wells.

Whitehall Township Authority

The Whitehall Township Authority (WTA) is headquartered at 1901 Schadt Avenue. The WTA maintains a service area comprising of the southern end of the township, the west side of MacArthur Road from Grape Street to South Church Street, and the west side of South Church Street from MacArthur Road to Ruchsville Road.

The WTA currently maintains eleven permitted well facilities and storage structures totaling 1.75 million gallons and has an ample amount of unused capacity available for future growth. As of mid-2004, the WTA has no immediate plans to expand the system unless required by new development.

More than 90 percent of the WTA distribution system is ductile iron water main, eight inches in diameter or larger. The authority has an up-to-date program to replace aging and substandard piping. The properties of WTA are currently connected by a radio-based SCADA system and include security and fire protection capabilities. Fire protection for the WTA service area is considered excellent with redundant facilities available as required.

Northampton Borough Municipal Authority

The Northampton Borough Municipal Authority (NBMA) office is located at 1 Clear Springs Drive in Northampton, PA. The NBMA serves the eastern side of Whitehall Township from MacArthur Road to the Lehigh River, from Grape Street north to South Church Street, and west of South Church Street north to the North Whitehall Township border. The NBMA also serves the Borough of Coplay. The NBMA also maintains a service area in North Whitehall Township and three other neighboring municipalities. The NBMA currently serves approximately 5,800 customers in Whitehall Township.

The NBMA maintains a treatment plant capable of treating 4.5 to 4.8 million gallons per day (mgd). The authority is constructing a new water treatment plant capable of treating 8 mgd, with a total capacity (with future expansion) of 12 mgd. The distribution system consists of a 2,000,000-gallon tank, a 200,000-gallon standpipe, and a 3-million-gallon reservoir. The current customer demand for the entire NBMA service area, including customers in Whitehall Township, is 3.5 mgd.

The NBMA currently draws 90 percent of its raw water from the Lehigh River and 10 percent from the Spring Creek—a blend designed to balance the acidity of the treated water. NBMA does not operate any wells.

NBMA has no plans to expand the water distribution system in Whitehall Township. Any expansion of the system will be in response to new development. The NBMA will be able to meet demand from total buildout of the Whitehall Township service area.

The NBMA currently allocates several hundred thousand dollars per year for upgrading existing distribution systems and, in certain cases, total replacement of obsolete water mains. The authority establishes priorities for work and coordinates with the Whitehall Township Public Works Department to offer utility owners sufficient lead-time to make upgrades and repairs to water lines prior to roadway repairs and resurfacing.

Public Works

The Whitehall Township Public Works Department maintains all township-owned buildings, roads, properties, and equipment. Department operational facilities are located adjacent to the municipal offices building. Facilities include salt storage, fueling station, and a new state-of-the-art public works building completed in 2004. Among other amenities, the building includes complete equipment service facilities, skilled trades shop, sign shop, material stock space, offices, and personnel accommodations. The facility is capable of 100 percent operation at full capacity in the event of a power outage. In addition to equipment storage space inside the building, a 75 x 100 canopy provides shelter under which equipment is parked.



Trucks under canopy at the Public Works building

The township employs 35 persons in the public works department, including supervisors. The most significant task facing the department is maintaining 147 miles of roadway. The department performs all functions, including construction, paving, line painting, street cleaning, patching, snow plowing, mowing, and signage. The department maintains over 120 pieces of equipment, including (but not limited to) police cars, administrative vehicles, heavy trucks, fire trucks, heavy equipment, and grounds keeping equipment. Skilled tradesmen maintain all township buildings, either on location or at the public works wood shop. The department also maintains all stormwater detention basins that have been deeded to the township.

The greatest expenses for the public work department are salaries, fuel, oil, road building materials, salt, and utility costs. Whitehall Township currently reserves nearly 25% of the township budget for public works, including privatized garbage and recycling. Department officials feel the current funding is adequate to meet all needs. The primary future concern of department officials is the increased demand for road maintenance as roads are built in new developments. The department has also identified cul-de-sacs maintenance as a significant strain on department time and resources.

Other Services

The township contracts garbage hauling and recycling to private haulers. Services are bid every four years, and the arrangement currently meets the solid waste removal needs of the community. The contracted hauler also provides collection of grass clippings, leaves, and Christmas trees during the applicable seasons.

TRANSPORTATION

Any local transportation system includes roads of various types and functions and, if appropriate, public transportation services. The following information describes the current configuration and condition of the transportation system in Whitehall Township (Map 2.14).

Traffic

The traffic stream characteristics of Whitehall Township are influenced by the township's position in the region, history, and shape. Whitehall Township is 13.1 square miles in area, and roughly two miles wide by six miles long. PA 145 (MacArthur Road) bisects the municipality north-to-south, with several intersecting east-west thoroughfares (Map 2.14). The largest of the east-west routes is US 22, in the southern part of the township. Other major east-west routes (from south to north) are:

- Mickley Road-Presidential Drive.
- Grape Street.
- Schadt Avenue-Main Street/Pine Street.
- Eberhart Road.
- Mechanicsville Road.
- Lehigh Street (SR 1014).
- Chestnut Street-South Church Street-West Coplay Road-Ruchsville Road.
- PA 329 (Main Street in Egypt and Cementon).

Other north-south routes, secondary to MacArthur Road, are:

- Mauch Chunk Road, which lies along the western edge of Whitehall Township and weaves in and out of South Whitehall Township to the west.
- Fullerton Ave-Third Street-First Avenue-Lehigh Street, which lies in the eastern portion of the township south of Eberhart Road.
- North Front Street-Second Street (Borough of Coplay)-Coplay Road..

From the early-to-mid 1980s, Whitehall Township has grown to be a major commercial and shopping destination and a robust residential area with a substantial increase in private and public recreation opportunities. As a result of growth, traffic, both within and through the township, increased significantly, causing congestion, vehicle crashes, and gridlock conditions during peak shopping seasons. The lack of adequate stacking on side streets intersecting with PA 145, uncontrolled intersections, and inefficient signal timing contributed to the problem. Intersection improvements were largely constructed by developers for specific projects and were not integrated with the surrounding road network, which simply transferred the increased congestion to another intersection.

Current Traffic Planning

In the early 1990s, the Pennsylvania legislature passed Act 209, which allows municipalities to impose traffic impact fees if a comprehensive study is prepared to identify the conditions to be alleviated. Impact fees can only be used for specific improvements as detailed in the study. The required study is cumbersome, and, in its report *Transportation System Status Report Update 2002*, the Lehigh Valley Planning Commission reported that only five of the 63 municipalities in Lehigh and Northampton Counties, of which Whitehall Township is one, have completed the study and adopted the required ordinance. As a result, Whitehall Township now has the mechanism required to effectively and systematically evaluate, organize, and implement a cohesive traffic management and improvement plan.

The plan consists of three major components:

- The *Land Use Assumptions Report*, which identifies growth potential from both developing vacant land and redeveloping occupied or developed land. The development analysis, along with census data, provides an estimate of future roadway users. A specific area of the township is designated as a Traffic Improvement District, and any development in the district that generates new traffic is required to pay a traffic impact fee to be used for traffic improvements in the district.
- The *Roadway Sufficiency Analysis Report*, which identifies 83 “problem” intersections throughout the township. Traffic counts and turning movement analyses were performed for each intersection, and each intersection was graded to reflect overall performance. Of the intersections studied, about 50 warranted further evaluation. The remaining intersections were studied to determine improvements required to increase efficiency. The report includes a cost for the needed improvements, which became the third component, the Capital Improvements Plan.



Mechanicsville Road at MacArthur Road in 2004

- The *Capital Improvements Plan* includes the implementation schedule, the calculation of the actual impact fee charged to developers, and the Whitehall Township share of financial responsibility. The working concept of the plan is unique in that all developers of land in the district pay the required fee, but funds can be designated for the top priority intersection improvement, which may not be the intersection closest to the developer’s project. The flexibility in the enabling legislation allows the township to spend funds where and when the need is greatest.

As a result of the plan, developers can estimate traffic improvement costs more accurately and in a timely manner. (Historically, transportation improvements had been an unknown component of development costs until the last moment prior to approval.) The law also allows developers to build

the necessary improvements in lieu of cash if the township approves the project design. Otherwise, the developer makes a cash deposit to the township traffic fee account, which is held separately from any other township account.

The traffic improvements account allows the township to match other county, state, and federal funding, which significantly increases the amount of funding available to the township. Another benefit of the traffic impact study is the ability to analyze traffic patterns and demand. With the data from the study, the township requested that the local office of the Pennsylvania Department of Transportation (PennDOT) evaluate the progressive timing of all traffic signals on the MacArthur Road Corridor. The timing study was completed and implemented in 1995 and evaluated in 1996. PennDOT made additional timing adjustments in 1997, and the resulting synchronization has improved the efficiency of the corridor.

Future Traffic Planning

Whitehall Township is currently anticipating several significant traffic improvements, most of which involve MacArthur Road. Based on several factors (including, but not limited to, traffic safety, volume management, alternative routes, development, and congestion), the township has identified the following list of high-priority future projects:

1. Reconfiguration of intersection of 145 and Mechanicsville Road — Glenside Drive would be relocated to line-up opposite Mechanicsville Road, creating a 4-way intersection. PA 145 would be widened to provide independent left-turn lanes for northbound and southbound traffic. The existing Glenside Drive intersection with PA 145 would be closed.
2. Partial or major reconfiguration of Eberhart Road/PA 145 intersection — The intersection is currently under study.
3. Reconfiguration of intersection of Municipal Drive and PA 145 — A separate left turn lane would added for southbound traffic.
4. Widening and placement of concrete median barrier on PA 145 from Eberhart Road to Municipal Drive — Mid-block left turns and cross-traffic would be eliminated.

(Note: The four highest-priority projects (above) will result in two continuous through lanes on MacArthur Road both northbound and southbound throughout the entire corridor.)

5. Traffic circulation in and around the Whitehall and Lehigh Valley Malls
6. U.S. 22 ramp improvements at PA 145

The township has also developed an official roadway map to prescribe future roadway connections across now-vacant lands. The goal is to provide sensible interconnections to existing roads when

property is developed. Applicants wishing to develop properties must abide by the road network depicted on the official map.

Where possible, the township is also encouraging developers and/or owners of adjacent properties to combine driveways. Shared driveways reduce the number of access points along major traffic routes and provide cross-access between commercial lots. The township also allows narrower street widths in lower density residential developments to reduce impervious cover, slow traffic, and reduce maintenance.

Public Transportation

The Lehigh and Northampton Transportation Authority (LANTA) provides several public transportation services throughout the Lehigh Valley. The LANTA/Metro system is comprised of fixed-route, fixed-schedule bus service on 26 routes throughout the Lehigh Valley. The Lehigh Valley Mall/Whitehall Mall area on MacArthur Road is one of the major hubs of the LANTA/Metro system (Map 2.14). The township is served by the following LANTA routes:

- Route 1 — a suburban route connecting Whitehall to Catasauqua, Lehigh Valley Industrial Parks I, II, and III, and the Lehigh Valley International Airport
- Route D — connecting Northampton to Emmaus through Whitehall and downtown Allentown
- Route K — connecting the Presidential Village area of Whitehall to the Lehigh Valley Hospital/I-78 area through downtown Allentown
- Route H — connecting the mall area of Whitehall to the Dorney Park/West Allentown area via downtown Allentown
- Route L — connecting the Lehigh Valley Mall to the Parkway Shopping Center (Lehigh Street) via Allen Street and 17th Street
- Whirlybird — loop connecting Whitehall shopping centers along MacArthur Road: Lehigh Valley Mall, Whitehall Mall, Whitehall Shopping Center, MacArthur Towne Center, and Whitehall Square.
- Silverline Express — connects Allentown to Easton through the Lehigh Valley Mall (Whitehall), Westgate Mall (Bethlehem), and Palmer Park Mall (Palmer).



LANTA bus at the Whitehall Mall

In addition to weekday and Saturday service on all LANTA/Metro routes:

- Evening service is available on parts of Routes 1, D, H, L, and Whirlybird.
- Sunday service is available on parts of Routes D, H, L, and Whirlybird.

LANTA also arranges transportation for people who are unable to use LANTA/Metro fixed-route bus services due to lack of ability, or for those who need specialized service. The service, called Metro Plus, uses third-party operators to provide door-to-door, shared ride service with advanced reservations.

LANTA also manages the Carbon County Community Transit (CCCT) program, which offers third-party service within Carbon County and between Carbon County and several points in the Lehigh Valley. The Lehigh Valley/Whitehall Mall area is one of the Lehigh Valley destinations for CCCT service.

CURRENT LAND USE POLICY

The Whitehall Township land use policy is codified in the township zoning ordinance. The current ordinance was adopted originally in September 1989 and has been frequently modified through a variety of amendments. In general, the current policy (Map 2.15, Table 2.17) provides for:

- Higher-density residential uses in the southern part of the township.
- Higher-density residential uses in the older villages.
- Regional commercial development along MacArthur Road in the southern part of the township.
- Farming, open space, quarrying, and lower-density residential uses in the northern and western parts of the township.

ADJACENT MUNICIPALITIES

Development policy in municipalities bordering Whitehall Township can have an effect on adjacent portions of the township. An examination of the zoning policy adjacent to the township shows that most adjoining areas are compatible with current uses and zoning in Whitehall (Map 2.15).

Areas of potential conflict, if development were to occur as fostered by current policy, include:⁴

- The area to the west of the Jordan Creek Parkway in the southwestern corner of the township is bordered by zoning in South Whitehall Township which allows medium-high density residential and large-scale (regional) commercial development.
- People from surrounding areas come to play in Whitehall parks, particularly the larger county parks, such as the Jordan Creek Parkway.

⁴ The Lehigh River, along the eastern border of Whitehall Township, and the Jordan Creek, along the southern border of the township, between the township and the City of Allentown, are considered sufficient barriers to avoid major land use conflicts.

Whitehall Township Comprehensive Plan

Table 2.17
Whitehall Township Land Use Policy, May 2003

Zone		Sample of Uses Permitted by Right	Min. Lot Size / Density
OS-1	Open Space — Residential/Agricultural	agriculture, cemeteries, churches, golf courses, schools, conservation uses, SFD	2.0 acres
OS-2	Open Space — Limited Industrial	agriculture, conservation uses, any use permitted by right in I Industrial	2.0 acres
R-1	Very Low Density Residential	agriculture, churches, cemeteries, schools, conservation uses, SFD	1.0 acre
R-2	Low Density Residential	agriculture, churches, cemeteries, schools, conservation uses, SFD	22,000 sf *
R-3	Low Medium Density Residential	agriculture, churches, cemeteries, schools, conservation uses, SFD	12,000 sf *
R-3A	Special Care Community Residential	agriculture, churches, cemeteries, schools, conservation uses, SFD	13,000 sf *
R-4	Medium Density Residential	agriculture, churches, cemeteries, schools, conservation uses, SFD	9,600 sf *
R-5	High Density Residential	agriculture, churches, cemeteries, schools, conservation uses, SFD, SFA, SFSD (twins), apts.	SFD: 7,500 sf * SFSD: 5,000 sf/unit * SFA: 2,500 sf * Apt. Bldgs.: 8 units/ac. Others: 10,000 sf *
R-5A	High Density Residential	agriculture, churches, cem., schools, conserv. uses, SFD, SFA, SFSD (twins), apts.	SFD: 7,500 sf * SFSD: 5,000 sf/unit * SFA: 2,500 sf * Apt. Bldgs.: 8 units/ac. Elderly Housing: 1.5 ac. — 1,600 sf/unit Others: 10,000 sf *
R-6	Mobile Home Park	agriculture, churches, cem., schools, conserv. uses, SFD, SFA, SFSD (twins), apts., MHP	SFD: 6,000 sf * SFA: 2,500 sf * Apt. Bldgs.: 8 units/ac. MHP: 4 ac. / 8 units/ac. Others: 7,200 sf *
C-1	Neighborhood Commercial	agriculture, ..., bank, barber, bed & bkfst., churches, cem., schools, conserv. uses, SFD, florist, funeral home, greenhouse, laundromat, office, repair shop, retail, services	10,000 sf *
C-2	Regional/Community Commercial	agriculture, ..., schools, amusement facilities, auto sales, RV sales, auto services, car washes, drive-in services, indoor theaters, golf course, medical labs, minimarts, printing/publishing, rental facilities, repair shops, restaurants, retail shops, services, liquor stores, trade shops, warehouses, wholesale	25,000 sf *
C-2A	Local/Community Commercial	agriculture, ..., bank, barber, bed & bkfst., churches, cem., schools, conserv. uses, SFD, florist, funeral home, golf course, greenhouse, laundromat, office, medical labs, minimarts, repair shops, retail shops, services	25,000 sf *
I	Industrial	agriculture, ..., bottling, nurseries, schools, manufacturing, warehouses	1.0 acre
OP	Office Park	agriculture, ..., schools, offices, office parks, restaurants, 1 apt./comm. structure, restaurant in an office building, warehousing, nursing home, day care	25,000 sf *

*with public water and sewer; If public water and sewer are not provided, minimum lot size is 1.0 acre.

Source: Whitehall Township Zoning Ordinance

- Whitehall Township and Coplay Borough have cooperated in providing several governmental services, such as public education through the Whitehall Coplay School District and public sewer service through the Coplay Whitehall Sewer Authority.
- The area west of Mauch Chunk Road, where low- to medium-density residential zoning in Whitehall borders industrial zoning in South Whitehall.
- The Willow Street area in Whitehall, which is zoned for open space and quarrying uses and abuts a low density residential zone in North Whitehall.

Adjacent municipalities also have other significant geographic and governmental effects on the township:

- The road systems of North Whitehall and South Whitehall Townships, the City of Allentown, and the Borough of Coplay connect to roads in Whitehall, carrying people and goods into, out of, and through the township, particularly in the area of the malls and U. S. 22 interchanges.

COMMUNITY SURVEY

As part of the comprehensive planning program, the township mailed a survey to every household in the township — a total of 11,492 questionnaires — asking for residents' opinions on a variety of subjects relating to future land use and government services in Whitehall Township. A total of 1,629 completed questionnaires were returned, for a response rate of 14.2 percent (slightly less than one in seven). The survey results included the following key points:⁵

- The total population of households represented in the returns had a similar age distribution to the general population of the township. Returns slightly overrepresented residents age 50 and over and slightly underrepresented residents age 20-49. More than half of the responding households have lived in Whitehall Township for more than 20 years.
- A large majority of respondents felt that road improvements and groundwater quantity and quality are important to the township.
- A large majority of respondents feel that the township does not need more commercial development. However, respondents did feel that existing commercial districts should be maintained and strengthened.
- Almost one respondent in three (32%) were undecided about extending the township's central sewerage system.

⁵ Appendix A contains the tabulations of each survey question. A full listing of all comments is available at the Whitehall Township building.

- The types of development which respondents feel should be encouraged in Whitehall are:
 - Single-family homes: 59% of respondents
 - Affordable housing for seniors: 46% of respondents
 - Adult communities (age 55+): 42% of respondents
 - Farming: 34% of respondents
 - Smaller stores and services: 34% of respondents
- Respondents are evenly divided over the issue of spending local tax dollars to help preserve farmland: Yes, 37% No, 30% Undecided, 33%.
- By an almost 2:1 margin (63%/37%), respondents feel that the township should spend significant resources to remain the commercial core of the Lehigh Valley.
- From a list of 13 types of recreation facilities, the three facilities cited most often by respondents as needed in Whitehall were:
 - Wooded natural areas w/nature trails: 38% of respondents
 - Place for outdoor special events: 36% of respondents
 - Bicycle/jogging trails: 28% of respondents

PLAN FOR THE FUTURE

The *Whitehall Township Comprehensive Plan* is built upon several important elements:

- Background studies, presented in chapter 2, which explain many facets of the current Whitehall community and the services provided to residents.
- The community survey, which identifies attitudes and desires of residents in shaping the future of their community.
- The knowledge and foresight of the Whitehall Township Planning Commission, charged with helping to guide the future development and preservation of the township.
- The thoughts and experiences of the township's elected officials, including the Whitehall Township Board of Commissioners and the Whitehall Township Executive.
- The professional expertise of the township planning staff and municipal engineer, aided by professional planning consultants.

The plan includes goals, objectives, and recommendations in each of the following categories of community concern:

- Land use and housing
- Natural features
- Community facilities and services
- Transportation
- Historic preservation
- Economic development

LAND USE AND HOUSING

The land use and housing plan recommends policies for land development and redevelopment throughout the township, including policies for different types of housing and businesses. The following section presents categories of future land use (Map 3.1). In many cases, the categories generally relate to current zoning districts. The land use plan is intended to:

- Protect existing residential neighborhoods.

- Moderate the rate of housing construction to avoid overloading the public school systems, roads, utilities and groundwater supplies.
- Coordinate development across municipal borders.
- Avoid serious traffic congestion and safety problems, such as avoiding new commercial strip development along major roads.
- Promote new business development in appropriate locations, particularly by strengthening older business areas, with careful attention towards the types of businesses allowed in areas near homes.
- Relate development to the natural features of the land to protect valuable natural assets, such as steeply sloped areas, major water supplies, and creek valleys.

Goals

- *The pattern of land use in Whitehall Township should allow all uses—residential, commercial, industrial, and institutional—to thrive.*
- *Housing in Whitehall Township should include a complete range of types and prices to accommodate all residents.*

Objectives

- Encourage infill development to minimize the loss of vacant land.
- Permit only selected, well-planned development on undeveloped land.
- Maintain Whitehall as the regional commercial center of the Lehigh Valley.
- Address the needs of less intensive land uses.
- Continue to establish an open space and greenway network along key natural corridors.
- Provide for a diverse, compatible mix of land uses.
- Comply with land use policies established in the *Comprehensive Plan for Lehigh and Northampton Counties*.
- Maintain a high-quality housing stock.
- Encourage a variety of housing types, densities, and prices.
- Carefully plan for new residential development.
- Encourage adult residential communities, limited to residents age 55 and older.
- Encourage the use of clustering techniques, where desired and appropriate, to allow development on the most suitable parts of a parcel.

Recommendations

The plan presents recommendations for each category of land use. Some recommendations are pertinent to several categories, and some pertain to the entire township.

Recommendations Affecting Multiple Land Use Categories

The following recommendations pertain to many land use categories. Some recommendations will apply to the entire township.

Land Use (LU)-1: Provide a density bonus if housing is limited to persons age 55 and older.



Whitehall Manor, containing senior residences in a rehabilitated building

As Baby Boomers retire, housing for a growing and increasingly active senior population will be needed. Senior residents do not demand as much in municipal services as families. In many residential areas, density bonuses for housing limited to persons age 55 and older will encourage such housing without straining municipal services. In the villages, taller building heights (such as 5 or 6 stories) may be useful, if an apartment building is limited to persons age 55 and older and if fire safety issues are fully addressed. In other cases, the plan recommends a maximum building height of 2 ½–3 stories.

LU-2: Prohibit the conversions of existing single-family homes into multiple housing units.

Prohibiting single-family conversions promotes home ownership, increases neighborhood stability, and reduces parking problems. Conversions should be prohibited in most residential areas and strictly regulated in the remaining areas.



House converted into apartments

LU-3: Require a minimum lot size of one acre for any lot not served by both central water and central sewer service.

Public health and safety require larger land areas for homes which must provide for water and sewage disposal on-lot. If any lot is not served by both central water and central sewage service, a minimum lot size of at least one acre is recommended. Where higher densities are described in the

plan, central water and central sewage services are assumed. If a new lot is to be served by an on-lot septic system, the lot should be approved for both a primary and an alternative drain field location before the lot is created.

LU-4: Allow community uses, such as places of worship and schools, throughout the township, except in conservation areas.

Community uses, such as places of worship, libraries, and schools should be allowed in all areas except conservation areas. Federal and state law control the ability of a municipality to limit locations of religious activities.

LU-5: Develop a system of interconnecting trails for both recreation and transportation to connect major activity centers.

Interconnecting trails add significantly to the quality and desirability of a community's land use character. In Whitehall, trails should link the Ironton Rail Trail, the planned Lehigh River Trail, the Jordan Creek Parkway, the villages, neighborhoods, parks, and schools. Trails will not only be beneficial for recreation, but also could be useful for bicyclists to reach work. Off-road trails should be developed parallel to roads that are unsafe for pedestrians and bicyclists and which cannot be easily improved. Trails are described further in the Community Facilities and Services section.

LU-6: Preserve or plant thick, natural vegetation along creeks to filter out pollutants from runoff, avoid erosion and maintain good water quality.

Vegetation along creeks (*riparian buffer*) stabilizes the natural environment. Development should be prohibited from encroaching into vegetative buffers.

LU-7: Regulate land use according to the categories and concepts of the *Whitehall Township Comprehensive Plan*.

The land use plan is the principal component of the *Whitehall Township Comprehensive Plan*. The land use plan (Map 3.1) includes the following categories and concepts.

Open Space/Residential/Agricultural

The open space/residential/agricultural category includes areas in the northern part of the township and areas along the Lehigh riverfront that are not logical locations for dense development. Most of the areas include prime farmland or sensitive natural features, including steeply sloped lands, creek valleys and wetlands. Most of the areas drain into the Northampton Borough Water Authority's reservoir. Some of the roads would be extremely difficult, expensive, or impossible to improve because of wetlands or cliffs close to the road.

The plan promotes continued agricultural uses, where appropriate, recognizing that agriculture is not a prevalent land use in Whitehall Township. Open-space oriented uses should also be encouraged, such as golf courses, tree nurseries and horse riding academies.

Residentially, the Agricultural/Residential/Open Space areas should provide for approximately 2.0 or more acres per home, without open space preservation. A 3-acre or more minimum would be appropriate if a principal building is proposed on very steep slopes (over 25 percent).

However, if an applicant chooses to use the Open Space Development option (described below), then approximately 1-acre minimum lots should be allowed, if 40 percent of the tract is permanently preserved in open space. The open space could be preserved as a public park, homeowner association open space, a preserve owned by a nature conservancy, Christmas tree farms, plant nurseries, hayfields, golf courses, and horseriding academies. Policies for the conservation of natural areas are described in the natural features section of the plan.

Rural Residential

Rural residential areas provide for agricultural uses and single-family homes on lots of at least one acre. If appropriate central water and sewer services are provided, the township should encourage the Open Space Development concept with ½-acre lots and at least 40 percent of the tract permanently preserved in open space.

Low-Density Residential

Most of the low-density residential areas are west of MacArthur Road along Mechanicsville Road and Columbia Street. Low-density residential areas provide for single-family detached development on lots that average approximately ½-acre. Through the Open Space Development option, lots of approximately ⅓-acre lots could be provided, with 30 percent of the tract preserved in open space.

Medium-Density Residential

Most of the existing residential neighborhoods in Whitehall Township fall within the medium-density residential category. Medium-density residential areas provide for housing at an average of 3–4 homes per acre. The Open Space Development option could provide for approximately ¼- or ⅓-acre average lot sizes with 30 percent of the tract preserved as open space. Regardless of average lot size, all developments of attached housing should include some recreation land or open space.

Medium-High-Density Residential

The medium-high-density residential category allows most housing types at an average of 4–5 homes per acre. All except the smallest apartment and townhouse developments should be required to include some recreation or open space area for residents. A portion of the medium-high-density residential area east of Mauch Chunk Road and north of Schadt Avenue has been approved as a

retirement community that provides for a range of support services and living arrangements for older persons.¹

High-Density Residential

High-density residential areas allow a mix of housing types at densities of approximately 5–8 homes per acre. Higher densities (such as 10 homes per acre) could be appropriate if the housing was limited to persons age 55 and older. High-density residential areas should allow for all housing types and particularly important to meet obligations under state law to offer opportunities for all types of housing. High-density residential areas are also important to provide opportunities for various housing types to meet the needs of different types of households, such as empty nesters, singles, families, and seniors. All except the smallest apartment and townhouse developments should be required to include some recreation or open space area for residents.

Neighborhood Commercial

Neighborhood commercial areas provide for a mix of light (less intense) businesses and a mix of housing types. Neighborhood commercial areas should provide for retail stores, offices, personal services, day care centers, banks, exercise clubs, and similar uses. The intent of identifying a separate neighborhood commercial category is to prohibit the heaviest, most intense commercial uses that are most likely to spur demolition or create nuisances for neighbors, such as 24-hour convenience stores, gas stations, vehicle repair, restaurants with drive-through service, and vehicle sales.



The Laurel Hotel in Cementon

In the older commercial areas of Whitehall Township, development should be encouraged that complements, rather than detracts from, the existing character of historic areas. In older areas, buildings should be placed with setbacks from the road/street that are similar to nearby older buildings. To the maximum extent feasible, parking should be located to the rear or side of buildings.

Housing in neighborhood commercial areas should be approximately 10 homes per acre or less. The township should encourage well-kept, upper-story apartments above street-level business uses.

Regional Commercial

Regional commercial is perhaps the land use which makes Whitehall Township unique among Lehigh Valley municipalities. The regional commercial category provides for a wide range of

¹ On the Land Use Plan Map (Map 3.1), the current R-5A zoning district is categorized as Medium High Density Residential instead of High Density Residential. The R-5A district was created to prohibit apartments in areas of primarily single-family detached houses.

commercial development, including highway-oriented commercial development and major malls. Regional commercial areas, as opposed to the neighborhood commercial areas described above, allow opportunities for more intense and highway-oriented uses, such as gas stations, vehicle sales and auto sales. Regional commercial areas generate enough traffic to require traffic design standards, such as coordinated traffic access among different uses, to maximize safety.

The most notable change recommended in the *Whitehall Township Comprehensive Plan* is to add additional neighborhood commercial land on the west side of MacArthur Road north of Columbia Street. Traffic access should be provided from Chestnut Street. At the same time, the township must balance older and newer commercial areas to avoid vacancy problems. If an excessive amount of commercial zoning is allowed at one time, businesses will simply relocate from one site to another, leaving the old site vacant. Several Lehigh Valley shopping centers have large vacant spaces as new stores have decided to build on new sites instead of reusing the sites of stores that have closed. On the other hand, holding the supply of commercial land to a moderate amount encourages businesses to rehabilitate and redevelop current commercial sites.

Quarry/Limited Business

The quarries in Whitehall pose a special land use situation. The quarry/limited business areas include existing active quarries, land planned for quarry expansions, and surrounding lands. The quarry/limited business areas allow for quarrying, offices, recreation uses, manufacture of products such as cement, and other light industrial uses. The township should require buffers between the quarry/limited business areas and any adjacent residential areas.

Industrial

Industrial areas allow industrial uses. After the township adopts the comprehensive plan and begins to address zoning issues, the industrial areas on the land use plan map (Map 3.1) should be separated into a Light Industrial district and a General Industrial district. Most industrially-zoned land should be within the Light Industrial district. The light industrial areas allow a range of light, less intense industrial uses that are not likely to cause significant traffic, noise, light, or odor nuisances or hazards. The light industrial area should also provide for offices and complementary types of commercial uses, such as offices, banks and day care centers.

General industrial areas allow the widest range of industrial uses. General Industrial zoning districts are important to meet obligations under the Pennsylvania Municipalities Planning Code to provide opportunities for all types of business uses, including traditionally less desirable uses. When zoning regulations are developed, the heaviest, most intense industrial uses should be allowed only as a Special Exception use, which requires approval from the Whitehall Township Zoning Hearing Board, or as a Conditional use, which requires approval from the Whitehall Township Board of Commissioners.

A detailed set of performance standards should be used to control noise, dust, vibration, and other nuisances and hazards, especially from industrial uses. The types of uses that are most likely to

cause nuisances or hazards should require special exception approval from the zoning hearing board or conditional use approval from the commissioners. Extensive landscaped buffers should be required next to homes. If a very intensive use is proposed next to homes, a landscaped earth berm and/or solid fencing should also be required.

A high-quality setting will help to attract additional desirable types of business development and higher paying types of jobs, particularly in industrial areas. In most business areas, site design regulations should be used to promote a landscaped, campus-like environment. Regulations should require truck parking and outdoor storage areas to be screened from view from adjacent roads. The majority of the first 30 feet along a road should be landscaped, with truck loading docks and truck parking located to the side or rear of buildings.

Steep Slopes and 100-Year Floodplains

The land use plan map (Map 3.1) identifies steep slopes and 100-year floodplains. As described in the natural features plan, steep slopes and floodplains are suitable for only very low-intensity development.

Conflicts with Land Use in Adjacent Municipalities

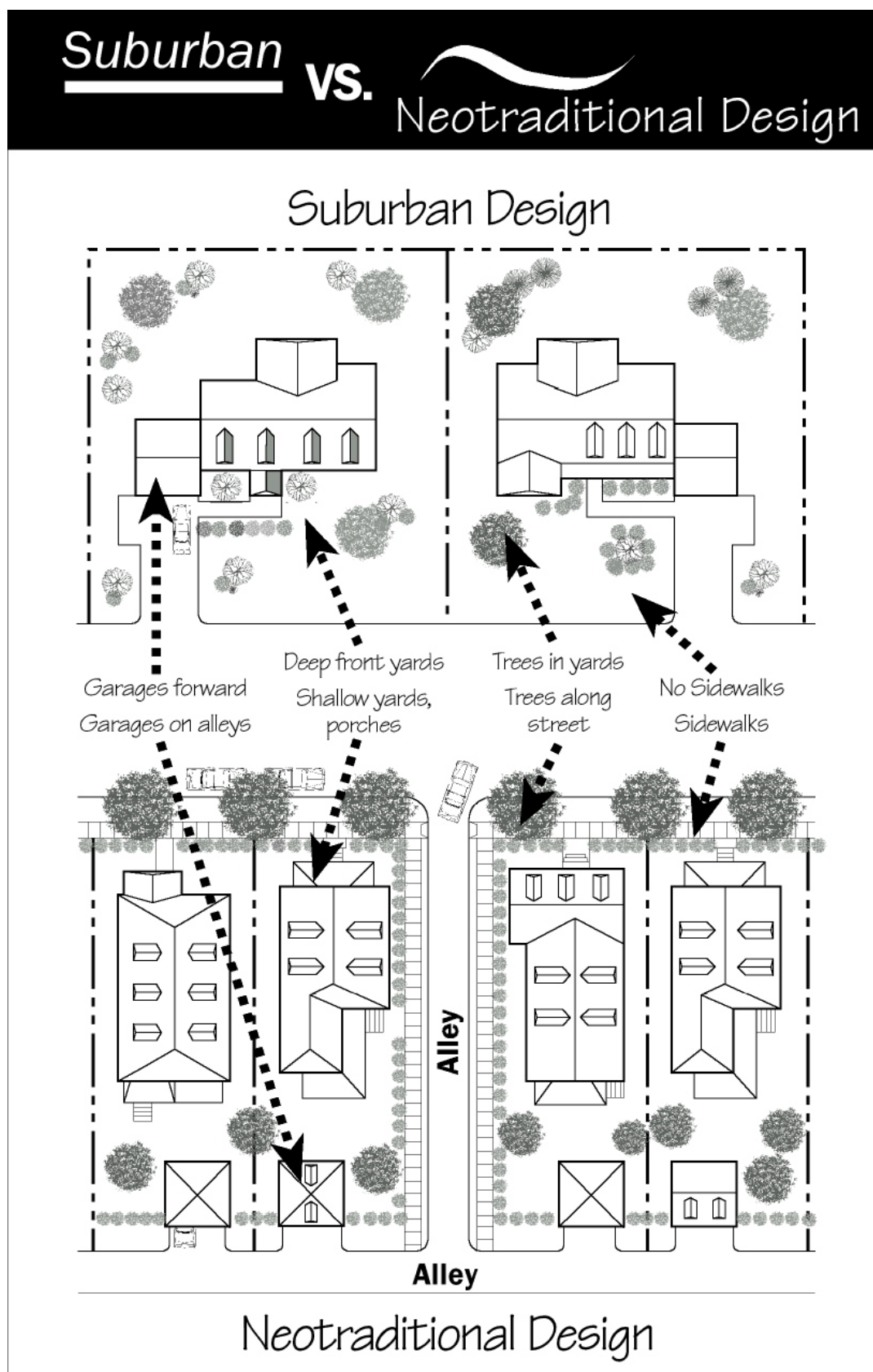
The background studies identified three areas of possible conflicts with land use policy in adjacent municipalities. The plan proposes the following measures to minimize conflicts in each area:

- *The area to the west of the Jordan Creek Parkway in the southwestern corner of the township adjacent to a zone in South Whitehall Township that allows medium-high density residential and large-scale (regional) commercial development* – Most of the area is already developed, including a major car dealership. Discuss with South Whitehall Township methods of minimizing the effect of conflicts, including buffers and design standards.
- *The area west of Mauch Chunk Road, where low- to medium-density residential zoning in Whitehall borders industrial zoning in South Whitehall* – The industrial zone in South Whitehall already includes a chemical plant that has a large portion of its tract vacant. Work with South Whitehall to minimize the negative effects of the industrial zoning on the residential development through transitional buffers and design standards.
- *The Willow Street area in Whitehall, which is zoned for open space and quarrying uses and abuts a low density residential zone in North Whitehall* – Unlike the other two potential conflicts, the more intense potential use here is in Whitehall. The township should require any future development in the area to use buffers and design standards to minimize negative impacts on adjacent residential development in North Whitehall.

LU-8: Encourage elements of Traditional Neighborhood Development where appropriate.

Whitehall Township should encourage forms of Traditional Neighborhood Development where deemed appropriate by the township (TND — Figure 3.1). The TND concept involves providing the

Figure 3.1



best features of older areas in the design of new neighborhoods. TND also involves designing the development or redevelopment of lots within older neighborhoods to fit within the “urban fabric.” Under the Pennsylvania Municipalities Planning Code, a municipality can require some TND features in zoning ordinances or offer density incentives for using TND features. Examples of TND concepts include the following:

- Street trees should be planted to eventually provide a canopy of shade over streets. Studies show that mature street trees can increase the value of homes up to 10 percent. If shade trees are not appropriate within the right-of-way, the trees should be required immediately outside of the right-of-way.
- New street lights should meet a design standard that is similar to older styles of street lights.
- Neighborhoods should be developed at a modest density (approximately 5–8 homes per acre) similar to the typical development that occurred during the 1930s and 1940s. The development should use available land wisely while avoiding higher density and parking problems.
- Whenever practical, parking should be located to the rear or side of buildings so that the front yard can be landscaped. At best, parking and garages would be placed to the rear of lots, with access using alleys, to avoid conflicts between sidewalks and vehicles backing into the street. As a result, the entire curbside is available for on-street parking.
- Developments should include sidewalks (or asphalt paths along main roads in rural areas) and be oriented to pedestrians, with an ability to walk or bicycle to stores, schools, and parks. Residential streets and intersections should be narrow enough to discourage speeding and allow safe pedestrian crossings.



Sketch of Lantern Hill, a TND in Doylestown, PA (courtesy of Granor Price Homes)

- If rear access to garages is not practical, then garages should enter onto the side of homes whenever possible, particularly on corner lots. Front-entrance garages, when proposed, should be designed as a less prominent part of the street. For example, a 1-lane driveway can pass along

the side of a house and then widen to enter a two-car garage that is setback from the front of the house. The township should discourage “snout” houses, where a front entrance garage is the home’s most prominent feature.

- The township should discourage new twin and townhouse development that has numerous driveways entering directly onto a street from the front. Garage doors should not be an overly prominent part of the views of housing from the front. Where garages and parking cannot be avoided in the front yard, the township should require larger lot widths and require some green space in the front yard. Township regulations should ensure that most front yards of housing developments are not covered by paving.
- Buildings should be placed relatively close to the street, with front or side porches, to encourage interaction among neighbors. On a corner lot, a side porch can have the same effect. When a porch becomes an activity focus, residents can help watch the neighborhood and report suspicious activity to the police.

LU-9: Require shared driveways and interconnected parking lots in areas of dense commercial development, such as along MacArthur Road.

MacArthur Road has one of the highest traffic volumes of any road with uncontrolled access in the entire Lehigh Valley. To safely accommodate large volumes of traffic, access onto a major road must be properly managed. If a high-volume road has a large number of business driveways entering at many locations—sometimes known as “strip” commercial development—turning movements at many locations will produce excessive stopping and starting, slow the flow of vehicles, and create safety hazards.

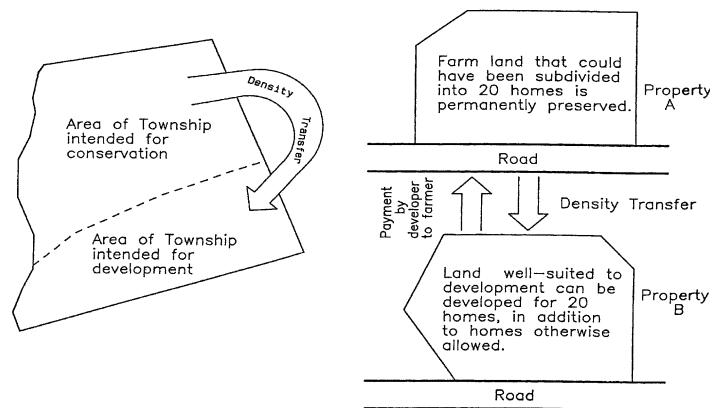
At best, intense business development should be concentrated in well-planned developments with internal roads that access a major road at only one point with a traffic signal and turn lanes. If a traffic signal is not warranted at the time of initial development, the township should require a plan for future traffic signals as vehicle volume increases. Driveways and street intersections should be directed toward intersections signalized at the time of development or planned for future traffic signalization. Where traffic signals are not appropriate, adjacent commercial uses should have shared driveways and interconnected parking lots. Shared driveways reduce the number of access points onto a major road, and interconnected parking lots permit patrons to visit more than one adjacent business without having to enter and reenter a major road.

LU-10: Consider allowing the Transfer of Development Rights (TDRs) on a voluntary basis.

Much of Whitehall Township is already developed. Therefore, the TDR concept is of limited use in the township. Nevertheless, TDR may be useful under specific circumstances. If placed in the zoning ordinance, the concept should be voluntary, not mandatory. TDRs offer incentives for private

developers to pay to preserve land (Figure 3.2). In general, if the developer of Property B pays the owner of Property A to permanently preserve Property A, the developer could receive approval to build at a higher density on Property B. The tract receiving the higher density must be in an area that the township has designated as being suitable for a higher density. The tract that is permanently preserved must be in an area that the township has targeted for preservation. The developer of Property B and the owner of Property A would negotiate privately to determine compensation.

Figure 3.2
Transfer of Development Rights



TDR allows development to be shifted from locations where preservation is desired to other tracts better suited for development. The township would approve higher density development of Property B at the same time a conservation easement went into effect on Property A. Property A would remain privately-owned but could never be developed. Property A could be resold and could be used for agriculture or certain open space uses. For example, TDR might allow land in the open space/residential/agricultural area to be preserved in return for allowing a higher density in a low- or medium-density residential area.

The number of homes that could be transferred from Property A to another tract would be based upon a yield plan—a sketch plan showing how many homes would have been permitted Property A. The number of homes that could have been developed on Property A would be allowed in Property B, in addition to the number of homes allowed by right on Property B. However, if TDR is permitted, the township should put limits on the density of Property B to avoid overdevelopment and excessive density (Table 3.1).

TDR can also be used in combination with commercial development. For example, for every housing unit that is transferred from Property A, development of Property B, which would have to be in a business district, could include an additional amount of building or impervious coverage.

Table 3.1
Maximum Housing Densities With TDR

Residential Land Use Category	Maximum Housing Density (units per acre)	
	Without TDR	With TDR
Low-Density	2	4
Medium-Density	3–4	6
Medium-High Density	4–5	6
High-Density	5–8	10

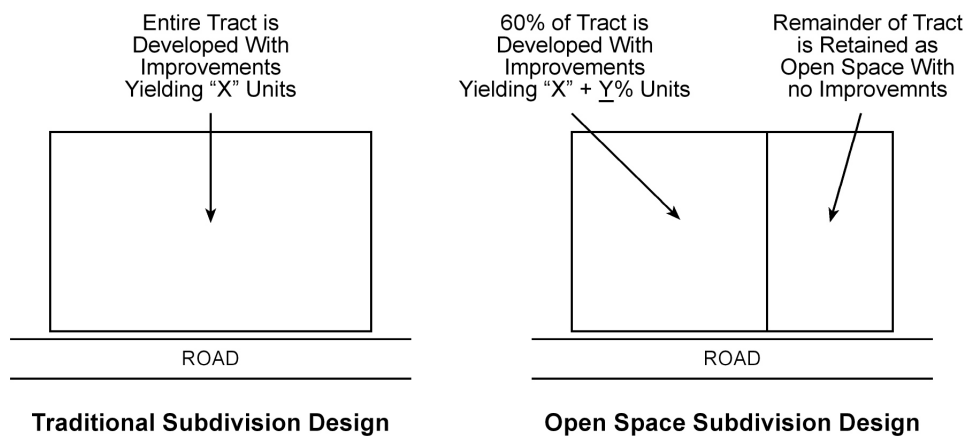
Source: URDC

LU-11: Encourage the Open Space Development concept, wherever appropriate.

The township should encourage the concept of Open Space Development (OSD), including incentives to promote the permanent preservation of substantial portions of a tract in open space. Conservation easements would be used to preserve the open space. Homes should be clustered on the most suitable portions of a site, and important natural areas should be planned for preservation before any lot lines are proposed. Greater attention should be paid to the standards for the open space - to avoid narrow and unusable areas counting as open space.

Sometimes called “Conservation Design Development”, OSD requires a substantial percentage of the land area to be permanently preserved as open space (Figure 3.3). For example, many OSDs are designed with 25 to 60 percent of the total land area of a development preserved in some form of open space. OSD typically allows smaller lots and smaller setbacks than would be allowed under conventional development without open space.

Figure 3.3
Open Space Development



The use of OSD should be strongly encouraged with attractive incentives and strong disincentives for developers. Throughout the nation, the OSD concept has been promoted by such advocates as the Natural Lands Trust and the Pennsylvania Department of Conservation and Natural Resources.

The number of lots on an OSD tract is usually slightly higher than under conventional development—a valuable bonus to encourage developers to use the OSD concept. The OSD process should begin with a "yield plan"—an accurate sketch plan showing the number of homes possible under conventional development. The yield plan should be subject to acceptance by the township. After the yield plan is accepted, the developer is allowed to redesign and build the development using an established in density, such as 15 or 20 percent more units than possible under the conventional development.

The township should also provide proper standards to ensure that the open space can serve a valid public purpose as opposed to simply being fragments of “leftover” land with little aesthetic or recreation value. In many cases, mature woods, steep slopes, and creek valleys should simply be preserved in a natural state. In some cases, open spaces may be intended for active recreation. In other cases, trees should be planted in the open spaces, and trails should be installed. Narrow strips of open space should be avoided, unless they would preserve a scenic tree line or provide an important trail link.

Legally binding conservation easements are the primary tool used to permanently preserve the open space. The areas of the tract to be preserved as open space should be identified and agreed by all parties very early in the site design process.

Advantages of Open Space Developments

Based upon the work of the Natural Lands Trust, OSD offers the following major advantages, among others:

- *Important natural features can be preserved.* OSDs should include standards that direct buildings away from steep slopes, wetlands, waterways, and other important natural features. As a result, homes are placed on portions of the tract that are environmentally better suited for development, as opposed to being evenly spread across the land. Large contiguous areas can remain in woods and other natural vegetation, which are important as wildlife corridors. Thick natural vegetation can be preserved along creeks, which is essential to filter out eroded soil and other pollutants from runoff. Creekside vegetation is also important to maintain high quality fishing habitats. In comparison, if an entire tract is divided into lots, it is likely to mostly be in mowed grass, which is a “mono-culture” that has less environmental benefits. Furthermore, open space allows stormwater runoff to recharge into the groundwater more effectively and efficiently.
- *Scenic features can be preserved.* Open Space Developments can place homes on less visible portions of a tract while maintaining scenic views. For example, many open space subdivi-

sions setback homes from through roads and limit home sites on major ridgelines. As a result, the primary scenery along major roads is green space.

In addition, mature woods can be preserved in locations that hide views of development. Open space provides visual relief from seeing continuous development.

Open space also manages stormwater runoff more attractively. Natural drainage eliminates the need for deep man-made channels and detention basins.

- *Recreational opportunities can be increased.* Open Space Developments typically include attractive areas for walking, jogging, cross-country skiing and nature study. In some cases, active recreation facilities can be included. Open space which allows recreation increases interaction among neighbors.
- *Developers can achieve lower costs in several ways.* Open Space Developments usually involve less grading, lengths of roads and utilities, and other improvements which reduces development costs. Developers may also be able to save time and money by avoiding wetland alterations and waterway crossings. OSDs can provide the flexibility in layout to move homes off of steep slopes, which are more expensive to build upon. Avoiding steep slopes can also reduce the need for blasting. Flexibility in building placement increases the opportunities to find suitable sites for septic systems.
- *The township can save on maintenance costs.* Shorter lengths of roads, utilities and other improvements require less maintenance. Also, modestly sloped roads are less expensive to maintain than steeply sloped roads.
- *Developers can often achieve higher sales prices.* More and more developments are advertising home location adjacent to preserved open spaces. Developers can often receive a premium price for lots adjacent to or overlooking preserved open space. The presence of trails and other open space amenities can also spur sales. Studies have also shown that homes near preserved open space are likely to increase in value faster than other homes.
- *Reliable community water and public sewage services can be extended.* Community water and public sewer services are usually uneconomical with lots of 2.0 acres or larger. Clustering homes, such as in OSDs can often reduce the infrastructure needed to make community water and central sewer services economically viable. Community water and public sewer services typically are more reliable than individual wells and septic systems. Public sewer service avoids the threat of groundwater contamination from malfunctioning septic systems. Community water service avoids the risks of individual well contamination from various sources.

Four-Step Process for Conservation-Oriented Development

The Natural Lands Trust promotes the following four-step process in the design of new development in order to emphasize land conservation principles (Figure 3.4). Whitehall Township’s development regulations and procedures should require that the four-step process be followed and that the steps be accomplished at the sketch plan stage before any detailed engineering is completed.

1. Identify land that should be preserved.

The areas that are most worthy of preservation, called “primary conservation areas”, should be mapped, including wetlands, flood-prone areas, creek valleys, and very steeply sloped lands. Other features, known as “secondary conservation areas”, should then be mapped, including woodlands, tree lines, scenic views, historic buildings, and prime farmland. Mapping should consider the area proposed for development and any future phases of development, plus the areas that are immediately adjacent to the development site on other lots. The areas with the fewest important natural, scenic and historic features should be considered the “potential development area”.

2. Locate home sites.

The second step of the four-step process is to choose the most appropriate locations for homes. The zoning ordinance should establish a maximum overall density for the site but should not include overly strict lot requirements that would prevent reasonable flexibility in the site layout. Home sites should be chosen to avoid the important features mapped in the first step. Home sites should be located to take advantage of scenic views within the tract.

3. Locate roads and trails.

After the home sites are selected, step 3 is to design and layout a road system to serve the development. A trail system should be included to provide links between homes and to destinations outside of the tract.

4. Establish lot lines.

In conventional development, with strict standardized minimum lot requirements, lot lines are often the first step, before any natural features are considered. One of the characteristics of the four-step approach is that establishing lot lines is the final step of the sketch plan instead of the first step. By delaying the establishment of lot lines, the four-step process ensures that important features of the land are given due consideration in the design process.

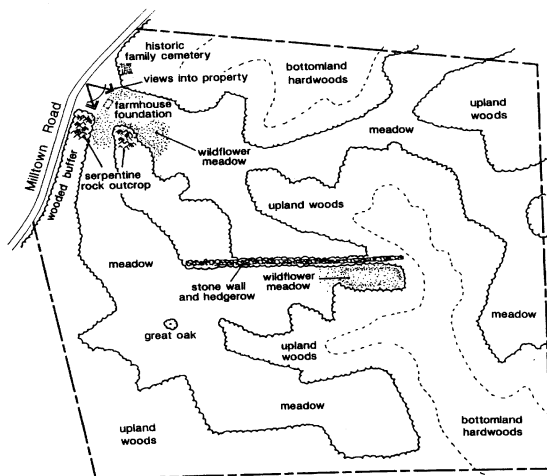
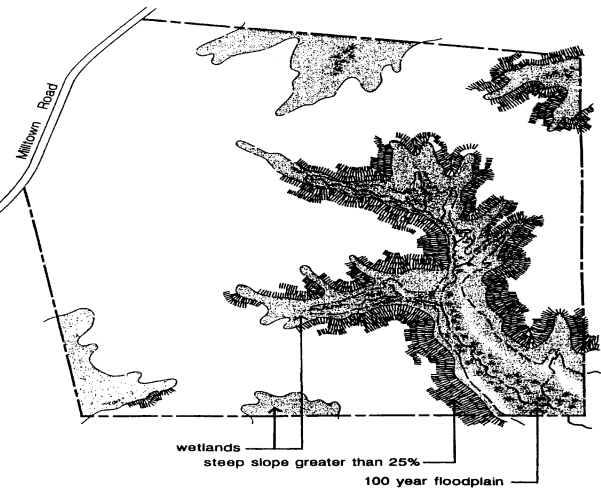
Figure 3.4
Four-Step Conservation Subdivision Design Process

Step 1—Identify Potential Development Areas.

1a. Primary Conservation Areas.

An Existing Resources and Site Analysis Map should accurately show the locations of “primary conservation areas,” or areas where development can cause a safety hazard to the occupants and to the community. Development of many primary conservation areas is usually prohibited or severely restricted under local, state, and federal regulations. Examples include:

- Wetlands.
- 100-year floodplain.
- Slopes of 15–25 percent.
- Slopes over 25 percent.



1b. Secondary Conservation Areas

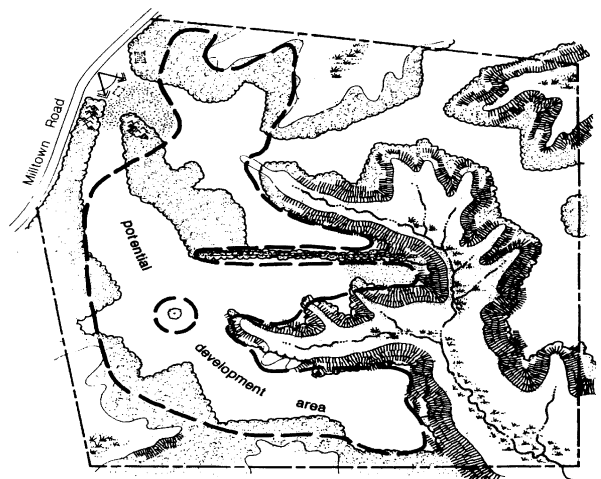
Other important resources, known as secondary conservation areas, are often not protected by codes and ordinances but add significantly to property value and neighborhood character. Secondary conservation areas, which should be added to the map, include:

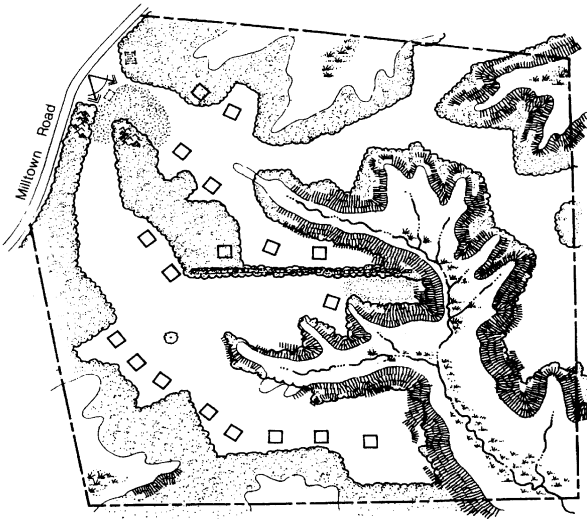
- Woodlands.
- Tree lines.
- Large specimen trees over 18" in trunk diameter.
- Scenic views from inside the site.
- Ridgelines.
- Scenic views from existing streets and trails.

The planning commission may require the identification of scenic views beyond those identified by the applicant.

1c. Potential Development Area

Based upon consideration of the Existing Features Map and the primary and secondary conservation areas, areas best suited for the majority of the development on the tract can be identified.





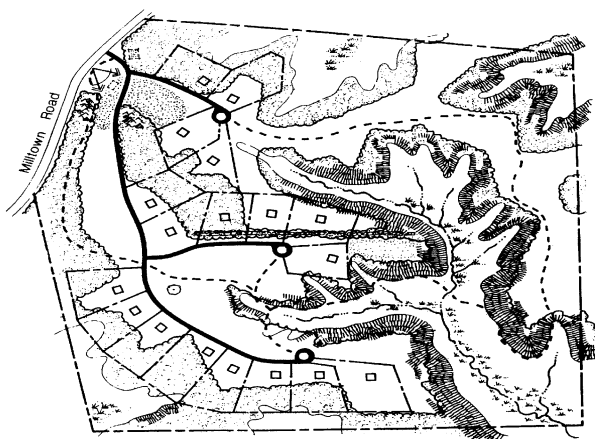
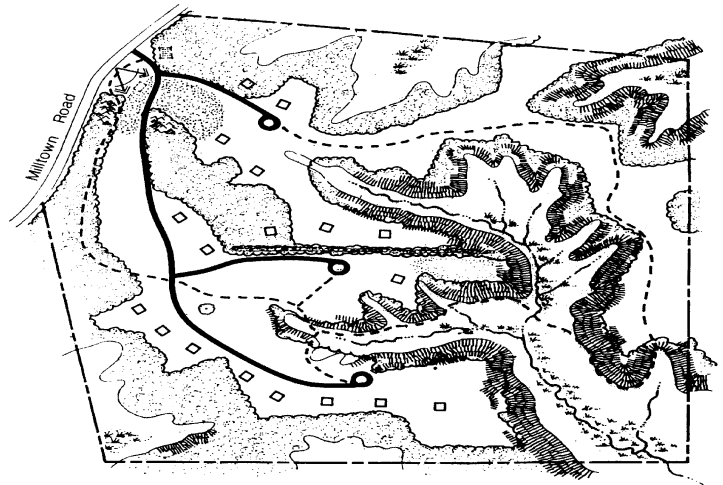
Step 2—Locating House Sites.

New homes can now be located respecting the primary and secondary conservation areas on the tract. On-lot septic system suitability will influence home locations when septic systems are used. Also, some intrusions into the secondary conservation areas may be necessary to allow reasonable uses of the land, provided that such development is carefully located and designed to minimize impacts upon valuable resources and features. Home sites can also be selected to maximize views, including views into the conservation areas. The applicant should provide a written and graphic analysis of how the proposed development will respect and incorporate the important resources of the site and be coordinated with resources, open space/trail corridors, and views on surrounding properties.

While the mapping of existing features required in step 1 must be accurate and to scale, the locations of proposed home sites in step 2 and subsequent information on lot lines, roads, and trails may be at a sketch plan level of detail. However, a more detailed site plan would then be required as part of a formal conditional use application.

Step 3 — Aligning streets and trails.

After buildings have been located in step 2, an efficient street layout should be designed to serve the appropriate building sites. Trails should also be sited which link common open spaces, clusters of homes and other destinations, such as nearby stores, parks and schools. Building sites should be clustered to minimize expensive road crossings over wetlands and creeks.



Step 4 — Drawing in the Lot Lines

After roads and trails are located in step 3, lot lines can be drawn on the site to encompass the proposed building sites, which results in a development concept plan. After the concept plan is prepared, detailed engineering may be completed.

Source: Natural Lands Trust, *Growing Greener; Conservation by Design* (sponsored by the PA Department of Conservation and Natural Resources), September 2001

Purposes and Requirements for Open Space

Open space should be established to serve public purposes rather than as an afterthought to a developer's preferred pattern of roads and lots. Valid public purposes for open space include:

- To preserve land for agriculture, hayfields, orchards and tree farms.
- To preserve environmental sensitive areas, particularly creek valleys and concentrations of mature woods.
- To manage stormwater in a more attractive and naturalistic manner that protects water quality, as opposed to engineered channels and traditional fenced-in detention basins.
- To provide usable recreation areas and important links in a trail system.
- To preserve large contiguous swaths of open space in visible locations that maintain a feeling of open space and that provide a visual relief between developments. At best, some open space would be preserved along exterior roads.

In most OSDs, at least half of the required open space should be in one contiguous area. Isolated areas (such as less than one acre) and narrow areas of land (such as less than 75 feet wide) should not be counted as open space. However, more narrow stretches may be suitable as open space if they truly serve as part of a regional trail system. Detention basins should not be considered open space unless they are designed as a major scenic asset (such as a natural appearing pond) or are clearly suitable for recreation. Roads and parking should not count as open space, even if the parking is intended to serve recreation uses. Narrow buffers should not count towards open space, but wider buffers may be appropriate. The township should consider establishing a maximum percentage of open space that can be covered by impervious surfaces.

Land counted toward the open space requirement should either be 1) landscaped in trees, shrubs, and other attractive vegetation, 2) maintained in agricultural uses, which may include a tree farm, 3) preserved in woods or natural wetlands vegetation, or 4) developed as recreational facilities, excluding buildings (other than pavilions) and commercial recreation (other than a golf course). Open space should be interconnected with common open space areas on abutting parcels where possible, including provisions for trail links to existing or proposed trails off of the tract.

LU-12: Strengthen older residential areas of the township.

The older villages of Whitehall Township—Egypt, Stiles, Cementon, Hokendauqua, Fullerton, West Catasauqua—must remain strong and viable business and residential areas. Stable neighborhoods are not only important to provide desirable places to live, but also to protect the health of nearby business areas. Deteriorating residential areas often spawn crime and vandalism problems that discourage business activity. Strong residential areas will provide a strong customer base that recognizes the older commercial areas as convenient places to meet shopping and service needs.

The township must continually work to attract and retain middle-income households in older areas. Current residents will continue to move into newer and more expensive houses, and older residents will continue to move to nursing homes, personal care centers, or retirement communities. Therefore, a strong community requires a continuous stream of new home buyers to maintain high owner-occupancy and economic health.

Specific tasks to help strengthen Whitehall's villages include:

- *Consider seeking funding under the Pennsylvania Elm Street Program.* The Elm Street Program, a companion of the Main Street Program, provides funding to assist in strengthening older residential areas that are near older commercial areas. The program offers funding for local staff, studies and physical improvements to support revitalization.



Older houses along Third Street in Fullerton

- *Promote home ownership.* Many households could afford the monthly costs of owning a home but do not have sufficient savings for the closing costs and down payment. The township should help link target households to available programs. Many of the programs are operated in Lehigh County by Neighborhood Housing Services of Allentown. However, one necessary caution is to avoid placing very low-income households in subsidized home-ownership. In too many cases, the household does not have the resources to make the repairs required in an older home. Residents with no equity in the home are often tempted to simply walk away from the mortgage. As a result, a property can stand vacant for months until foreclosure occurs and the property is resold, during which time the property is at risk of deterioration and/or vandalism.
- *Maintain housing conditions.* Housing blight and deterioration can easily spread throughout a neighborhood. A single problem property can cause responsible residents of nearby properties to move out of the neighborhood and can discourage new buyers from investing in the neighborhood. A problem property can also discourage homeowners from investing in home improvements, believing that any such investment will never be recovered.
- *Prohibit, or severely restrict the conversion of any existing single-family home into multiple housing units.* Owner-occupied housing typically has a much higher level of property maintenance than older renter housing. To promote home ownership and neighborhood stability and to avoid parking problems, the township should encourage new housing types that are usually owner-occupied, such as singles, twins, and townhouses, rather than apartments or one unit above another unit. Exceptions could be provided in zoning regulations to allow limited conversions of unusually large existing homes.
- *Enforce basic property maintenance codes.* The township must continue to emphasize and enforce basic property maintenance codes which require property owners to properly main-

tain buildings or sell the buildings to another party who will make needed improvements. The goal of code enforcement must be to intervene before buildings deteriorate to the point where repairs are no longer cost-effective. If property owners are forced to complete basic maintenance and repairs in a timely manner, severe deterioration can be avoided.

- *Continue rental property inspections.* Since 1975, Whitehall has required inspections of all properties offered for sale or lease, and a new certificate of occupancy to be issued prior to the structure being reused or reoccupied. The inspection applies to all structures in the township but is most effective at preserving and upgrading older housing stock and rental units. The inspection program has been revamped several times in the past 30 years to address current issues. The inspection is limited to targeted, specific safety items because many properties offered for lease were constructed prior to the adoption of standardized building codes. At the same time, the inspections provide a balance between the age of structures and safety. The township should strengthen and aggressively enforce the inspection regulations in targeted areas and uses, primarily smaller apartment complexes and conversions.
- *Emphasize housing rehabilitation.* Many housing efforts involve low-interest loans to rehabilitate homes owned by households with low or moderate incomes. The township should work to expand marketing efforts to match eligible property owners—particularly low-income property owners who need to make improvements to comply with municipal codes—with available financing programs.

The Lehigh County Office of Aging and Adult Services offers a “home modification” program for minor household repairs and safety modifications. In most cases, the homeowner only pays for the cost of materials. The program is targeted to older persons with limited incomes and persons with disabilities.

Buyers of older homes should be encouraged to take advantage of the Federal Housing Administration’s 203(k) program, which allows a homebuyer to receive a single loan to purchase and complete a major rehabilitation of a home. Also, the federal government has provided greater flexibility to use federal job training dollars to address local needs. Local nonprofit housing organizations should work with job training agencies to design programs to meet mutual needs. Residents can learn useful job skills, while the job training programs help provide funding for needed housing rehabilitation.

- *Maintain moderate densities.* The Whitehall Township Comprehensive Plan recommends maintaining a moderate development density in most of the older areas rather than providing areas for new high density residential development. Higher densities should only be considered for a) housing developments that are limited to senior citizens and the physically handicapped, and b) the conversions of older nonresidential buildings (such as old mills) into apartments.

As noted earlier, the township should consider density bonuses for developments limited to persons age 55 and older (and spouses, with no children under age 18). Density bonuses for

age-restricted housing are logical because the typical senior household generates less traffic, less need for parking, and less water and sewage usage than other types of housing. Housing for seniors also does not generate additional public school students, thereby avoiding negative impacts upon school finances.

- *Maintain compatibility of uses.* All residential areas should be protected from incompatible development. Older areas, such as the Whitehall villages, are particularly vulnerable due to the relatively dense mix of commercial, industrial, and residential uses with small setbacks. Use compatibility should be a key concern in the villages.

In commercial areas near neighborhoods, the types of commercial uses should be carefully controlled. Most commercial areas near neighborhoods should not allow for heavy commercial uses, such as gas stations, 24-hour convenience stores, taverns, nightclubs, and auto repair shops. Where practical, the hours of operation and hours of trucking activities should be controlled through regulations, such as conditions placed upon any zoning hearing board approval that is needed. Other problem uses should be very carefully controlled or prohibited, such as after-hours clubs that are open after 2 a.m. The zoning hearing board should carefully review changes to existing business uses in residential zoning districts, which are called “nonconforming uses”, to ensure the stability of the neighborhood.

The same vigilance is required for industrial areas near neighborhoods. Heavier types of industrial uses should be prohibited from areas near residences or should require special exception or conditional use approval.

- *Enhance neighborhood character.* The township should enact zoning provisions that require new buildings in older neighborhoods to be compatible with nearby buildings. The concept of “Traditional Neighborhood Development” is discussed in a previous section of the *Whitehall Township Comprehensive Plan*.

LU-13: Strengthen older business areas of the township.

The *Whitehall Township Comprehensive Plan* recommends actions to strengthen older commercial areas of the township. The recommendations are built upon the nationwide Main Street program concept, which stresses four categories of action:

- *Organization and Cooperation* - To develop and maintain a strong organization of all interested parties working cooperatively in partnerships to carry out needed actions.
- *Design and Renewal* - To improve the physical environment, including the streetscape and building fronts, and provide adequate parking.¹

¹ As an enhancement to the design category of the Main Street program, efforts to encourage effective redevelopment by providing more design options should include relaxing present height restrictions in areas of the township where higher buildings will not have an adverse impact on surrounding areas.

- *Economic Development* - To recruit and retain businesses and investors, expand job opportunities, generate additional local tax revenue, provide information to support new business development, and maintain regular contacts with existing businesses.
- *Promotion* - To market business areas with a unified identity, use special events to attract new customers and businesses, and emphasize high-quality distinctive products and services, including businesses serving a special market niche that is not served by mass-market discount retailers.

Improving Appearance

The appearance of an older commercial area can impact the ability to attract businesses and customers. Appearance is particularly important for destination-oriented businesses, such as antique shops, gift shops, and clothing stores.

- *Pay attention to entrances.* Major entryways to the township and to each village are especially important because first impressions matter. For most people, the main streets represent the most highly visible “face” of each area and the surrounding region.
- *Establish a design scheme.* The township should establish a desired set of public improvements—such as street lights, street trees, traffic signal poles, benches, trash cans, and sidewalk paving accents—and begin a long-term program to install the desired features. For example, when an existing galvanized steel traffic signal post is being replaced, perhaps a darker color should be considered for the post. Property owners can also be encouraged to plant certain species of trees and install light fixtures that follow the overall scheme. Decorative banners on utility poles can add a great deal of color and help to provide a unified sense of identity.
- *Develop a facade improvement program.* A facade improvement program encourages private property owners to improve the appearance of building fronts. Many municipalities offer matching grants or low-interest loans, which are typically funded through a state grant or a loan pool from local banks. The improvements usually must be approved by a local committee and should be designed to restore or uncover historic architectural features or generally support the historic architecture



Attractive facades, period lighting, and street trees in Jim Thorpe, PA

of the area. Many types of facade improvements are relatively low cost, such as a well-chosen color scheme or the addition of awnings. Facade improvement programs make buildings more attractive and make business entrances more inviting to customers.

- *Plant street trees.* Street trees are important to make older areas more attractive and to make walking more pleasant during the summer. The township should choose the species street trees carefully to avoid obstructing the visibility of businesses and avoid causing damage to sidewalks.

For example, one appropriate species of street tree is Zelkova. The Zelkova species includes strong, well-shaped, attractive trees that are similar in appearance to an elm. Zelkovas have a medium size when mature, which is less likely to create conflicts with overhead utility lines or to grow against buildings than larger trees (such as oaks). At the same time, Zelkovas are large enough to create a shaded canopy effect and will not endanger pedestrians with low, horizontal branches. Another ideal species is Little Leaf Linden.

Municipalities can offset some of the public expense of a street tree program by asking adjacent property owners to contribute to the program. The township could minimize program costs by buying the trees in bulk, selecting the best locations to avoid underground utilities, and hiring a contractor to do all of the planting at one time.

- *Enhance pedestrian safety.* The main streets in each village are heavily traveled, creating difficult, and sometimes dangerous, pedestrian crossings, especially for older persons and persons with disabilities who cannot walk very fast. Crosswalks should be highly visible. The township should use different paving patterns at the busiest crosswalks to maximize visibility. In some cases, curbs should extend outward at intersections so that pedestrians do not have as long a length of street to cross. The extended curbs, sometimes termed “bulb-outs”, may also reduce the speed of turning vehicles, which further reduces hazards to pedestrians. Bulb-outs should be avoided at intersections with heavy truck or bus traffic.

In some cases, a landscaped center median can enhance pedestrian safety by providing pedestrians a safe refuge while crossing a main street. The median allows pedestrians to cross one direction of traffic at a time instead of having to wait for both directions to clear.

- *Manage parking wisely.* In areas with limited parking, managing existing space becomes very important. Customers often expect a parking space near their destination. The most heavily used public parking should be limited to a reasonable length of time, such as two hours, so that the spaces turn over and are used by many persons throughout the day. Tickets for parking violations, while unpopular, are essential to maintain the required turnover.

If possible, businesses in older areas can combine on-site, rear parking areas to offer customers more space in a more efficient layout. Convenient parking is one of the strongest incentives to patronize older business areas instead of malls. If spaces are not available, customers may be lost.

- *Promote older business areas.* Promotion is vital to the success of any business. Joint marketing efforts are valuable to get customers to visit more than one business at a time in older commercial areas. Potential customers need to be made aware of the locations and types of businesses that are available.

Special events can be used to bring potential customers into the older business areas. Events are important to increase business on the day of the event and to promote local businesses for future patronage. Many area residents have simply developed a habit of shopping at malls and shopping centers. Special events can provide the motivation for past and current customers to return.

Strong organization is important in older business areas. Most of the individual businesses have little money to advertise individually. Combining resources for joint promotions, joint marketing, and special events allows limited marketing resources to reach the largest audience. Joint advertisements, flyers, and other promotions are very important to encourage customers to visit more than one local business in a trip.

NATURAL FEATURES / AGRICULTURAL PRESERVATION

Land in Whitehall Township is already greatly developed. Undeveloped land in the township is concentrated in the northern tier and in the central part of the township west of MacArthur Road. Township regulations have done an excellent job of maintaining the integrity of waterways and significant natural features. The natural features/agricultural preservation plan for the township encourages the continuation and strengthening township efforts to preserve important natural features in Whitehall and to preserve farmland as desired by farmers.

Open space is a critical element of natural resource conservation and can be preserved in public, semipublic or private ownership. Open space is important to:

- Recharge groundwater supplies.
- Protect the quality of creeks and the groundwater.
- Provide important visual relief between developments.
- Preserve areas of scenic beauty, including scenic views.
- Avoid development on lands that are prone to erosion or are otherwise not physically suitable for development.
- Provide land for recreation.
- Preserve habitats and cover for birds, fish and wildlife.

The land use and housing plan recommends policies, such as promoting Open Space Development, that are intended to steer development away from the creek valleys and other important natural features.

Goal

- *Sensitive environmental features in Whitehall Township are respected in development designs and preserved for the safety and enjoyment of township residents.*

Objectives

- Ensure that new developments and improvements of existing developed land fully respect the hydrologic features of the site, watershed, and aquifer.
- Protect and enhance woodlands, tree row buffers, and shade trees throughout the township.
- Protect the environmental and visual sensitivity of steep slopes and ridgelines.
- Carefully monitor development and activities on or near karst features and abandoned quarries.
- Create a network of open space to promote habitat connectivity and recreation linkages.

Recommendations

Natural Features/Agricultural Preservation (NF/AP)-1:

Pursue all funding sources for land preservation, including connecting interested landowners with available resources, using conservation easements, and using county and state funds.

There are several funding sources for land preservation. For example, municipalities, certain other organizations, and land conservancies can apply for state grants for acquisition of recreation land. Conservancy organizations work with landowners to find the most appropriate land preservation tools for individual circumstances, such as purchasing a property for a price that is lower than market value, and then helping the property owner receive a federal income tax deduction for the difference between the market price and the sale price. Conservancies also often work with landowners to find ways to sensitively develop some parts of property while permanently preserving other parts.

Conservation easements can be used to permanently preserve land without outright purchase of the land. With a conservation easement, the land remains privately owned. The easement involves the property owner voluntarily agreeing to donate or sell the right to develop his or her land. The property owner agrees to place a restriction in the deed of the property which becomes binding on all future owners of the land. The easement can be written in many different ways to restrict or not restrict certain types of activities. Most conservation easements prohibit the construction of new buildings and subdivision of the land. Conservation easements also may prohibit intensive forestry and regrading of the land.

Often, a property owner can receive federal income tax benefits from donating a conservation easement or selling the easement for a price that is less than the easement value. For example, if an area of land is worth \$1 million, the development value might be \$800,000. The remaining \$200,000 would be the residual value of the property after the easement. If the landowner donates a

conservation easement, it may be possible to deduct \$800,000 from taxable income. Under a technique known as a “bargain sale,” the landowner might sell the easement for \$200,000 and may be able to deduct \$600,000 from taxable income - \$800,000 of value minus the \$200,000 purchase price. The same type of deduction could apply if the land is sold outright to a municipality or conservancy for less than its market value.

Lehigh County voters approved the issuance of \$30 million of bonds for the Green Futures Fund. As of 2004, the county intends to use:

- One-third of the funding for the county's agricultural preservation easements (which is matched with state funds).
- One-third for purchase of parkland and open space (80 percent of which would be used by townships and 20 percent by the county).
- One-third for improvements to existing parks (80 percent of which would be used by Allentown and the boroughs for recreation areas open to the public and 20 percent for county parks).

Funding for land purchases could be used to buy land outright or to buy conservation easements. Funding for park improvements could be used on land owned by nonprofits if there is a binding commitment to make sure the land will be available for public recreation.

As of 2004, the grants to the municipalities would need to be matched dollar for dollar (i.e., 50% match) with other funding, such as municipal dollars, conservancy donations, or developer recreation fees. However, the matching requirement could be reduced to 25 percent if certain additional criteria are met. A point system is used to determine the allowed ratio. For example, additional points are available if a project would involve two or more municipalities.

A variety of state funds are also available through the Pennsylvania Department of Conservation and Natural Resources (DCNR) for purchase of recreation land or conservation easements. DCNR programs typically require a 50-50 match with other sources of funding, and the programs are very competitive.

Municipalities have additional alternatives to raise money for purchase of recreation land and preservation of open space:

- A municipality is also allowed to use its own funds to buy easements on agricultural land. Township programs to preserve farmland are particularly worthwhile to preserve farms that do not rank highly under the county's easement program. Local program dollars can also have a greater impact if used to match state and county grants.
- Another alternative for funding land preservation is to require developers to provide recreation land within new developments or to pay recreation fees in lieu of providing recreation land. Whitehall Township already has such “mandatory dedication” requirements in the township’s subdivision and land development ordinance. The land use and housing

portion of the plan also describes incentives that can be used in zoning to result in higher percentages of open space within new development.

- Municipalities often set aside funds from the general fund budget or issue a municipal bond for land purchase and preservation.
- Municipalities sometimes ask voters about issuing a bond for land purchase and preservation. The referendum may also ask voters to approve an additional tax that would be dedicated to land purchase. A bond is typically issued, with the annual payments on the bond paid from the tax receipts. State law allows voters to approve an increase in the earned income tax (up to 0.25 percent), an increase in the local real estate tax millage (up to 2 mills), or an increase in the real estate transfer tax (up to 0.25 percent).
- The real estate transfer tax increase can be particularly attractive because it only affects properties that are sold, including new construction and re-sales. If a municipality is experiencing a high rate of construction, that tax increase can generate tremendous revenue without affecting most existing residents.

NF/AP-2: Preserve areas along major creeks in as natural a condition as possible.

Land along waterways can be preserved in private ownership, in public ownership, or by homeowner associations. Much of the land along the Jordan Creek and Coplay Creek is already in open space or parkland. Much of the land along Spring Creek and the Lehigh River are in private ownership.



The right bank of Coplay Creek (above) exhibits an intact riparian buffer while the left bank does not.

The primary tool for waterway preservation and improving water quality is to maintain/replant thick natural vegetation (“riparian buffers”) along waterways. Thick vegetation is essential to provide high quality habitat for fishing and to filter out eroded soil and pollutants from storm water runoff. If possible, mature canopy trees should cover a waterway, with thick underbrush along the banks in order to maintain the proper temperature of creeks and filter out pollutants.

To comply with state requirements, Whitehall Township already has regulations limiting buildings within floodprone areas. The regulations apply within the 100-year floodplain, which includes areas forecast to be flooded during the worst flood expected in an average 100-year period.

The township zoning ordinance could be strengthened by requiring a setback of at least 50 feet from the top of the primary bank of major perennial creeks and 75 feet from the top of the primary bank of the Lehigh River. No buildings, parking areas, and business storage should be allowed within the setback. If the distances are measured from the centerline of a creek, then larger setbacks should be established.

Vegetated drainage swales should also be created and preserved. Vegetated swales slow runoff, allow recharge, and filter out pollutants.

Many of the policies described in the land use and housing section of the plan can also help to preserve creek corridors, including open space development and very low density conservation residential development in the Open Space/Residential/Agricultural areas. Property-owners should also be encouraged to restore wetlands where they have been altered in the past.

Under the federal National Pollutant Discharge Elimination System (NPDES), Whitehall and surrounding municipalities will need to continue working to improve the water quality of runoff that enters creeks from municipal storm sewers. The two areas of primary concern are:

- The southern part of the Jordan Creek which is bounded by the impervious parking lots and roadways of Whitehall's shopping areas.
- The Coplay Creek, which drains much of the township's quarry areas.

NF/AP-3: Protect the amounts and quality of groundwater and creekwaters. Stress recharge of storm water into the ground to maintain groundwater supplies and reduce storm water runoff.

Developments are usually engineered to channel storm water runoff toward a creek without recharging water into the ground. Storm water should be viewed as a resource to manage rather than a nuisance to discard. Groundwater recharge can be encouraged through the manual entitled *Best Management Practices for Developing Areas in Pennsylvania*, which is available through the Lehigh County Conservation District. For example, storm water can be held within detention basins that allow some storm water to be absorbed into the ground. Depending upon soil conditions, infiltration trenches and french drains can be used to recharge some runoff into the ground. However, in areas with limestone-based geology, care must be taken to avoid sinkholes. Wherever possible, particularly in the less developed northern tier of the township, natural drainageways should be left in place as much as possible with wide swaths of green space that allow storm water to be absorbed.



Vegetated drainage swale in Whitehall Township

The total percentage of a lot that is covered by buildings and paving should be limited to make sure that there are areas available for absorption of groundwater. As major commercial areas in the township repave, developers should be encouraged to consider alternative surfaces and materials, such as "porous paving", that encourage groundwater recharge.

Ordinance provisions should be reviewed to make sure that they do not unintentionally increase the amount of land covered by paving. For example, sidewalks should only be required where they are truly needed. Front yard setbacks should be modest so that long driveways are not needed. Where cul-de-sac streets are used, a landscaped island should be considered in the middle of the cul-de-sac. Excessive amounts of parking should be avoided. Where there is a question about the amount of parking that may be needed, a developer can be allowed to reserve land for parking that would only be paved if the municipality determines it is actually needed after the use has been in operation. Adjacent businesses should be encouraged to share parking, which can reduce the total amount that is needed.

The *Best Management Practices* manual also includes recommendations to avoid mixing pollutants into runoff. For example, devices can be used to separate oils, greases, and sediment from runoff. Major earthmoving requires a developer to prepare an erosion control plan that meets the requirements of the county conservation district.

NF/AP-4: Carefully manage wooded areas, and avoid clear-cutting.

Wooded areas are sparse in Whitehall Township. Nevertheless, in some areas of the township, woodlands add character to the landscape, help preserve the quality of creeks, and provide important wildlife habitats. Trees also are important to purify the air and control erosion. Forestry must be allowed under state law. However, clear-cutting of woods should be prohibited, and proper erosion controls should be in place for any large-scale tree-cutting.

Developers should be required to show a minimum amount of tree removal. Trees can add substantial value to a residential lot. During construction, temporary wood fences should be placed around trees to prevent the compaction of root systems by equipment and to prevent damage to tree trunks.

Certain areas of the township should be considered for reforestation, particularly steep lands and lands along creeks. Funding for tree-planting programs is available from a few sources, including the federal Urban Forestry Program, the federal Transportation Enhancement Program (along a major highway), and federal and state water quality programs. Some programs are limited to public lands, while others provide funding to private property owners.

NF/AP-5: Take precautions against development impacts in limestone areas.

A large portion of northern Whitehall Township is underlain with limestone. Limestone-based areas are particularly vulnerable to sinkholes when there are mining or quarrying activities, which can affect changes to the groundwater levels.

Stormwater runoff has a major role in the creation of sinkholes and other subsidence. Stormwater facilities must be carefully designed, particularly around isolated low spots in the ground, known as “topical depressions”. Water line breaks also often result in very severe sinkholes.

Whitehall Township should adopt comprehensive development regulations as part of the township subdivision and land development ordinance (SALDO) to address limestone geology issues. The regulations could require a study by a specialist in limestone and similar (“karst”) geology before any significant development is approved. The study may require soil borings and should identify the areas most vulnerable to sinkholes. The study should also recommend types of measures to be required during development to reduce the threat of sinkholes. The regulations should also require that the study be reviewed by a second expert selected by the municipality but funded by the developer.



The township should consider the need for an appropriate liner in stormwater detention basins located in limestone-based areas. Development proposed near a sinkhole should be required to remediate the sinkhole, which may involve excavating the area and filling the sinkhole with concrete or other approved material. Sinkholes should be repaired as soon as possible before expanding in an uncontrolled manner. Stormwater should be directed away from all unremediated sinkholes.

Stockertown, an area with geology similar to Whitehall, sees constant sinkhole problems. Whitehall Township should also consider regulations requiring careful review of large withdrawals of groundwater and water from springs. Some uses, such as water bottling operations, remove large volumes of water from an area. Any proposed large water withdrawal should be accompanied by permanent preservation of substantial amounts of surrounding land to allow sufficient groundwater recharge. The applicant should also be required to provide professional hydrologic studies showing that the withdrawals will not harm the water supplies of neighboring homes and farms, particularly during drought conditions. However, at the same time, the township must recognize that Delaware River Basin Commission regulations and state law may preempt the township from prohibiting or severely regulating a large water withdrawal.

NF/AP-6: Make sure that any changes to suspected wetlands comply with state and federal regulations.

Wetlands protect water quality, control flooding, provide aquatic habitats, and recharge groundwater. Wetlands are defined based upon soil types, depth of water table, and types of vegetation. Wetlands include swamps and other areas that are typically wet during parts of the year. State and federal regulations strongly protect wetlands, and Whitehall Township should assist state and federal agencies to assure compliance with wetland regulations. The water features map (Map 2.11) shows the locations of known wetlands. Any proposal for development on or near wetlands

should be required to provide a study by a qualified professional to determine potential wetland impacts.

The township should consider requiring new building setbacks of at least 50 feet from a major wetland and 20 feet from all other wetlands. The setback is valuable to help keep construction equipment out of wetlands and to avoid other alterations to wetlands after construction.

NF/AP-7: Continue to minimize development on steeply sloped lands.

A 15 percent slope has a rise of 15 feet for every 100 feet of horizontal distance. Moderately steeply sloped lands (15 to 25 percent) are generally only suitable for low intensity development. Very steep lands (over 25 percent) are generally not suitable for any development. Development on steep slopes should be minimized to avoid:

- Erosion problems.
- High-speed storm water problems.
- Overly steep roads and driveways.
- Excessive costs to construct and maintain roads and utilities.
- Destruction of scenic natural resources.

Whitehall Township has regulations restricting development based on slope. The township should continue to regulate development on slopes to avoid problems as listed above.

NF/AP-8: Develop and maintain interconnected corridors for wildlife.

Ideally, corridors along steeply sloped areas and along creeks should be permanently preserved as interconnected open space. In addition to the benefits of preserving natural features, “greenway” corridors also provide cover for wildlife to move throughout the township. Large preserved areas should be connected by corridors of woods or other thick natural vegetation. The *Whitehall Township Comprehensive Plan* supports the concept of developing greenways which is further discussed in the township’s recreation and open space plan currently being developed.

NF/AP-9: Work to conserve the Helfrich Springs Cave area.

In 1999, the Pennsylvania Science Office of the Nature Conservancy prepared a *Natural Areas Inventory for Lehigh and Northampton Counties* (NAI). The NAI identifies the general location of plants, animal habitats, and unique geologic and other natural features of significance on national, state, and local levels. Critical habitat areas are based on the Pennsylvania Natural Diversity Index (PNDI), a comprehensive database of outstanding natural habitats and sensitive plant and animal species on a state level. Species in the PNDI are given endangered, threatened, special concern or concern status.

The NAI identifies only one significant natural area in Whitehall Township: the Helfrich Springs Cave area. Helfrich Springs is already a historic site of note at the township and county levels. The site is privately-owned and not available to the public. Nevertheless, in view of the significance of the site as a natural area, the township should continue to support all efforts to sustain the vitality of the Helfrich Springs Cave area.

NF/AP-10: Consider the designation of agricultural security areas if requested by affected property owners.

Farmland preservation is not a major issue in Whitehall Township. The township is an urban area with few farms and significant development pressure. Nevertheless, the township could provide support for preserving the remaining agricultural lands if (and only if) requested by the affected property owners. Farmers would voluntarily ask the township to designate an Agricultural Security Area, which would make the included farms eligible for protections against nuisance complaints and make the properties eligible for state purchase of development rights.



Considerable crop farm acreage remains in northern and western areas of Whitehall.

NF/AP-11: Consider permitting a wide range of farm-based businesses.

Many farmers cannot earn a full-time living on farm work and require supplemental income. To encourage the continuation of farming, the township's zoning ordinance could offer reasonable flexibility for farmers to operate small businesses on larger tracts. State law requires municipalities to allow farmers to conduct on-site retail sales of agricultural products. Farm-based businesses could also include such activities as:

- Small engine repair.
- Sharpening services.
- Wood crafting.
- Farm equipment repair.
- Sale of seeds and fertilizers.
- Summer camps.
- Halloween events, such as haunted hayrides and corn mazes.
- Bed and breakfast guest rooms.

The number of employees and size of the businesses should be limited to prevent expansion into major commercial businesses.

COMMUNITY FACILITIES AND SERVICES

The availability and quality of community facilities and services are major factors in determining a community's quality of life. A high quality of life helps to maintain and attract population of all ages and a strong, diverse businesses base. Families often choose where to live based on public schools. New businesses will often locate where public water and sewer is readily available. Generally, retirement home developers and prospective tenants look for high-quality emergency services, while college graduates will seek a wide variety of active and passive recreation options. Whitehall Township already enjoys many of the amenities which create a high quality of life and should maintain and enhance public facilities and services to help the township grow wisely.

Goal

- *Whitehall Township residents enjoy a wide range of public facilities and services.*

Objectives

- Continue to provide high-quality emergency services (police, fire, and EMS) with sufficient staffing and resources.
- Support a variety of leisure activities for residents and continue to implement initiatives in the *Whitehall Township Comprehensive Park, Open Space and Recreation Plan*.
- Ensure continued cooperation between the township and the Whitehall-Coplay School District to allow the fullest and best use of both school district and township facilities.
- Ensure the operation of safe, reliable, and well-planned public infrastructure, including sanitary sewer, public water, roads, and solid waste removal.
- Keep Whitehall residents informed of township resources, and offer opportunities for public input, using a variety of means.

Recommendations

Community Facilities and Services (CFS)-1: Create an informative, frequently updated Internet site.

Computer technology is revolutionizing the way people obtain information. To keep both residents and visitors informed about Whitehall Township's many community facility and service offerings, as well as publicizing events and official business, the township should create an internet site. The township may consider expanding upon its already-established web domain at whitehalltownship.com, or look into .org, .gov, or .us internet domains. The Whitehall Township website should be attractive, easy-to-use, and updated at least once per week. Potential items for website inclusion are:

- A welcome message with brief facts about Whitehall
- News, and/or the township newsletter
- Official meeting and event calendar
- Parks and open spaces, with inventories of amenities
- Sports and other recreation program offerings
- Information on public utilities (water, sewer, trash, recycling, cable, etc.)
- An interactive map with zoom and layer capabilities
- Township phone and e-mail directory, along with office hours
- Township organizational chart
- Voting information
- Employment and volunteer opportunities
- A “Doing Business in Whitehall” page to attract employers
- Permitting information
- Municipal ordinances in downloadable, printable format
- Official forms in downloadable, printable format
- Links to the websites of other local governments, such as the Whitehall-Coplay School District (www.whitehallcoplay.org), Lehigh County (www.lehighcounty.org), and the Lehigh Valley Planning Commission (www.lvpc.org).

As more and more people have access to the internet at home, at work, in school, or at the library, the township should provide as much information as possible on the Internet. Doing so can also reduce in-house printing and copying costs.

CFS-2: Continue to provide reliable, well-staffed emergency services.

Providing emergency services in Whitehall Township presents a somewhat unique challenge among Lehigh Valley municipalities. As a regional focal point for shopping, Whitehall sees a large influx of people during evenings and weekends. During these influxes, the likelihood of calls for emergency service increases, and the geographic distribution of emergencies shifts toward the regional shopping district. These events complicate the efficient deployment of emergency service resources, such as police, fire, and ambulance personnel and equipment.

Whitehall has a township-run police department, fire department, and fire police service, as well as a formal agreement with a major regional emergency medical services (EMS) provider. The township should maintain and strengthen the services that are crucial to public health and safety. As Whitehall continues to grow, the township and the Cetronia Ambulance Corps (CAC) may require additional staffing, vehicles, and equipment to effectively maintain service.

While adequately staffed at present, the fire department is facing increasing difficulty in attracting sufficient numbers of volunteers. The township currently offers volunteer fire personnel yearly stipends and a length-of-service benefit program. Given the quality of service and affordable cost of fire protection under the current structure, the township should make every effort to continue maintaining a volunteer fire department into the foreseeable future. Existing reward programs directed at attracting new and retaining current volunteers should be expanded as needed to insure

a continued supply of volunteers. New regulations will dictate the need for a certified fire inspector to be added to staff.

The CAC operates with a large number of paid personnel but is facing similar difficulties in attracting volunteers. The township should assist the CAC in its efforts to raise funds and attract personnel, including promotion of subscription services, fund-raising events, and scholarship programs for student interns. The Township should also continue to cooperate with CAC in the realm of facility needs at their current Public Works Building and Cementon Fire Station locations.

CFS-3: Pursue a strategic address-revision program to facilitate 911 call response.



The intersection of 3rd and Chestnut occurs three times: twice in Whitehall and once in neighboring Coplay.

A uniform system of address numbers and unique street names is crucial in providing quick, efficient response to 911 emergency calls. Currently, Whitehall Township contains many repeated street names (e.g. Front Street, Lehigh Street, Bridge Street, numbered streets), and several different address numbering grids. In order to fully comply with the 911 call response system, Whitehall will need to institute a singular, uniform address numbering system and also rename certain streets. Address numbering in the township should comply with the Lehigh County address grid, which assigns increasing numbers to buildings as one travels north from Hamilton Street in Allentown, and west from Front Street in Allentown. Street renaming should result in unique names for each street, regardless of the village in which the street is located. Changes are best implemented with a formal strategic plan. What may seem like an

inconvenience at first will actually result in tremendous benefits to the efficiency of Whitehall's emergency services, the health and welfare of Whitehall citizens, and the ease of finding locations for residents and visitors alike.

CFS-4: Help support the public library and its needed improvements.

Nearly all local funding for the library comes from the Whitehall-Coplay School District. Whitehall Township occasionally assists with capital improvements to the library, such as repaving and exterior building repairs. The township should continue to provide occasional assistance as appropriate, especially to address the library's stated need for physical improvements, including additional storage space, larger group meeting space, increased access for the disabled, an upgraded heating system, and aesthetic improvements.

CFS-5: Acquire and develop land for recreation purposes.

Whitehall Township should continue acquiring and developing land for recreation and open space as residential and commercial development increases. The *Whitehall Township Comprehensive Plan*

supports the flexibility needed to negotiate with developers and landowners in securing land for recreation, particularly to create continuous park and open space corridors linking various sections of the township, where feasible. (Recommendations of the plan relating exclusively to open space are presented in the portion of the plan dealing with natural features and agricultural preservation.) As new development occurs, the township should develop new parks according to guidelines in the township's comprehensive park, recreation, and open space plan. Park locations, sizes, and designs should be determined on a case-by-case basis, but should result in a varied selection of active and passive recreation opportunities within a short distance of all township residents.

Proposed parks are identified and discussed in the *Whitehall Township Comprehensive Park, Open Space, and Recreation Plan* (2004). Specific target areas for recreation land include, but are not limited to, the following locations:

- The Lehigh River western shore from PA 329 in Cementon to Race Street in West Catasauqua.
- A tract of land between Egypt Memorial Park and the Troxell-Steckel House.
- An undeveloped area immediately west of the radio towers on Columbia Street.
- A strip of land between Mulligan's Family Golf Center and West Catasauqua Park.
- The northwest corner of Fullerton and Fairmont Avenues in Fullerton.
- At least two sites north of Egypt and west of MacArthur Road.

CFS-6: Create an interconnected, townshipwide trail system.

The public survey completed as part of the *Whitehall Township Comprehensive Plan* indicated a significant desire for publicly-accessible trails. In fact, when survey respondents were asked which recreation facilities were most needed in the township, two of the three most frequent responses were "wooded natural areas with nature trails" and "bicycle/jogging trails". The township should develop trails that will meet the public desire and complement existing trail infrastructure, such as the Ironton Rail Trail and paths at the Whitehall and Jordan Parkways. When developing trails, the township should try to create linkages to other trails, parks, community facilities, residential neighborhoods, and commercial areas, creating an interconnected townshipwide trail network. Trails provide both exercise opportunities and alternative transportation options, helping to reduce congestion on township roads. Trails may vary from narrow earthen or mulched walking trails to slightly larger crushed stone paths to paved, graded multiuse paths with widths of eight feet or more. The township's stream and river corridors make ideal settings for trails. Any trail, however, should respect the natural features of the site and should avoid the sensitive riparian (streamside) area. The *Whitehall Township Comprehensive Plan* also supports the proposed trail connections proposed in township's comprehensive parks, recreation, and open space plan (Map 3.2).

CFS-7: Work with Lehigh County, the Delaware & Lehigh Canal National Heritage Corridor Commission, and property owners to appropriately develop and preserve the Lehigh River waterfront.

Many communities nationwide are converting former industrial areas along rivers into attractive new green spaces. With nearly seven miles of frontage along the Lehigh River, Whitehall Township

has an exceptional opportunity for riverfront development and preservation. Currently, only the portion of the riverfront north of Route 329, a distance of one mile, is in public ownership (by Lehigh County). The remainder is owned largely by the Norfolk Southern Railway Company and various industrial firms. The corridor contains abandoned rail yards, abandoned industrial buildings, and the historic Thomas Ironworks site.

The Lehigh County Official Map designates the Thomas Ironworks and the former Lehigh Valley Railroad north of Race Street as “proposed parks, open space lands and county facilities”. Whitehall Township should include the same sites on its own Official Map, and work with Lehigh County to develop a recreation trail and provide historic interpretation along the entire Whitehall portion of the Lehigh River. The Delaware & Lehigh Canal National Heritage Corridor Commission could provide design guidelines for interpretational facilities and possibly assist with funding. A Lehigh River trail could connect to the Ironton Rail Trail and become an integral part of a township-wide trail system linking residential areas to recreation, shopping, and other activity centers.

CFS-8: Provide additional recreational programming.

Whitehall Township currently provides a wealth of recreation programs for all ages. However, township recreation officials have identified a need for additional programming, primarily for adults and seniors. One way the township can respond to the identified need is to provide programming that meets the public’s noted enthusiasm for nature and open space, such as providing guided nature walks led by an environmental professional or guided bike rides along the Ironton Rail Trail. Additionally, the public survey shows that the second most desired additional recreation facility is, “a place for outdoor special events, such as concerts/plays”. In addition to the venue for events, the survey response indicates a desire for more cultural events, such as live music and drama. As a result, the township should consider organizing more music and drama events and, eventually, providing an amphitheater or similar structure to better house outdoor events.

CFS-9: Develop a strong partnership with the Whitehall-Coplay School District.

The quality of a community is often rated, in large part, by its public schools. To maintain an attractive community, the township and school district should meet regularly to exchange relevant information and stay abreast of plans to meet the public service needs of a growing population. The district will largely be following the recommendations set forth in the *Whitehall-Coplay School District Feasibility Study*, including specific physical and organizational improvements.

The township and the school district should also increase cooperation in the realm of recreation facilities. Both the township and the school district should consider sharing and coordinating use of all recreation facilities for the benefit of the entire community, with less cost to users.

The township and school district will also need to work together in addressing transportation improvements in and near the district campus. The reconfiguration of the MacArthur Road/Mechanicsville Road intersection and the prohibition of left turns into the school district campus from

northbound MacArthur Road will both affect school-related traffic patterns in the area. The township should also carefully consider pedestrian traffic in the area near the school campus.

CFS-10: Use public sewer service as a major determinant of future development.

Currently, Whitehall Township is using 69% of its allotted sewer treatment capacity. Sewer capacity should suffice for the foreseeable future, provided that most growth is residential and commercial, rather than industrial. Future expansion of the sanitary sewer system will be development-driven. The township and the Coplay-Whitehall Sewer Authority (CWSA) should bear in mind the following points when planning for new development:

- The township and the CWSA should begin to determine the best locations to place the least number of future pumping stations. To be most cost effective, pumping stations should serve large drainage areas, rather than having many small stations servicing only specific developments. The economics of supporting area pumping stations should be researched and may result in higher sewer rates or additional developer support in pumped areas.
- The Ringer and Kasych tracts west of MacArthur Road are likely to see residential development in the future. If the Ringer properties, which are further west, happen to develop first, sewage would have to be pumped uphill to the last manhole on Columbia Street. If the Kasych properties are developed first, a gravity sewer main would be attached to the Coplay Creek interceptor, to be augmented later by a sewer main from the Ringer tract.
- Under current zoning, much of the undeveloped area north of Egypt could be served by on-lot septic systems. If development occurs at higher densities than currently permitted, public sewer will be necessary. A small area above the Egyptian Hills development can be developed and sewered using gravity flow. However, areas along Spruce Street and the northern end of Roosevelt Street would require pumping stations to feed into the Coplay Creek interceptor. In addition, the existing main along South Church Street in Egypt would need to be replaced. Alternatively, a gravity interceptor could be constructed in the Spring Creek valley, which would be an expensive option.
- The township should be careful in allowing water-intensive industries to locate in Whitehall. Water-intensive industrial uses—such as laundering facilities, dying facilities, and paint manufacture—use a very large volume of water. Several large water-users would quickly use all remaining sewer capacity.

In summary, public sewer will be a primary consideration when planning future land use, modifying the zoning ordinance and SALDO, and approving subdivisions and other developments. Whitehall Township and the CWSA should work closely together to efficiently and effectively address public sewer needs as the township continues to grow.

CFS-11: Protect water resources.

Water systems serving Whitehall Township draw from the Lehigh River, Spring Creek, and from eleven wells. The quality and quantity of water resources is closely linked to large-scale land use patterns, the protection status of environmentally sensitive features, and the practices of industrial and quarry uses. The *Whitehall Township Comprehensive Plan* includes several recommendations regarding water supply in the natural features/agricultural preservation and land use components of the plan. Major points with regard to water supplies include the following:

- Avoid excessive development, leaving ample open space to recharge groundwater supplies.
- Areas along creeks should remain in a natural condition or enhanced to create vegetated riparian buffers that filter impurities, minimize erosion, and keep stream temperatures low. Buffers are especially pertinent along the Spring Creek, which is a drinking water source.
- New developments should follow best management practices that allow storm water to infiltrate into the ground. Tools to increase storm water infiltration include trenches, basins, and vegetated swaths of green space.
- Development, especially water removal operations and quarry operations, should be carefully guided in limestone areas through the township SALDO.

CFS-12: Establish a shared database of water main repair and improvement needs.

Whitehall Township, in conjunction with the Whitehall Township Authority and the Northampton Borough Municipal Authority, should identify and catalog the portions of the water service area where aging or undersized water mains are in need of repair or replacement. Using computer information technology, all of the data should be stored in a single location with shared access. A unified database will allow for water system project priorities to be established based on need, rather than the occurrence of road maintenance projects, which typically direct water line work. Coordination and information sharing will foster better use of funds by all entities to achieve the highest level of infrastructure maintenance.

CFS-13: Work closely with the Whitehall Township Public Works Department when new roads are proposed.

The Whitehall Township Public Works Department maintains 147 miles of roadway in addition to many other duties. Building additional roads, such as in new residential developments, will further challenge the department and its resources. As additional roads are built, the Whitehall Township Public Works will eventually require additional trucks, materials, and staff for maintenance. Therefore, the township should carefully consider the effects of additional roadways and work with the public works department when new roads are proposed. In addition, the township should consider discouraging cul-de-sacs in new developments, which are costly to maintain.

CFS-14: Monitor the effectiveness of private solid waste hauling and recycling.

Whitehall Township currently contracts with a private hauler for solid waste hauling and recycling, with rebidding every four years. To date, the arrangement is both cost-effective and efficient. If, for some reason in the future, the township wishes to consider providing refuse and recycling services through the public works department, a cost-benefit analysis would be necessary before any action is taken.

TRANSPORTATION

Transportation is a major issue in Whitehall Township. Within its borders lie the shopping capital of the Lehigh Valley, dense neighborhoods containing nearly 11,000 homes, and two of the busiest roads in the Lehigh Valley, all at the center of Pennsylvania's third largest metropolitan area. MacArthur Road is the Lehigh Valley's only fully-accessible six-lane highway. As a result of transportation's importance in the township, Whitehall was the first municipality in the Lehigh Valley to collect traffic impact fees from developers. As the township continues to grow, transportation planning will be crucial to ensure a safe, efficient system of highways, streets, paths, and transit that will effectively serve all of Whitehall's citizens and visitors.

Goal

- *Whitehall Township's transportation network provides safe, efficient movement for all township residents and businesses.*

Objectives

- Continue to plan for traffic improvements and to monitor the traffic effects of land use changes.
- Address traffic problems in an efficient, effective manner.
- Take an active role in regional, state, and federally funded projects that affect Whitehall Township, especially future improvements to U.S. 22.
- Encourage and facilitate the use of public transportation throughout Whitehall Township.
- Provide for the safe movement of pedestrians and bicycles in all areas of Whitehall Township.

Recommendations

Transportation (T)-1: Continue to update the comprehensive traffic study, including the collection of traffic impact fees.

Whitehall Township is one of only five municipalities in the Lehigh Valley that has completed the comprehensive traffic study necessary to collect traffic impact fees. The three components of the

study (*Land Use Assumptions, Roadway Sufficiency Analysis, and Capital Improvements*) should continue to serve as a guide for future traffic and land use planning as well as monitoring and establishing priorities for maintenance and safety-related projects. The study should also continue to be updated as traffic and land use patterns change. Whitehall Township maintains a Traffic Impact Advisory Committee to monitor the study, conducting annual reviews of the three study components. The committee should continue to make recommendations so long as Whitehall Township assesses the Traffic Impact Fee (pursuant to the Pennsylvania Municipalities Planning Code). Decisions regarding the expenditure of collected fees should be made consistent with the recommendations of the Traffic Impact Advisory Committee.

T-2: Work with PennDOT and landowners to proceed with high-priority traffic improvements.

Whitehall Township should pursue, maintain, and update the list of high-priority traffic improvements (Map 3.2), which are as follows:

1. Reconfiguration of intersection of PA 145 and Mechanicsville Road
2. Partial or major reconfiguration of Eberhart Road/PA 145 intersection
3. Reconfiguration of intersection of Municipal Drive and PA 145
4. Widening and placement of concrete median barrier on PA 145 from Eberhart Road to Municipal Drive
5. Traffic circulation in and around the Whitehall and Lehigh Valley Malls
6. U.S. 22 ramp improvements at PA 145
7. PA 329 and PA 145 (Eagle Point)

Additional details on the improvements are found in the *Background* section of the plan. The focus of the improvements is MacArthur Road, which is a state road. Therefore, the township must coordinate closely with the Pennsylvania Department of Transportation (PennDOT). The township should be well aware of project designs, costs, phasing, and interim traffic management techniques before and during any improvement. In some cases, projects will directly affect property outside of the road right-of-way, thus necessitating tactful cooperation with those landowners.

T-3: Support future improvements to U. S. 22 which benefit Whitehall Township.

PennDOT has proposed a major reconstruction of U. S. 22 in the Lehigh Valley. The scope of the project has not been finalized, and plans have varied from smaller-scale interchange improvements to an ambitious expansion to eight lanes from Interstate 78 to Route 33. The first phase of the project (reconstruction of Route 22 between 15th Street in South Whitehall Township and Airport Road in Hanover Township) is listed on the PennDOT 12-year Program and includes approximately 75% of the length of U. S. 22 in Whitehall. Phase I is arguably the most challenging and costly section of the proposed expansion, with two interchanges, crossings of the Lehigh River and Jordan Creek, and a corridor constricted by major existing residential, commercial, and recreational land uses. The township-owned Wood Street Playground, Fullerton War Memorial, and Pershing Park Bird Sanctuary will all be affected by the expansion.

Whitehall Township will undoubtedly be an important stakeholder in the expansion of U. S. 22 and should stay abreast of all plans. Before any project meetings with PennDOT, the township should carefully consider the potential effects the expansion may have both within the construction corridor and on future land development patterns and voice any concerns at the meetings. If and when the project proceeds, Whitehall should cooperate with PennDOT and all landowners in the corridor to ensure that negative impacts are minimized and that the project is completed in a smooth and timely fashion.



The Lehigh River bridge, Pershing Park bird sanctuary, and Wood Street playground will all be impacted by the future expansion of U.S. 22 in the segment pictured here.

T-4: Use the Whitehall Township Official Map to prescribe the future location and characteristics of local traffic infrastructure.

Whitehall Township has an adopted official map that identifies future rights-of-way, including future roadway connections, across lands that are now vacant (Map 3.2). Prospective developers must abide by the road network on the map in order to receive subdivision approval. The township should periodically review and, if necessary, update the official map.

The township should also continue its policy of encouraging shared or adjacent driveways along major traffic routes. Shared access is particularly important for commercial shopping centers, where shared driveways increase safety by minimizing and controlling entrance and exit points and allowing access across MacArthur Road. The township should also continue to encourage narrower streets in low-density residential subdivisions, which reduces impervious cover, calms traffic, and reduces the time and resources spent on maintenance. Currently, the ideas of shared driveways and narrower streets are implemented through informal agreements with developers. The township should consider formalizing some of the concepts in the subdivision and land development ordinance, either as options or requirements.

T-5: Encourage LANTA service and ridership throughout Whitehall Township.

Located adjacent to Allentown, the Lehigh Valley's largest city, Whitehall is perhaps the township best-served by transit in the Lehigh Valley. Seven Lehigh and Northampton Transportation Authority (LANTA) fixed bus routes serve Whitehall Township, all of which stop at the Lehigh Valley Mall (Map 2.15). Each of Whitehall's villages is served by at least one bus route.

Several factors indicate that transit could play a larger role in meeting the mobility needs of Whitehall residents:

- congestion occurs daily on PA 145, U. S. 22, and other roads near Whitehall’s regional shopping district.
- The economy of the Lehigh Valley continues to shift toward the service industry, bringing demand for improved transit, especially during evenings and weekends. Some service industry workers do not have cars, due to young age or lower income.
- The elderly population in Whitehall continues to increase. The elderly are a prime market for transit services.

Realistically, LANTA has no justification to improve service unless ridership increases. To make transit more attractive and successful in Whitehall, the township and LANTA should work together to consider service and marketing improvements, such as:

- Increasing frequency of service on the 1, K, and L routes from one hour to 30 minutes.
- Adding Sunday service on the 1, K, Silverline, and Starlight (evening) services.
- Bringing Starlight service to the villages of Cementon, Egypt, Fullerton, and Hokendauqua.
- Extending the K route into west-central Whitehall as new development occurs.
- Posting existing LANTA route and system maps at key public locations, including shopping centers and community facilities.
- Creating, distributing, and posting a map and information pamphlet specifically tailored to riding transit in Whitehall. The pamphlet should clearly explain the where, when, and how of riding LANTA buses in Whitehall, and should also tout the financial, environmental, and psychological benefits of riding transit.

The owners of the Lehigh Valley Mall have proposed modifications to the mall to develop a “lifestyle center”. The development plans include occupying the space now used by LANTA for one of the transit system’s primary transfer centers. The land development plan was approved with a condition that the developer work with LANTA to address all transit issues. The township should support planning and developing facilities that allow LANTA to continue to operate effectively and efficiently. The township should also be aware of any and all independent decisions that LANTA makes affecting Whitehall and should not discourage transit traffic in any areas.

T-6: Encourage land use patterns which support transit use.

The *Comprehensive Plan for Lehigh and Northampton Counties*, and the *Lehigh Valley Surface Transportation Plan for 2022* both recognize the relationship between land use density and transit service feasibility. The regional comprehensive plan recommends that:

“...higher density housing and employment facilities should be developed along transit service routes. In the LANTA market area, a minimum density of five dwelling units per acre should be developed.”

The transportation plan maintains that:

“...higher density housing and employment facilities along transit routes should be encouraged through revising municipal zoning ordinances so densities are within ranges recommended in the comprehensive plan.”

Whitehall Township can help implement these goals. The current zoning ordinance already supports the goal of allowing high density development along transit corridors. The township's major villages, which are served by bus routes, contain high-density residential zoning districts allowing for 5–8 dwellings per acre, as well as neighborhood commercial districts allowing for a variety of business uses. Whitehall Township should encourage the development and redevelopment of properties near bus stops. Some lending institutions offer incentives for developing residences near transit.

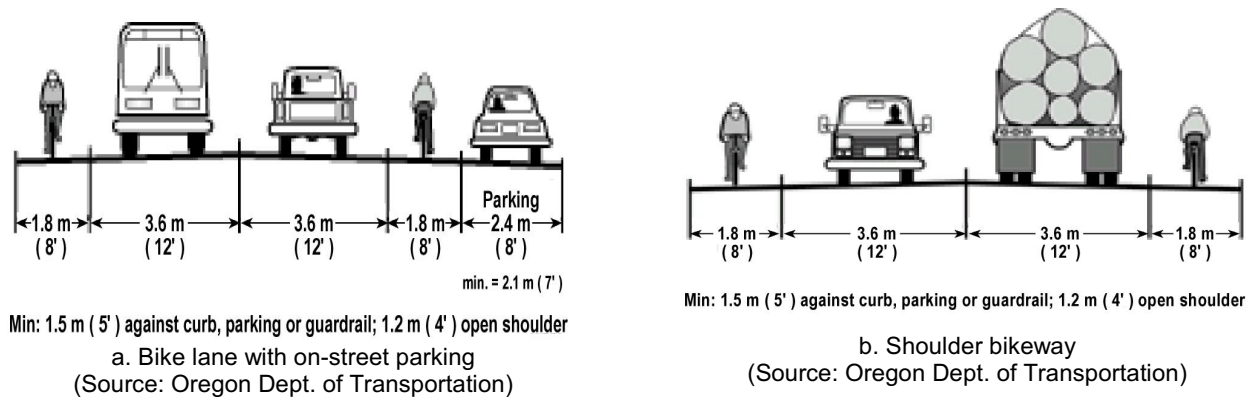
T-7: Plan for the safe movement of pedestrians and bicycles throughout the township.

Pedestrians and bicyclists should be able to safely and easily navigate through Whitehall Township. To maximize pedestrian and bicycle safety and access, Whitehall Township should:

- *Continue to develop a township-wide system of multi-use recreation paths, including completion of the Ironton Rail Trail, development of the D&L Trail along the Lehigh River, and trail spurs to Egypt Memorial Park and the Whitehall-Coplay School District campus.* All of the routes are recommended in the *Whitehall Township Comprehensive Park, Open Space and Recreation Plan*. In order to serve as a viable transportation alternative, paths should be paved and graded, allowing for quick, obstacle-free travel. Paths should be a minimum of eight feet in width, allowing for safe passage of oncoming or slower traffic. A painted centerline may be desirable on paths wider than ten feet.
- *Add bicycle lanes to minor arterial roads.* Bicycle lanes, “define a space in which to ride, eliminating the need to weave in and out of traffic or parked cars; they help novice cyclists feel more confident and willing to ride; they increase the visibility of bicyclists in the transportation system; and they give motorists the security of where to expect cyclists.”² Bike lanes would be most appropriate on Whitehall’s minor arterials (Map 2.15). Most smaller streets have less automobile traffic and, therefore, do not need bike lanes. The major arterials, U. S. 22 and MacArthur Road, are not appropriate for any bicycle traffic. If a roadway contains on-street parking, the bike lane should be situated between the automobile travel lanes and the parking spaces (Figure 3.5a). On roads with no parking, a “shoulder bikeway” is appropriate (Figure 3.5b). At intersections with right turns, a right-turn crossover is necessary, allowing bicyclists to travel between vehicles proceeding straight and vehicles turning right (Figure 3.5c).
- *Continue to assess the quality and continuity of sidewalks in Whitehall, including compliance with the Americans with Disabilities Act (ADA).* Many sidewalks in older sections of Whitehall are discontinuous and in varying states of disrepair. Where sidewalks meet cross streets, some have no curb cut for wheelchair access. Fragmented stretches of sidewalks should be completed. Deteriorating sidewalks should be rehabilitated or replaced, and all intersections of streets with sidewalks should include ADA-compliant curb cuts. Sidewalks are reviewed on an annual basis in conjunction with street restoration programs. Handicap ramps are constructed as part of this program, which receives partial funding from Community Development Block Grants.

²City of Portland (Oregon) Department of Transportation, 2004.

**Figure 3.5
Bike Lane Examples**



- *Develop an education program about using sidewalks.* Some Whitehall residents walk in the carriageways of streets rather than using the adjacent sidewalks, which poses a safety risk for pedestrians and motorists alike.
- *Where appropriate for pedestrian traffic, require sidewalks along new streets and in new developments, using the township SALDO.*
- *Add pedestrian crossing buttons to traffic signals, as appropriate.*
- *Create, post, and distribute (or sell) a bicycle and pedestrian map of Whitehall Township.* As the township moves to become more pedestrian and bicycle-friendly, citizens should be made aware of the new opportunities for recreation and alternative transportation. The township should research the efforts of other communities that are striving to accommodate bicycles, such as Eugene (OR), Boulder (CO), Davis (CA) and Philadelphia (PA). A map could include the following elements:
 - Multi-use paths
 - Bicycle lanes
 - Bicycle-friendly non-arterial streets
 - Arterial roads with wide shoulders
 - Streets with sidewalks
 - Walking trails at Jordan Creek Park, Whitehall Parkway, and other parks
 - Signalized intersections with crossing buttons
 - Steep hills
 - Dangerous or difficult road crossings or road lengths

Whitehall Township does not currently maintain a website for public information. Results of the above research, the proposed map, and other information on navigating around Whitehall Township can be part of the impetus for developing and maintaining a township website.

- *Apply for funding under PennDOT's Hometown Streets/Safe Routes to School program to implement appropriate recommendations.* The program is a federal cost reimbursement

program, rather than a grant program, with the option of periodic invoicing. The program is discussed further in later parts of the plan.

- *Consider developing a pedestrian/bicycle advisory committee.* Advisory committees help communities benefit from the energy, knowledge, and talents of residents. Whitehall Township should consider convening an advisory committee on pedestrian and bicycling issues.

T-8: Develop a strategic plan to rename streets and renumber addresses.

Whitehall Township contains numerous repeating street names, and lacks a unified numbering system for addresses. As recommended in the community facilities section of the *Whitehall Township Comprehensive Plan*, the township should pursue a strategic renaming and renumbering plan to facilitate 911 emergency call response and general address finding.

HISTORIC PRESERVATION

Whitehall Township was formed from several small villages, each with its own strong cultural history. As a result, historic preservation is important in the township. Four properties in the township are listed on the National Register of Historic Places, and one additional property is eligible for listing (Table 2.1, Map 2.4). The township contains a wealth of additional historic resources associated with the iron industry, cement industry, and its location along the Lehigh River. The Whitehall Historic Preservation Society (WHPS) is the nonprofit organization whose goal is to identify, protect, and promote awareness of the township's historic places. The WHPS maintains a list of 24 historic buildings and sites in addition to the National Register sites. The society is also represented on the Whitehall Township Recreation Commission.

Goal

- *Whitehall residents enjoy sites and facilities which are preserved to tell the stories of Whitehall's history and development.*

Objectives

- Identify, protect, and publicize buildings, structures, and sites that are historically significant to Whitehall Township or the Lehigh Valley.
- Use Whitehall's history as a resource to attract desirable types of growth.

Recommendations

Historic Preservation (HP)-1: Consider zoning ordinance provisions to protect the most important historic buildings.

In 2000, the Pennsylvania Municipalities Planning Code (Act 248, as amended) was amended to provide more authority to protect historic buildings outside of a formal historic district. Zoning can be used to provide:

- Incentives to encourage the rehabilitation of historic buildings.
- A requirement to obtain zoning approval before a historic building could be demolished.
- A 90-day delay on any proposed demolition of a historic building.
- Requirements that any application for a proposed subdivision, land development, conditional use, or special exception use must include a full description of any historic building on the property and how the application may adversely affect the building.

An alternative to regulating demolition is a mandatory delay of up to 90 days between application and approval of a demolition permit. The delay could only apply to an approved list of important historic buildings. The delay is intended to provide time for interested persons to discuss alternatives to demolition with the property owner. For example, a new buyer might be found who would be willing to restore the building, or the owner might be persuaded to incorporate the building into other plans for the property. An exception to the delay would be allowed if a building inspector certifies that a building needs to be demolished because of an imminent public safety hazard.

The township may also require formal approval for the demolition of a very significant historic building. The demolition would only be allowed if the applicant proved that the building could not be economically reused or that the demolition is necessary to allow a project of special public importance, such as an intersection improvement needed to improve public safety. Again, the demolition prohibition would only apply to an approved list of significant historic buildings.

Another available tool for historic preservation involves allowing the zoning hearing board greater discretion in approving modifications to lot and dimensional requirements as a special exception use if the modification helps to reuse a historic building. The zoning hearing board could also be authorized to:

- Consider impacts upon historic buildings in determining whether to approve a special exception use.
- Require additional landscaping to help screen a modern development from a historic building.

HP-2: Provide zoning incentives for rehabilitation of historic buildings.

Whitehall Township can allow certain additional reuses (beyond those normally allowed in a zoning district) if a designated building is preserved and rehabilitated in a historically sensitive manner. For

example, the ordinance could allow a historic building in a noncommercial zoning district to be used as a bed and breakfast inn, office, day care center, antique store, funeral home, or similar light commercial use which is not permitted by right in the specific zoning district. Allowing a broader range of uses should help create a stronger market to encourage investment in the restoration of historic buildings. The additional “incentive uses” would only pertain to existing buildings, as would modest-sized building additions designed to be compatible with the historic building as viewed from the road. The applicant would be required to submit plans prepared by a registered architect showing that the important features of the building visible from a public road will be preserved and rehabilitated. Modern features could be added in areas not visible from a public road.

HP-3: Support the continued efforts of the Whitehall Historic Preservation Society.

Whitehall is fortunate to have its own nonprofit historic preservation group. The township should support the efforts of the Whitehall Historic Preservation Society (WHPS) to identify and protect historic resources in the township. If and when the township decides to protect additional historic properties through zoning or acquisition, the WHPS should be consulted. The township should continue to allow a WHPS representative to sit on the Whitehall Township Recreation Commission, to promote awareness of the organization through newsletters and postings, and to provide the WHPS with resources such as meeting space.

Together, the township and the WHPS can accomplish many tasks, including:

- Obtaining county, state, and federal grants to protect and interpret historic places.
- Promoting the renovation and reuse of historic buildings.
- Seeking National Register status for more properties throughout the township.
- Continuing to provide special events to highlight the township’s history, such as the Ironton Rail Trail Historic Walk.

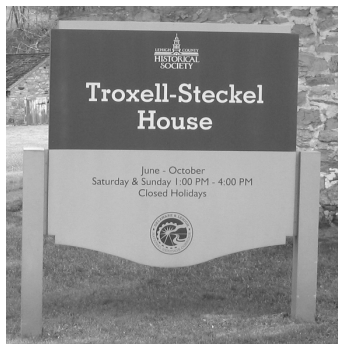
HP-4: Encourage property owners to follow proper standards in modifying older buildings.

Property owners should be aware of appropriate ways to modernize or rehabilitate old buildings while still retaining the historic appearance as viewed from a road. Views of outdoor storage from streets and residential properties should be minimized. Furthermore, the township should require that the rehabilitation of any historic building should consider both compatibility with nearby historic structures and the appropriate historic period regarding the following characteristics:

1. Proportional relationship between the width and the height of the front of the building.
2. Proportional relationship between the width and height of the windows.
3. Rhythm of solid wall areas and windows and doors.
4. Rhythm of building masses to spaces between them, if such rhythm exists along a street.
5. Setbacks from a road.
6. Rhythm of entrances and building projections and roof lines.
7. Materials similar in appearance to authentic materials of surrounding buildings, such as brick, stone, and older styles of siding.

8. Rough or smooth textures.
9. Architectural details, such as cornices, lintels, arches, railings, shutters, iron work, and chimneys.
10. Roof shapes and lines.
11. Fences and walls.
12. Barn walls maintained in wood, preferably painted red, white, or other historic colors.

HP-5: Develop a strong partnership with the Delaware & Lehigh Canal National Heritage Corridor Commission.



Standard D&L sign design

Whitehall Township lies within the Delaware & Lehigh Canal National Heritage Corridor (D&L Corridor), a collection of historical, cultural, recreational, and natural amenities administered by the National Park Service. The corridor follows the Lehigh Canal and Delaware Canal from Wilkes-Barre, Luzerne County, to Bristol, Bucks County. The corridor contains not only features directly associated with the canals, but also the cultural and natural landscape surrounding the canals. The corridor is also officially designated as a state heritage park charged with telling the story of canals, particularly in industrial history.

The D&L Corridor Commission seeks partnerships with nonprofit organizations, educational institutions, local governments, and state departments in an effort to jointly identify, interpret, and improve sites of importance. To support the work of the commission, Whitehall Township should take the following actions, as suggested by the D&L's management plan:³

- Adopt the *Delaware & Lehigh National Heritage Corridor and State Heritage Park Management Action Plan* through resolution.
- Work with the commission to understand Whitehall's role in the corridor and to identify specific actions to be undertaken.
- Designate a primary contact person in the township for communications on implementation.
- Serve as a partner in the Stewardship Compact.
- Consider amending the township's comprehensive plans, recreation plans, subdivision ordinances, Act 537 water-quality plans, and zoning to reflect corridor goals and guidelines. The commission supports municipalities through information-sharing, technical assistance, limited grants, specific services to support corridor actions, and collaboration in policy requiring regional action. In addition, the Pennsylvania State Heritage Park Program offers grants and technical assistance.

³Delaware & Lehigh National Heritage Corridor and State Heritage Park Management Action Plan, January 1993.

Whitehall Township, together with the Whitehall Historic Preservation Society, should become involved with the D&L Corridor, the state heritage park program, and Lehigh County's already-established partnership with the D&L Commission. The partnership should result in an action plan for the restoration of the Whitehall riverfront, followed by state and federal funding assistance and implementation. Other potential actions which would benefit from a strong alliance with the D&L include the construction of a trail along the Lehigh River, the restoration and interpretation of historic sites, and the reuse of buildings along the river.

HP-6: Reflect the historic qualities of the area in any future improvements to sidewalks, lighting, bridges, and other public improvements in the township.

All streetscape infrastructure must eventually be replaced. As needed, the township should replace sidewalks, streetlights, traffic signals, benches, or other infrastructure in a way that reflects the township or local village history. For example, metallic structures, such as street lights and mast arms, could be designed to reflect the iron forging industry of the 1800s. Concrete structures such as curbing, sidewalks, jersey barriers, or benches should be modified to reflect the township's rich history of cement manufacturing. Infrastructure improvements should involve cooperation with PennDOT, community input, and the involvement of a qualified consultant.

ECONOMIC DEVELOPMENT

A strong local economy is a crucial element of any vibrant community. Whitehall Township has built a local economy on regional retailing by allowing the development of the Lehigh Valley's largest shopping destinations. As the activity centers which anchor the Whitehall economy continue to age, the township must work to maintain a strong economy by attracting and retaining stable businesses in both the regional shopping areas and in the villages. The township's existing labor force, infrastructure, and other resources are the foundation of the local economy and should permit Whitehall to remain competitive as an economic leader in the Lehigh Valley.

Goal

- *Whitehall Township boasts a strong local economy, and is an economic leader in the Lehigh Valley.*

Objectives

- Attract and maintain retail commercial businesses, helping to keep Whitehall as the shopping capital of the Lehigh Valley.
- Redevelop brownfield sites in the township, especially for commercial and industrial business growth.

- Revitalize Whitehall’s villages into thriving, attractive, and unique mixed use areas that include retail business.

Recommendations

Economic Development (ED)-1: Work with regional and state economic development officials to improve the marketing of redevelopment sites.

Whitehall contains a number of sites prime for redevelopment—commercial and industrial buildings or properties that are either vacant, idle, or underused, sometimes known as “brown-fields”—including:

- Bag House (Bridge Street in Egypt)
- Ciccone Brothers Quarry (Coplay Road and Chestnut Street)
- Dent Hardware (Union Street in Fullerton)
- Essroc property (Willow Street in Egypt)
- Lehigh Valley Dairy (MacArthur Road at Allentown border)
- Leiss Metals (Lehigh River in Fullerton)
- Replacement Parts (Lehigh River in Fullerton)
- Scheuermann property (Coplay Road and West Coplay Road)
- Tarkett property (Lehigh River in Fullerton)
- Thomas Ironworks (Lehigh River in Hokendauqua)

Local redevelopment sites, especially in commercial, office, or industrial zoning districts, present opportunities for new business investment. Redevelopment saves infrastructure costs and reduces the consumption of rural land elsewhere in the township. Whitehall Township (especially its Commercial & Industrial Development Authority) and the Whitehall Area Chamber of Commerce should work with the Lehigh Valley Economic Development Corporation (LVEDC) and the Greater Lehigh Valley Chamber of Commerce to promote local redevelopment sites. LVEDC maintains a land



Dent Hardware



Essroc property

recycling initiative that includes a list of brownfields in the Lehigh Valley. The township should work with LVEDC to add Whitehall brownfields to the list and be posted on the LVEDC website (www.lehighvalley.org). The Pennsylvania Department of Community and Economic Development (DCED) and Department of Environmental Protection (DEP) offer grants of up to 75% and low-interest loans for assessment and remediation of environmentally-contaminated sites. Eligible applicants include private companies, nonprofit economic development agencies, or authorities.

ED-2: Work with appropriate agencies to encourage more heritage-based tourism in Whitehall.

Whitehall Township and the Whitehall Historic Preservation Society should enlist the help of the Delaware & Lehigh Canal National Heritage Corridor Commission (D&L) and the Lehigh Valley Convention and Visitors Bureau (LVCVB) to increase heritage tourism in the area. As described in the *Historic Preservation* section of the *Whitehall Township Comprehensive Plan*, the D&L will be a long-term partner in restoring and interpreting additional historic sites in the township, particularly along the Lehigh River. Furthermore, LVCVB can direct both tourists and local residents to Whitehall's historic sites through publications, the LVCVB website, and outreach efforts. Whitehall has a wealth of heritage opportunities waiting to be discovered. When people visit local sites, Whitehall businesses benefit from money spent at local restaurants, gas stations, and stores.

ED-3: Maintain and attract the businesses in the regional shopping district.

People come from all over the Lehigh Valley, as well as surrounding counties and New Jersey, to shop in Whitehall. Most are attracted by the presence of national brand chain stores, restaurants, and the Lehigh Valley Mall. The township should continue to support large businesses as an important component of the local economy. To attract more businesses in the regional shopping district, the township should market key advantages, such as the infrastructure cost savings of vacant shopping spaces, easy highway access, and a well-established reputation as a shopping destination. The township should also strive to improve traffic circulation and beautify the regional shopping district so that visitors return repeatedly.

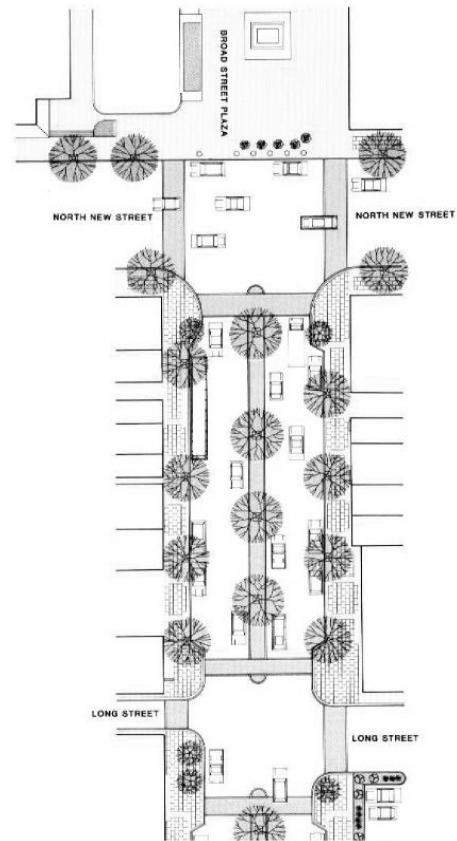
New shopping centers have been built or are proposed in Bethlehem Township, Palmer Township, and Lower Macungie Township. Upscale "lifestyle centers" are proposed in Upper Saucon and Palmer Townships. The owners of the Lehigh Valley and Whitehall Malls met with township officials in Spring of 2004 to discuss renovating the malls to compete with lifestyle centers. Whitehall should work with the malls and other regional retail owners to maintain the township as the largest regional shopping district in the Lehigh Valley.

ED-4: Consider efforts to revitalize the villages.

For nearly two centuries, small retailers in Cementon, Egypt, Fullerton, and West Catasauqua have provided personalized goods and services for local residents. The regional shopping presence should not be allowed to overshadow the importance of the villages for local goods and services. Each

village is unique, and the township should consider various aesthetic improvements to attract more residents to local shops. The experience of places such as Center City Bethlehem, Jim Thorpe, New Hope, and the Manayunk and Chestnut Hill sections of Philadelphia demonstrate that attractive settings draw visitors, businesses, and shoppers alike. Improvements to Whitehall's villages could include the following:

- Planting street trees and other landscaping enhancements.
- Replacing inadequate sidewalks.
- Adding streetscape elements, such as planters, benches, and trash receptacles.
- Beautifying infrastructure with period street lighting, attractive traffic light mast arms, and decorative street signs.
- Adding mid-block crosswalks and extending sidewalks to facilitate safe pedestrian movement.
- Placing utility wires underground, as feasible, when doing other major work
- Placing "Welcome to" signs at village entrances.
- Amending municipal zoning ordinances to strengthen existing sign regulations.



Example of streetscape enhancement, Bethlehem, PA (Source: URDC)

A unique design theme could be identified for each village, to further focus and differentiate the improvements. The individual themes could be tied together with a unifying Whitehall Township theme. Revitalization will improve the business and beauty of each village and benefit the economy of Whitehall Township as a whole.

ED-5: Evaluate the benefits of the Pennsylvania New Communities Program.

The New Communities Program, offered through the Pennsylvania Department of Community and Economic Development (DCED), combines three former programs under one appropriation:

- *Main Street Program*, to revitalize downtown areas.
- *Elm Street Program*, to revitalize the residential neighborhoods surroundings downtowns.
- *Enterprise Zone Program*, to revitalize and reuse industrial areas.

Whitehall has a mix of aging downtowns, older residential areas, and underused industrial sites, all of which could benefit from different components of the New Communities Program. Successful applicants receive grants for planning, management, and physical restoration. The township should review the particulars of the program and develop the strongest possible application(s). The program manual can be found at http://www.newpa.com/docs/guidelines_NewCommunitiesMainStreet.pdf.

ED-6: Consider additional lodging and convention opportunities.

Whitehall is an ideal location for hotel and convention space, which can provide economic benefits through hotel taxes and additional sales at surrounding businesses. Whitehall is situated at the center of the Lehigh Valley, minutes from Allentown, Bethlehem, and the Lehigh Valley International Airport. With two exits on U. S. 22, Whitehall is also closely tied to the regional highway network, which provides access to Philadelphia, Harrisburg, and New York City within 90 minutes. The competition from hotels on Airport Road, PA 512, and PA 100 can be met with newer, updated facilities, and closer proximity to a major shopping district. In Whitehall's villages and rural areas, "bed and breakfast" sites can add to the mix of lodging options and are permitted in most of the township's zoning districts.

PLAN INTERRELATIONSHIPS AND TIMING

The *Whitehall Township Comprehensive Plan* addresses six major topics:

- Land use and housing
- Natural features
- Community facilities and services
- Transportation
- Historic preservation
- Economic development

All six major topics are interrelated. Planning and capital programming actions taken in any one area is likely to affect one or more of the other areas. For instance, land use decisions often affect circulation patterns and community services, such as public utilities and recreation needs.

The timing of additional development and redevelopment in Whitehall Township will largely depend upon the private real estate market. The *Whitehall Township Comprehensive Plan* addresses major development and conservation patterns for the next 10 to 15 years. The township's development patterns and community needs should be reassessed within the next 3–5 years, and the plan should be revised accordingly. Major zoning changes should be made only after the township assesses how the proposed change(s) conform with the spirit of the comprehensive plan.

ACTION PROGRAM

The action program presents recommendations to implement the *Whitehall Township Comprehensive Plan*. Topics discussed include communications, internal cooperation, township ordinances, and grants.

AP (Action Plan) -1: Promote substantial citizen input to keep residents informed about community issues and encourage volunteer efforts to improve the community.

Volunteer efforts by neighborhood and civic organizations and individuals are essential to further improve the township. Community pride is a powerful motivator, and the township must work to keep residents informed and provide opportunities for meaningful input while making use of new technologies for communication. Whitehall Township should have an Internet site that is regularly updated with information that will help spur public interest, enthusiasm, and involvement, including information on recreation programs and agendas for upcoming municipal meetings. Opportunities for citizen involvement should also be highlighted through the newspaper and other media. Resident involvement will not only improve the community, but also help to bring the villages together into a unified Whitehall.



AP-2: Continually use the plan and perform short-term actions with a long-range perspective.

The township should continue to enlist help from its citizens through advisory committees and boards.

Planning is a continuous process. The *Whitehall Township Comprehensive Plan* should be implemented through a continuous process of follow-up planning and action. Short-term actions must be taken with some understanding of the long-range ramifications, both benefits and consequences. The plan should be consistently used as an overall guide for land use decisions. In addition, the plan should be reviewed periodically and, if necessary, updated to reflect changing trends.

AP-3: Continually engage all township departments and the school district to facilitate implementation of this plan.

To be effective, community planning efforts require a close working relationship between all municipal departments, as well as the school district. The Whitehall Township Planning Commission should continually meet with the Board of Commissioners, Recreation Commission, Public Works Department, Township Engineer, advisory committees, and Whitehall-Coplay School District officials. Communication will help to implement the comprehensive plan and to foster cooperation on new planning issues that arise after the adoption of the plan. Communication between all township departments and the school district will be mutually beneficial and will help to move Whitehall forward with common goals.

AP-4: Become involved in all regional and adjacent planning efforts, while bearing in mind the goals of this comprehensive plan.

Whitehall Township is part of a larger region that is both dynamic and interconnected. The decisions made by adjacent municipalities, Lehigh County, and the Lehigh Valley Planning Commission all affect Whitehall Township. Whitehall Township should keep in mind the goals of this comprehensive plan when performing state-mandated reviews of adjacent comprehensive plans. The township should also participate in county-wide or valley-wide planning processes, such as greenway and open space plans, transportation plans, and the periodic Comprehensive Plan for Lehigh and Northampton Counties drafted by the LVPC.

AP-5: Use all available tools, as appropriate, to implement the plan.

The *Whitehall Township Comprehensive Plan* establishes overall policies for guiding the future development and conservation of the region. However, the plan is only a guide for local policy. In Pennsylvania, the following major tools are available to help implement the plan:

- Zoning Ordinance
- Subdivision and Land Development Ordinance
- Construction codes
- Official Map
- Computerized mapping
- Capital Improvements Planning
- Municipal annual spending.
- Federal, state, and county grants.

Zoning Ordinance

Municipal zoning ordinances are the primary legal tool to regulate the uses of land and buildings. The zoning ordinance includes a zoning map that divides the municipality into different zoning districts. Each district permits a set of activities and establishes a maximum density of development. The zoning ordinance and map should be updated as needed to be generally consistent with the *Whitehall Township Comprehensive Plan* to modernize standards and to address local concerns. In addition to regulating land uses and densities, zoning also controls:

- Building height.
- Percentage of a lot that may be covered by buildings and paving.
- Minimum distances that buildings may be placed from streets and property lines.
- Minimum size of lots.
- Maximum sizes and heights of signs.
- Protection of important natural features.

Subdivision and Land Development Ordinance

Whitehall Township has an adopted Subdivision and Land Development Ordinance (SALDO). A SALDO regulates the creation of new lots, the construction of new streets by developers, and the site engineering of new commercial, industrial, and institutional buildings.

Construction Codes

The Pennsylvania Uniform Construction Code (P. L. 491, No. 45, 10 Nov 1999, as amended) applies modern construction codes within all municipalities. The state law is based on a model code prepared by a national organization. Construction codes are particularly important to minimize fire hazards. Whitehall has been enforcing local housing and construction codes since the late 1960s.

A municipal property maintenance code is a tool many municipalities use to help control blight. Enforcement of a maintenance code requires the staff to regularly monitor conditions in the area covered by the code. Whitehall Township has enforced a property maintenance code ever since the township had adopted building codes. The code requires a safety inspection of all commercial and residential structures prior to sale or lease, which is a significant tool in preserving the existing housing stock and minimizing certain safety hazards. Township staff perform more than 1,000 property safety inspections each year.

Official Map

The Pennsylvania Municipalities Planning Code (Act 247, as amended) grants municipalities the authority to adopt an official map. The adopted Whitehall Township Official Map designates proposed locations of new streets (Map 2.15), intersection improvements, and future parks. Whitehall may consider adding any future desired open space, community facilities, or trail connections.

The Whitehall Township Official Map affords the township a limited amount of authority to reserve land for identified projects. If land designated on the map is proposed for development, the township has one year to either purchase the land at fair market value or decide not to proceed with the project. The 1-year period provides time for the municipality to raise funds to acquire the land and avoid lost opportunities. If the township had no official map, a building permit could be obtained almost immediately to construct a building that could obstruct future municipal projects. An official map also serves to provide notice to property owners about the municipality's future plans.

Computerized Mapping

The Lehigh Valley Planning Commission (LVPC) operates a computerized mapping system, or Geographic Information System (GIS). The maps in the *Whitehall Township Comprehensive Plan* are based on data from the LVPC's GIS.

Whitehall Township has access to the GIS data and owns software to view and use the data. The township should consider expanding the use of GIS for planning decisions. For example, regular mapping of traffic accident locations can be helpful to identify hazardous conditions that need to be resolved, such as sight distance problems. Easily available digital maps of natural features such as floodplains, wetlands, and steep slopes can supplement initial talks between developers and township officials.

Park, Recreation, and Open Space Planning

Whitehall Township updated its comprehensive park, open space and recreation plan in 2004. Like the comprehensive plan, the park, open space, and recreation plan should be updated every 10–15 years, and formally reviewed every 3–5 years. Recreation and open space planning provides further focus to the recreation needs of the community and the preservation priorities of the township’s natural features. The plan supplies the necessary additional detail to recreation and open space that is not typically covered in a comprehensive plan.

Capital Improvements Planning

Whitehall Township has a system in place to continually plan and budget for major capital expenditures. Capital improvements are projects involving a substantial expense to construct or improve major public facilities that have a long life span and that are not funded through annual operating expenses. Examples of capital projects include major street improvements, parkland acquisition, major storm sewer construction projects, and new bridges.

A municipal Capital Improvements Program (CIP) identifies needed projects, establishes project priorities, identifies possible funding sources, and helps to budget for the project. A typical CIP looks five years in the future. A CIP should identify major street reconstruction projects that will be needed over the next few years. Coordinating street reconstruction helps utilities avoid the need to cut into a street shortly after repaving. Through a CIP, many different projects can be combined into a single bond issue, which avoids the high administrative costs of multiple bond issues. A CIP also allows the township to carefully time bond issues to take advantage of the lowest interest rates.

Other Implementation Tools

Municipal budgeting can influence the implementation of the local comprehensive plan. In addition to establishing local priorities and providing municipal funds for projects supported by the plan, local budgets establish municipal tax rates, which influence business and personal decisions about locating inside or outside a municipality.

Grants and loans from federal, state, and other sources can help finance projects and reduce the financial burden on local taxpayers. Whitehall Township should aggressively pursue any available project funding in either the public or private sector. A full list of major funding sources and grants is found in Appendix B of the *Whitehall Township Comprehensive Plan*.

Role of the Planning Commission

Some of the greatest responsibilities of the Whitehall Township Planning Commission are to oversee the preparation and implementation of the comprehensive plan and the preparation of zoning and subdivision ordinance revisions. On a monthly basis, the planning commission also reviews proposed developments. The planning commission also has a role in reviewing proposals of other government agencies.

Role of the Board of Commissioners

The final decision on nearly all matters affecting the growth and preservation of Whitehall Township rests with the Whitehall Township Board of Commissioners. Therefore, close communications and cooperation between the planning commission, the municipal staff, and the elected officials will be essential in continuing to improve quality of life in Whitehall Township.

APPENDICES

- A Whitehall Township Community Survey**
- B Community Development Funding Sources**

Appendix A

Whitehall Township Community Survey

As part of the comprehensive planning program, Whitehall Township mailed a survey to every household in the township — a total of 11,492 questionnaires — asking for residents’ opinions on a variety of subjects relating to future land use and government services in the township. A total of 1,629 completed questionnaires were returned, for a response rate of 14.2 percent (slightly less than one in seven). The following information illustrates the results of the survey.^{1,2}

1. How many persons in each of the following age groups are in your household?

Age Range (years)	Population of Surveyed Households	Percent	
		Survey	2000 Census
0–9	362	9%	11%
10–19	481	12%	12%
20–29	315	8%	12%
30–49	1,081	28%	31%
50–64	823	21%	16%
65 or older	832	21%	18%
Totals	3,894	100%	100%

2. How long have you lived in Whitehall Township? (n=1,576)

161 (10%) less than 3 years 280 (18%) 3–10 years
264 (17%) 11–20 years 871 (55%) more than 20 years

¹ A complete list of comments submitted with survey returns is available at the township building.

² Throughout Appendix A:

- The results of individual questions may not total 100% due to rounding.
- The term “n” refers to the number of respondents answering a particular question.

Whitehall Township Comprehensive Plan

3. Do you agree with the following ideas?

	<u>Strongly Agree</u>	<u>Agree</u>	<u>Disagree</u>	<u>Strongly Disagree</u>	<u>No Opinion</u>	Rating ¹
Whitehall Township needs more residential development. <i>(n=1,540)</i>	114 (7%)	357 (23%)	549 (36%)	378 (25%)	142 (9%)	- 0.47
Whitehall Township needs more commercial development. <i>(n=1,558)</i>	48 (3%)	227 (15%)	558 (36%)	616 (40%)	109 (7%)	- 0.94
Whitehall Township needs more industrial development. <i>(n=1,559)</i>	122 (8%)	404 (26%)	431 (28%)	491 (32%)	111 (7%)	- 0.49
Farmland and natural areas in Whitehall Township should be preserved even if current residents and businesses have to pay more property taxes to do so. <i>(n=1,559)</i>	301 (19%)	598 (38%)	345 (22%)	211 (14%)	104 (7%)	0.28
New developments should include large areas of open spaces. <i>(n=1,550)</i>	392 (25%)	734 (47%)	186 (12%)	82 (5%)	156 (10%)	0.75
New developments should include smaller lot sizes. <i>(n=1,526)</i>	104 (7%)	304 (20%)	528 (35%)	327 (21%)	263 (17%)	- 0.44
We should be concerned about the quality and amounts of ground-water. <i>(n=1,576)</i>	844 (54%)	654 (42%)	17 (1%)	13 (1%)	48 (3%)	1.46
It is important for Whitehall to continue spending money improving roads throughout the township. <i>(n=1,575)</i>	508 (32%)	947 (60%)	52 (3%)	14 (1%)	54 (3%)	1.20
It is important for Whitehall to provide incentives to keep the existing commercial districts strong. <i>(n=1,561)</i>	324 (21%)	858 (55%)	216 (14%)	62 (4%)	101 (6%)	0.75
Tax dollars should be used to provide incentives to preserve and restore historic buildings. <i>(n=1,562)</i>	169 (11%)	624 (40%)	411 (26%)	159 (10%)	199 (13%)	0.15
Whitehall Township needs more opportunities and facilities for recreation. <i>(n=1,549)</i>	209 (14%)	434 (28%)	442 (29%)	290 (19%)	174 (11%)	- 0.11
The township should own and, if necessary, maintain open space. <i>(n=1,561)</i>	327 (21%)	787 (50%)	213 (14%)	74 (5%)	160 (10%)	0.69
Central sewage service should be extended and expanded. <i>(n=1,500)</i>	124 (8%)	608 (40%)	226 (15%)	66 (4%)	476 (32%)	0.33
As Whitehall's residents grow older and the population changes, tax dollars should be used to provide more human and social services. <i>(n=1,567)</i>	310 (20%)	750 (48%)	253 (16%)	89 (6%)	165 (11%)	0.60

¹ Rating is the average (mean) value assigning the following points to responses:

Strongly Agree = 2, Agree = 1, Disagree = -1, Strongly Disagree = -2, No Opinion = 0

4. Which types of development should be encouraged in Whitehall Township? (Check all that apply.) *(n=1,619)*

Single-family homes	<u>959 (59%)</u>	Smaller stores and services	<u>553 (34%)</u>
Townhouses, twins, and apartments	<u>213 (13%)</u>	Shopping centers and larger stores	<u>143 (9%)</u>
Affordable housing for families	<u>459 (28%)</u>	Offices	<u>285 (18%)</u>
Affordable housing for seniors	<u>751 (46%)</u>	Industrial uses	<u>270 (17%)</u>
Adult communities (age 55+)	<u>680 (42%)</u>	Camps and campgrounds	<u>243 (15%)</u>
Condominiums	<u>220 (14%)</u>	Farming	<u>559 (34%)</u>
Planned residential developments	<u>398 (25%)</u>	Other (specify: _____)	<i>see comments</i>

Whitehall Township Comprehensive Plan

5. Do you support the idea of putting historic streetlights, street trees, improved sidewalks, new crosswalks, and similar public improvements in the villages of the township?

Cementon	(n=1,078)	Yes	<u>432 (40%)</u>	No	<u>646 (60%)</u>	Hokendauqua	(n=1,119)	Yes	<u>476 (42%)</u>	No	<u>643 (58%)</u>
Egypt	(n=1,110)	Yes	<u>486 (44%)</u>	No	<u>624 (56%)</u>	Stiles	(n=1,048)	Yes	<u>415 (40%)</u>	No	<u>633 (60%)</u>
Fullerton	(n=1,183)	Yes	<u>560 (47%)</u>	No	<u>623 (53%)</u>	West Catasauqua	(n=1,060)	Yes	<u>446 (42%)</u>	No	<u>614 (58%)</u>

6. Is there a problem road or intersection with which you have a concern? If so, what is it, and what could be done to fix it? Please understand two things: 1) Most of the major roads in Whitehall are primarily the responsibility of PennDOT, not Whitehall Township. 2) ANY proposed traffic control regulation, regardless of which streets are involved, must comply with PennDOT standards.

see comments

7. Do you believe in spending local tax dollars to help preserve farmland? (n=1,565)

Yes 578 (37%) No 464 (30%) Undecided 523 (33%)

8. Were you aware that Whitehall Township obtains more than 50% of its tax revenue from commercial business in the township? (n=1,569)

Yes 921 (59%) No 648 (41%)

9. In recent years, several major shopping hubs have developed in the Lehigh Valley, such as in Forks/Palmer Township and north Bethlehem, near U.S. 22. Should Whitehall Township spend significant township resources (time and money) to remain the commercial core of the Lehigh Valley? (n=1,486)

Yes 593 (40%) No 893 (60%)

10. Should Whitehall Township spend significant township resources (time and money) to encourage the redevelopment of vacant industrial sites ("brownfields") and/or vacant commercial areas? (n=1,512)

Yes 949 (63%) No 563 (37%)

11. Do you regularly use recreation facilities in Whitehall Township? (n=1,575)

Yes 361 (23%) No 644 (41%) Occasionally 570 (36%)

12. Do you believe there should be more community parks in Whitehall Township? (n=1,583)

Yes 536 (34%) No 709 (45%) Undecided 338 (21%)

Whitehall Township Comprehensive Plan

a. If you answered yes to #12, which would you rather see... (n=710)

- 43 (6%) Parks that mainly includes athletic fields and other active types of recreation?
246 (35%) Parks that mainly includes trails, woods, lands along a creek and passive types of recreation?
384 (54%) Parks that combines both active recreation and passive recreation?
37 (5%) Undecided

13. Please check off the three types of public recreation facilities that are most needed within Whitehall Township. (Please choose a maximum of 3 responses.) (n=1,619)

- | | | |
|--|---|--|
| <u>75 (5%)</u> Outdoor basketball courts | <u>621 (38%)</u> Wooded natural areas w/nature trails | <u>296 (18%)</u> Recreation bldg. with gymnasium |
| <u>218 (13%)</u> Children's playgrounds | <u>447 (28%)</u> Bicycle/jogging trails | <u>52 (3%)</u> Volleyball courts |
| <u>159 (10%)</u> Swimming pool | <u>402 (25%)</u> Picnic pavilions/picnic areas | <u>55 (3%)</u> Tennis courts |
| <u>80 (5%)</u> Baseball/softball fields | <u>576 (36%)</u> Place for outdoor special events, such as concerts/plays | <u>67 (4%)</u> Other (specify: <u>see comments</u>) |
| <u>66 (4%)</u> Soccer/football fields | | |
| <u>77 (5%)</u> Horseback riding trails | | <u>351 (22%)</u> No additional facilities are needed |

14. Have you ever contacted Whitehall Township with a concern? Yes 442 (30%) No 1,014 (70%)

a. If you answered yes to #14, please provide the following information so that we may improve township services:
see comments

Date: _____ Problem: _____ Person you spoke with: _____

How was the situation resolved? _____

15. Please describe any other local issues, concerns, opportunities or needed improvements that you would like to see addressed as part of the comprehensive plan.

see comments.

Appendix B

COMMUNITY DEVELOPMENT FUNDING SOURCES

The federal government, state government, private organizations, and foundations provide literally hundreds of funding sources for a variety of activities. Some of the most commonly used funding sources (Table B.1), including grants and loans, can help fund community development, economic development, recreation, housing, water and sewer, stormwater management, and other projects in Whitehall Township.

Table B.1
Major Community Development Funding Sources

Name of Program	General Description of Program	Administering Agency
C2P2 - Community Grants	Provides 50% matching grants to municipalities to fund: <ul style="list-style-type: none"> • Develop a plan for parks/recreation • Prepare master plans for individual parks • Acquire parkland/nature preserves • Prepare natural areas inventory (counties) • Rehabilitate and improve public recreation areas. 	PA DCNR
Communities of Opportunity	Provides grants to municipalities, redevelopment authorities, and housing authorities for community revitalization, economic development, and low-income housing development and rehabilitation.	PA DCED
Community Development Block Grant (CDBG)	Offers grants for a wide variety of activities, provided the applicant proves by survey or census that the project will benefit 51% low and moderate income persons or handicapped persons or eliminate "blighted" conditions in officially designated areas. For example, funds can be used for water and sewage improvements, storm drainage, handicapped accessibility, housing rehabilitation, parks and recreation, street and sidewalk improvements, code enforcement, community planning, and historic rehabilitation.	Lehigh County
Community Development Bank, PA.	Provides capital and capacity building grants to "Community Development Financial Institutions" (CDFIs). CDFIs assist with small scale business expansions, new business starts, nonprofit facilities, and very small businesses.	PA DCED
Community Facilities Loan Program, Federal	Offers low-interest loans to construct, enlarge or improve essential community facilities for public use in rural areas and towns with population less than 50,000. Also offers guarantees of loans by private lenders.	U.S. Dept. of Ag., Rural Housing Service
Community Revitalization Program	Very broad grant program. Officially intended to promote community stability, increase tax bases and improve quality of life. Applications may be made by municipalities, authorities, economic development organizations, and nonprofit corporations. Public/non-profit/profit partnerships are encouraged. Generally can be used for infrastructure, community revitalization, building rehabilitation, demolition of blighted structures, public safety, and crime prevention.	PA DCED & Governor's Office
Community Conservation Partnerships Program (C2P2) - Land Trust Grants	Grants to well-established non-profit land trusts and conservancies to plan for and acquire critical natural areas. Land that is acquired must be open to the public.	PA DCNR
Competitive Tourism Development	Grant can be used for either: 1. Large, one-time events that attract visitors to Lehigh County, or 2. New or improved tourism venues that are large and regional in nature. Maximum grant award is \$25,000.	Lehigh County
Conservation Corps, PA.	Provides funding for work crews for community projects, such as trail improvements.	PA DCNR
Customized Job Training	Provides grants to businesses (other than retail) to train new employees and retrain and upgrade existing employees. Up to 100% of eligible costs may be paid for new job creations, and up to 70% for other eligible training.	PA DCED (apply through a state-licensed education agency)

Whitehall Township Comprehensive Plan

Name of Program	General Description of Program	Administering Agency
Downtown Pennsylvania Program	Offers full-time management to organize and implement a Business District Authority that provides financing for additional services in a commercial area. The Commercial Revitalization program funds physical improvement projects that are consistent with an action plan. Projects may include site improvements, facade renovations and adaptive reuse of downtown buildings. (See also "Main Street Program")	PA DCED
Economic Development Administration (EDA) Loan Guarantees	Guarantees business loans made through private lenders. Available for up to 80% of project cost. Primarily intended for manufacturers, but commercial businesses may qualify. Equity contribution is required by business. Must show job creation.	U.S. EDA (Philadelphia)
EDA Economic Adjustment Grants	Provides grants to design and implement strategies to adjust to serious job losses to a local economy, such as natural disasters and defense spending reductions.	U.S. EDA (Philadelphia)
EDA Public Works Grants	Offers grants to distressed municipalities to assist in attracting new industries and encourage business expansion. Projects typically involve water and sewage improvements primarily serving industries, industrial access roads, and business incubators. A 50% local match is typically required.	U.S. EDA (Philadelphia)
Elm Street Program (part of the "New Communities" program)	Offers grants of up to \$250,000 for planning, technical assistance, and physical improvements to residential and mixed-use areas within close proximity to a central business district. Administrative costs are covered for a maximum of five years (one planning year, four operational years). A minimum 10% local fund matching is required.	PA DCED
Emergency Services Loan Program	Provides low-interest loans to fire and ambulance companies to acquire vehicles, or to renovate or acquire buildings to house vehicles.	PA Emergency Management Agency
Enterprise Zone Tax Credits	Provides state tax credits to businesses located within state-designated Enterprise Zones for new building construction and rehabilitation of existing buildings.	PA DCED
Enterprise Zone Program (part of the "New Communities" program)	Encourages investment in "enterprise zones" that are distressed areas designated by the state. Main benefits include: 1. low-interest loan pools (e.g., building acquisition, construction, renovation and machinery) 2. local technical assistance connecting with financing and technical resources 3. Preferences in certain state grant and loan programs. Priority given to industrial businesses. Grants are also available for the initial planning of proposed enterprise zones and for program administration. (See also "E.Z. Tax Credits" below. This program is completely separate from the Federal Empowerment Zone/Enterprise Community program..)	PA DCED
Environmental Protection Agency (EPA) Brownfields Program	Grants for a very limited number of pilot demonstration projects for cleanup of contaminated underused industrial sites.	U.S. EPA (Philadelphia)
Flood Control - Army Corps of Engineers (CoE): U.S. Natural Resources Conservation Service (NRCS)	Various types of projects to manage flooding. Typically, the CoE is involved in larger watersheds, while NRCS has primary responsibility for smaller watersheds.	U.S. Army CoE U.S. NRCS
Flood Hazard Mitigation Grant Program	Provides 75% funding to relieve imminent hazards from flooding, such as voluntary buy-outs and demolitions of highly flood-prone properties.	Federal Emergency Management Agency
Flood Protection Program, PA	Offers design and construction of flood protection projects. The project must be deemed economically justifiable under the state capital budget process.	PA DEP Bureau of Waterways Engineering

Whitehall Township Comprehensive Plan

Name of Program	General Description of Program	Administering Agency
Green Futures Fund	\$30 million park, open space, and farmland preservation program approved by Lehigh County voters in 2002. Municipalities receive a noncompetitive population-based target allocation. Whitehall's allocation is \$1,341,000 over 10 years. Eligible projects in townships include fee simple land acquisitions and perpetual easements with deed covenants ensuring recreational use/public access.	Lehigh County
Heritage Parks Program	Provides grants up to 75% of costs for projects within state-designated "Heritage Parks" to preserve and interpret the significant contribution that certain areas made upon the industrial heritage of the state and nation. Funds four types of projects: <ul style="list-style-type: none"> • Feasibility studies • Special purpose studies • Management Action Plan • Implementation projects. Projects are intended to conserve natural, historic and recreational resources relating to industrial heritage to stimulate regional tourism.	PA DCNR
Historic Preservation Tax Credits	Offers federal income tax credits for a percentage of the qualified capital costs to rehabilitate a certified historic buildings, provided the exterior is restored. The program is generally limited to income-producing properties.	National Park Service
Historic Preservation - Certified Local Government Grants	Provides modest-sized matching grants to provide technical assistance to municipalities that have official historic districts and meet other criteria to be "certified."	Federal, administered by PA Historical and Museum Commission (PHMC)
Historic Preservation Survey and Planning Grants	Matching grants for historic surveys, historic preservation planning and National Register nominations. Available to municipalities and nonprofit organizations. Cannot be used for construction.	Federal, administered by PHMC
HOME Investment Partnership	Provides grants for expanding the supply of housing for low-income persons, including new construction, acquisition and rehabilitation. Local governments may apply, which may be on behalf of public agencies, for-profit or nonprofit developers. PHFA administers Federal HOME funds for financing 5 or more units, coordinated with federal Low Income Housing Tax Credits.	Federal HOME funds, administered by PA DCED and PHFA
Home Town Streets (HTS) / Safe Routes to School (SRS)	Provides reimbursement (not grants) for eligible activities. HTS projects help to reestablish downtowns and commercial centers. Examples include sidewalk improvements, planters, benches, street lighting, pedestrian crossings, transit bus shelters, traffic calming, bicycle amenities, kiosks, community "gateway" plantings, signage, and other visual elements. SRS projects provide safe passage for children to walk or bike to school. Examples include sidewalk improvements, pedestrian/ bicycle crossing improvements, bike lanes, traffic diversion improvements, off-street bicycle and pedestrian facilities. In addition, SRS may fund traffic calming measures to slow the speed of cars such as curb extensions, bulb-outs, traffic circles, raised median islands, speed humps, and textured or raised crosswalks. SRS projects must be principally for transportation purposes, rather than recreational use.	PennDOT
Housing Programs - mainly including Federal HOME Program (Home Investment Partnerships Program)	Provides grants, low-interest loans, and loan guarantees to for-profits and nonprofits to construct or rehabilitate housing for low and/or moderate income persons. Most cities receive HOME funds that are allocated among eligible applicants. Funds are also provided to local community-based housing development organizations to develop housing. Funds are also provided through private lenders to assist with down payment and closing costs for low-income and disabled persons to purchase a home for their own occupancy. The HOPE Homeownership Program subsidizes home ownership of public housing, multi-family units and single-family units. Funding can be used for rehab of owner-occupied and rental housing. Other federally funded housing programs include: Emergency Shelter Grants, Supportive Housing for the Elderly (Section 202), Single Room Occupancy Housing Program, Supportive Housing for Persons with Disabilities, and Housing Opportunities for Persons With AIDS. (See also "HOME Partnerships" below)	PA Housing Finance Agency (PHFA) PA DCED
Industrial Sites Reuse Program, PA ("Brownfields")	Provides grants of up to 75% and low-interest loans for assessment of environmental contamination and remediation work at former industrial sites. Available to private companies, nonprofit economic development agencies, or authorities that own the land. Mainly targeted towards cities. Financing is not available to the company that caused the contamination.	PA DCED in cooperation with PA DEP

Whitehall Township Comprehensive Plan

Name of Program	General Description of Program	Administering Agency
Infrastructure Development Program, PA. (replaced BID Program)	Provides grants and low-interest loans for public and private infrastructure improvements needed for a business to locate or expand at a specific site. Financing is also available for infrastructure to redevelop industrial sites that have been idle more than 6 months, such as acquisition and demolition. Primarily available for industries, research facilities, company headquarters, and business park developments. A 2:1 private to public match is typically required. A commitment is required to create jobs as a condition of funding. Generally applicants must be municipalities or economic development organizations.	PA DCED
Intermunicipal Projects Grants	Promotes cooperation between neighboring municipalities so as to foster increased efficiency and effectiveness in the delivery of municipal services at the local level.	PA DCED
Job Creation Tax Credits, PA	Provides state tax credits to businesses that commit to create new jobs in PA within the next 3 years. Recipient must create 25 new jobs or 20% of the existing work force, and jobs must pay over a certain minimum income. Recipient must explain how the business exhibits leadership in technological applications.	PA DCED
Keystone Opportunity Zone	Provides a range of benefits to locally-nominated, state-designated areas that are financially distressed. Reduces local real estate taxes for an initial set of years.	PA DCED
Keystone Historic Preservation Funds	Provides 50% matching grants to fund analysis, acquisition, or rehabilitation of historic sites. The site must be on the National Register of Historic Places or officially determined to be eligible for listing. The site must be accessible to the public after funding. Grants can be made to public agencies or nonprofit organizations.	PHMC
Land Use and Planning Technical Assistance Program	Assists local governments and counties to prepare comprehensive plans, downtown plans, special community development studies, and development regulations. Typically provides 50% of the eligible costs. Typically requires participation by two or more municipalities.	PA DCED
Local Government Capital Projects Loan Program	Provides low-interest loans to municipalities with populations of 12,000 or less for the purchase of equipment and the purchase, construction, renovation or rehabilitation of municipal facilities. Priorities are given to projects that are necessary for public health and safety or involve intergovernmental cooperation.	PA DCED
Low Income Housing Tax Credit, federal	Offers federal income tax credits to nonprofit and for-profit developers of housing for low-income persons. Nonprofits can sell tax credits to investors.	PHFA
Low-income homeowner programs	1) Interest-free second mortgage to assist with purchase or closing costs for low-income, first-time homebuyers 2) Weatherization program for low-income homeowners Residents apply directly to DCOED.	DCOED
Machinery and Equipment Loan Fund	Provides low-interest loans to acquire or upgrade machinery and equipment and related engineering and installation for industrial, agricultural, processing and mining businesses. The business must agree to create or preserve jobs as a condition of the financing.	PA DCED
Main Street Program (part of the "New Communities" program)	In the downtowns of designated "Main Street Communities," provides initial planning grants and administrative grants over a 3-year period to pay a large share of the costs of a professional manager to coordinate downtown revitalization efforts. May receive matching grants for facade restoration and other design improvements. Usually limited to municipalities of 5,000 to 50,000 persons.	PA DCED
Minority Business Development Authority, PA (MBDA)	Provides low-interest loans for businesses owned and operated by minorities. Can generally be used for industrial, international trade, franchise, retail, and commercial uses. Can be used for site acquisition, building construction, and renovation, machinery and working capital.	MBDA, PA DCED
Municipalities Financial Recovery Act, PA	Provides technical advice and grants for special purposes (such as studies to improve service efficiency) within municipalities that have been officially designated as "financially distressed." After application and designation, the municipality must follow a financial recovery plan.	PA DCED

Whitehall Township Comprehensive Plan

Name of Program	General Description of Program	Administering Agency
National Recreational Trails Funding (Symms NRTA)	Provides grants for the acquisition and development of recreation trails (which may include trails for motorized vehicles). A 50% local match is required. Applications may be made by federal, state or local government agencies or organizations.	federal, administered by PA DCNR
Neighborhood Assistance Tax Credit Program	Authorizes state corporate income tax credits to private companies to donate funds for services to low-income persons or impoverished neighborhoods. The services typically include neighborhood revitalization, job training, education, social programs to reduce welfare dependency, or crime prevention. The tax credit usually equals 50 to 70% of the eligible donation. Partnerships are required between the business and a neighborhood organization.	PA DCED
New Communities Program	Combines Pennsylvania's Main Street, Elm Street, and Enterprise Zone programs into a singular aid package that can be tailored to best fit the needs of a municipality. (The three programs are each listed individually.)	PA DCED
Nutrient Management Plan Development Incentive Program	Grants of \$4 per acre are available to farmers to cover up to 75% of the cost of preparing nutrient management plans. Low-interest loans are also available through the state to help implement nutrient management-related best management practices.	County Conservation District
On-Lot Septic System Program	Offers low-interest loans to limited income households to repair failing on-lot septic systems.	PennVest, PHFA
Opportunity Grant Program (replaced Sunny Day Fund)	Offers grants to create or preserve very substantial numbers of jobs. May be used for job training, infrastructure, land and building improvements, machinery and equipment, working capital, or environmental assessment and cleanup.	Apply through Governors Action Team
Parks 2005	A grant for the acquisition of open space for park development. The evaluation process favors large tracts of land (25 acres or more) that are close to current or projected population concentrations. Land should be suitable for a variety of recreation uses, and open to all residents of Lehigh County.	Lehigh County
PA Economic Development Financing Authority (PEDFA)	Provides low-interest rate financing of business growth. Projects that can be funded with bonds that are exempt from federal income tax have a lower interest rate than other types of projects. The lower rate financing is limited to activities such as site acquisition, building construction and rehabilitation, and new equipment - for manufacturing and certain transportation and utility uses. The higher rate is available to a broader range of businesses and a much wider variety of expenditures.	PEDFA, administered through local industrial development corp. (IDC) or authority (IDA)
PA Industrial Development Authority (PIDA) Programs	Makes available low-interest financing to businesses and industrial development agencies to create or retain business jobs. Can be used for industrial, research, agricultural processing, and major office uses. Can be used for site acquisition, building construction or renovation, multitenant buildings, and industrial park development. A lower interest rate is available for advanced technology projects and in enterprise zones and areas of high unemployment	PIDA, PA DCED Apply through a local Industrial Development Corp. (IDC) or Authority (IDA)
PA Infrastructure Investment Authority (PennVest)	Offers low-interest loans for construction and improvement of drinking water and wastewater systems. 100% grants may be available for highly-distressed communities. Mainly intended for public systems, but some private systems may be approved. Water projects are funded through the Drinking Water Revolving Loan Fund. Sewage projects are funded through the Clean Water Revolving Fund. PennVest is also authorized to provide loans for projects to control existing stormwater problems, such as separating stormwater from sanitary sewage. The "Advance Funding Program" provides low-interest loans for feasibility studies and engineering of systems if the utility cannot fund such work itself.	PennVest PA DEP (Bureau of Water Supply Management) — Involves both U.S. EPA and state funds
PennCAP	Provides a guarantee of loans to businesses made by participating banks.	DCED, Apply through a participating bank
Quality of Life Grant	Funds for civic, cultural, or recreational groups, operations, programs, or events. Government agencies and nonprofits are eligible. Maximum grant is \$66,250.	Lehigh County
Rails to Trails, PA	Provides grants for feasibility studies, master site plans, acquisition, and improvement of former railroad lines for recreation trails. A 50% local match is required. Open to municipalities, authorities, and nonprofits.	DCNR

Whitehall Township Comprehensive Plan

Name of Program	General Description of Program	Administering Agency
Recreation Reinvestment Program	Grant for park and recreational <i>improvements</i> , focusing primarily on urban areas and other areas where open space is difficult to acquire. Awards range from \$10,000 to \$100,000 and must be matched one-to-one by the municipality.	Lehigh County
Recycling Grants (Act 101 of 1988)	Grants for up to 90% of municipal costs to develop and implement recycling programs, such as the purchase of recycling bins and composting equipment. Grants are also available to counties for a recycling coordinator, waste management plans, and pollution prevention education.	PA DEP Bureau of Land Recycling and Waste Management
Recycling Market Development Loan Fund	Provides low-interest loans to businesses to purchase recycling source-separating equipment.	PA DEP Bureau of Land Recycling and Waste Management
Rivers Conservation Program, PA	Offers 50% grants to conserve and enhance river resources. Typically, funding is first provided for a conservation plan for a waterway. Grants are available to implement an approved plan. Available to municipalities, authorities, and nonprofits.	PA DCNR
Rural Economic and Community Development Programs, U.S.	Federal programs available in rural areas: <ul style="list-style-type: none"> • Business & Industrial Guaranteed Loan Program - Provides partial guarantees of loans by lenders for working capital, machinery, buildings, land, and certain types of debt refinancing. Loans can be made to businesses, municipalities, or nonprofit organizations. • Intermediary Re-lending Loans - provides very low-interest loans to nonprofit organizations to reloan for businesses and community development projects. • Rural Business Enterprise Grants (former Ind. Dev. Grants) - provides grants for land acquisition and construction of buildings and utilities to facilitate small business development. • Home Ownership Loans - aid low- and moderate-income rural residents or buy, build or repair personal dwelling. • Rural Rental Housing Loans - assist individuals or organizations to build or rehab rental units for low-income and moderate-income residents in rural areas. • Home Improvement and Repair Loans and Grants - assist very low-income rural homeowners to remove health and safety hazards in their homes or to improve handicapped accessibility. • Rural Housing Site Loans - assist in purchasing sites for housing development by private, public or nonprofit organizations. • Housing Preservation Grants - assist nonprofits and public agencies with grant funds to assist low-income owner-occupants and owners of low-income apartments with repairing homes in rural areas. 	U.S. Dept. of Ag., Rural Development Administration (RDA - formerly Farmers Home Administration)
Rural Utilities Service Financing	<ul style="list-style-type: none"> • Offers low-interest loans for drinking water and sewage projects for rural areas and small towns. The "Water and Water Disposal Loan Program" provides loans for water supply, wastewater disposal, solid waste disposal, and stormwater management systems for rural areas and towns with a population less than 10,000 persons. Available to municipalities, authorities, and nonprofit corporations. Grants up to 75% of project costs may be available for highly distressed areas. Also guarantee loans by private lenders. • Provides grants to nonprofit organizations to provide technical assistance to rural communities or for a circuit rider to serve several rural water systems. • Offers emergency grants to communities that have experienced a significant decline in quantity or quality of drinking water. 	U.S. Dept. of Ag., Rural Utilities Service
Sewage Facility Planning Grants	Grants to pay up to 50% of the costs to prepare a new sewage facilities plan or update an existing plan, under State Act 537 of 1966.	PA DEP
Shared Municipal Services	Provides modest-sized 50/50 matching grants to promote cooperation among municipalities, in order to increase the efficiency of public services. Two or more municipalities may apply, or a council of governments.	PA DCED
Small Business Incubator Program	Provides loans and grants for facilities in which multiple new businesses operate under one roof with affordable rents, shared services and equipment, and equal access to a wide range of professional, technical, and financial programs.	PA DCED

Whitehall Township Comprehensive Plan

Name of Program	General Description of Program	Administering Agency
Small Business First	Provides low-interest loans for projects by businesses that generally have less than 100 employees. Generally, the funding can be used for site acquisition, building construction, machinery, working capital, environmental compliance, defense-cutback impacts, recycling, technology, export, and computer activities. (one of the few sources of funding that can be used for restaurants, hotels, and motels.) The recipient must agree to create or preserve jobs.	PA DCED Apply through an "Area Loan Organization"
Small Water System Regionalization Grants	Provides grants for feasibility studies concerning the merger of small drinking water systems.	PA DEP Bureau of Water Supply
Solid Waste Facility Programs	Programs provide grants for municipalities to review proposed solid waste facilities within their borders. Programs also provide funding for municipal inspectors of facilities and for host fees from operators.	PA DEP, Bureau Land Recycling and Waste Management
Stormwater Management Grants (PA Act 167 of 1978)	Grants for cooperative efforts at the watershed level among municipalities for stormwater planning and ordinances. Grants are typically made to counties, but may be made to municipalities.	PA DEP, Bureau of Watershed Conservation
Stream Improvement Program	Provides design and construction assistance to eliminate imminent threats to flooding and streambank erosion.	PA DEP Bureau of Waterways Engineering
TEA-21 Transportation Enhancements Program (part of federal Transportation Efficiency Act)	Provides grants of up to 80% for: facilities for pedestrians and bicycles, acquisition of scenic easements and scenic or historic sites, development of scenic or historic route programs, landscaping and other scenic beautification along highways, historic preservation, restoration of historic transportation facilities (such as canals), preservation of rail corridors (particularly for bicycle/walking routes), control and removal of outdoor advertising, archeological research, and mitigation of water pollution due to highway runoff. All projects must have a direct relationship to transportation.	U.S. DOT funds administered by PennDOT
Tire Pile Cleanup Grant	Grants to municipalities to provide reimbursement for costs of cleaning up large piles of used tires.	PA DEP Bureau of Land Recycling & Waste Management
U.S. Small Business Administration (SBA) financing	Offers low-interest financing for smaller businesses, including: • Microloans and microenterprise grants • Section 7(a) Guaranteed Business Loans • Section 504 loans to allow certified development organizations to make long-term loans for real estate and other fixed assets	SBA
Urban Forestry Grants	Provides grants for tree planting projects. Is also a Federal "America the Beautiful" grant program for tree planting.	PA DCNR
Water Supply Plan & Wellhead Protection Grants	Provides grants to counties to plan for water supplies at the county level and to implement programs to protect the wellheads of public wells.	PA DEP Bureau of Water Supply

Sources: Publications and internet sites of various agencies
Pennsylvanian magazine

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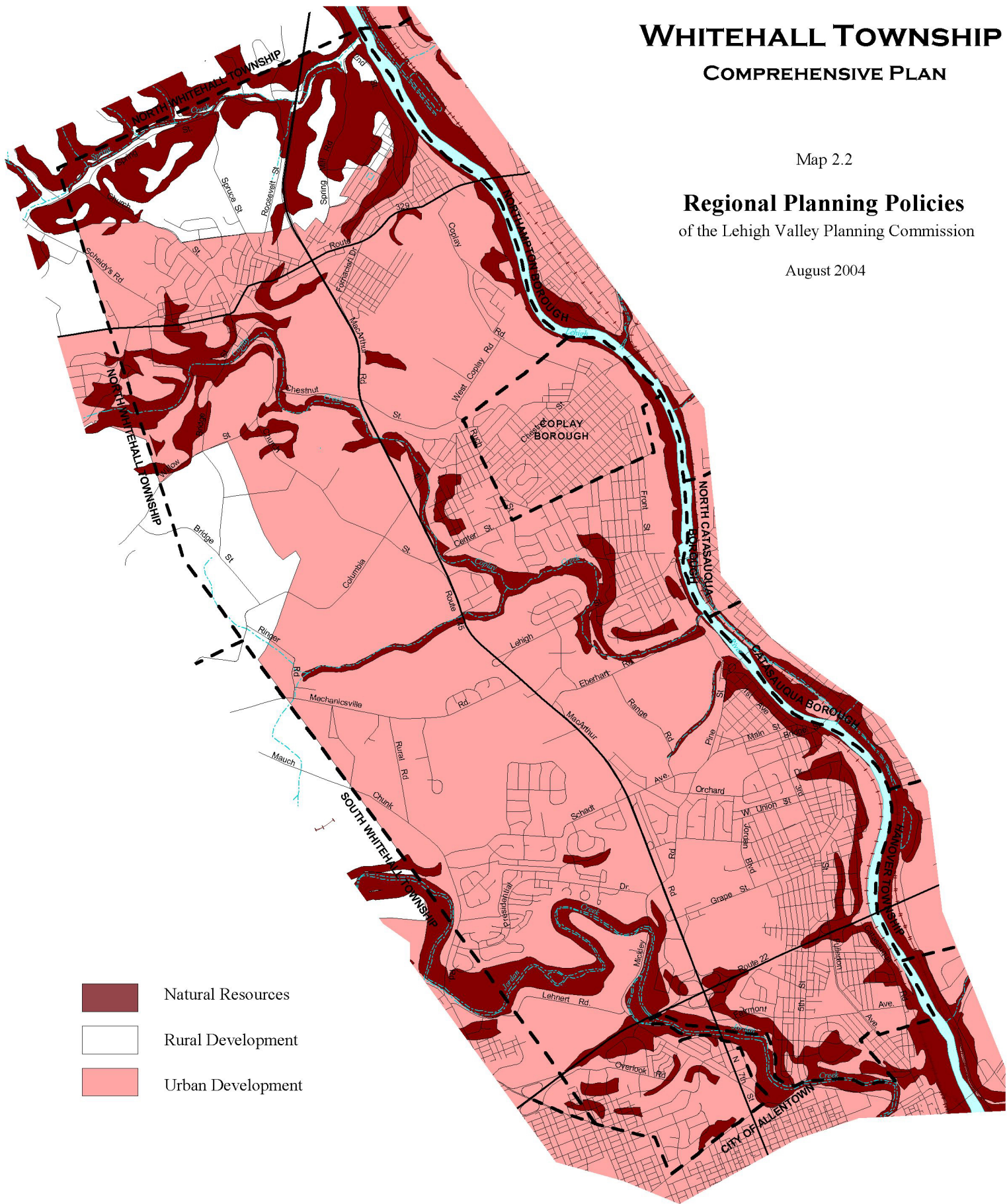
WHITEHALL TOWNSHIP

COMPREHENSIVE PLAN

Map 2.2

Regional Planning Policies of the Lehigh Valley Planning Commission

August 2004



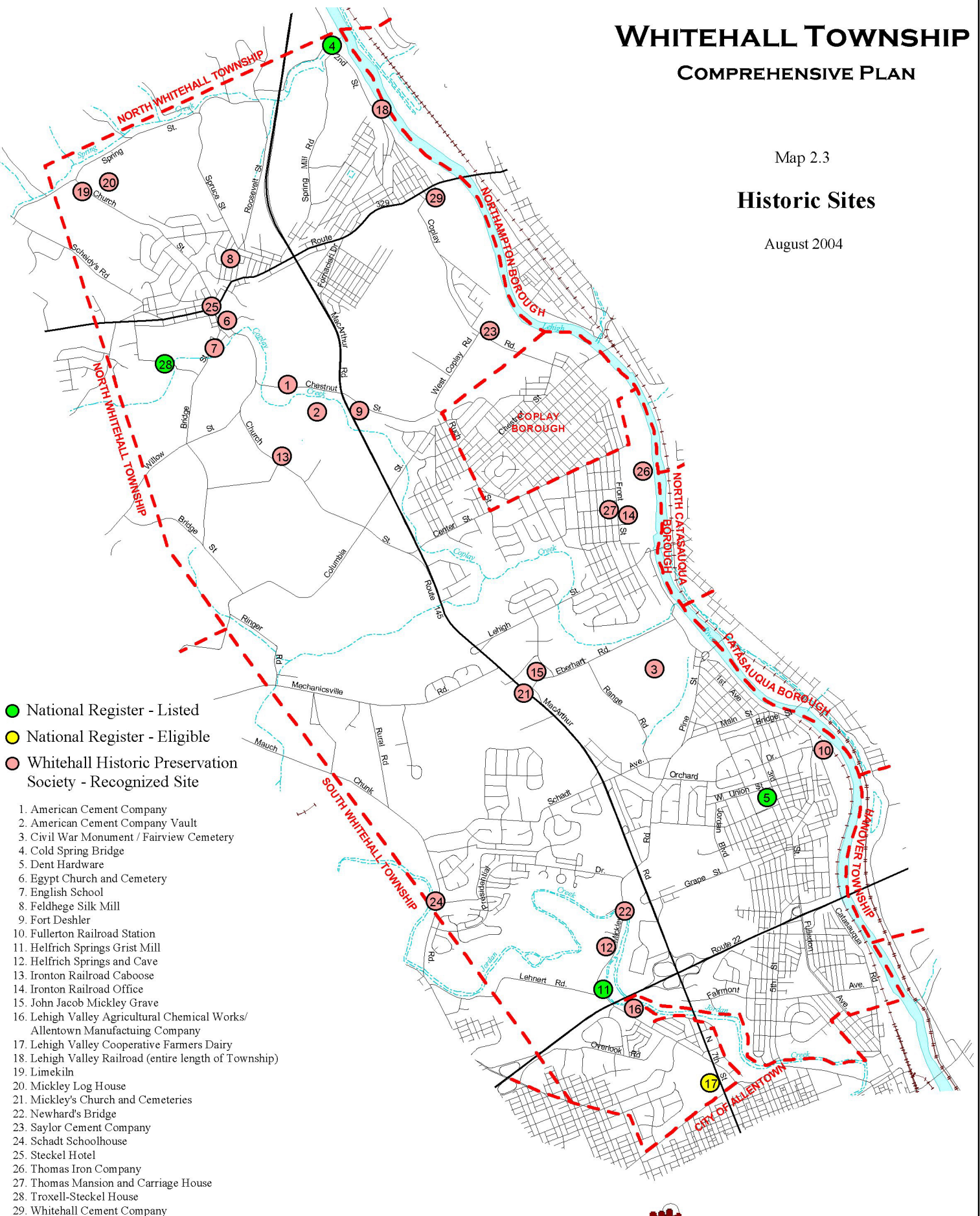
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COMPREHENSIVE PLAN

Map 2.3

Historic Sites

August 2004



3600 0 3600 Feet



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Base Map Data: Lehigh Valley Planning Commission, Pennsylvania State University

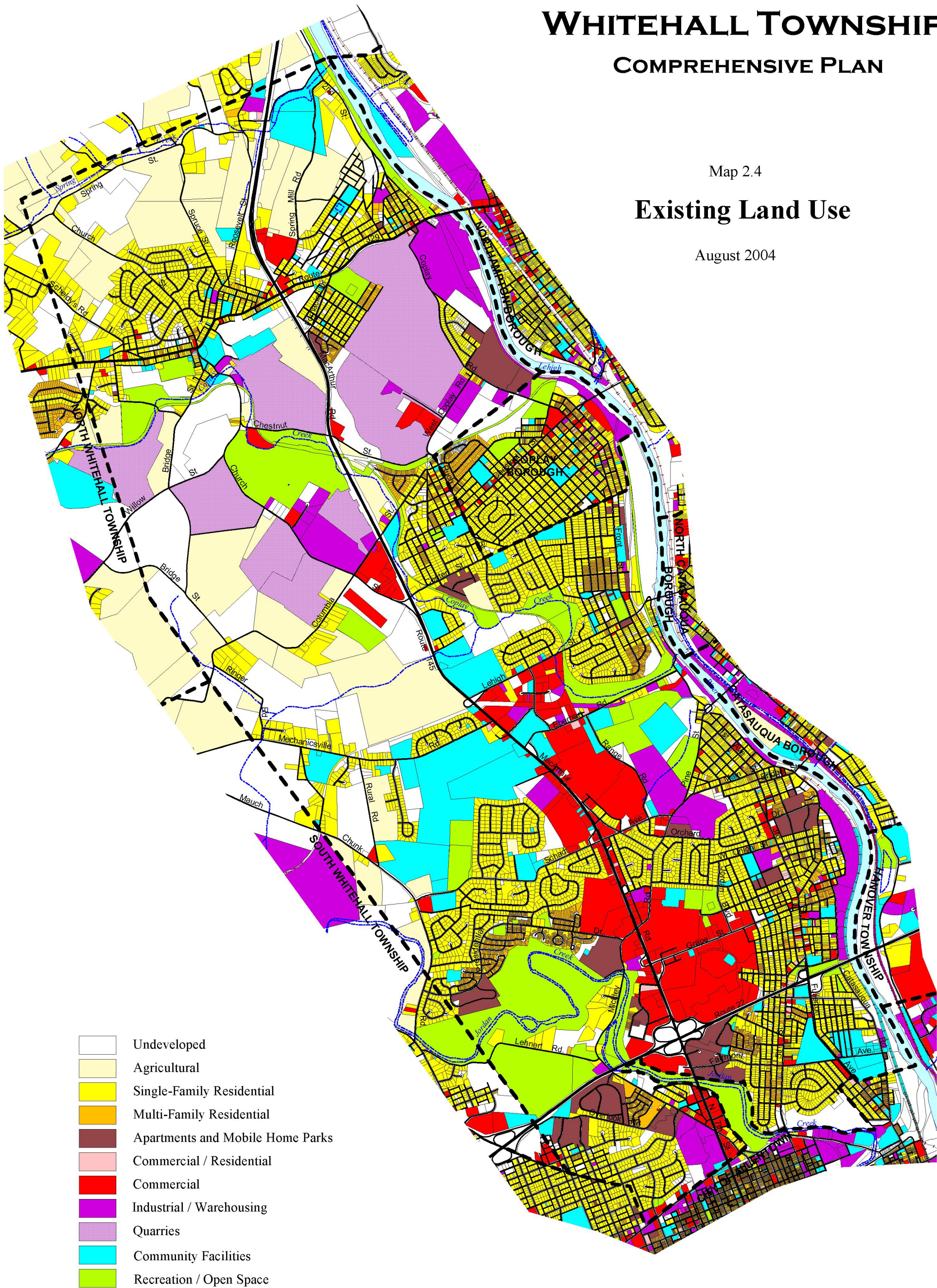
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COMPREHENSIVE PLAN

Map 2.4

Existing Land Use

August 2004



2600 0 2600 Feet



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Base Map Data: Lehigh Valley Planning Commission, Pennsylvania State University

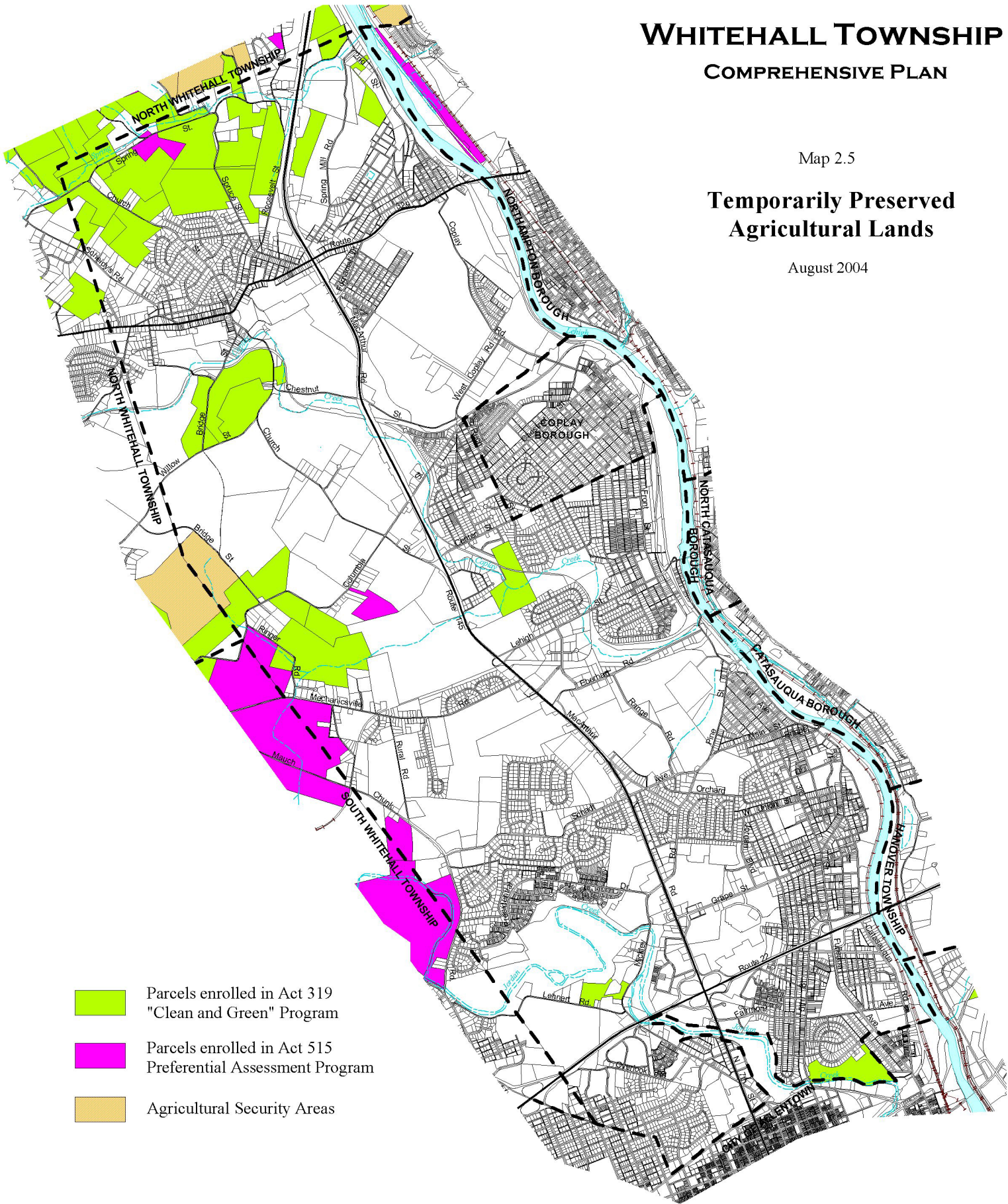
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Map 2.5

Temporarily Preserved Agricultural Lands

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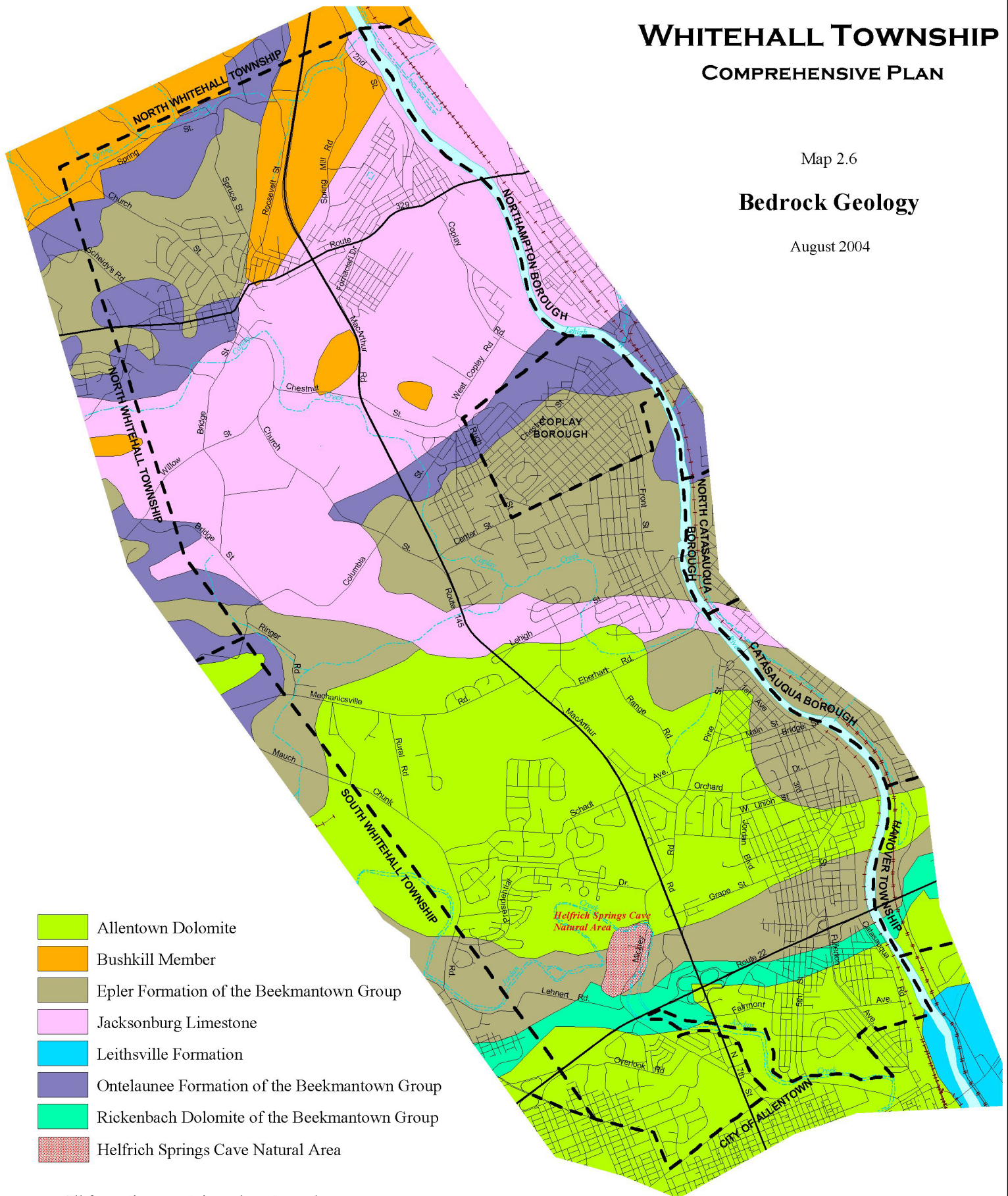
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Map 2.6

Bedrock Geology

August 2004



All formations contain carbonate geology except the Bushkill Member formation.

3600 0 3600 Feet



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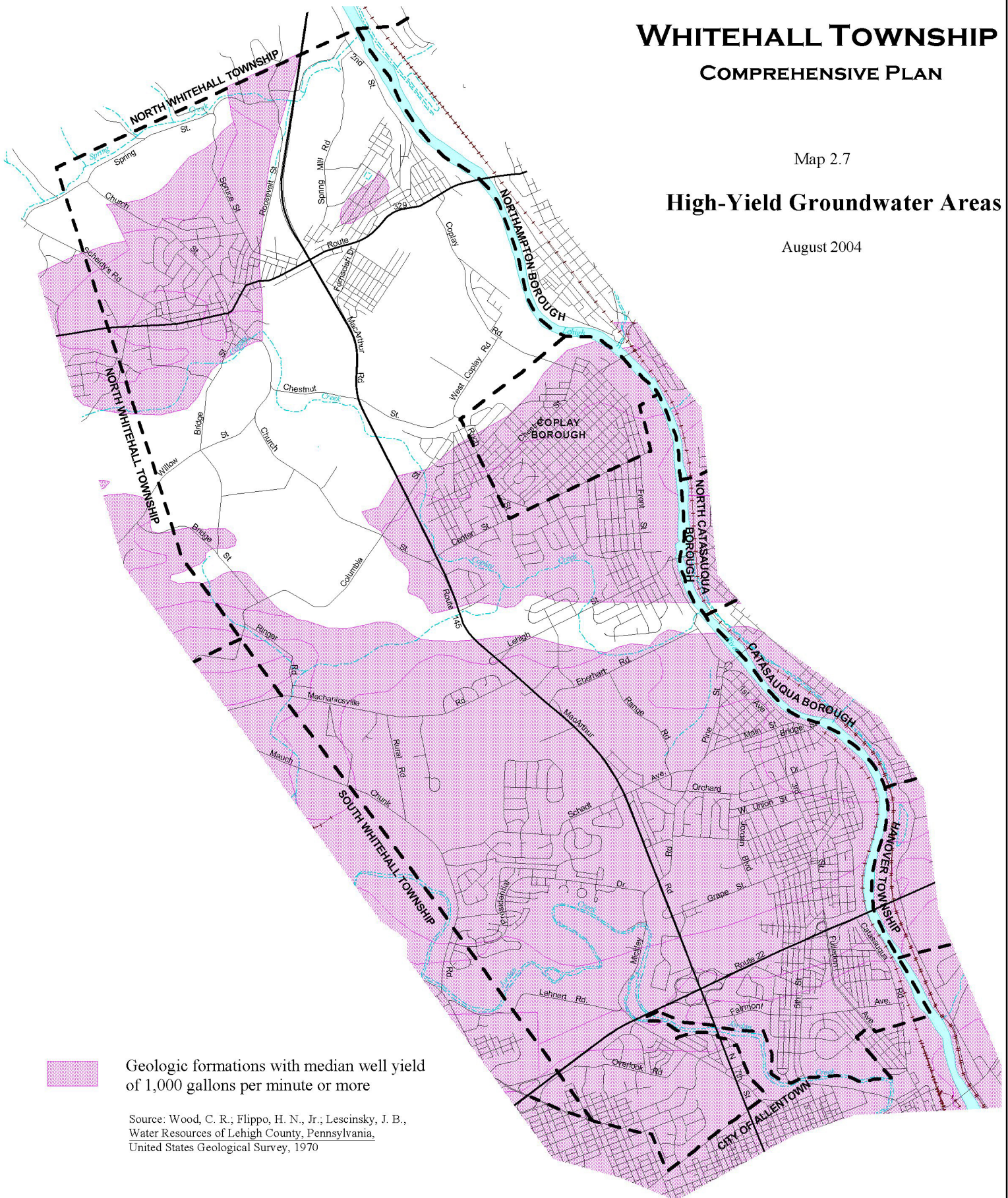
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Map 2.7

High-Yield Groundwater Areas

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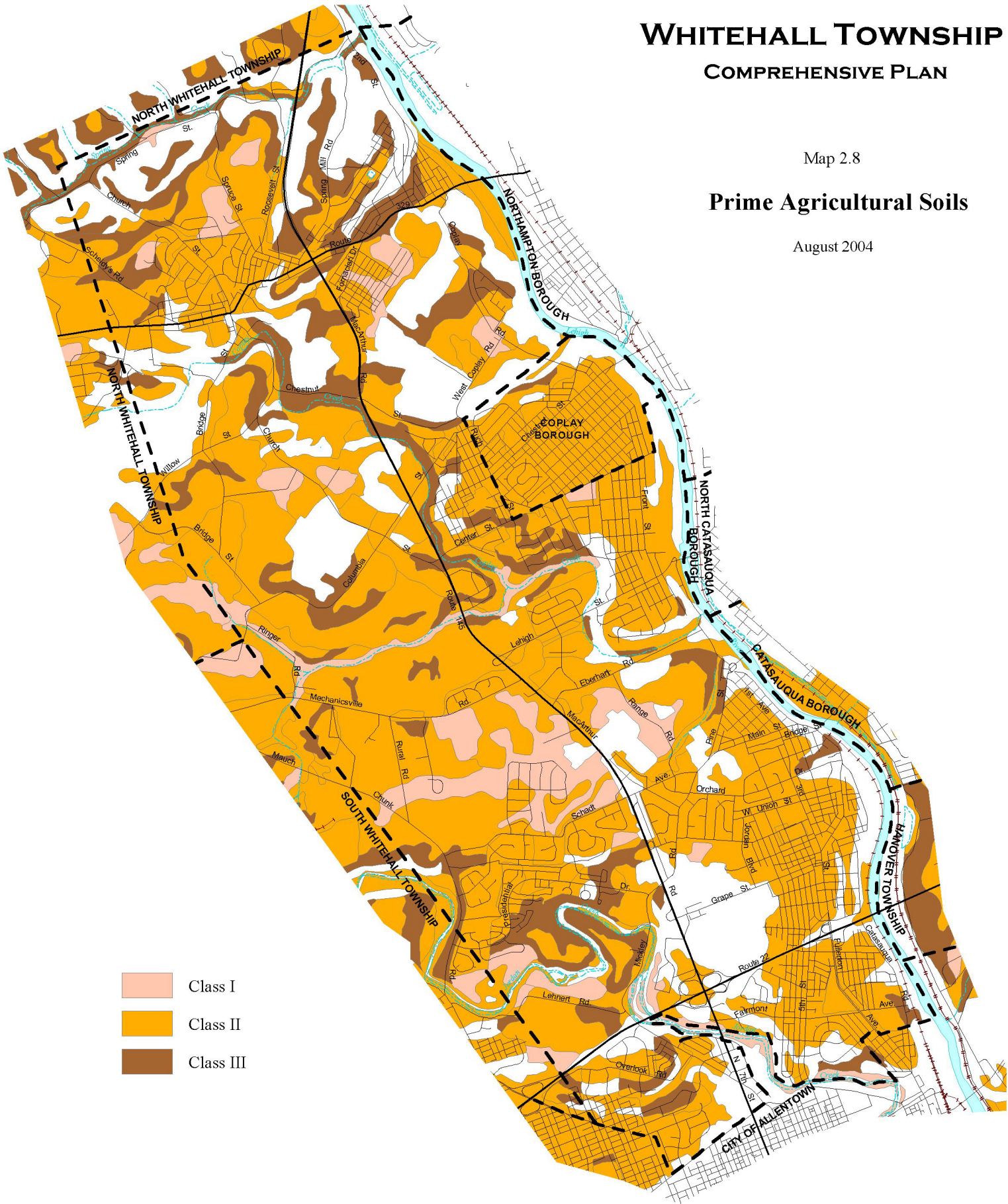
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Map 2.8

Prime Agricultural Soils

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3600 0 3600 Feet



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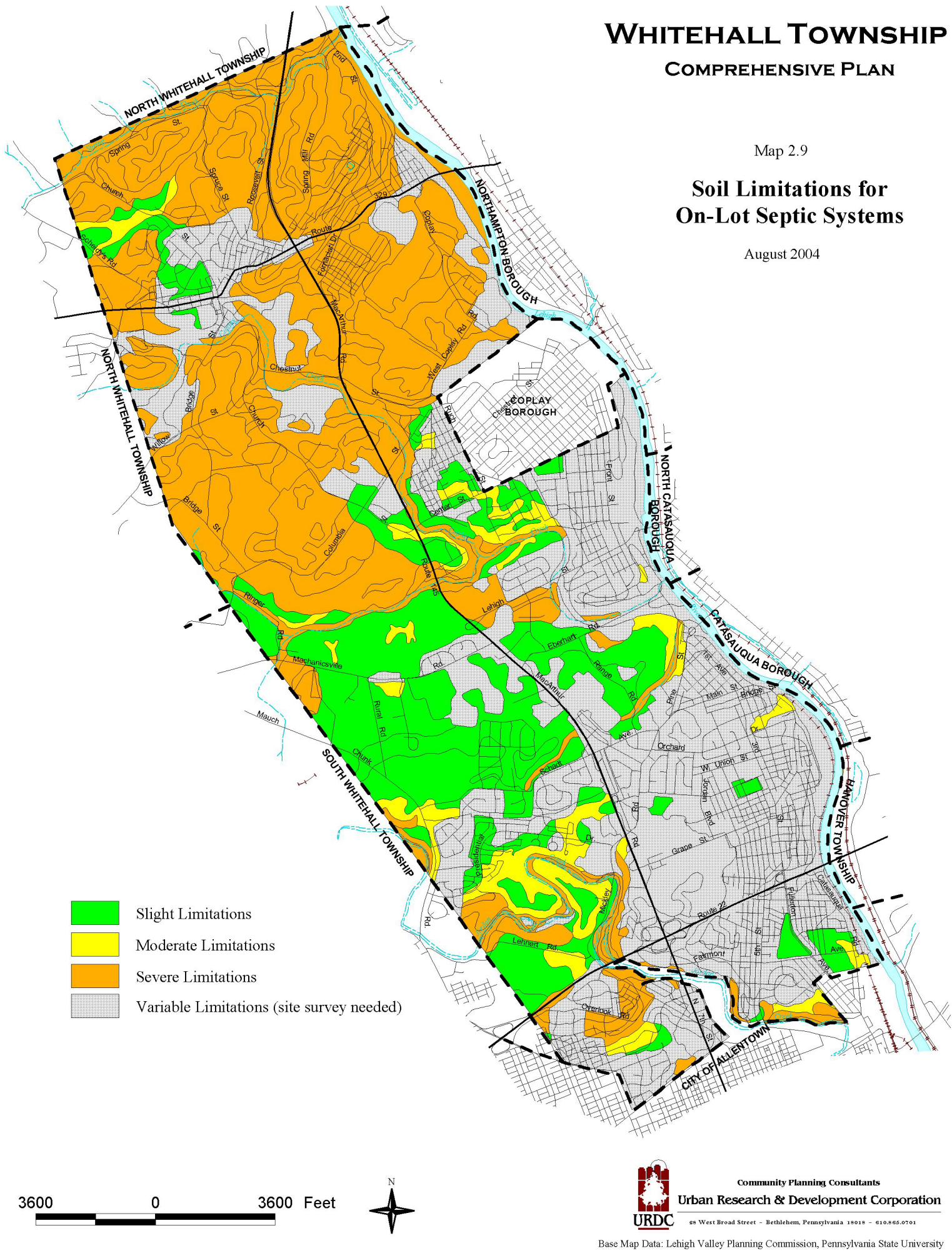
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Map 2.9

Soil Limitations for On-Lot Septic Systems

August 2004



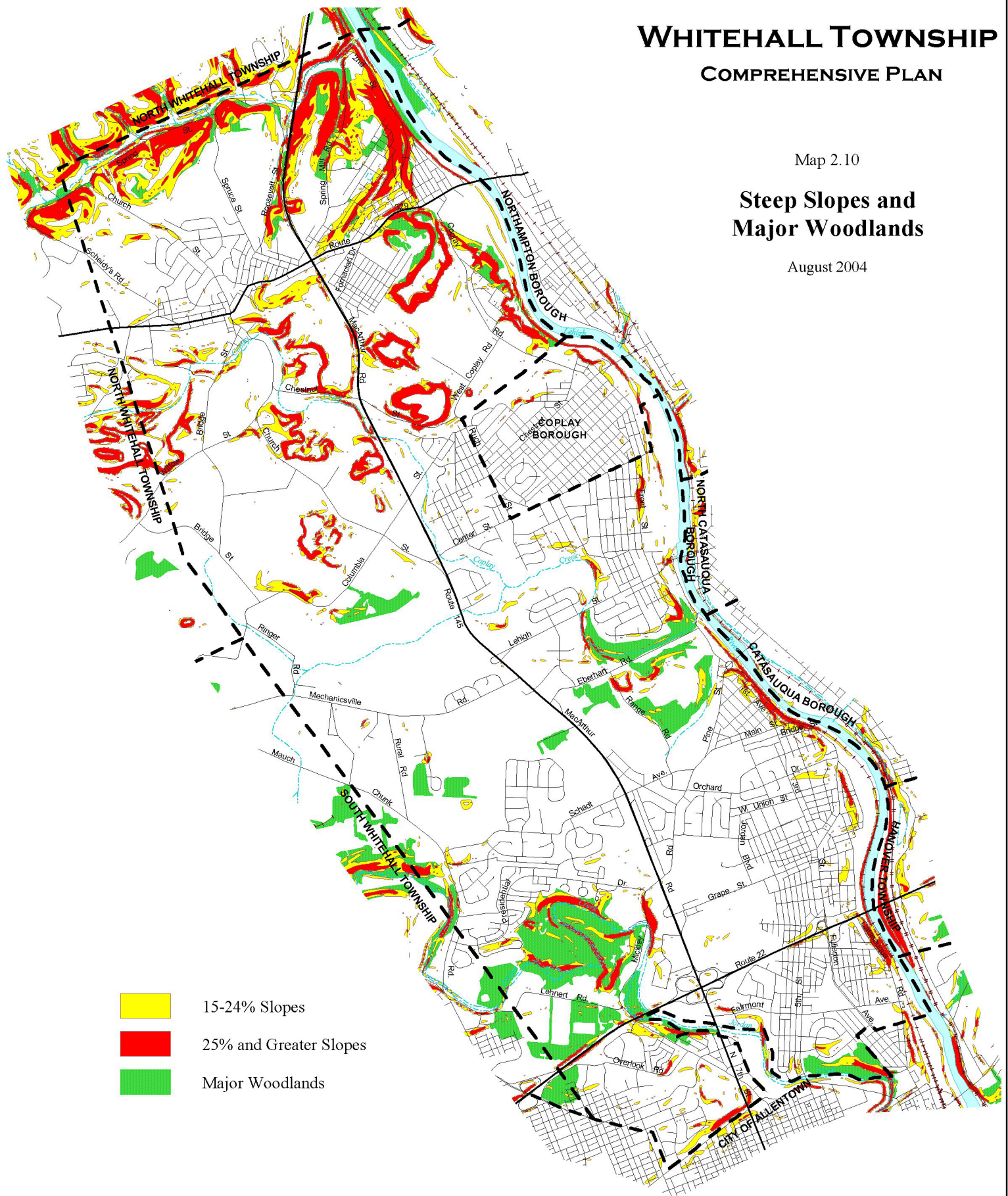
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Map 2.10

Steep Slopes and Major Woodlands

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Base Map Data: Lehigh Valley Planning Commission, Pennsylvania State University, U.S. Geological Survey

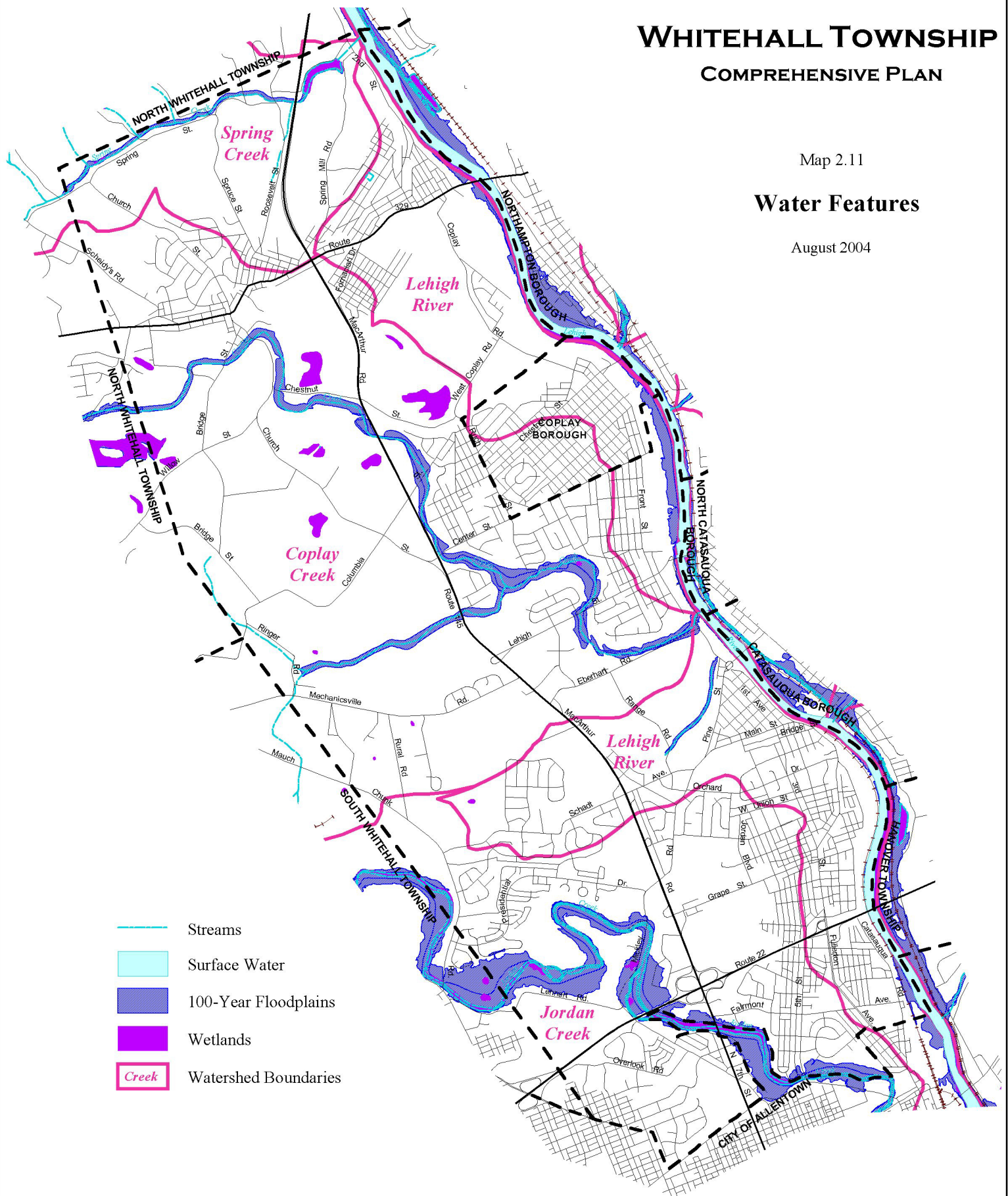
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Map 2.11

Water Features

August 2004



3600 0 3600 Feet



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Base Map Data: Lehigh Valley Planning Commission, Pennsylvania State University

WHITEHALL TOWNSHIP

COMPREHENSIVE PLAN

Map 2.12

Existing and Proposed Recreation and Open Space Sites

August 2005

Lehigh County Sites

1. Delaware & Lehigh National Heritage Corridor
2. Jordan Creek Parkway
3. Troxell-Steckel House

Whitehall Township Sites

4. Allencrest Playground
5. Cameron Fields
6. Cementon Steckel Pool
7. Eb-Water Park
8. Elmhurst Tot Lot
9. Fullerton Legion Field
10. Helfrich's Spring Grist Mill
11. Ironton Rail Trail
12. Jefferson Street Playground
13. Jefferson Street Pool
14. Jordan Creek Parkway
15. Jordan Creek Parkway (in City of Allentown)
16. Memorial Park
17. Millen Conservancy
18. Mulligan's Family Golf Center
19. Parkview Pool
20. Peachtree Playground
21. Pershing Park
22. Peter Grim Homestead
23. Presidential Ballfield
24. Presidential Tot Lot
25. Riverwalk Park
26. Schadt Avenue Park
27. St. Elizabeth Field
28. Stiles Playground
29. Tate Meadows Tract
30. Victor Talotta Park
31. West Catasauqua Park
32. West-Central Park
33. Whitehall Parkway
34. Wood Street Playground

Private Park Association Sites

35. Bob Warke Field
36. Egypt Memorial Park
37. Hokendauqua Playground

Other Private Sites

38. Allencrest Pool
39. Circuit City Ballfield

Whitehall-Coplay School District Campus

Proposed Recreation and Open Space Sites

Recreation District Boundaries

Recreation Trails

2600 0 2600 Feet



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Base Map Data: Lehigh Valley Planning Commission, Pennsylvania State University

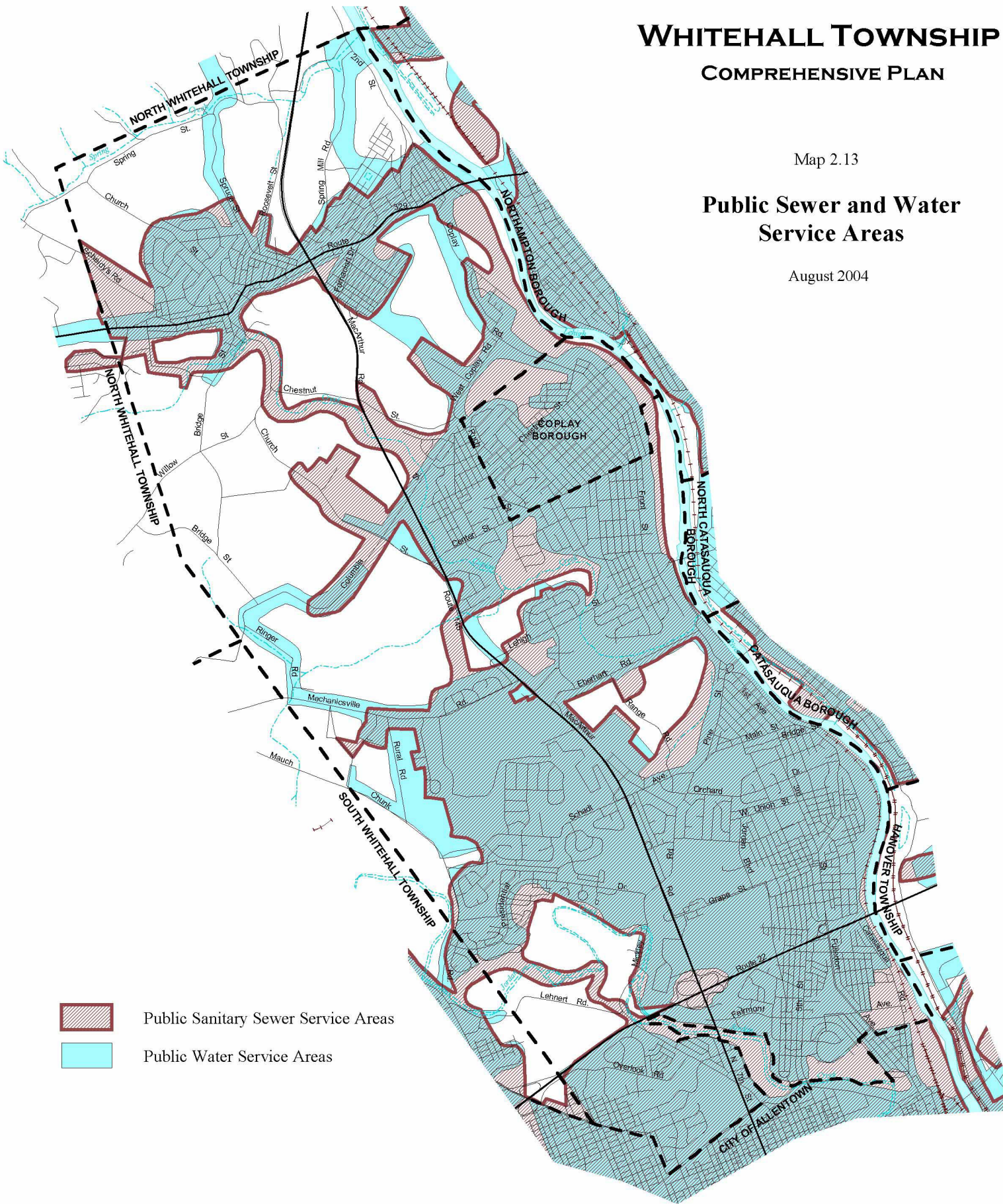
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COMPREHENSIVE PLAN

Map 2.13

Public Sewer and Water Service Areas

August 2004



Public Sanitary Sewer Service Areas



Public Water Service Areas

3600 0 3600 Feet



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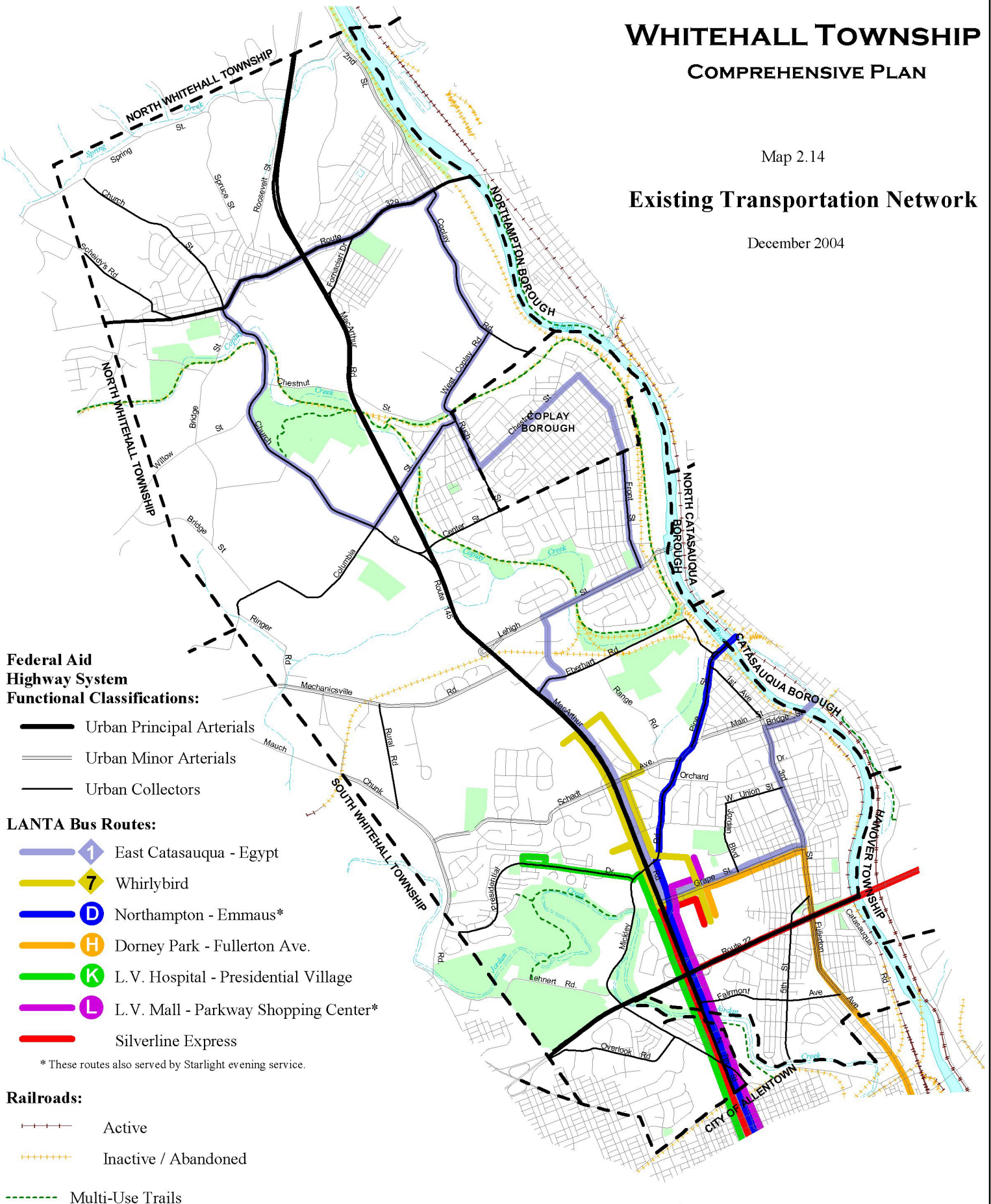
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Map 2.14

Existing Transportation Network

December 2004



3600 0 3600 Feet



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Base Map Data: Lehigh Valley Planning Commission, Pennsylvania State University

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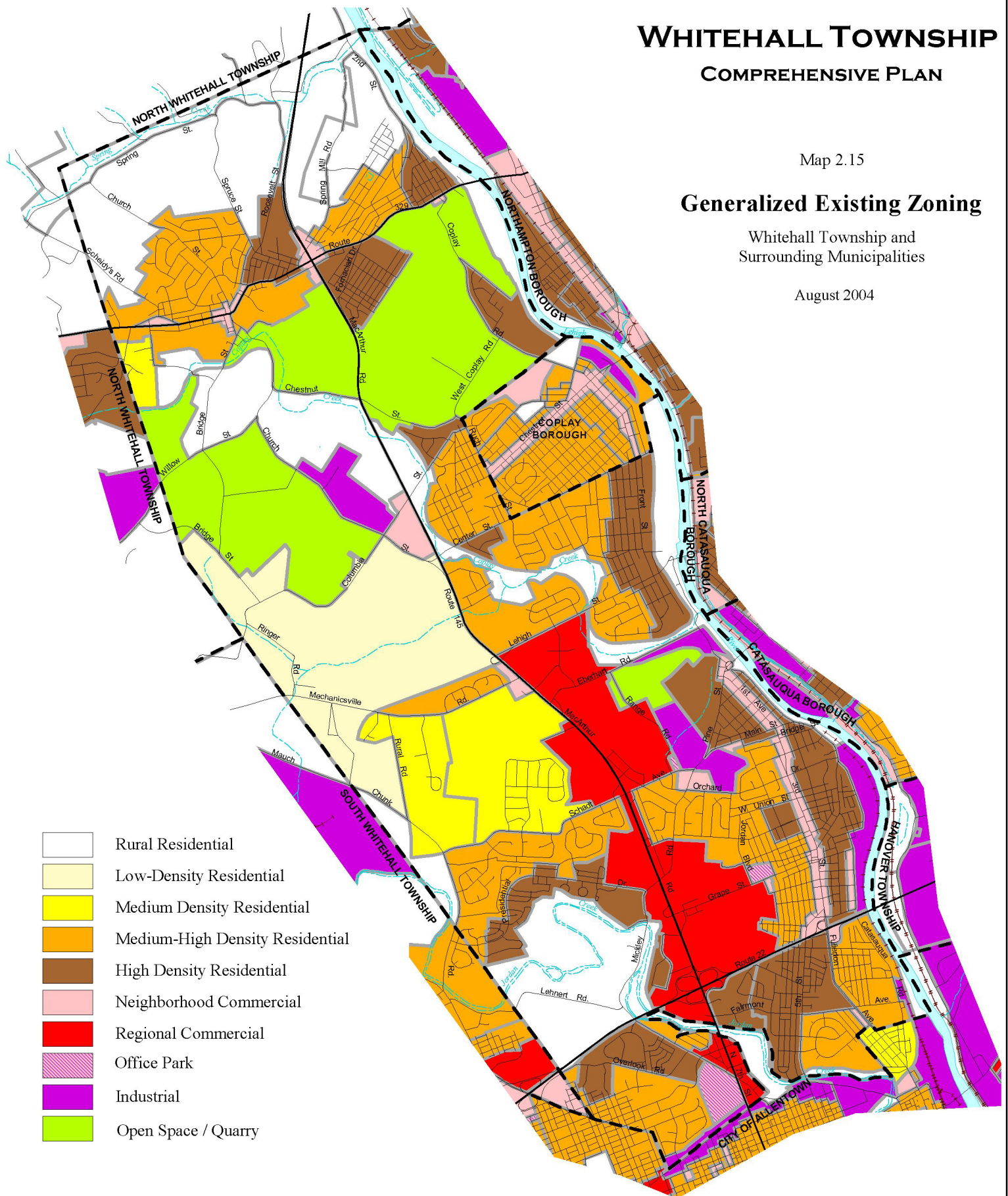
COMPREHENSIVE PLAN

Map 2.15

Generalized Existing Zoning

Whitehall Township and Surrounding Municipalities

August 2004



Community Planning Consultants
Urban Research & Development Corporation

28 West Broad Street - Bethlehem, Pennsylvania 18018 - 610.865.0701

Base Map Data: Lehigh Valley Planning Commission, Pennsylvania State University

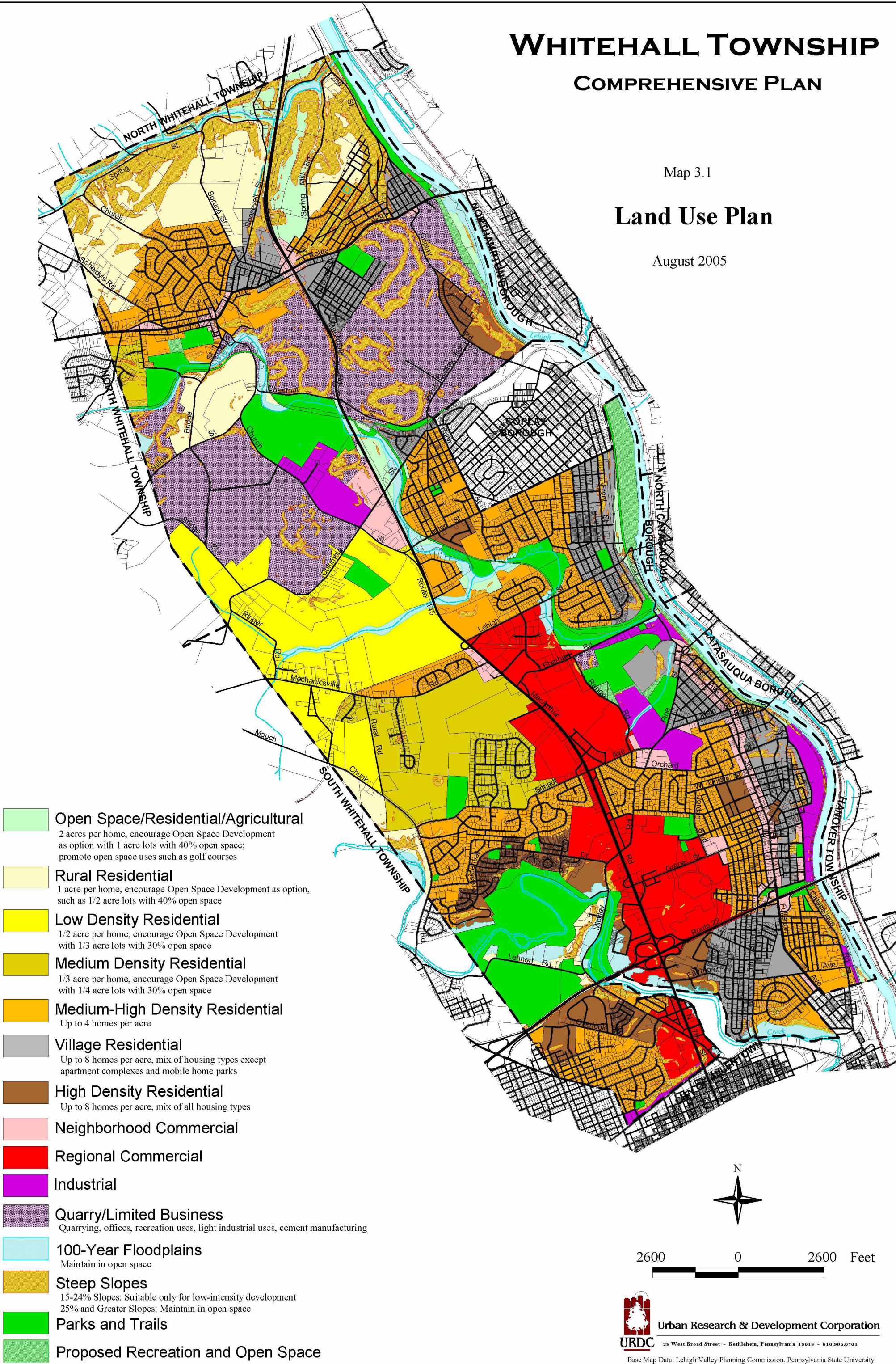
WHITEHALL TOWNSHIP

COMPREHENSIVE PLAN

Map 3.1

Land Use Plan

August 2005



- Open Space/Residential/Agricultural**
2 acres per home, encourage Open Space Development as option with 1 acre lots with 40% open space; promote open space uses such as golf courses
- Rural Residential**
1 acre per home, encourage Open Space Development as option, such as 1/2 acre lots with 40% open space
- Low Density Residential**
1/2 acre per home, encourage Open Space Development with 1/3 acre lots with 30% open space
- Medium Density Residential**
1/3 acre per home, encourage Open Space Development with 1/4 acre lots with 30% open space
- Medium-High Density Residential**
Up to 4 homes per acre
- Village Residential**
Up to 8 homes per acre, mix of housing types except apartment complexes and mobile home parks
- High Density Residential**
Up to 8 homes per acre, mix of all housing types
- Neighborhood Commercial**
- Regional Commercial**
- Industrial**
- Quarry/Limited Business**
Quarrying, offices, recreation uses, light industrial uses, cement manufacturing
- 100-Year Floodplains**
Maintain in open space
- Steep Slopes**
15-24% Slopes: Suitable only for low-intensity development
25% and Greater Slopes: Maintain in open space
- Parks and Trails**
- Proposed Recreation and Open Space**

WHITEHALL TOWNSHIP




COMPREHENSIVE PLAN

Map 3.2

Transportation Plan

August 2005


Federal Aid Highway System Functional Classifications:

-  Urban Principal Arterials
-  Urban Minor Arterials
(and potential locations for bike lanes)
-  Urban Collectors

★ High Priority Traffic Improvements:

1. Reconfiguration of PA 145 / Mechanicsville Rd.
2. Reconfiguration of PA 145 / Eberhart Rd.
3. Reconfiguration of PA 145 / Municipal Dr.
4. Widening and placement of median barrier between Eberhart Rd and Municipal Dr.
5. Circulation improvements at L.V. & Whitehall Malls
6. U.S. 22 ramp improvements at PA 145
7. PA 329 / PA145 improvements

 **Future Roadway Connections**
(from Whitehall Township Official Map)

 **Proposed Bikeway Network**
(including Whitehall Township Comprehensive Park, Open Space and Recreation Plan recommendations)

3600 0 3600 Feet



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