

Palmyra Township

Wayne County Agricultural Land Use/Land Cover Study

A study examining the change of agricultural land use and land cover
in Wayne County from 1959 to 2002

This is report M-18, Palmyra Township; in a series of reports examining land use and land cover change in Wayne County's 28 municipalities, particularly agricultural land between 1959 and 2002. For a detail of the study procedures, see the Project Narrative.



Overview

Palmyra Township is located in eastern Wayne County with Pike County forming its southeastern border. In addition, Palmyra Township surrounds the Borough of Hawley on three sides and borders Lake Wallenpaupack at its southern-most tip. It is the nineteenth largest municipality in Wayne

County with a total of approximately 10,398 acres or roughly 16 square miles, which accounts for 2.2% of the County's total land area. As can be seen in Table 1 {below} and Charts 1 and 2 {right}, the majority of the Township was covered by forest in both 1959 and 2002. The area of farming related activities decreased over the forty-plus year study period. Conversely, the amount of residential, commercial, mining/extraction and water land use/cover increased.

Table 1 - Palmyra Township Land Use/Land Cover

Land Use/Land Cover	Palmyra 1959 Acres	Category Percent of Total	Palmyra 2002 Acres	Category Percent of Total
Residential	236.13	2.3%	647.12	6.2%
Commercial	16.36	0.2%	64.63	0.6%
Industrial	1.94	0.0%	2.49	0.0%
Transportation	69.17	0.7%	31.14	0.3%
Utilities	2.02	0.0%	3.44	0.0%
Religious	6.80	0.1%	14.46	0.1%
Government/Institution	4.37	0.0%	4.99	0.0%
Recreational	-	0%	1.77	0.0%
Cropland	820.44	7.9%	439.12	4.2%
Farmstead	58.51	0.6%	29.94	0.3%
Pasture/Brush	705.19	6.8%	648.47	6.2%
Forest	8,231.75	79.2%	8,169.42	78.6%
Water	216.42	2.1%	259.84	2.5%
Mining/Extraction	28.45	0.3%	80.72	0.8%
Total	10,397.55	100.0%	10,397.55	100.0%

The above table shows the amount of acres and percentage for each land use category in Palmyra Township for 1959 and 2002.

The charts below show the percent values for the land use/land cover categories in Palmyra Township for 1959 and 2002. The residential category includes farmsteads in each chart's total throughout this report, and the category "other" includes land use/land cover categories that were too small to illustrate individually.

Chart 1
Palmyra Township 1959 Land Use/Cover

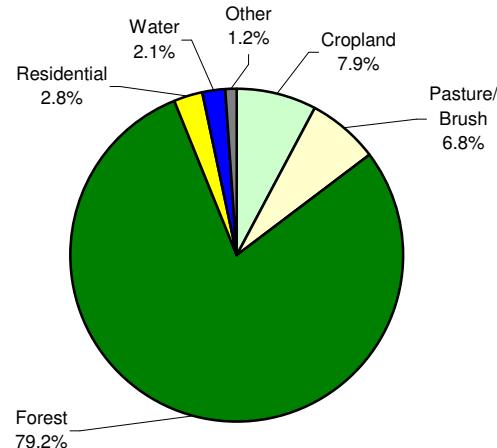
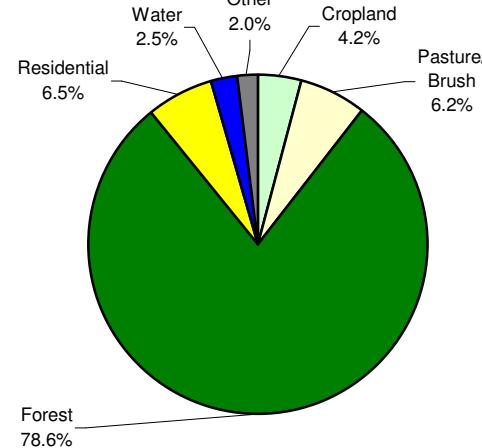


Chart 2
Palmyra Township 2002 Land Use/Cover



Notice the slight decrease in both pasture/brush and forest cover and the larger decrease in cropland over this time period. The area of residential, commercial, mining/extraction and water all increased over the four-decade plus study period {see Table 1 on left}.

Cropland

Cropland was the second largest land use in Palmyra Township in 1959. By 2002, however, it dropped to the fourth largest land use covering only 4.2% of the Township's total land area. In 1959, there were approximately 820 acres of cropland, which equaled 7.9% of the Township. Table 2 {below} and Chart 3 {right} will show what became of the 1959 cropland by 2002.

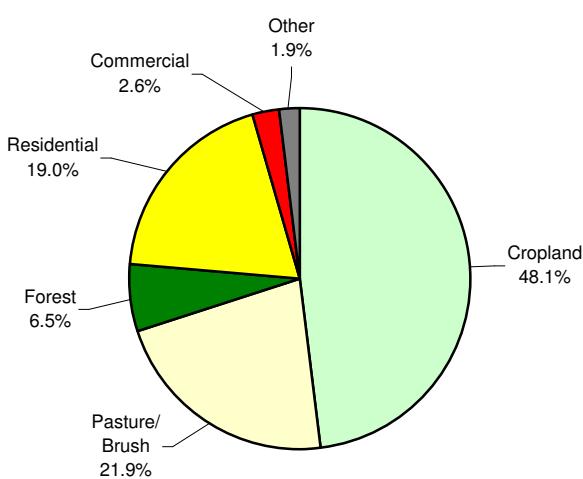
Table 2 - 1959 Cropland Use in 2002

Land Use/Land Cover	1959 Cropland Classification in 2002	
	Acres	Percent
Residential	149.17	18.2%
Commercial	21.67	2.6%
Industrial	-	0%
Transportation	-	0%
Utilities	1.05	0.1%
Religious	-	0%
Government/Institution	-	0%
Recreational	-	0%
Cropland	394.50	48.1%
Farmstead	6.81	0.8%
Pasture/Brush	179.40	21.9%
Forest	53.64	6.5%
Water	4.78	0.6%
Mining/Extraction	9.42	1.1%
Total	820.44	100.0%

Of the 820 acres of 1959 cropland, approximately 395 acres or nearly half (48.1%) remained as cropland by 2002. This cropland is mainly located in the western tip of the Township along the Owego Turnpike and in the greater Long Ridge Road area. A total of 28.4% converted to natural land cover, namely pasture/brush (21.9%) and forest (6.5%). These two land covers accounted for 233 acres combined. Another 19% of the 1959 cropland became utilized for residential purposes, equal to almost 156 acres. Commercial use accounted for an additional 22 acres or 2.6%.

The United States Department of Agriculture (USDA) classifies soil as prime agricultural soil, farmland of statewide importance or non-prime soil. Details of the three classifications can be found in the County summary. The following sections will examine soils from a prime versus non-prime perspective.

**Chart 3
1959 Cropland Use in 2002**

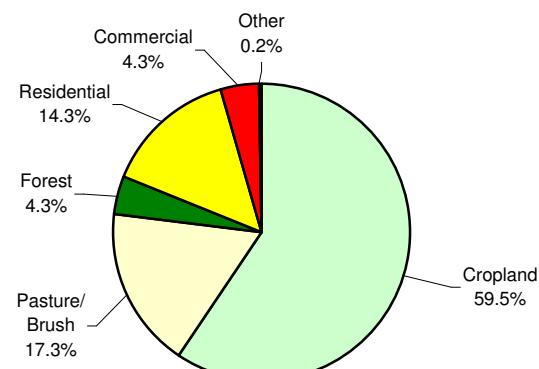


Less than half of the 1959 cropland remained as cropland by 2002, but nearly one-fifth became residential land use.

Prime Agricultural Soil

In 1959, approximately 409 acres or nearly half of the cropland in Palmyra Township was located on prime agricultural soil. Of that prime soil cropland, a total of 243 acres or 59.5% was still being utilized for cropland production by 2002. Over 88 acres equal to 21.6% converted naturally to other land covers, either as pasture/brush (71 acres) or forest (18 acres). Another 59 acres or 14.3% was converted to residential land, which includes the farmstead category. Almost 18 acres or 4.3% was changed to commercial use. Chart 4 {below} shows what became of the 1959 cropland located on prime agricultural soil.

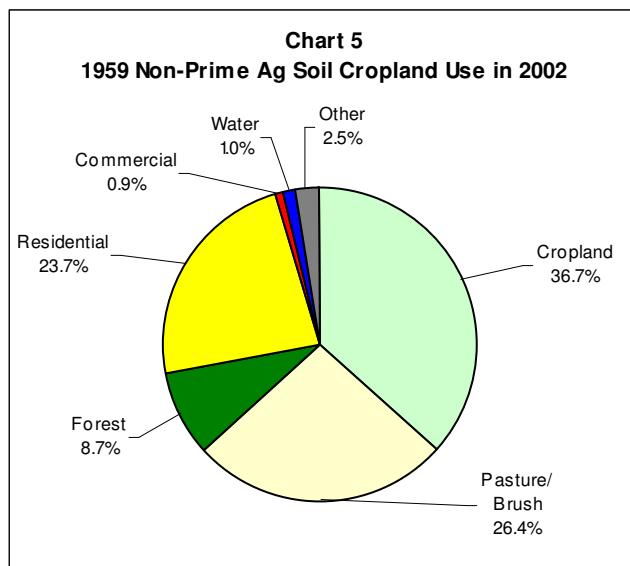
**Chart 4
1959 Prime Ag Soil Cropland Use in 2002**



Nearly 60% of the 1959 prime agricultural soil cropland remained as cropland by 2002, which equaled 243 acres.

Non-Prime Agricultural Soil

In 1959, approximately 412 acres or just over half of the cropland in Palmyra Township was located on non-prime agricultural soil. Of that non-prime soil cropland, only 151 acres, equaling 36.7%, was being used for cropland production by 2002 {see Chart 5 below}. Over one-quarter (26.4%) became idle pasture/brush land, which was equivalent to 109 acres. Another 36 acres equal to 8.7% grew into forest cover over the forty-three year study period. Almost another quarter (23.7%) was converted to residential land, which includes the farmstead category. Only four acres became commercial land and another four acres became water cover.

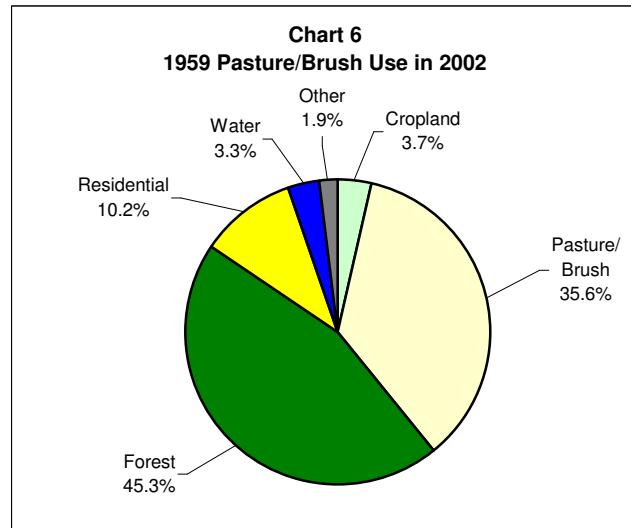


A total of 151 acres or 36.7% of the 1959 non-prime soil cropland remained as cropland by 2002.

Pasture/Brush

In 1959, pasture/brush accounted for less than 7% of Palmyra Township's total land area {See Table 1}. By 2002, this land use/cover decreased by about 57 acres and was equal to 6.2% of the total Township land area. Of the 1959 pasture/brush land, a larger percentage grew naturally into forest than remained as pasture/brush. Approximately 320 acres equaling 45.3% became forest and 251 acres or 35.6% remained as pasture/brush. A total of 10.2% was converted to residential land. Only 26 acres or 3.7% of the 1959 pasture/ brush was used as cropland by 2002. Another 23 acres or 3.3% changed to water cover during this time.

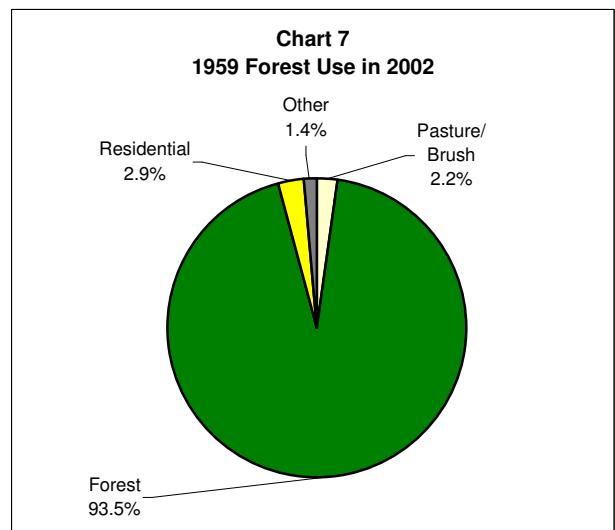
Chart 6 {below} shows the 1959 pasture/brush land and what it became by 2002.



Almost 320 acres of the 1959 pasture/brush grew into forest by 2002 and 250 plus acres remained as pasture/brush.

Forest

As stated in the "overview", the majority of Palmyra Township was covered by forest in both 1959 and 2002. In 1959, there were 8,232 acres of forest, which equaled nearly 80% of the Township's total land area {See Table 1}. By 2002, the area of forest had decreased to approximately 8,170 acres or 78.6% of the Township. Chart 7 {below} shows the 1959 forest and what it became by 2002.

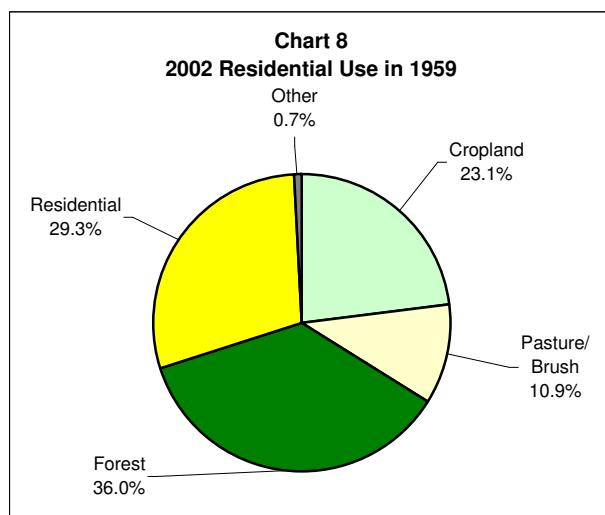


Approximately 7,920 acres of the 1959 forest remained as open space by 2002, which was equivalent to 96.2% and nearly 236 acres was converted to residential land use, which equaled less than 3% during this time period.

Of the 1959 forest, a total of 96% remained as natural land cover forty-three years later. A total of 7,694 acres equal to 93.5% was still forest, almost 184 acres or 2.2% had changed to pasture/brush and approximately 28 acres equal to 0.3% became water coverage. Another 235 acres or 2.9% was converted to residential land, which includes the farmstead category.

Residential

In 1959, a total of 236 acres or 2.3% of Palmyra Township's land area was being used for residential purposes. By 2002, the residential acreage had increased by an additional 411 acres to comprise 6.2% of Palmyra Township. Chart 8 {below} shows the 2002 residential land and how it existed in 1959.



Nearly one-quarter (23.1%) of the 2002 residential land was used as cropland back in 1959.

Nearly 150 acres of the 2002 residential land came from 1959 cropland and approximately 70 acres was prior pasture/brush land. By percentage, these two land categories were equivalent to 23.1% and 10.9%, respectively. A total of 233 acres, or 36%, was forest cover in 1959. Almost 190 acres, or 29.3%, was already being used as residential land in 1959.

Commercial

The amount of commercial land in Palmyra Township was minimal in both 1959 and 2002. Despite an increase of 48 acres over the 43-year time span, commercial land accounted for only

0.6% of the total land area at the end of the study period in 2002 {see Table1}.

Protected Agricultural Land

Palmyra Township had a total of approximately 1,618 acres enrolled in the Agricultural Security Area Program by 2002. There were no farms enrolled in the Agricultural Conservation Easement Purchase Program in Palmyra Township by the end of the study period. However, there were approximately 4,278 acres of land accepted into the Act 319 (Clean & Green) Program, which accounts for 42.9% of the taxable acreage within Palmyra Township. This tax designation reduces the assessed value of the Township by 5,591,400 or 4.9%.

Summary

The most notable change in the Township during the study period was the decrease of cropland, covering 3.7% less of the Township, and the slight reduction of both pasture/brush and forest, covering 0.6% less of the Township. The farmstead classification also dropped in half over the four-decade plus study period. The largest increase in Palmyra Township was residential land, which now covers 3.9% more of the Township. Commercial and mining/extraction land use increased by 50 +/- acres each, but only account for less than 1% of the municipal land area, individually. Water cover also increased by 40-plus acres and now equals 2.5% of the Township land area. Another historical change in Palmyra Township was the decrease in the transportation category, which is attributed to the former Pennsylvania Coal Company railroad bed along Middle Creek.

Wayne County Agricultural Land Use/Cover

This project was funded in part by the Wayne County Commissioners and by a grant from the Pennsylvania Department of Community and Economic Development. This study examines the change in agricultural land use/cover over 43 years (1959-2002). The base data is 1959 USDA aerial photos which were registered to the state plane coordinate system by Wilkes University's Center for Geographic Information Sciences. This enabled comparison with the 1997 aerial photos taken by Wayne County. To aid in the analysis of the data, local municipal volunteers worked with planning department staff members in reviewing the aerial photos and resulting land use maps. A complete list of those community volunteers who aided in the completion of this report can be found in the report summary.

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