

Clinton 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-6, Clinton 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

Clinton Township is located along the western border of Wayne County. The total land area of the Township is approximately 25,316 acres or about 40 square miles. At the beginning of the study period in 1959, the agricultural types of land use/cover, namely cropland, farmsteads and pasture/brush, comprised slightly more than 40% of the total land area. However, by the end of the study period, these agricultural land use/cover types accounted for 26.8% of the total Clinton Township land area. In contrast, the amount of forest cover in the Township increased by about 2,647 acres between 1959 and 2002, accounting for nearly 66% of the total land area by the end of the period. Combined, residential and commercial land increased by 2.8% in terms of the total land area. Together, residential and commercial land use accounted for less than 4% of the total land area by 2002.

The charts below show the percent values for the land use/land cover categories in Clinton 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.

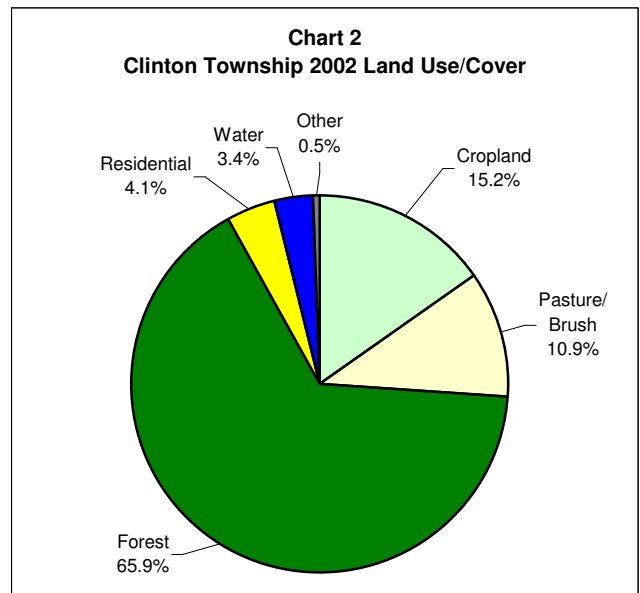
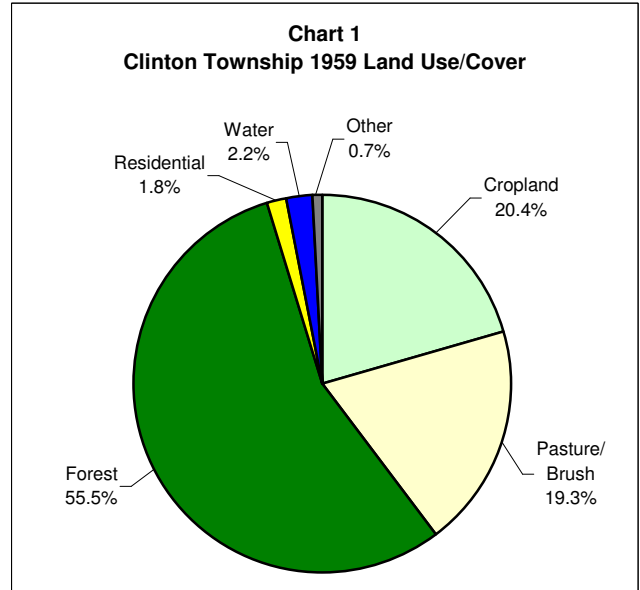


Table 1 – Clinton Township Land Use/Land Cover

Land Use/Land Cover	Clinton 1959 Acres	Category Percent of Total	Clinton 2002 Acres	Category Percent of Total
Residential	225.93	0.9%	879.61	3.5%
Commercial	7.02	0.0%	49.67	0.2%
Industrial	1.26	0.0%	11.18	0.0%
Transportation	-	0%	-	0%
Utilities	-	0%	3.19	0.0%
Religious	7.67	0.0%	7.76	0.0%
Government/Institution	5.53	0.0%	5.97	0.0%
Recreational	3.38	0.0%	7.08	0.0%
Cropland	5,173.48	20.4%	3,847.34	15.2%
Farmstead	222.96	0.9%	168.38	0.7%
Pasture/Brush	4,895.43	19.3%	2,751.26	10.9%
Forest	14,042.69	55.5%	16,690.17	65.9%
Water	569.17	2.2%	861.93	3.4%
Mining/Extraction	161.70	0.6%	32.74	0.1%
Total	25,316.22	100.0%	25,316.28	100.0%

Note the decrease in the cropland and pasture/brush land use/cover and the substantial increase in the percentage of forest cover between 1959 and 2002 in the above charts.

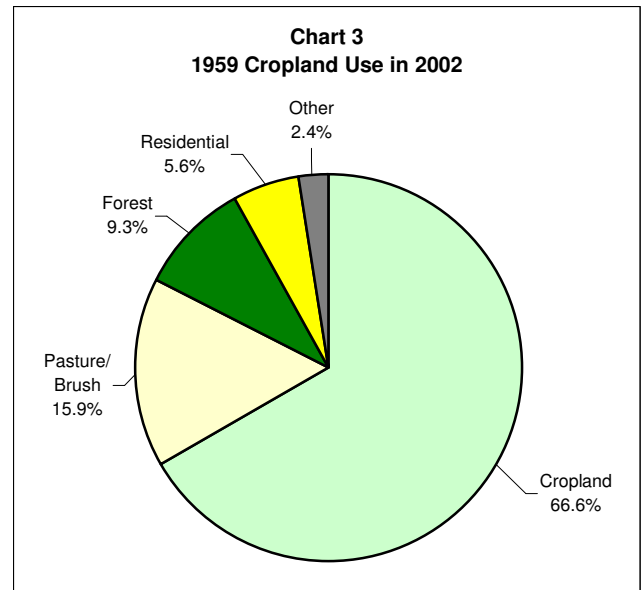
Cropland

For the purposes of this study, the cropland consisted of various types of agricultural products, including but not limited to corn and hay. In 1959, cropland comprised 20.4% of the total Clinton Township land area with a total area of more than 5,173 acres. {See Table 1 on the previous page} By 2002, the amount of cropland decreased by about 1,326 acres and it accounted for slightly more than 15% of the total land area. Table 2 {below} and Chart 3 {right} depict what became of the 1959 cropland in Clinton Township.

Table 2 – 1959 Cropland Use in 2002

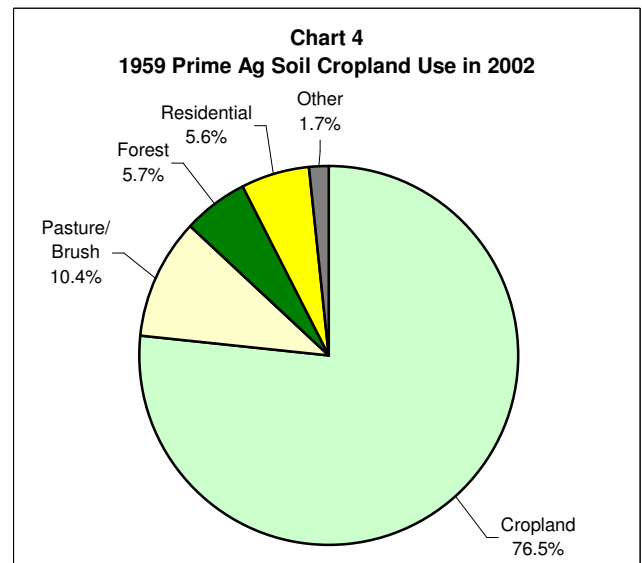
Land Use/Land Cover	1959 Cropland Classification in 2002	
	Acres	Percent
Residential	248.83	4.8%
Commercial	32.11	0.6%
Industrial	1.40	0.0%
Transportation	-	0%
Utilities	-	0%
Religious	-	0%
Government/Institution	-	0%
Recreational	1.00	0.0%
Cropland	3,447.18	66.6%
Farmstead	43.81	0.8%
Pasture/Brush	821.49	15.9%
Forest	483.41	9.3%
Water	94.34	1.8%
Mining/Extraction	-	0%
Total	5,173.57	100.0%

Of the 1959 cropland, almost 67% remained as cropland at the end of the study period in 2002. In terms of cropland retention, Clinton Township ranked fifth out of all Wayne County municipalities. More than 25% of the 1959 cropland converted to either pasture/brush (15.9%) or forest (9.3%) by 2002. Almost 6% of the 1959 cropland converted to residential and farmstead land use/cover. The remaining area converted to various other types of land use/cover. The United States Department of Agriculture 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 analyze soil from a prime versus non-prime perspective.



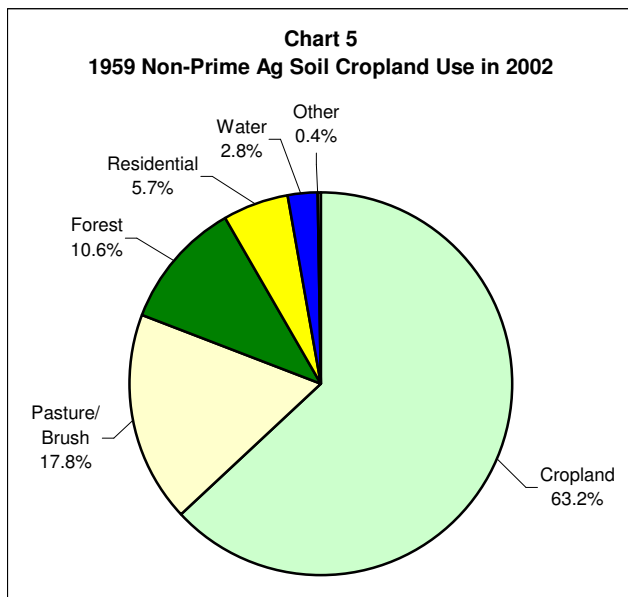
Prime Agricultural Soil

In 1959, about 26% or approximately 1,332 acres of the cropland in Clinton Township was situated on prime agricultural soil. Of that prime agricultural soil cropland, nearly 77% was still cropland in 2002. {See Chart 4, below} Only four other Wayne County municipalities retained a larger percentage of prime agricultural soil cropland over the span of the 43-year study period. Of the 1959 prime agricultural soil cropland that was lost, 10.4% converted to pasture/brush and 5.7% converted to forest. Another 5.6% converted to residential land use/cover. The remaining area converted to various other types of land use/cover.



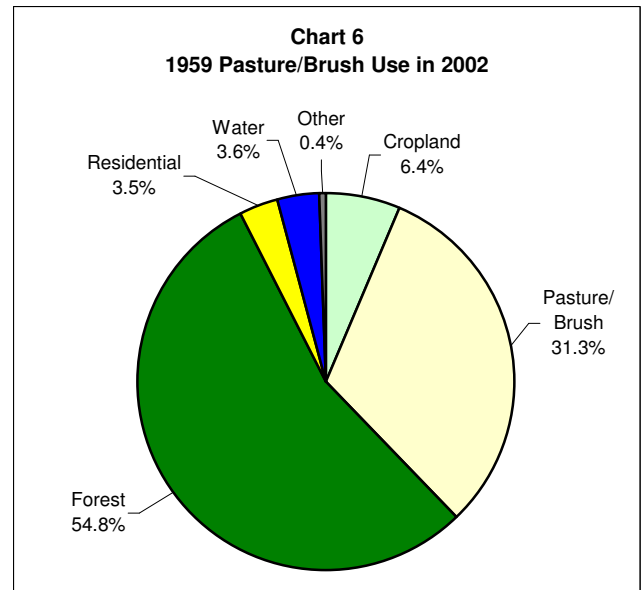
Non-Prime Agricultural Soil

About 74% or more than 3,841 acres of the 1959 Clinton Township cropland was situated on non-prime agricultural soil. Between 1959 and 2002, more than 63% of that non-prime agricultural soil cropland was retained. {See Chart 5, below} Of the 1959 non-prime agricultural soil cropland, almost 18% converted to pasture/brush and 11% converted to forest. Another 5.7% and 2.8% converted to residential and water land use/cover, respectively. The remaining area converted to various other types of land use/cover.



Pasture/Brush

In 1959, there were about 4,895 acres of land classified as pasture/brush in Clinton Township. This land use/cover type accounted for almost 20% of the total land area. {See Table 1} By 2002, however, the amount of pasture/brush declined by about 2,144 acres and it accounted for only 10.9% of the total land area. Of the pasture/brush that was not retained during this time period, the largest percentage converted to forest. Almost 55%, or more than 2,684 acres of 1959 pasture/brush, converted to forest by 2002. {See Chart 6, above right} About 6.4% of the 1959 pasture/brush was classified as cropland in 2002. Another 3.6% and 3.5% were classified as water and residential land use/cover, respectively, in 2002.



Forest

In both study years, forest comprised the majority of the Clinton Township land area. Additionally, the amount of forest cover increased by about 2,647 acres between 1959 and 2002. {See Table 1} By 2002, forest cover comprised nearly two-thirds of the entire Clinton Township land area. The increase in

Table 3 – 1959 Forest Use in 2002

Land Use/Land Cover	1959 Forestland Classification in 2002	
	Acres	Percent
Residential	236.66	1.7%
Commercial	2.85	0.0%
Industrial	1.82	0.0%
Transportation	-	0%
Utilities	2.22	0.0%
Religious	-	0%
Government/Institution	0.01	0.0%
Recreational	-	0%
Cropland	49.99	0.4%
Farmstead	2.90	0.0%
Pasture/Brush	332.99	2.4%
Forest	13,311.88	95.1%
Water	52.44	0.4%
Mining/Extraction	2.71	0.0%
Total	13,996.47	100.0%

forest cover over the period can be attributed to two main factors. The first contributing factor is that a large percentage of the land classified

as pasture/brush in 1959 matured into forest by 2002. {See Chart 6} Adding to that was the finding that more than 95% of the 1959 forest cover was still classified as forest in 2002. {See Table 3 on the previous page} Together, these contributing factors resulted in a substantial increase in the amount of forest between 1959 and 2002. Of the 1959 forest that was not retained, 2.4% and 1.7% converted to pasture/brush and residential land use/cover, respectively, by 2002. The remaining area converted to various other land use/cover types.

Residential

Between 1959 and 2002, the amount of residential land increased by more than 653 acres. {See Table 1} In 1959, less than 1% of the total land area was comprised of residential land use/cover. By 2002, the percentage of Clinton Township land area consisting of residential uses increased to 3.5%. According to the U.S. Census Bureau, the total population of Clinton Township increased from 1,132 in 1960 to 1,926 at the time of the year 2000 census. In a municipality that is about 40 square miles, that translates to an increase in population density from about 28 persons per square mile to approximately 48 persons per square mile.

Commercial

The amount of commercial land in Clinton Township was minimal in both 1959 and 2002. Commercial land accounted for 0.2% of the total land area at the end of the study period in 2002. {See Table 1}

Protected Agricultural Land

Clinton Township had approximately 8,634 acres enrolled in the Agricultural Security Area Program by 2002. Additionally, there were approximately 477 acres enrolled in the Agricultural Conservation Easement Purchase Program in Clinton Township by the end of the study period. There were also approximately 6,642 acres of land accepted into the Act 319 program (Clean & Green), which accounts for nearly 28% of the taxable acreage within the Township. This tax designation reduces the

assessed value of the Township by \$7,782,700 or 4.7%.

Summary

Between 1959 and 2002, agricultural land use/cover types decreased substantially, with the majority converting to forestland. In 1959, agricultural land use/cover, namely cropland, pasture/brush and farmsteads comprised slightly more than 40% of the total Clinton Township land area. By 2002, agricultural land use/cover accounted for 27% of the Township's land area. In itself, the amount of land classified as cropland decreased by about 1,326 acres between 1959 and 2002. However, despite the decrease, Clinton Township ranked fifth in the County in terms of cropland retention. Almost 67% of the 1959 cropland in the Township was still classified as cropland in 2002. Although there were reductions in the amount of agricultural land, the forest covered 10% more of the Township by the end of the 43-year period. The combination of a high percentage of forest retention and the maturation of the pasture/brush resulted in an increase of nearly 2,647 acres of forest cover between 1959 and 2002. By 2002, the forest accounted for nearly two-thirds of the total land area of the Township. The amount of residential and commercial land increased during the study period. However, residential and commercial land, combined, comprised 3.7% of the total municipal land area by 2002. There was also an increase in the industrial land use/cover, but this increase amounted to less than 0.1% of the total land area of the Township. The amount of water also increased and by 2002 accounted for about 3.4% of the total Clinton Township land area.

Wayne County Agricultural Land Use/Cover Study

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 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.

*Wayne County Department of Planning 2006
925 Court Street
Honesdale PA 18431
570-253-5970*