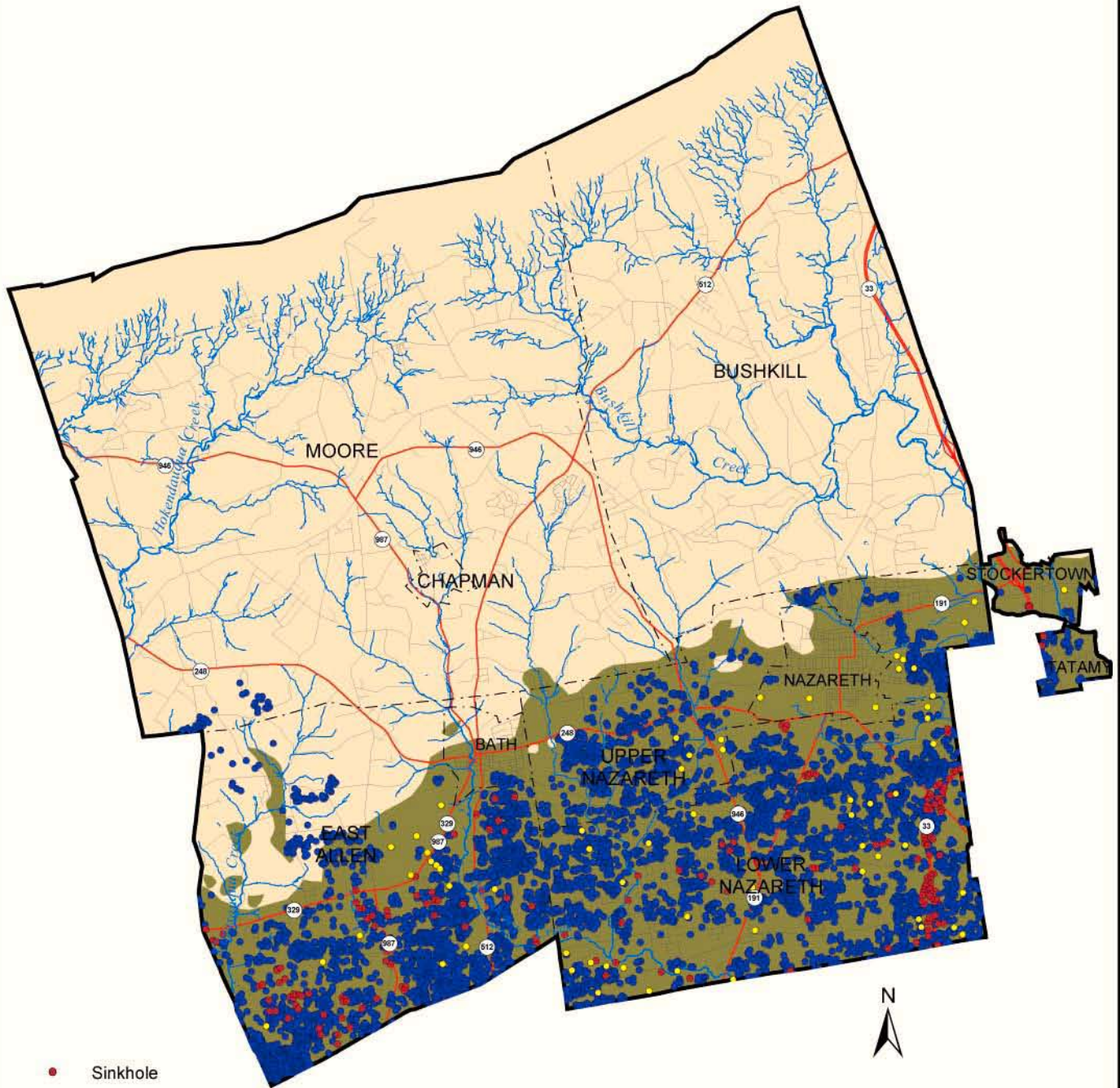
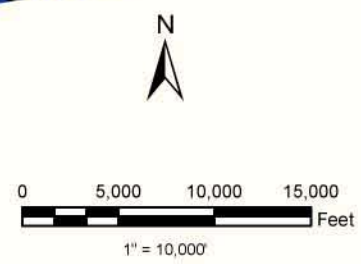


# MAP 8 KARST FEATURES



- Sinkhole
- Surface Depression
- Surface Mine
- Non-Carbonate
- Carbonate
- - - Municipal Boundaries
- Major Roads
- Minor Roads
- ~ Streams



Source: LVPC; PennDOT; Northampton County Dept. of Fiscal Affairs, GIS Division, 2000

|   |  |  |
|---|--|--|
|  | <b>NAZARETH AREA COMPREHENSIVE PLAN</b>    |  |
|   | LEHIGH VALLEY PLANNING COMMISSION          |  |
|   | 961 Marcon Boulevard, Suite 310            |  |
|   | Allentown, PA 18109-9397<br>(610) 264-4544 |  |

*This map was financed in part by grants from the Commonwealth of Pennsylvania, Department of Community and Economic Development and/or Department of Conservation and Natural Resources.*

## Implementation Strategies

- Municipalities with carbonate bedrock will adopt and enforce special subdivision regulations to identify and mitigate risks in these areas.

## WOODLANDS

The preservation of woodlands is important to residents of the Nazareth Area. Registered voters who received the community opinion survey were asked what is the most important natural or man-made feature to protect/preserve in that part of Northampton County (question #25). Woodlands received the largest number of responses.

Woodlands are valued for many reasons. They provide recreational opportunities for nature study, hunting, hiking, horseback riding and scenic views. Woodlands can be used for firewood harvesting, commercial timbering, and as land use buffers and boundaries. Many species of birds depend on large, unbroken wooded tracts for survival. Woodlands also mitigate environmental stress by reducing stormwater runoff, filtering groundwater recharge, controlling erosion and sedimentation, moderating local microclimates and purifying air. Since many woodlands are located on other environmentally sensitive areas such as steep slopes, wetlands and floodplains, it adds another important reason for them to be protected.

Map 9 shows the location of wooded areas that are five acres or larger. There is unbroken woodland that extends along top and slopes of the Blue Mountain in Moore and Bushkill townships. The second largest concentration of woodland is at the Jacobsburg Environmental Education Center in Bushkill Township. The other areas of extensive, contiguous woodland are found along the major streams. Many of these areas also have slopes that are 15 percent or greater. There are numerous woodlots in the central and northern part of the study area that exceed five acres. Very few woodlands exist south of Route 248.

The amount of woodlands in each municipality is presented in Table 22. Over 22% of the region is in woodlands. Nearly 93% of the region's woodlands are found in Bushkill and Moore townships. Over 37% of Bushkill Township is composed of woodlands.

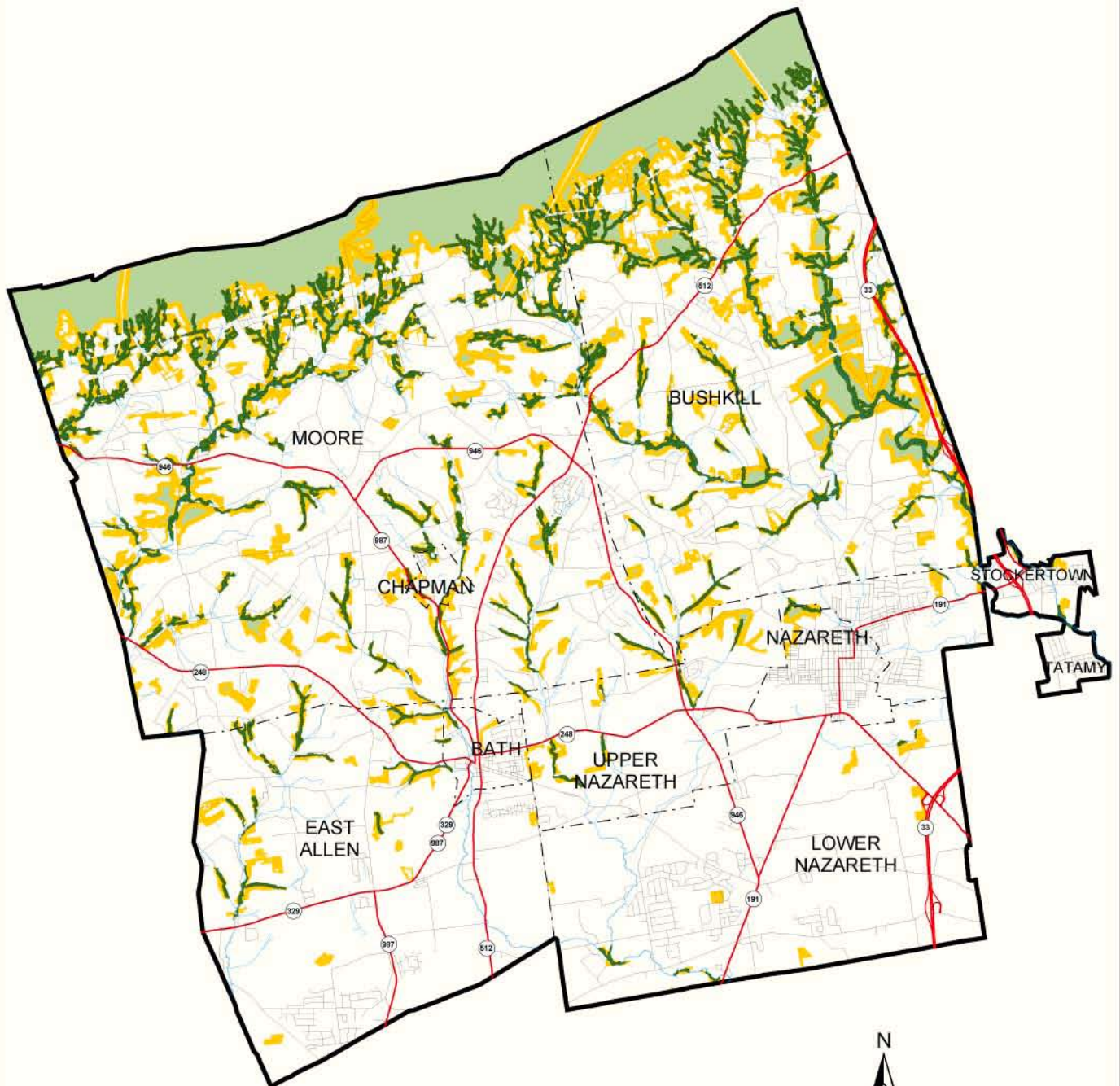
**TABLE 22**  
**WOODLANDS**

| Municipality (Mun.) | Acres    | % of Mun. | Total Acres in Mun. |
|---------------------|----------|-----------|---------------------|
| Bath                | 32.0     | 5.6%      | 576                 |
| Bushkill Twp.       | 6,160.3  | 37.4%     | 16,454              |
| Chapman             | 44.4     | 15.1%     | 294                 |
| East Allen Twp.     | 487.8    | 5.2%      | 9,389               |
| Lower Nazareth Twp. | 150.3    | 1.7%      | 8,668               |
| Moore Twp.          | 7,721.0  | 31.5%     | 24,480              |
| Nazareth            | 61.8     | 5.6%      | 1,101               |
| Stockertown         | 53.3     | 9.4%      | 570                 |
| Tatamy              | 3.7      | 1.1%      | 333                 |
| Upper Nazareth Twp. | 230.6    | 4.9%      | 4,704               |
| Total Nazareth Area | 14,945.2 | 22.5%     | 66,569              |

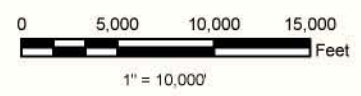
*Source: Measurements by the Lehigh Valley Planning Commission using GIS.*




# MAP 9 WOODLANDS



- Riparian Woodlands
- Interior Woodlands
- Other Woodlands
- Municipal Boundaries
- Major Roads
- Minor Roads
- Streams



Source: LVPC; Northampton County, Dept. of Fiscal Affairs, GIS Division, 2000



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## ***Interior Woodlands***

Interior woodlands are defined as areas of woodlands that are not affected by edge-related disturbances (edge effect). An edge effect occurs where two different environments meet, creating a transition zone. The transition zone can be very abrupt, but often is gradual. The transition zone's habitat characteristics, including light levels, soil moisture, and tree canopy density, can be quite different than found in the interior woodland areas. Many tree and wildlife species, especially some bird species, are dependent on habitat provided by interior woodlands.

To create the interior woodlands data (Map 9), 300 feet was removed from the external edge of the woodlands. Road rights-of-way were considered as edges for the woodlands. Approximately 5,300 acres of interior woodlands exist in the 10-municipality study area. The largest interior woodland tracts are located on the Blue Mountain in Bushkill and Moore townships; the next largest tract is located in Jacobsburg Environmental Education Center in Bushkill Township. A few, small interior woodlands exist south of Route 248.

## ***Riparian Woodlands***

Riparian woodlands are woodlands along streams or other water bodies. An overview of riparian areas is found in the Streams, Riparian (Streamside) Buffer section of this plan. Riparian woodlands as shown on Map 9 are those wooded areas within 100 feet on either side of a stream. Note that the existing woodlands data was created from aerial photography and only woodlands of five acres or larger. Woodlands along streams can often be relatively narrow with frequent breaks for roads, etc., such that individual wood lots are often less than five acres. This causes several smaller riparian woodlands to not be included in this data. There are approximately 3,900 acres of riparian woodlands within the study area, the majority are located on the slopes and at the base of the Blue Mountain.

## **Goal**

*To protect and manage the region's woodland resources.*

## **Policies**

- Woodlands that are part of a natural area that is identified as important in the report *A Natural Areas Inventory of Lehigh and Northampton Counties, Pennsylvania* should be preserved.
- Riparian woodlands and woodlands that, through combination with other natural features, are mapped very high or high conservation value (see Map 15) should be preserved.
- When development is planned for wooded tracts, site design and development should maximize preservation of trees.

## **Implementation Strategies**

- Landowners should improve their woodlands by taking advantage of the Cooperative Forest Management Program offered by the State Bureau of Forestry. This includes having a forest management plan prepared by a professional forester if logging is intended.
- Municipalities will adopt and enforce zoning and subdivision regulations to control tree removal and the indiscriminate cutting of trees during subdivision and land development activities.
- Municipalities will adopt and enforce zoning and subdivision regulations to preserve natural area woodlands, and woodlands that are mapped as very high or high conservation value.