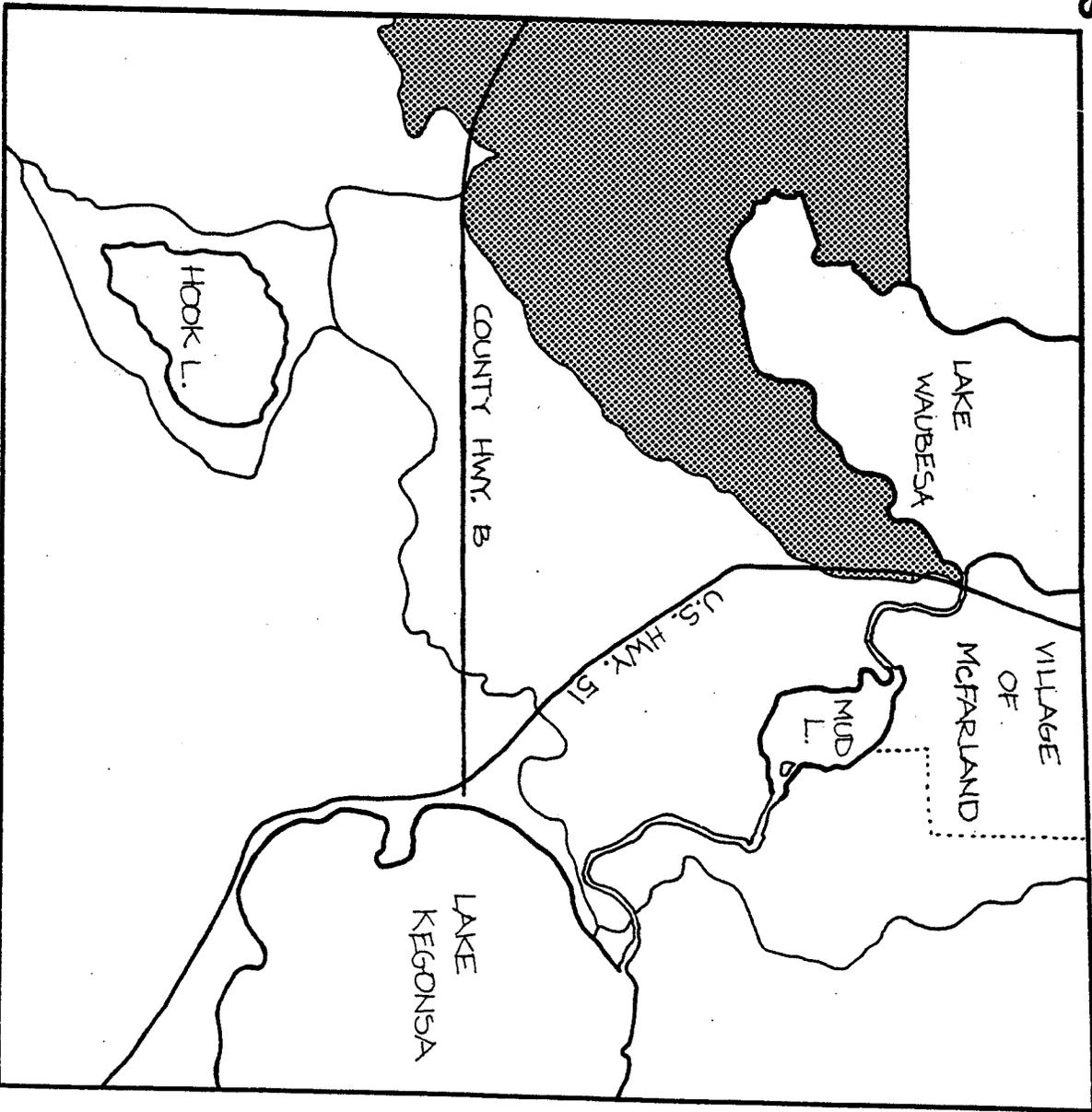


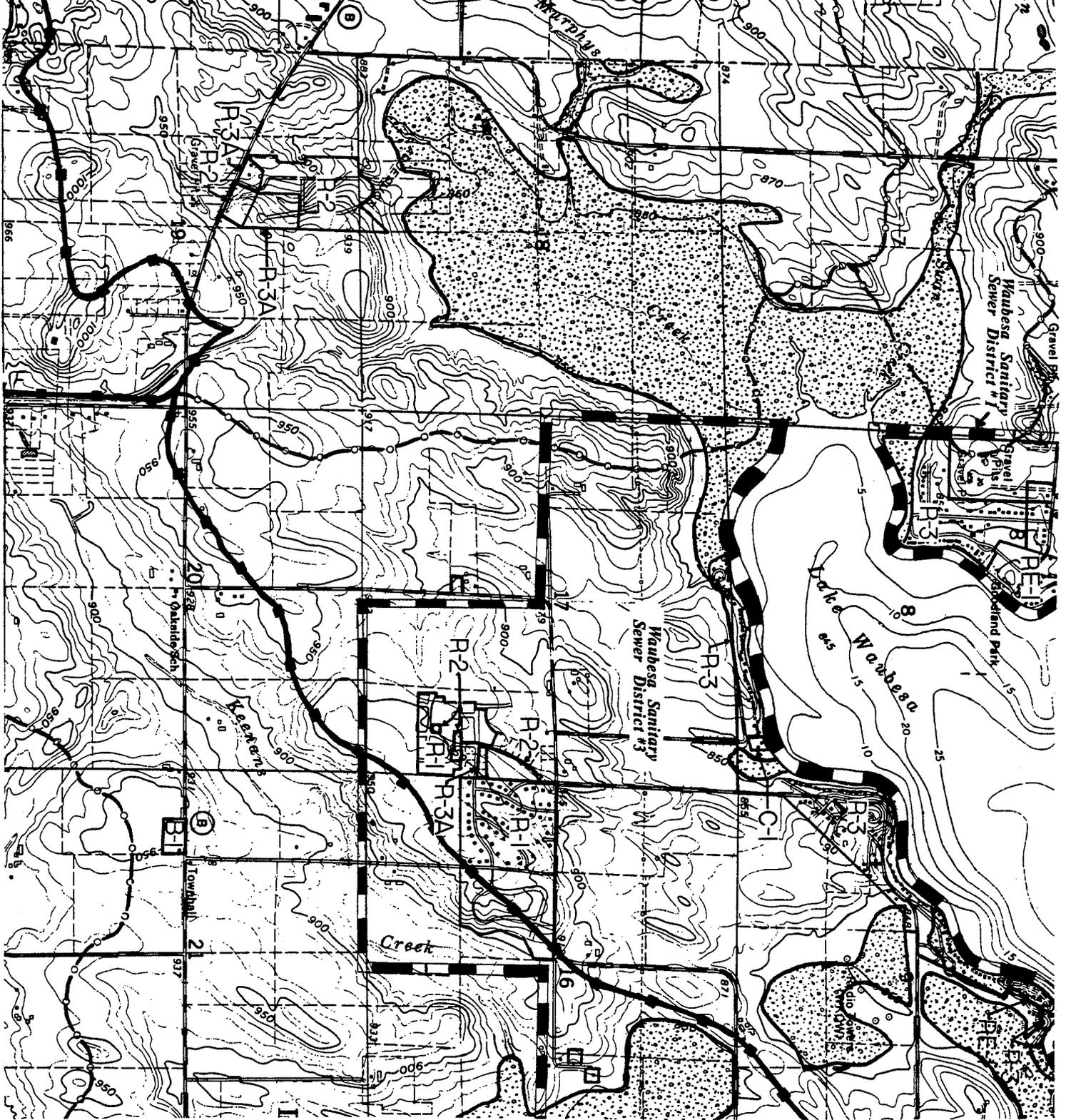
B. WAUBESA WETLANDS



The Waubesa Sanitary Sewer District No. 3 includes a number of wetlands, woodlands and very steep slopes. It also includes a lot of land in the Keenan's Creek drainage basin. Sewered development in these sensitive areas and across the divide will be either impossible or very expensive. It is unfortunate that landowners have to pay district assessments if their land has little likelihood of ever being developed. The excessive amount of land included in this district also threatens more potential lake quality problems than the district was originally formed to solve.

If a significant amount of additional development occurs along the perimeter of Lake Waubesa, new services will be required. The town should keep in mind the added expense and inefficiencies involved in serving a linear development pattern.

The Oregon Heights subdivision in Section 19 and the Waubesa Heights subdivision in Sections 16 and 17 represent the largest rural subdivisions in the town. With the adoption of the town plan, such scattered developments would no longer be permitted.



**Zoning,
Flood Plains,
& Sanitary
Districts**

**SANITARY
SEWER
DISTRICT
Boundaries**

**100 YEAR
FLOOD
PLAINS**

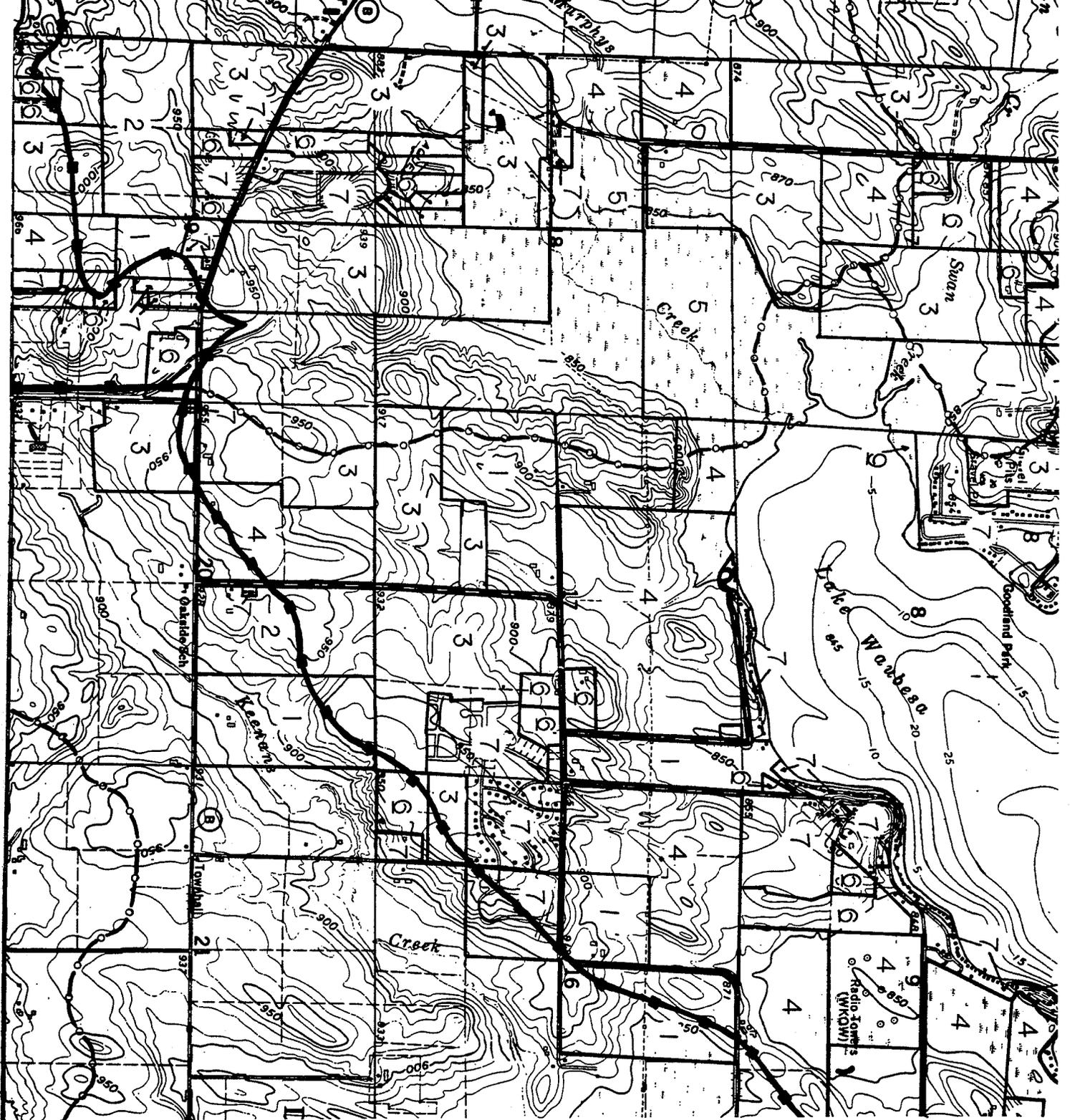
**R-3
ZONING
Boundaries**

This study area contains a mix of agricultural land, dense residential development and public land. At this time, only a relatively small proportion of the agricultural land is owner-operated, and this proportion may be lower in the near future. It should be noted that a significant proportion of the rented land (category 3 and 4) is in stable tenure and use-situations.

The Department of Natural Resources and the Nature Conservancy own a total of 127 acres

in the Waubesa Wetlands area. It is anticipated that more land in the Waubesa Wetlands area will be either donated or purchased.

One of the major threats to the Waubesa Wetlands is the parcelization and development of land in the vicinity of the wetland perimeter. Future development near the wetland will harm both the aesthetic and wildlife values of the wetland.



Land Ownership Patterns

- 1 LAND OWNED AND TILLABLE LAND WORKED BY RESIDENT FARMER
- 2 LAND OWNED AND TILLABLE LAND WORKED BY NON-RESIDENT FARMER
- 3 LAND OWNED BY TOWN RESIDENT BUT TILLABLE LAND LEASED TO FARM OPERATOR, SHED CORN COMPANY, OR CANNING COMPANY.
- 4 LAND OWNED BY NON-RESIDENT OF TOWN, TILLABLE LAND LEASED, PUBLIC LAND, RECREATIONAL LAND, OR OWNED BY A NON-PROFIT GROUP.
- 5 LARGE-LOT RESIDENTIAL LAND, PARCELS GREATER THAN FIVE ACRES.
- 6 SMALL LOT RESIDENTIAL LAND, PARCELS SMALLER THAN FIVE ACRES.
- 7 NON-FARM, NON-RESIDENTIAL PARCELS, OWNED BY TOWN RESIDENT.
- 8 NON-FARM, NON-RESIDENTIAL PARCELS, OWNED BY NON-TOWN RESIDENT.
- 9

The Waubesa Wetland area is one of Dane County's most outstanding wetlands. The marsh sits in a large deep basin which was part of Lake Waubesa 12,000 years ago. This wetland system has been designated as a State Scientific Area and is the current site of a major ecosystems research project. Because of the wetland's large size and variety of plant communities, it supports a wide range of wildlife. Public utility and service lines intersect the wetland in four different places. They represent the incremental process which can slowly degrade our wetland resources.

Most of the woodlots in this study area are close or adjacent to the wetland system. As such they serve important wildlife habitat functions. The following includes a brief description of the woodlots surveyed in Study Area B:

B1—Rating, fair; Size, 24 acres

This woodlot contains typical dry hardwood species, a dense honeysuckle invasion and an even age stand of trees due to recent logging activities. Hollow trunks, wilted and eaten leaves are signs of physical and insect damage. A wetland lies to the south, a stream flows through the woodlot, and springs are present. Rock outcroppings, bluffs, and ravines are located here.

B2—Rating, good; Size, 6.5 acres

This woodlot contains typical dry hardwood species, a minimal honeysuckle invasion, and a mixed age stand of trees. This woodlot shows signs of good health and a near natural condition.

B3—Rating, good; Size, 18.5 acres

This woodlot contains typical dry hardwood species, a small white pine plantation, a mini-

mal invasion of honeysuckle and an even age (old) stand of trees. Very old and stately trees are present. A wetland lies at the north edge of the woods, Swan Creek flows through the north part and a hill with a vista is present.

B4—Rating, good; Size, 3 acres

This woodlot contains typical dry hardwood species, a moderate honeysuckle invasion. Its health is generally fair with dead and dying trees present. The Waubesa Wetlands lies to the south, a drainage stream flows through it and a hill with a vista of the marsh is present.

B5—Rating, excellent; Size, 17 acres

This woodlot contains typical dry hardwood species, minimal to heavy growths of honeysuckle, and a mixed age stand of trees. Slopes are moderate to steep and physical damage is apparent as the shrub and ground layer is sparse with exposed soil in areas. The Waubesa Wetlands lie adjacent to the woods to the east and Swan Creek flows through the northern part of the woodlot.

B6—Rating, good; Size, 2 acres

This woodlot contains typical dry hardwood species, a minimal honeysuckle invasion and a mixed age stand of trees. A wetland lies to the west of the woodlot and no physical damage is apparent.

B7—Rating, good; Size, 7 acres

This woodlot contains dry hardwood species and is an even age grove with a sparse shrub layer. Slopes are moderate to steep, a wetland lies to the west and evidence of grazing damage is present.

B8—Rating, good and fair; Size, 61 acres (includes houses and lots).

This woodlot contains typical dry hardwood

species and lowland species, with a medium density of shrubs. The eastern half contains a subdivision, Oregon Heights, and the western area, with no construction or homes, shows signs of good health. Waubesa Wetlands lies to the north, the Garos Springs are present and the MMSD effluent ditch flows through the site.

B9—Rating, excellent; Size, 49.5 acres

This woodlot contains typical dry hardwood species, has a minimal to heavy honeysuckle invasion and has a mixed age stand of trees. The woodlot has a near natural condition with few signs of physical disturbance, and slopes are moderate to steep. A spring is found in the northern section.

B10—Rating, excellent; Size, 55 acres

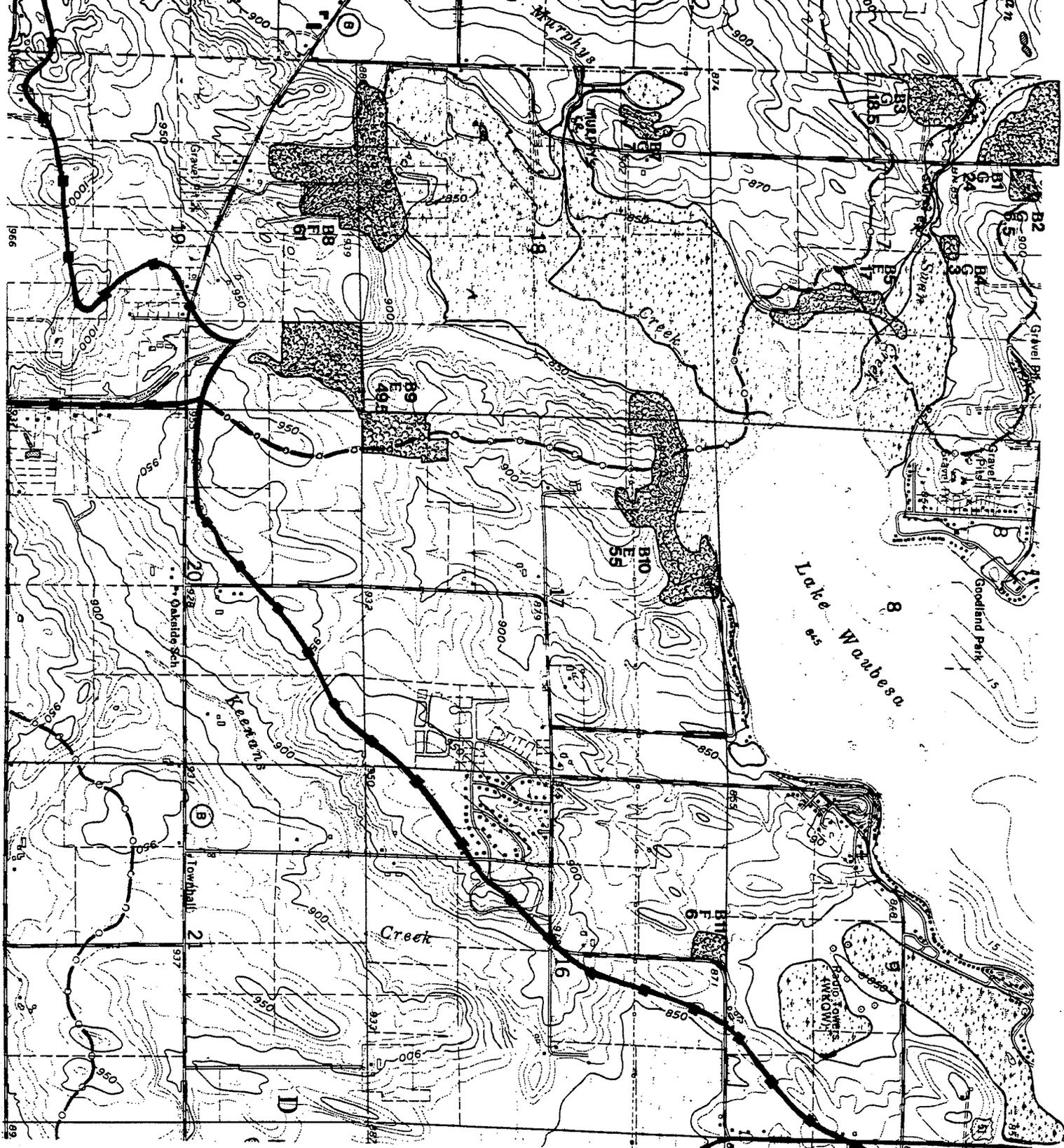
This woodlot contains a mixed age stand of dry hardwood species, and a dense invasion of honeysuckle. The woodlot grades to a lowland marsh community as Waubesa Wetlands are located adjacent to the woodlot. Grazing damage is evident in areas where cattle are not fenced out, and discarded farm machinery is present. Slopes are moderate to steep and ravines are present.

B11—Rating, fair; Size, 6 acres

This woodlot contains typical dry hardwood species with only very few old trees present and a sparse shrub layer due to grazing damage. Many regenerating trees are present and so this disturbed community has potential for regrowth.

B12—Rating, fair; Size, 7 acres

This woodlot contains dry hardwood species, a moderate honeysuckle invasion and a mixed age stand of trees. Physical disturbance (grazing) to the community is apparent.



Environmental and Historical Resources

 Wetland Ecosystem

 Woodlots

B10 FIELD SURVEY SHEET NUMBER
E WOODLOT QUALITY CATEGORY
55 WOODLOT SIZE, IN ACRES

WOODLOT QUALITY CATEGORIES
E EXCELLENT
G GOOD
F FAIR

SECTIONS CONTAINING HIGHLY ARCHAEOLOGICAL SITES:
 3 4 7
 8 9 10
 16 17 18

The intermittent drainage patterns in this area are well-developed. They point out the relationship between uplands land use and water quality in Lake Waubesa. Because of the many areas of steep topography in this study area, stormwater management measures should be carefully incorporated into future land use changes. The steep slopes adjacent to the east

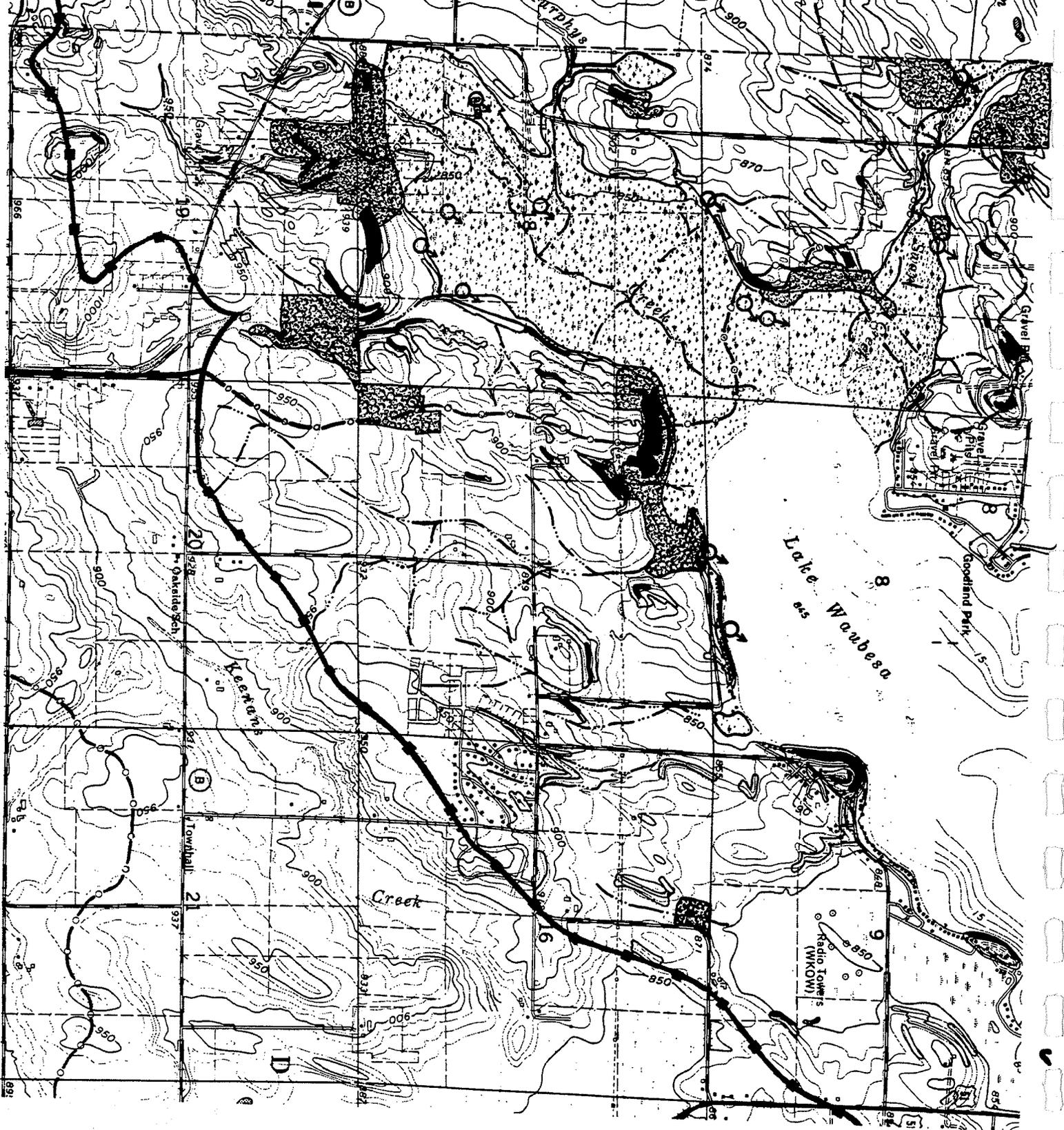
and south of the Waubesa wetlands are especially sensitive, because runoff there would go directly into the wetlands.

The many springs in the Waubesa Wetlands area serve as a major source of clean water for the lake. This area probably contains many more springs and seepages than are shown on this map.

This map shows how surface geology and vegetation combine into a complex natural and

physical system. It provides a good example of the need to think of wetlands and uplands as part of a single system.

Areas in which woodlands contain steep slopes and intermittent drainage areas are very susceptible to upslope runoff. Wetlands perform a valuable runoff filtering function, but if overloaded, the filtering ceases and wetland quality degrades. Additional uplands management in the Swan Creek and Murphy Creek watersheds are needed to maintain the long term quality of the Waubesa wetlands.



Environmental System Overlay

-  WETLAND ECOSYSTEM
-  WOODLOT
-  SPRING
-  PONDLED SPRING
-  GROUP OF SPRINGS
- STEEP TOPOGRAPHY**
 -  12 - 20% SLOPE
 -  INTERMITTENT DRAINAGE
 -  PERENNIAL DRAINAGE

P =function present

Functions found in Study Area

P₊=function very important

R =function present, but rehabilitation needed

(P) =future potential for function in area

5. Maintenance of Groundwater System

Aquifer Recharge (Quality and Quantity) P

Aquifer Discharge (Quality and Quantity) P₊

1. Natural Systems Preservation

Feeding Habitat P₊

Nesting/Resting/Breeding Burrow Habitat P₊

Wintering/Migratory Habitat (Waterfowl) P₊

Movement Corridors P₊

Plant and Animal Diversity P₊

Scientific Research P₊

2. Aesthetic Quality Preservation

High Visual Quality From Roadides P₊

High Visual Quality Within Marsh and Stream Areas P₊

Long Distance Views and Vistas P₊

Acoustic Isolation P₊

3. Surface Water Quality Protection

Nutrient and Sediment Control

4. Non-Structural Flood Control

Protection of 100-Year Floodplain P

6. Provision of Recreation Opportunities

Fishing (in or adjacent to study area) P₊

Hunting and Trapping P₊

Water Recreation (in or adjacent to study area) P₊

Picnic & Play Grounds (P)

Corridors for Walking, Hiking, Skiing, Etc. P

Wild Food Gathering P₊

7. Education and Spiritual Enrichment

Formal and Individual Education P₊

Spiritual Enrichment P₊

8. Historic and Cultural Sites and Settings

Archeological Sites and Settings P₊

Settlement and Cultural Sites and Settings P

9. Community Separation

10. Property Value Enhancement P

Major Highlights

The Waubesa Wetlands area serves a large number of important functions. As mentioned, it is a state scientific area and is used for field research and classroom study. Among the many wildlife species that breed in this area is the sandhill crane. During the winter, springs provide habitat for ducks. In the spring northern pike spawn in the wetland, as well as in the wetlands near the WKOW radio towers. The hilltops and uplands serve as aquifer recharge areas, while the many springs provide clean water for Lake Waubesa.

The wetlands also filter agricultural runoff carried in by Swan and Murphy Creeks. The steep topography and the woodlands around the wetland perimeter provide the area with many scenic views. These areas also have a very high erosion potential. The uplands around the wetland provide critical breeding and feeding habitat for many of the wildlife species that inhabit the area.

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