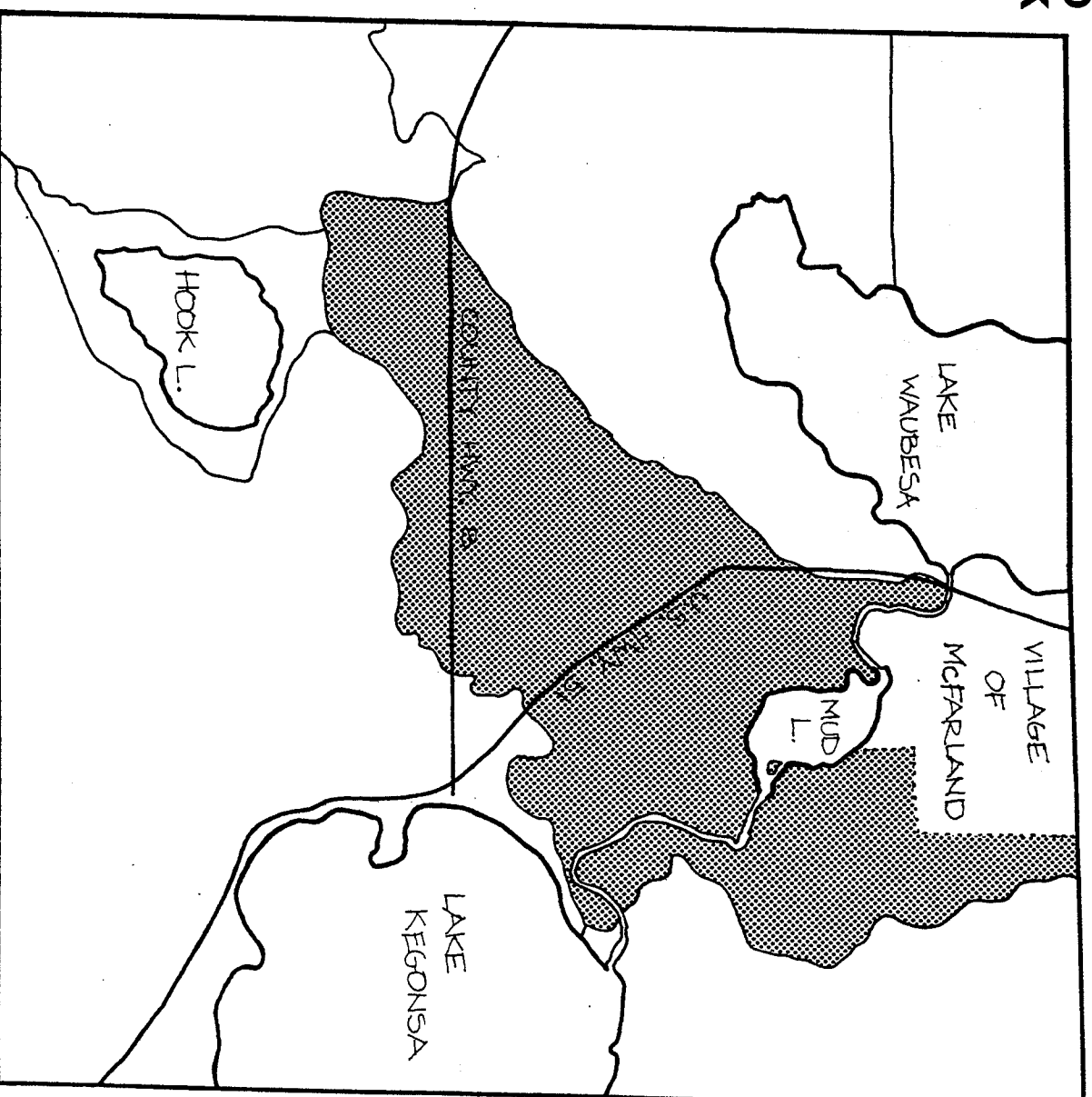
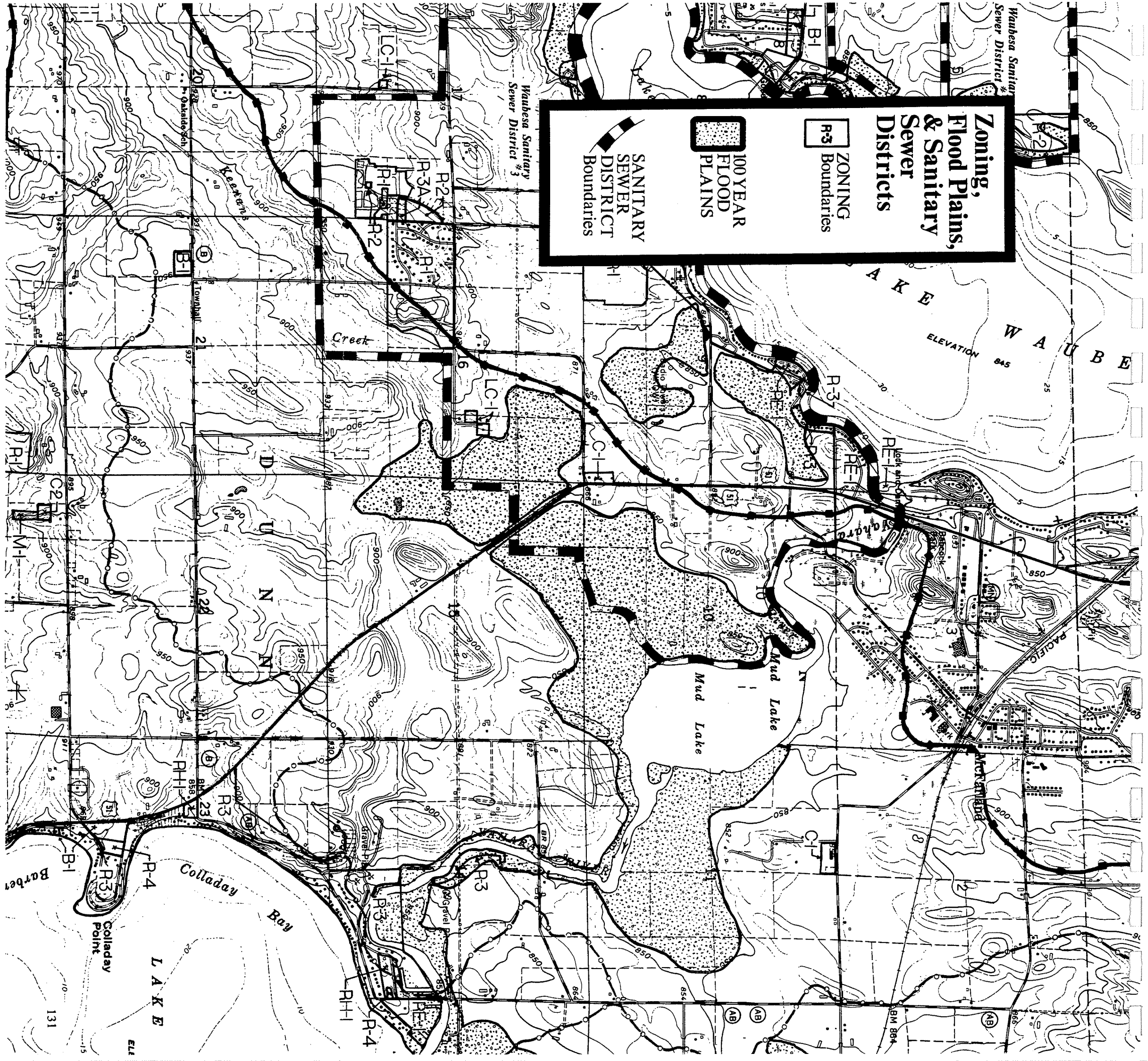


**F. MUD LAKE AND
KEENANS CREEK**



This map shows large areas of wetland included within Waubesa Sanitary District No. 3. Wetlands and other sensitive areas should be excluded from the district, as they probably will never be developed. These areas could be developed only at great expense both in dollars and harm to the town's natural system. In this study area, all of the land within the district lies across a drainage divide. Therefore, to serve this area with public sewer would require extra energy and resources for lift pumps and other special equipment.

Note how this study area, which cuts a diagonal swath through the town, contains almost no dense residential development, either to the northeast or in the Keenans Creek watershed. The greatest development density in this drainage area occurs in McFarland, and includes the housing which is encroaching on the Mud Lake area.

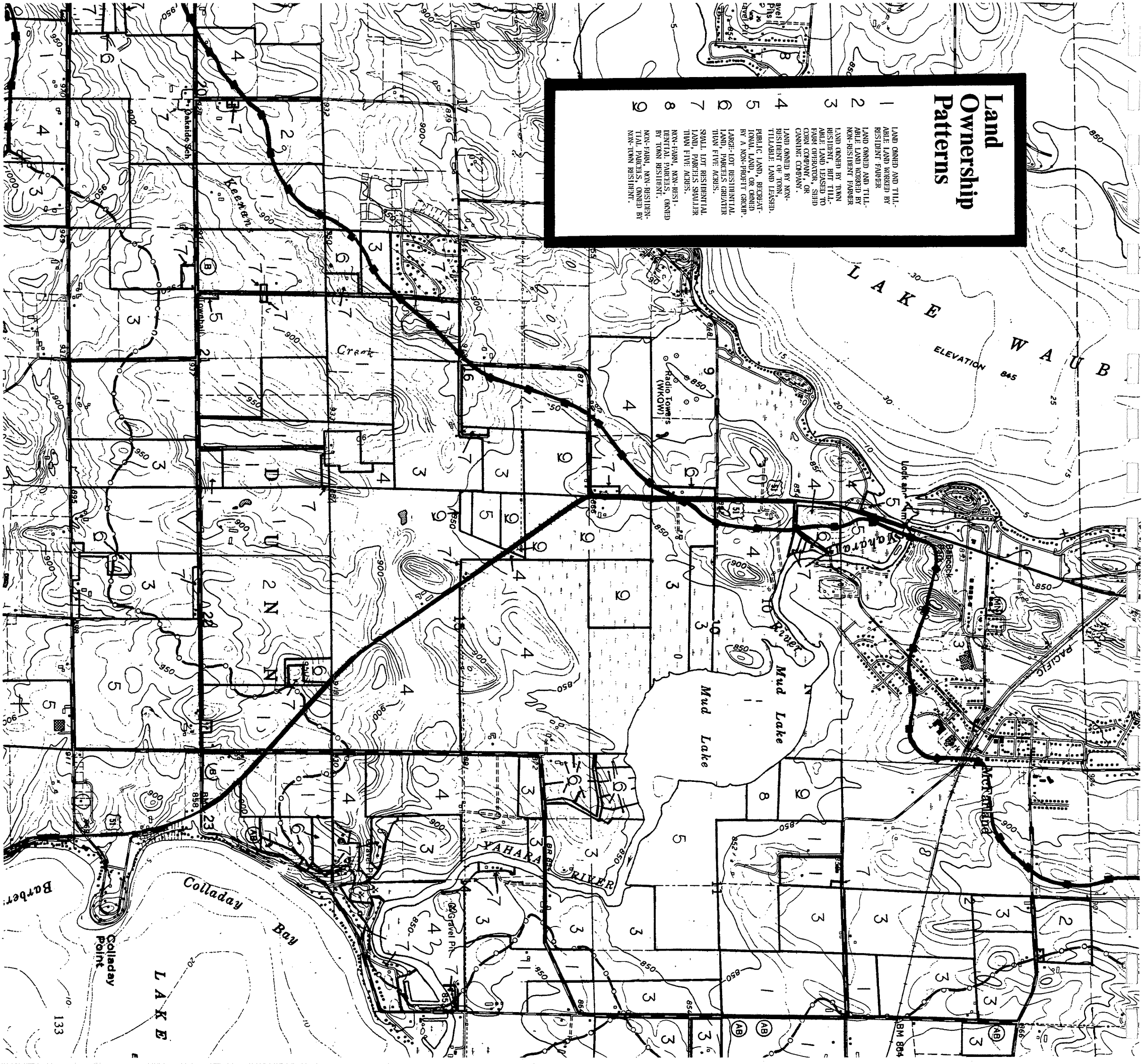


This study area includes a higher proportion of owner-operated parcels than is found in most of the rest of the town. Almost all of Keenans Creek lies with the land of this ownership category. Although almost all of Section 15 is absentee-owned, the farmers who work the fields here show a strong commitment to agriculture as demonstrated by well-maintained terraces and other soil conservation measures.

The Department of Natural Resources owns land on the east side of Mud Lake and a smaller parcel in Mud Lake Marsh west of Highway 51. The town's largest landholding, the town dump site is also in this area.

Land Ownership Patterns

- 1 LAND OWNED AND TILLED LAND WORKED BY RESIDENT FARMER
- 2 LAND OWNED AND TILLED LAND WORKED BY NON-RESIDENT FARMER
- 3 LAND OWNED BY TOWN RESIDENT, BUT TILLED LAND LEASED TO FARM OPERATOR, SEED CORN CONTRACT, OR CASHING CONTRACT
- 4 LAND OWNED BY NON-RESIDENT OR TOWN-RESIDENT, 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



Mud Lake is a natural widening of the Yahara River surrounded on both sides by wetlands. To the west lies a large shallow water wetland, roughly the same size as the Waubesa Wetlands. It is of relatively good quality due to a lack of ditching and other alterations. It is traversed by Highway 51 and a 138 kV power line.

Mud Lake is an important rest area for migrating waterfowl, as it is open in the spring before any such area in the county. The wetlands to the east of Mud Lake are drier than those to the west, consisting mostly of sedge meadow on peat. Much of this area is currently isolated from human disturbance.

Most of the woodlots in this area lie adjacent to the wetlands, Keenans Creek, or the Yahara River. As such, they have important aesthetic and natural relationships with these other resources. The following is a brief description of the woodlots surveyed in Study Area F:

F2—Rating, good; Size, 12 acres

This woodlot contains typical dry hardwood species and a mixed age stand of trees. Some physical disturbances are apparent, with housing development on the edge of the woodlot. A small pond is located near the northern part of the woods, ridge tops and a hill with a vista occur here and slopes are moderate.

F3—Rating, good; Size, 61 acres

This woodlot contains typical dry hardwood species, a minimal honeysuckle invasion and a mixed age stand of trees. Keenans Creek flows through the northwest section, ravines and ridgetops are present and slopes are moderate to steep. The woodlot is generally in good condition.

F4—Rating, fair; Size, 7 acres

This woodlot contains dry hardwood species, a moderate honeysuckle invasion and a mixed age stand of trees. Grazing damage is significant. Keenans Creek flows near the woodlot, and a hill with a vista is present.

F5—Rating, excellent; Size, 30 acres

This woodlot contains typical dry hardwood species, a minimal honeysuckle invasion and a mixed age stand of trees. Keenans Creek flows along its southern edge. Severe gully erosion is occurring (however rock rip rap is present) and slopes are moderate to steep. Dead trees are present but the health is generally good.

F6—Rating, good; Size, 15 acres

This woodlot contains dry hardwood and lowland species and a mixed age stand of trees. The woodlot lies adjacent to Keenans Creek. Slopes are gentle to moderately steep. The health of this stand is generally good, indicated by the wide variety of plant life.

F7—Rating, good; Size, 4 acres

This woodlot contains typical dry hardwood and lowland species and a mixed age stand of trees. The woodlot lies adjacent to Waubesa Wetlands and grades to a wetland community at its northern edge. Keenans Creek flows just south of the woodlot and a glacial hill with a vista is present. Slopes are gentle to moderately steep.

F8—Rating, good; Size, 16 acres

This woodlot contains typical dry hardwood and lowland species and a mixed age stand of trees. Mud Lake Marsh borders its eastern edge, and springs are located east and west of the woodlot. A hill with vista is in the center of the woodlot, which has steep slopes.

F9—Rating, fair; Size, 5 acres

This woodlot contains dry hardwood species. The density of vegetative growth (trees, shrubs, ground plants) is sparse due to heavy grazing damage in the woodlot. Mud Lake Marsh lies adjacent to the woodlot at its northern border.

F10—Rating, good; Size, 43 acres

This woodlot contains dry hardwood species, even aged trees in the southern section and mixed aged trees in the northern part. Damage due to grazing ended in 1976. Hills with moderate slopes are located in the east side of the woodlot. Mud Lake Marsh lies along the western border of the woods.

F11—Rating, fair; Size, 6 acres

This woodlot contains dry hardwood species and planted pines. The woodlot is even aged, with either very young or very old trees present. Grazing damage is evident. The entire woodlot is located on moderately steep slopes, with rock outcroppings and ravines.

F12—Rating, fair; Size, 3 acres

This woodlot contains dry hardwood species and a mixed age stand of trees. Density of tree growth is sparse. Slopes are gentle to steep and a ravine is present along its northeast border.

F13—Rating, excellent; Size, 15 acres

This woodlot contains dry hardwood and lowland species and a mixed age stand of trees. The woodlot exists in a near natural condition and its health is good. A wide variety of plants are present. Slopes are gentle to steep.

F14—Rating, excellent; Size, 8 acres

This woodlot contains dry hardwood species and a small aspen stand, a dense honeysuckle invasion and a mixed age stand of trees. Some dead trees are present. A hill with a vista of Lake Kegonsa exists here.

F15—Rating, fair; Size, 34 acres

This woodlot contains dry hardwood species, a moderate honeysuckle invasion and a mixed age stand of trees. The woodlot has been disturbed due to its proximity to the Olsonia subdivision. Hills with a vista exist here and slopes are moderate to steep.

F16—Rating, excellent; Size, 42 acres

This woodlot contains typical lowland forest species, a moderate invasion of prickly ash, and a mixed age stand of trees. Exceptional growth and variety of plant species are prevalent. The woodlot is located in the Yahara River floodplain. The general condition of the woodlot is good, however, selective logging has occurred and clearings in the woodlot exist.

F17—Rating, good; Size, 8 acres

This woodlot is an open grown oak stand, and has a mixed age stand of trees. The Yahara River is located at the northern edge of the woodlot. Density of tree cover and shrubs is moderate to sparse. Slopes are gentle.

F18—Rating, fair; Size, 9 acres

This woodlot contains dry hardwood species, however it is a highly disturbed community. Health of the woodlot is fair, dead and dying trees are present.

F19—not surveyed

Permission to do a field survey on this woodlot was not granted, and other information sources were not available. Therefore, an evaluation could not be done.

Text continued on page 136...

Environmental and Historical Resources

Wetland Ecosystem

Woodlots

B10 FIELD SURVEY SHEET NUMBER

E WOODLOT QUALITY CATEGORY

55 WOODLOT SIZE, IN ACRES

WOODLOT QUALITY CATEGORIES

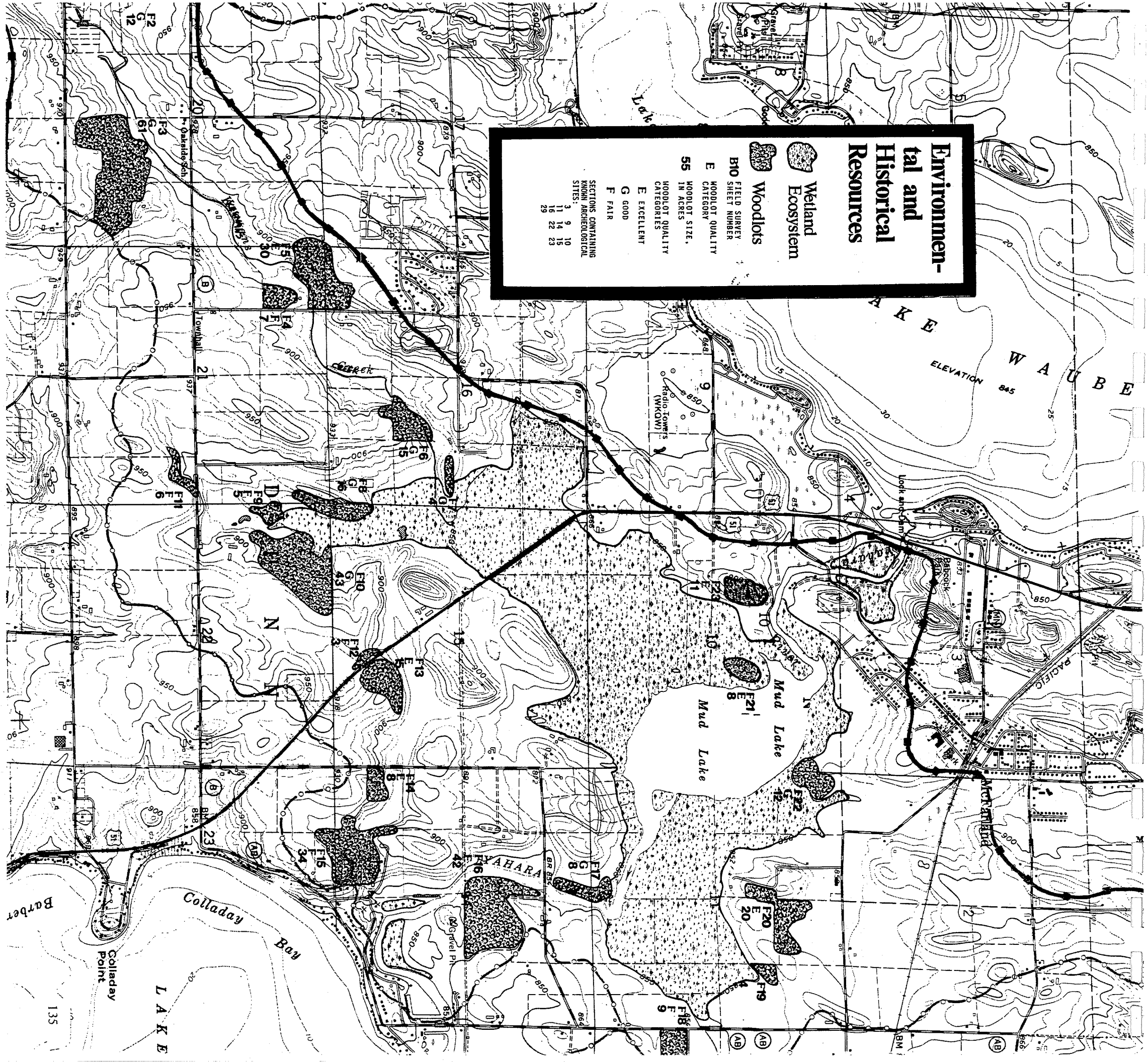
E EXCELLENT

G GOOD

F FAIR

SECTIONS CONTAINING KNOWN ARCHEOLOGICAL SITES:

3 9 10
11 14 15
16 22 23
29



... Text continued from page 134

F20—Rating, excellent; Size, 20 acres

This woodland contains typical dry hardwood species, minimal honeysuckle invasion and a mixed age stand of trees. General health of the woodland is very good and it exists in a near natural state. A wide variety of plants grow here. Slopes are gentle.

F21—Rating, excellent; Size, 8 acres

This woodland is located on an island in Mud Lake Marsh. It contains dry hardwood and lowland species and is in a relatively undisturbed condition.

F22—Rating, good; Size, 12 acres

This woodland is an oak savanna and contains dry hardwood species. This is an even age stand of young trees with a minimal honeysuckle invasion. It lies adjacent to Mud Lake Marsh on its east and south side. A wide variety of plants exist here.

F23—Rating, excellent; Size, 11 acres

This woodland contains dry hardwood species, a minimal honeysuckle invasion and a mixed age stand of trees. It lies adjacent to the Yahara River and to Mud Lake Marsh. Grazing and logging have occurred here. Steep slopes are present providing a hill with a vista.

Due to the fishing and hunting opportunities available to the early inhabitants of this area, archaeological sites are numerous. Indian mounds and village sites are scattered around the perimeter of the wetland, both to the northeast and southwest of Mud Lake.

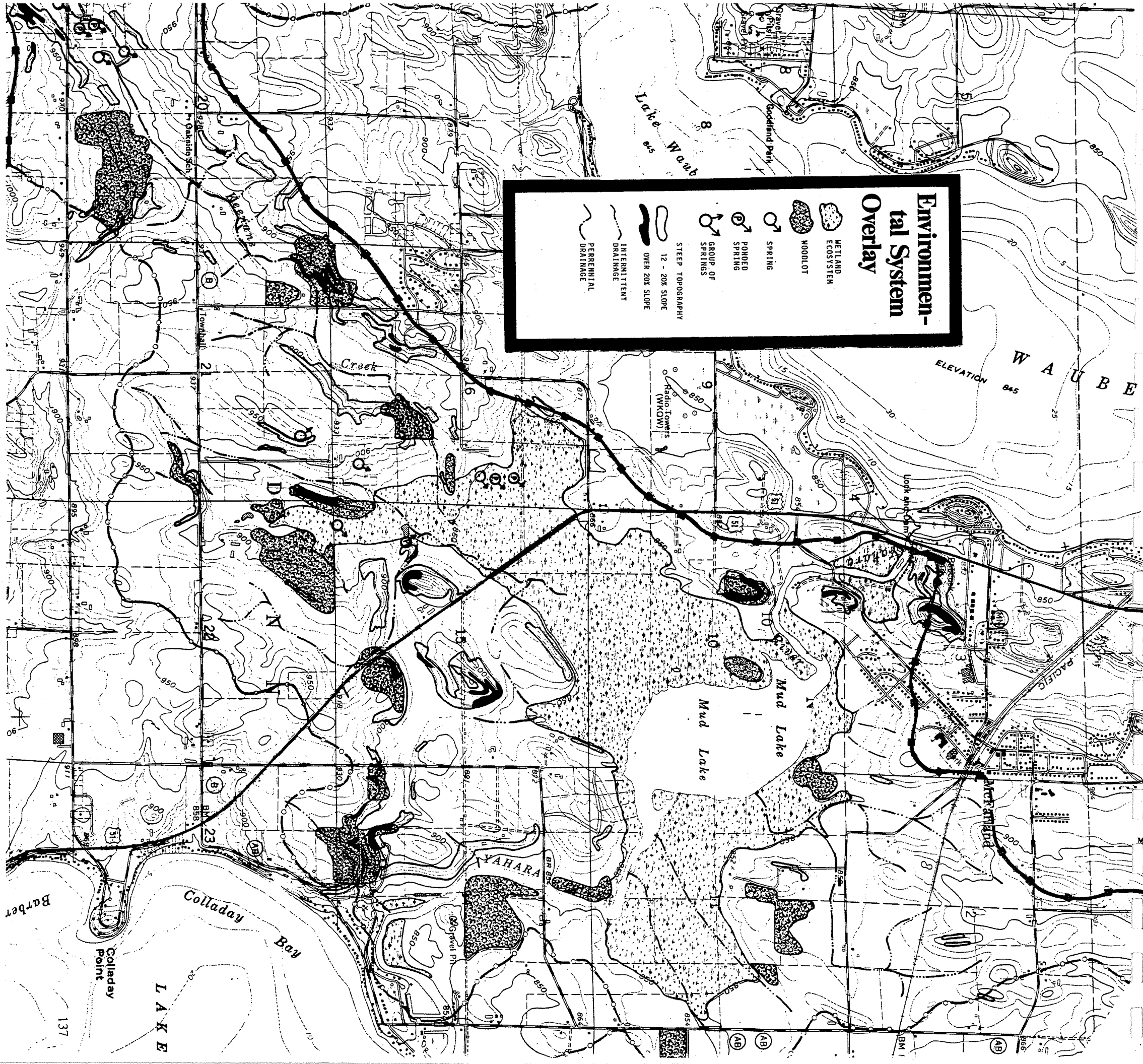
This map shows the general northeast-southwest alignment of this area's physical and natural features. It also demonstrates the relationship between upland and lowland resources, including areas where steep, wooded slopes present significant potential erosion problems.

The steep slopes along Keenans Creek provide both scenic qualities and erosion hazards to this area. The land to the east of Keenans Creek also contains erosion hazards. Some of these areas include fine examples of soil conservation practices.

The entire Keenans Creek watershed is located within the town's boundaries. The drainage area to the northeast of Mud Lake illustrated where the future expansion of McFarland

could result in sedimentation and drainage channel scouring in the wetlands if proper storm water management measures are not used.

Aquifer recharge occurs in the hilltops and uplands of this area, while numerous springs feed clean water into Mud Lake. These springs are located both at the mouth of Keenans Creek and within the wetlands.



Environmental System Overlay

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

W A U B E
ELEVATION 845

L A K E

Functions found in Study Area

P =function present

P₊=function very important

R =function present, but rehabilitation needed

(P) =future potential for function in area

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 R
 - Surface Water Quality Protection P₊
 - Nutrient and Sediment Control P₊,R
 - Non-Structural Flood Control P
 - Protection of 100-Year Floodplain P
3. Surface Water Quality Protection
4. Non-Structural Flood Control
5. Maintenance of Groundwater System
 - Aquifer Recharge (Quality and Quantity) P
 - Aquifer Discharge (Quality and Quantity) 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 P₊
10. Property Value Enhancement P

Major Highlights

This area serves a large number of open space functions. The Yahara River and Mud Lake serve as an important community separation buffer between McFarland and the Town of Dunn. At the same time, McFarland's encroachment on the Mud Lake area is having some negative effects on the runoff filtration, wildlife habitat, and aesthetic functions served by this area. Wise planning could significantly reduce these effects.

As mentioned earlier, Mud Lake is one of the county's most important areas for early migrating waterfowl. The Mud Lake Marsh is probably the highest quality shallow wetland in the town and supports a wide variety of migrating birds of prey (especially near Mud Lake) and nesting and feeding habitat for sandhill cranes and other wildlife species.

The many springs in this area reveals its role as an aquifer discharge area. Uplands serve as recharge areas. The Keenans Creek valley serves as a pleasant aesthetic resource as well as a wildlife corridor.

Functional
Analysis

