by floods of less severe but more frequent occurrence such as every five, 25, or 50 years. Floodlands are not suited to urban development because of flood hazards, high water tables, and inadequate soils. These areas are, however, generally suitable locations for valuable park and open space areas. Floodlands also provide storage for floodwaters and thereby decrease downstream flood discharges and stages.

Floodlands in Waukesha County, delineated by the Southeastern Wisconsin Regional Planning Commission, the Federal Emergency Management Agency, and the Wisconsin Department of Natural Resources, are shown on Map 23. The 100-year flood recurrence interval flood hazard area encompasses about 72 square miles, not including nearly 24 square miles of surface water in lakes and streams, or about 13 percent of the County's total land area. In 1990, a total of about 13.7 square miles, or about 19 percent, of these floodlands were located within state, county, or local public park and open space land.

WETLANDS

Wetlands are defined by the Regional Planning Commission as "areas that are inundated or saturated by surface water or groundwater at a frequency, and with a duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions."[8] Wetlands perform an important set of natural functions which make them particularly valuable resources lending to overall environmental health and diversity.

Wetlands contribute to the maintenance of good water quality, except during unusual periods of high runoff following prolonged drought, by serving as traps which retain nutrients and sediments, thereby preventing them from reaching streams and lakes. They act to retain water during dry periods and hold it during flooding events, thus keeping the water table high and relatively stable. They provide essential breeding, nesting, resting, and feeding grounds and predator escape cover for many forms of fish and wildlife. These attributes have the net effect of improving general environmental health; providing recreational, research, and educational opportunities; maintaining opportunities for hunting and fishing; and adding to the aesthetics of an area.

Wetlands pose severe limitations for urban development. In general, these limitations are related to the high water table, and the high compressibility and instability, low bearing capacity, and high shrink-swell potential of wetland soils. These limitations may result in flooding, wet basements, unstable foundations, failing pavements, and failing sewer and water lines. Moreover, there are significant and costly onsite preparation and maintenance costs associated with the development of wetland soils, particularly in connection with roads, foundations, and public utilities.

Wetlands cover a combined area of 81 square miles in Waukesha County, or about 14 percent of the total area of the County. As indicated on Map 24, wetlands are scattered throughout the County. Large concentrations of wetland areas occur in the Vernon Marsh, along Scuppernong Creek and the Scuppernong River in the extreme western part of the County, at the headwaters of the Fox River in Menomonee Falls and City and Town of Brookfield, and surrounding Big Muskego Lake.

WOODLANDS

Woodlands have both economic and ecological value and can serve a variety of uses providing multiple benefits. Located primarily on ridges and slopes and along streams and lakeshores, woodlands provide an attractive natural resource, accentuating the beauty of the lakes, streams, and the topography of the County. In addition to contributing to clean air and water, woodlands contribute to the maintenance of a diversity of plant and animal life and provide for important recreational opportunities. Under balanced use and sustained yield management, woodlands can, in many cases, serve scenic, wildlife, educational, recreational, environmental protection, and forest production benefits simultaneously.

Waukesha County woodlands cover a combined area of 46 square miles, or 8 percent of the County's total land area. As indicated on Map 24, these woodlands exist in large contiguous areas along the Kettle

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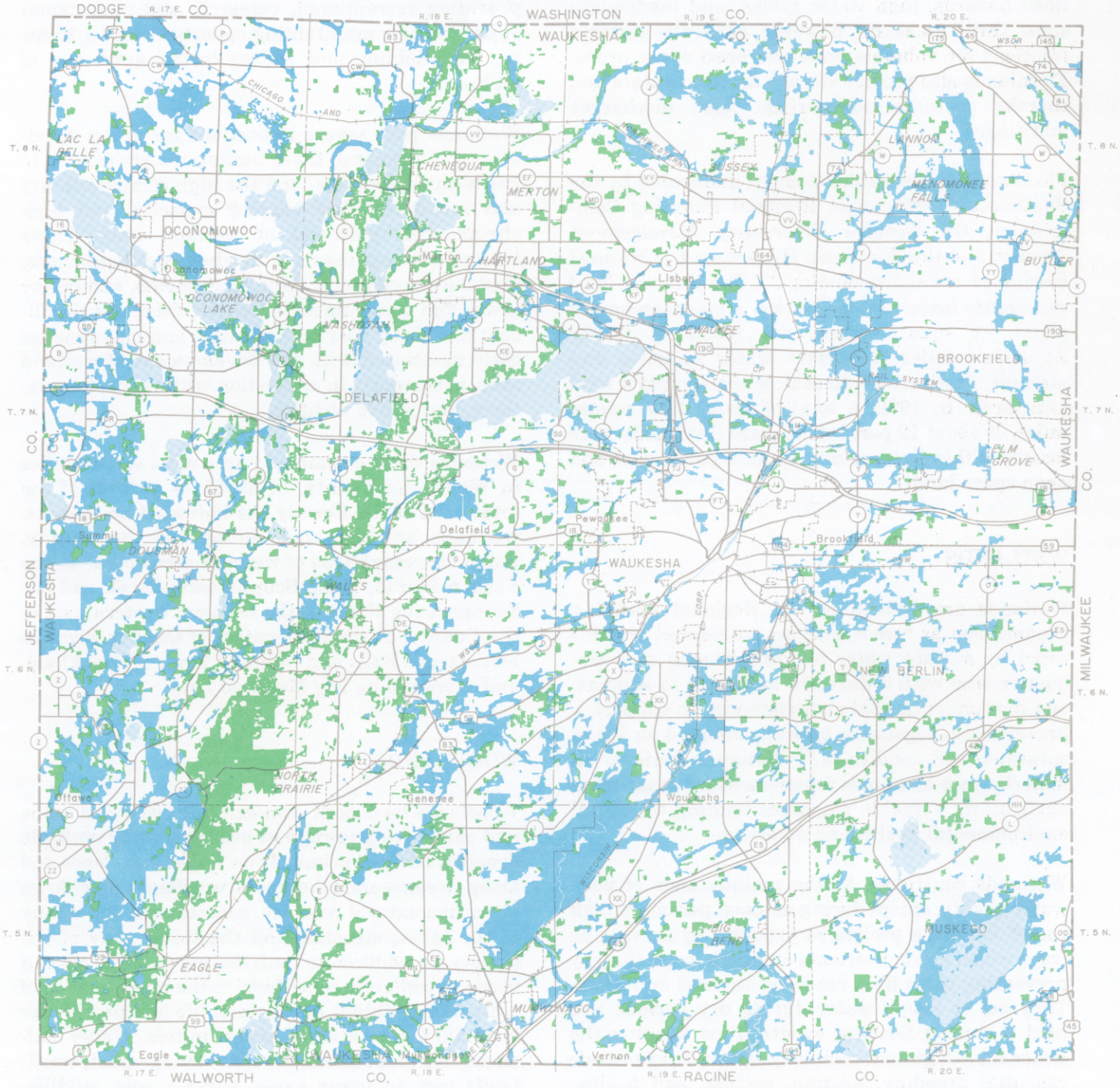
[8]*For a descriptive analysis of the several definitions of wetlands used by Federal and State regulatory agencies, see Appendix A.*

Map 24

WETLANDS AND UPLAND WOODS IN WAUKESHA COUNTY: 1990



Source: SEWRPC.

Moraine in the western half of the County and in scattered small areas throughout the remainder of the County.

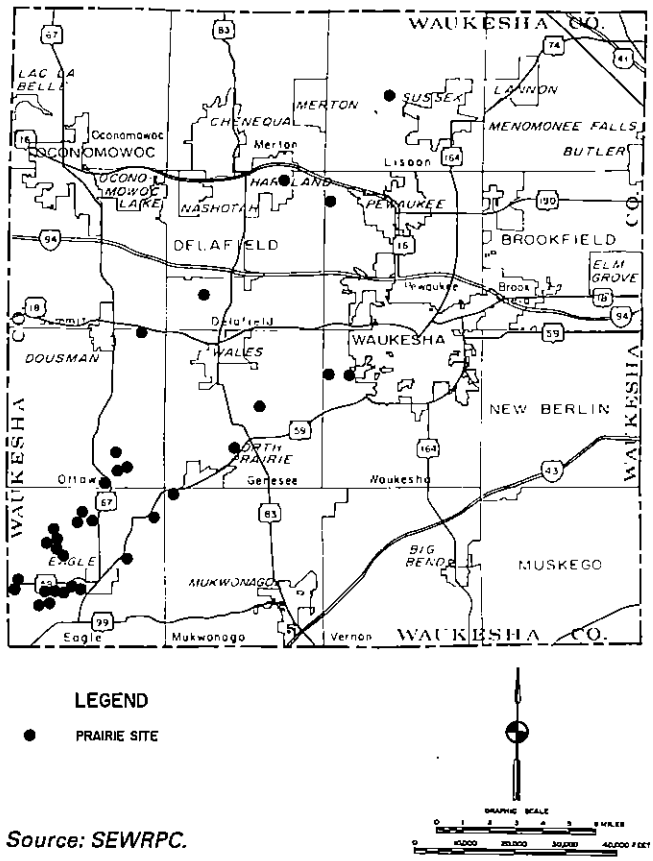
PRAIRIES

Prairies are open, treeless or generally treeless areas dominated by native grasses. Such areas have important ecological and scientific value and consist of four basic types: low prairies, mesic or moderately moist prairies, dry prairies, and oak openings. The low prairies typically occupy ancient glacial lake beds; mesic prairies tend to occur on glacial outwash plains, the glacial till of recessional moraines, and the loessial, windblown depositional soils which cover the dolomitic bedrock; dry prairies occur on well-drained soils, usually on steep hillsides; oak openings are savannahs dominated by dry prairie grasses, with between one and 17 oak trees, usually bur oaks, per acre.

Prairies existing in 1990 are shown on Map 25, with 34 sites covering a combined total of approximately 280 acres, a very small portion of the total land area of the County, located mostly in the southwestern quarter of the County. Very few native prairies are left in Waukesha County, although they once covered large portions of the County. The loss of native prairie and oak openings was primarily a result of agricultural practices, urbanization, and the suppression of the wildfires which had served to restrain the advancing shrubs and trees which shade out prairie plants.

Map 25

PRAIRIES IN WAUKESHA COUNTY



LEGEND

● PRAIRIE SITE

Source: SEWRPC.

WILDLIFE HABITAT

Wildlife in Waukesha County includes such upland game and nongame species as rabbit, squirrel, and woodchuck; predators such as fox and raccoon; game birds, including pheasant; and such marsh fur-bearers as muskrat. Other nongame species include such songbirds as the cardinal and wood thrush, and such marsh and shorebirds as the great blue heron and killdeer. In addition, waterfowl are present and deer are found in some areas. The remaining habitat and its wildlife residents provide opportunities for recreational, educational, and scientific activities and constitute an aesthetic asset to the County.

The complete spectrum of wildlife species native to Waukesha County has, along with its habitat, undergone tremendous alterations since the settlement of the County. The change is the direct result of alteration of the environment of the County by European settlers, beginning with the clearing of forests and prairies and the draining of wetlands and ending with extensive agricultural and urban land uses. This process, which began in the early 19th century, is still operative today. Successive cultural uses and attendant management practices, both rural and urban, have been superimposed on the land and have also affected the wildlife and wildlife habitat. In agricultural areas, these cultural management practices include draining land by ditching and tiling and the expanding use of fertilizers and pesticides. In the urban areas, cultural management practices that affect wildlife and their habitat are the use of fertilizers and pesticides, road salting, heavy traffic producing disruptive noise levels and damaging air pollution, and the introduction of domestic animals.

Inventories of wildlife habitat in the Southeastern Wisconsin Region were conducted jointly by the Wisconsin Department of Natural Resources and the Southeastern Wisconsin Regional Planning