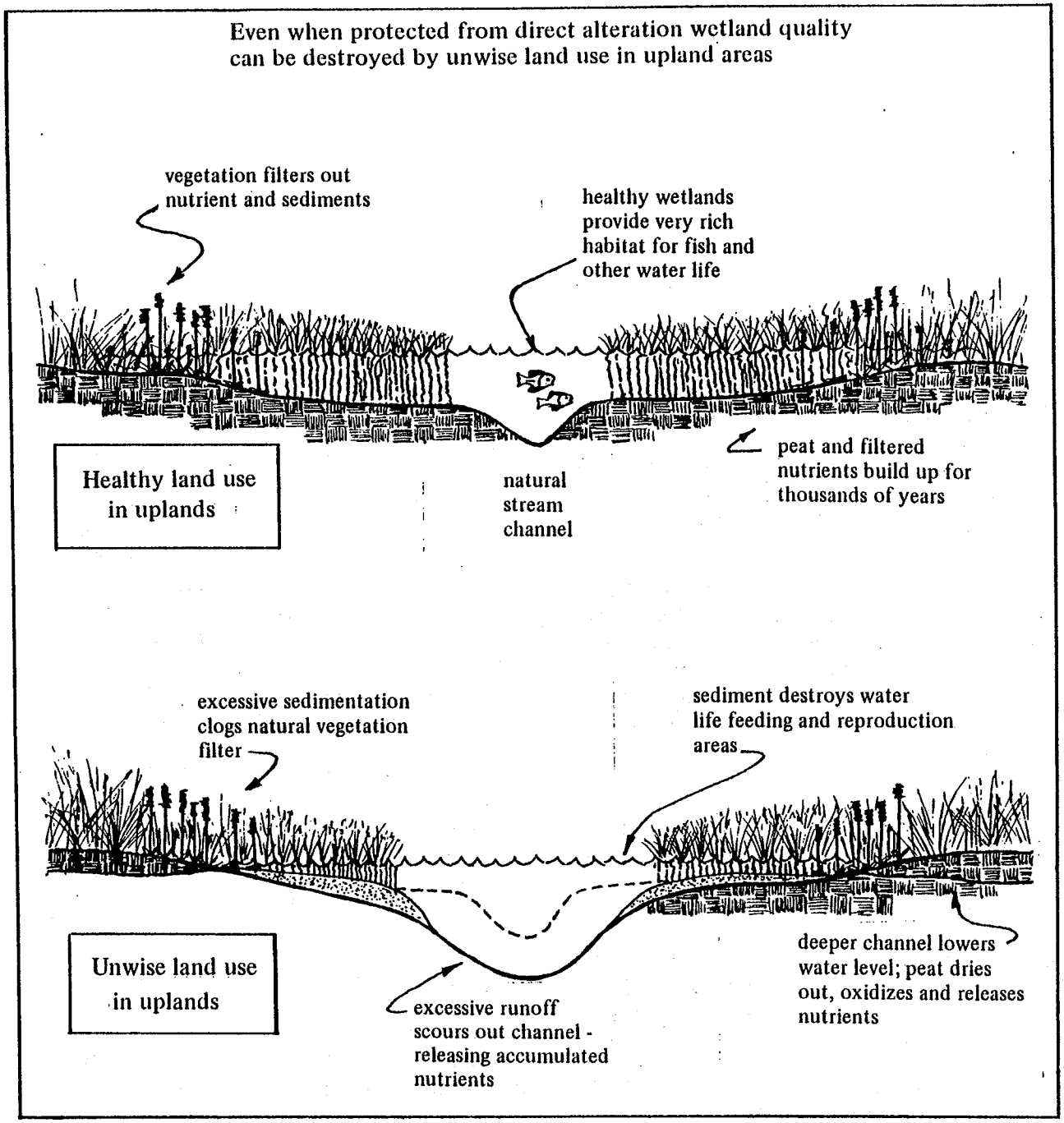
Potential Threats to Wetlands

The functions served by wetlands can be destroyed by two types of activities. The first type includes direct alteration of wetlands by dredging, ditching, tiling, filling, or road and utility construction. The second activity type includes land uses in the uplands around wetlands which create increased runoff and sedimentation, prevent wildlife movement to other parts of necessary habitat, destroy other parts of necessary habitat, reduce aesthetic qualities, or introduce noise, motion, lights, or other activities which drive wildlife from the nearby wetland areas.

In the past, the destruction of wetland functions resulted primarily from activity of the first type. For example, wetlands around the lakes have been filled for housing development. Door Creek Marsh has been extensively ditched and tiled. Power and gas lines cross the Waubesa Wetlands area. The MMSD effluent ditch was built alongside Grass Lake. Although the danger of this type of activity probably will remain to some extent, efforts are under way at the federal, state, and county level to keep them to a minimum.



Today, the greatest threat to the town's wetlands comes from the second type of activity, uplands land use. As cash cropping and the size of farm machinery has increased in recent years, more runoff and sediment is finding its way into the town's wetlands. Erosion and runoff from increased residential development has had much the same effect. New roads and utilities, if improperly located, promise to destroy or separate wildlife from necessary uplands habitat. In addition, as development nears wetland areas, natural views, and vistas will disappear.

Therefore, it is important that the town, while striving to protect the wetlands themselves, devotes an equal amount of attention to uplands land use management. Roads and utility projects should be carefully considered in terms of their potential effect upon wildlife habitat. Effective construction erosion and sedimentation controls should be considered, and programs designed to encourage control of agricultural runoff should be supported (See Section IV for more discussion of this topic). Finally, development densities and locations near wetland areas should be planned with a sensitivity to the functional needs of nearby wetlands.

WILDLIFE

Many people believe that one of the benefits of living in the Town of Dunn is an opportunity to enjoy the large variety of wildlife found there. Some people like wildlife for the hunting and trapping opportunities they provide. While many others might be hard put to explain why they enjoy being near wildlife, they nonetheless consider it desirable.

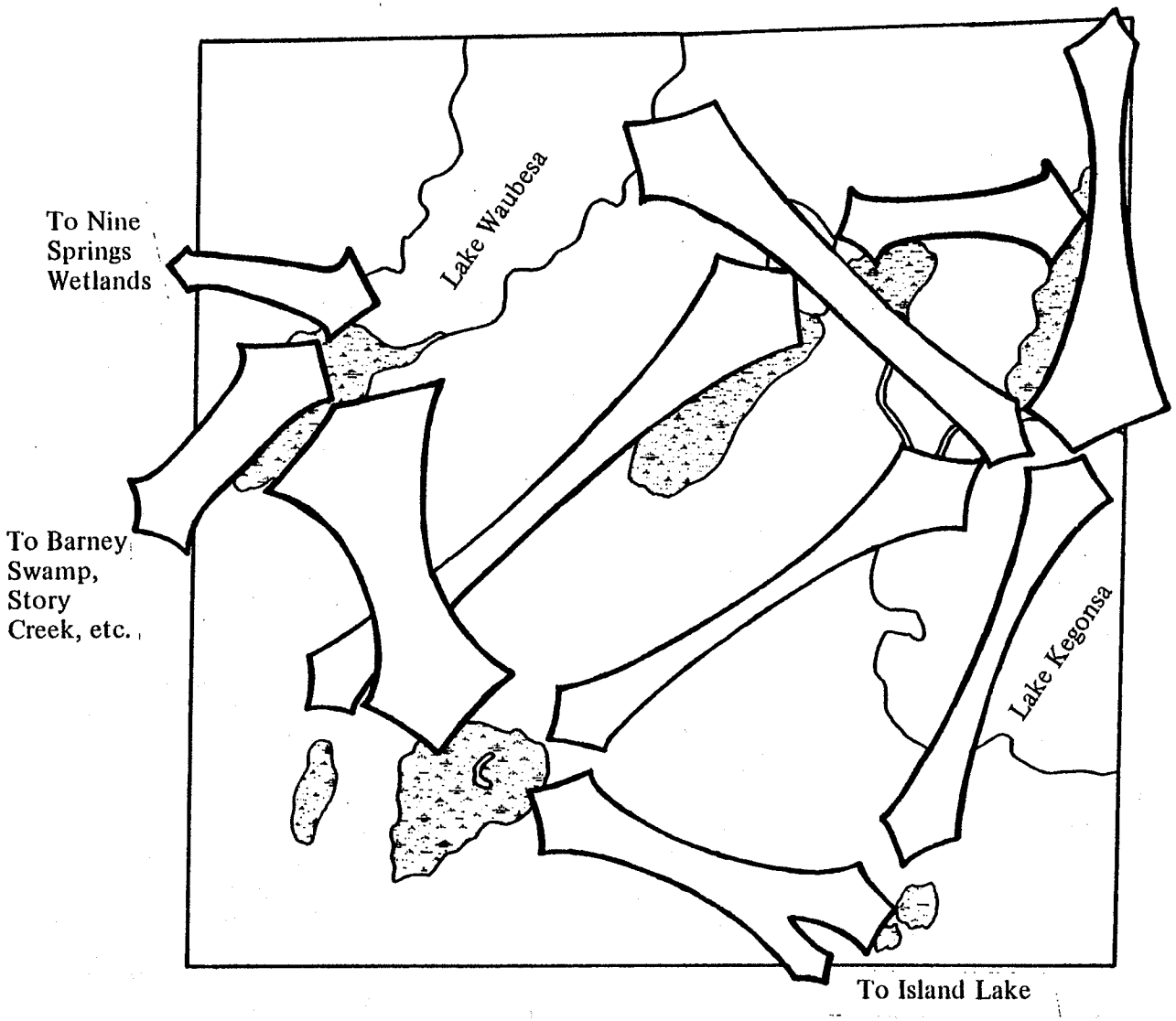
Waterfowl are especially abundant in the town due to the large number of lakes and wetlands. Mallards, blue-wing teal, and wood ducks are commonly spotted in the area. Uplands adjacent to small wetlands (down to 1/10th of an acre in size) are areas where the mallard, teal, and wood duck will nest and rear their young —especially if the wetland is associated with larger areas of open water nearby. Puddle ducks, such as the mallard, teal and gadwall, feed in shallow areas. Diving ducks, such as the ruddy duck, require deeper waters for feeding. Temporarily flooded fields in the Spring are very important to waterfowl as a food source. Fields flooded for one to two weeks will have quick hatches of aquatic insects, and provide a high protein diet especially important in the breeding season. Mallards, in the fall, forage harvested fields for waste grain.

Hook Lake is a good production area for mallards, blue-wing teal, and, possibly, wood ducks. Lakes Kegonsa, Waubesa, and especially Mud Lake support the migratory habit of several types of waterfowl. The green-winged teal, widgeon, gadwall, shoveller, ruddy duck, Canada goose and whistling swan stop at these lakes to rest and feed.

The sandhill crane, the largest and most impressive bird found in the town, is valued as a symbol of the town's natural heritage. They require extensive marshes and adjacent upland feeding areas as their primary habitat. Waubesa Wetlands, Mud Lake Marsh, and Hook Lake all support breeding pairs of sandhill cranes. While they are also found in the Door Creek Marsh, it is not known if they nest there.

Pheasants inhabit almost any brushy type of wetland and adjacent uplands. The pheasant feeds on waste grains and the seeds and berries of native plants. Pheasant nesting areas include semi-dry canary grass wetland areas, upland grassy areas, or hayfields (in which the young are susceptible to injury from farm machinery).

The Hungarian partridge can be found in isolated pockets in the town. They are dependent on grassy areas and feed on small grains, corn, and some weed seed. Woodcock, on the other hand, prefer aspen and alder bottoms. Hook Lake provides this type of habitat. A large variety of song marsh birds are present in the town. And an uncommon bird, the yellow-headed blackbird, is known to inhabit the cattails in Grass Lake.



Major Flight Corridors in the Town

Predator birds which inhabit the town include the marsh hawk, rough-legged hawk, the sharp-shinned hawk, Cooper's hawk, red-tailed hawk, and the great horned owl.

White-tailed deer are present, in small numbers, throughout the town. They utilize woodlands, wetlands, and agricultural lands for feeding and finding shelter.

Other fur bearers found in the town are the muskrat and mink (which are associated with wetlands) and raccoon, skunk, red fox and opposum (which are upland animals). Muskrat and mink populations in the town are quite large, and regulated trapping occurs in the winter months. The trapping results in a cyclic decrease in winter populations. However, the reproduction of animals in spring increases the numbers again by summer. The fox and gray squirrel are common in woodlots, especially when adjacent to cornfields. The cottontail rabbit is abundant.

These upland birds, song birds, and animals travel along movement corridors, which include fence rows, woodlots, and stream corridors. The corridors provide a protective path of cover which permits wildlife movement on the ground from one part of their habitat to another. The flight patterns of birds can also be considered movement corridors. The most distinct flight patterns in the town are used by waterfowl traveling between the wetlands and lakes in the town and in surrounding towns.

Hunting is quite heavy in the town. Landowner permission is required for hunting or trapping on private property. Hunting for fox, raccoon, deer, ducks, and pheasant occurs in the town, along with trapping for muskrat, mink, fox, and raccoon. Hook Lake and Lake Waubesa are two major duck hunting areas.

Turtles, salamanders, frogs, and snakes are also common inhabitants of the town's uplands and wetlands. Painted box turtles, rarely found in this part of the state, require a woodland habitat, searching out berries, fruits, grubs, and earthworms to eat. Blanding's turtles, painted turtles, and snapping turtles inhabit wetlands and feed on amphibians, fish and aquatic insects. The painted turtle includes aquatic plants in its diet, while the snapping turtle will eat small birds and mammals that happen to be in the water. In spring, turtles move from wetlands and creeks to the uplands to lay their eggs. The spiny soft-shelled turtle inhabits rivers and lakes and feeds on aquatic insects and amphibians. Map turtles, also river inhabitants, have specially-constructed jaws for crushing, as their main diet is snails.

The frogs found in the town, among others, are the leopard frog, green frog, chorus frog, spring peeper, chricket frog, tree frog and pickeral frog. Leopard frogs live in meadows and open grassy areas, whereas the green frog remains in wetlands and ponds year around. The American toad inhabits woods and fields in the summer. Frog and toad species which do not live in wetlands permanently, migrate in the spring to wetlands or ponds to breed. Chorus frogs and spring peepers remain in woodlands the rest of the year.

The tiger salamander lives on insects. At the first spring rain, the salamanders move from upland areas to ponds and wetlands to lay their eggs.

A variety of snakes are found in the Town of Dunn. The common garter snake and Plain's garter snake are the most common. These may be found in woods, fields, farmlands, roadsides, and marshes, and along lakes, ponds, and streams.

DeKay's snake is a small, brown, inconspicuous snake inhabiting light woods, clearings, farm fields, and roadsides. It feeds mainly on snails and slugs. Another very small snake, the red-bellied snake, is very similar to the DeKay's snake in its habitat and feeding requirements.

The brown water snake, also found in the area, is never far from lakes, streams, ponds, and marshes. It feeds upon amphibians, fish, and crayfish.

The milk snake is one of the town's most beautiful and helpful snakes. It inhabits light woods, clearings, fields, farmlands, and rural gardens. Since it feeds primarily on mice, it is especially beneficial to farmers and gardeners.

The blue racer, a long slender snake, prefers dry open spaces near thickets, loose rocks, and old stone structures. Because it eats insects and rodents, it is beneficial and should be protected. It also feeds on amphibians and reptiles.

The hog-nosed snake is stout bodied and reaches nearly 3 feet in length. It prefers sandy places, beaches, and light dry woods. It feeds primarily on toads and frogs.

Most reptiles and amphibians in the town are small, relatively slow-moving, and must move to different habitat areas to complete seasonal breeding cycles. For this reason, their numbers will decline or disappear if certain land use changes, such as construction of new roads intersecting upland and lowland areas, are made.

A. Woods, wetlands, ridges, streams, and hedgerows provide wildlife corridors, allowing wildlife to travel from one part of their habitat to another.

B. When roads and subdivisions disrupt these corridors different parts of the habitat become separated, and wildlife disappears.

The effects of rural residential development on wildlife can be severe. Even when a wildlife habitat area is not itself disrupted, noise, loose dogs, night lights, mini-bikes, and other disturbances that accompany development have their effects on nearby wildlife areas.

Intensified agricultural practices and conversion to cash cropping also reduce wildlife habitat. Removal of fence rows reduces the amount of cover available for nesting, feeding, and movement. Intensive cash cropping, too, usually results in increased sedimentation of wetlands and streams. Finally, fallow fields and pasture, which serve as the feeding areas for many species of wildlife, disappear when agricultural practices are intensified.

Section III of this report provides a chart for estimating potential effects of land use changes on wildlife. It is accompanied by a more complete listing of wildlife species found in the town. This chart can be used to determine potential wildlife habitat types found on or near a site.

FISHERIES

The quality of the town's fisheries has attracted people to the area long before European settlers arrived. Since the turn of this century, walleye, northern pike, and other fish have drawn people from throughout southern Wisconsin and northern Illinois. The good quality of the fishing in the town, along with the other opportunities offered by Lakes Waubesa and Kegonsa, make the town an important recreational area.

Lake Waubesa

Lake Waubesa provides good and consistent fish production with periodic stocking of walleye. Other fish species will successfully reproduce. The Waubesa Wetland area provides a major spawning area for the northern pike population. Pike also spawn in the wetland area near the radio towers. Fish found in the lake include the large-mouth bass, blue gill, black crappie, white crappie, perch, walleye, and pumpkin seed. The rough fish in Lake Waubesa include channel catfish, white sucker, carp, freshwater drum, the black bullhead, brown bullhead, and yellow bullhead. Low populations of white bass and yellow bass and an assortment of minnow species are also found in the lake.

Mud Lake

Mud Lake is predominantly a panfish and bass lake. Blue gill, crappie, perch, bullhead, carp, some northern pike, large-mouth bass, and mud minnows reproduce here. Walleye fishing, however, is negligible.

Lake Kegonsa

Lake Kegonsa supports a diverse warm water fishery, and contains similar kinds of fish as found in Lake Waubesa. However, because it also supports a large population of rough and forage fish, the quality of fishing in Kegonsa is not as high. However, it does provide for better walleye spawning than Lake Waubesa. Door Creek Marsh, just north of the lake, is used by northern pike for spawning.

The Yahara River

The Yahara River fishery supports warm water fish species due to the natural conditions in the area, especially the high summer temperatures. The river provides a rocky gravel substrate and a good flow of water required by walleye for spawning grounds. Crappie, sucker, and northern pike also spawn in the river to some extent.

The Town's Creeks

Swan Creek primarily supports forage fish although some pan fish, northern pike, and walleye use the creek during the spawning season. Murphy's Creek also supports forage fish, where the spring flow increases and water quality improves. Pan fish and northern pike use the creek for a spawning area. Door Creek in its channelized condition, only supports a limited warm water fishery, consisting predominantly of forage fish. Northern pike spawning areas in Door Creek Marsh can be protected by limiting further ditching and wetland drainage. No information is currently available about fish species which may inhabit Green Creek.

Fisheries and Wetlands

It is important to note the relationship between wetlands and fisheries management. To begin with, wetlands provide integrity to the lakes by stabilizing water levels. In addition, when associated with an incoming stream, the wetland maintains or improves water quality levels. The wetland acts as a filter, and intercepts nutrient loads through the uptake of nutrients by aquatic plants. This reduces the problem of over-enrichment (high nutrient supply to plants and algae) in the lake. Wetlands also provide spawning areas for northern pike and some panfish and will act as a nursery for young fish of several species. Finally, wetlands are important food production areas for both small and mature fish.

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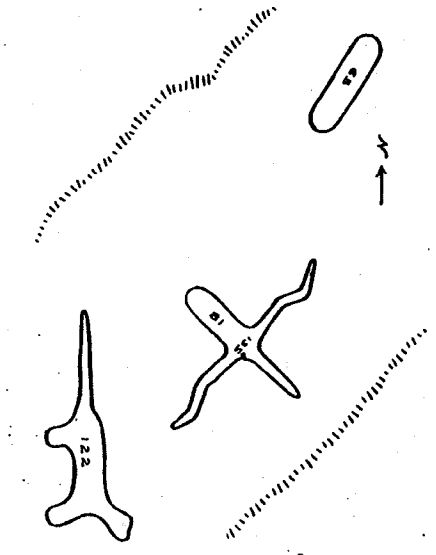
C. HISTORIC AND CULTURAL RESOURCES

Memories and knowledge of the past lend meaning to the present. So by preserving visible signs of the past, we are reminded of our heritage. The Town of Dunn is fortunate to be rich in historical resources.

For thousands of years, since the retreat of the last glacier, nomadic bands of Indians took advantage of the town's bounty of fish and game. Some three to four thousand years ago, plant cultivation, pottery, and effigy mound building first appeared in the area.

The effigy mounds are today the most visible landmarks of the town's presettlement past. These mounds, constructed of soil, take many different forms—many in the shape of animals, birds, lines, and cones. Among the largest are a bird effigy with a wingspread of 135 feet and a linear mound that measures 305 feet in length. Many mounds have been destroyed by housing development and cultivation.

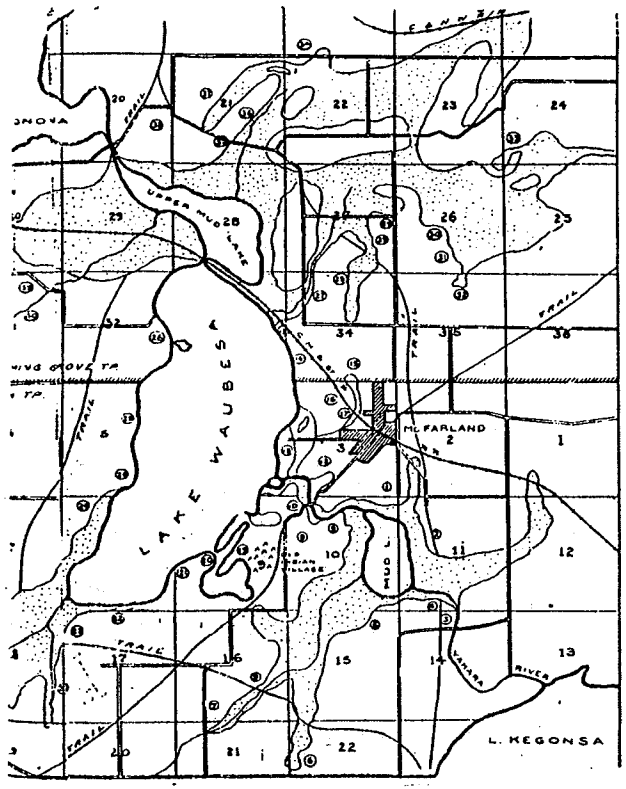


An Early Drawing of an Effigy Mound Group in the Northeast Part of the Town

Theories vary as to why the mounds were shaped into animal and bird forms. One theory is that the form represented the name of a particular group or tribe. Another is that the form symbolized the guardian spirit of the person buried there.

These mounds, as well as cemeteries, campsites, and villages, represent a valuable part of the town's history. In fact, a look at the distribution of archaeological features in Dane County reveals that, just as with its wetlands, the Town of Dunn has a greater concentration of archaeological sites than any other town in the county.

These sites have not been surveyed since Dr. W. G. McLachlan, a McFarland physician, studied the area in 1914 and 1925. His surveys primarily covered the Lakes Waubesa and Kegonsa areas, so the southern part of the town remains unsurveyed. An informal student survey conducted in the fall of 1977 revealed 37 archaeological sites in the town. Land use changes in the town therefore should be carefully examined for the possibility of archaeological sites on a proposed project site. Perhaps a town-wide survey, conducted by trained archaeologists, should be made in the future. The Historic Preservation Division of the State Historical Society administers cost-sharing programs for such surveys.



A Map Showing Archaeological Sites Studied by Dr. McLachlan in 1914

More recent Indians inhabiting the area include the Winnebagos. Indian Agent John H. Kinzie in 1829 made reference to the existence of a Winnebago Village on Lake Waubesa that contained four lodges and 76 inhabitants. Its Chief was Spotted Arm. In 1832, Kinzie referred to a Winnebago Village on the east shore of Lake Waubesa with 94 inhabitants. The Winnebago Indian name for Lake Kegonsa is No-sa-koo-cha-tel-a, or "hard maple grove" lake, a name likely derived from the sugar bush on Williams Point in the Town of Pleasant Springs, once called Sugar Bush Point.

Chief Blackhawk, while being pursued by U.S. government troops is reputed to have crossed the Town of Dunn in his flight. A skirmish is said to have occurred between Blackhawk and the pursuing troops, not far from the junction of Schneider and Greene Roads. As late as the year 1875 groups of Winnebago on their way from the Rock River region camped on the shore of Lake Kegonsa.

The town's first European settler was Alvin W. Wetherby, who arrived with his family in 1843. They settled on a farm in Section 21, near the present Town Hall. They were soon followed by many other European settlers.

The land the first settlers found was rich in water and wildlife. Lorin Miller, the deputy surveyor who made a survey in 1833 of the Town of Dunn, reported: "This is a good township of land, and is watered with First (Kegonsa) and Second (Waubesa) Lakes and two ponds, with Catfish Creek (Yahara River) and a number of small streams and has few marshes. Its waters abound with different kinds of fish, such as cat-fish, pike, black bass, and rock bass. Geese and ducks are found in abundance. The land is rolling and has many artificial mounds in different parts of the township." In addition, there were extensive areas of prairie in the town. For the most part, however, the land was thinly timbered with bur, white, and yellow oak—what is now known as oak savannah.

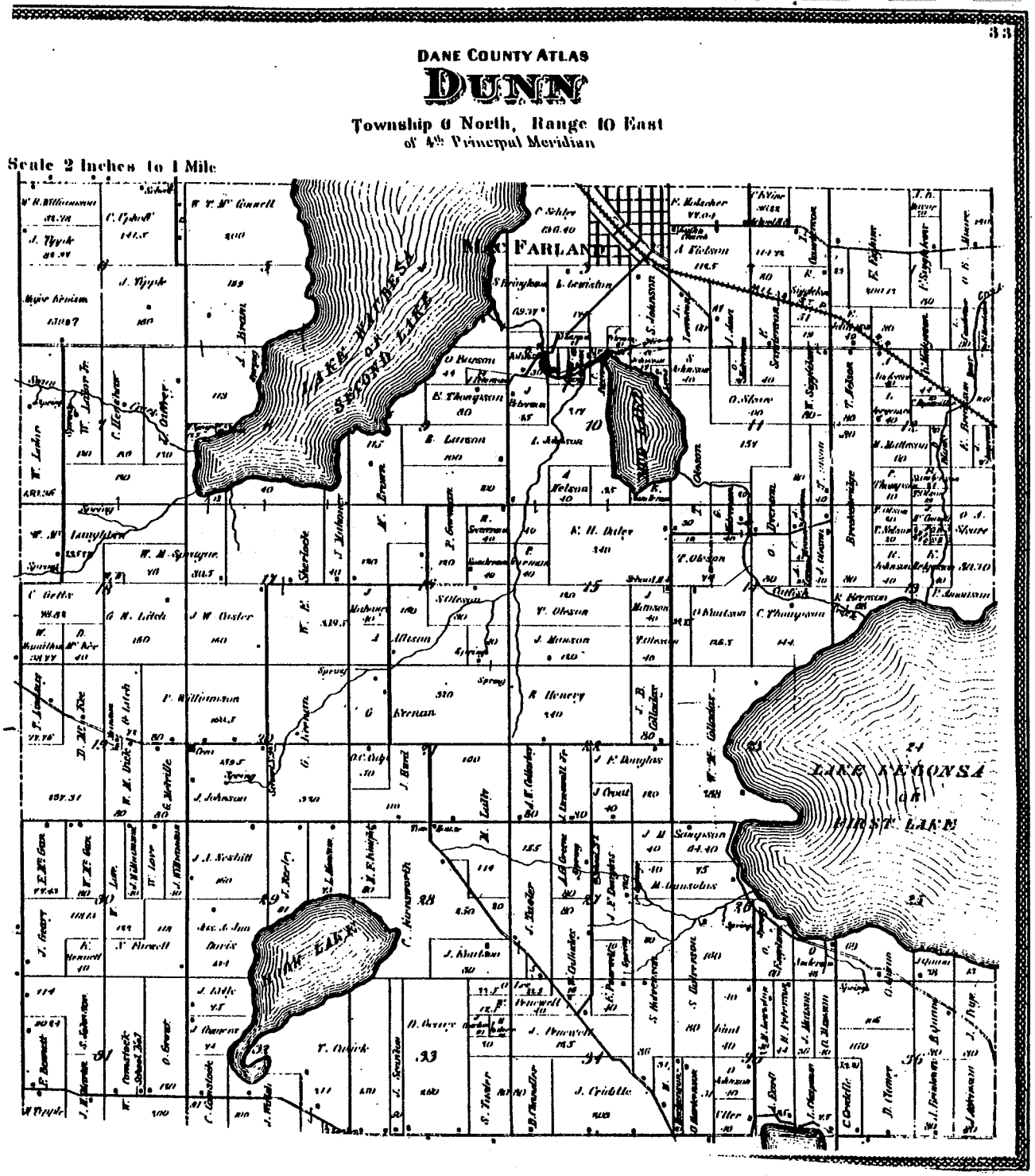
Many settlers were present in the town by the mid 1800s, drawn by the rich and easy-to-clear farmland. Land in these early days was selling for $1.25 per acre. The western part of the town was settled mostly by New Englanders, Scottish, and Irish immigrants, while the eastern part attracted more Norwegian immigrants, perhaps because of the strong Norwegian community of Stoughton, just southeast of the town.

In 1848, the same year Wisconsin became a state, the Town of Dunn was established. Although Dover was chosen as its original name, through an error by an assembly clerk, the name was misread and the name Dunn was entered.

Wheat was the primary crop for the town's early settlers until about 1870, when the chinch bug reached the town on its devastating march northward. Farmers then changed to dairy, livestock, corn, and tobacco as their primary pursuits. This agricultural pattern remains today, although the number of dairy herds have declined significantly in recent years.

As farms began to prosper, the settlers built suitable homes for their families. Numerous fine examples of Greek revival and other architectural styles were constructed during that period. The *Town of Dunn Bicentennial Tour,* developed by the town bicentennial committee, contains more information about many of these sites, as well as information about the town's archaeological and natural heritage.

When plans for land use changes are formulated in the town, the Plan Commission should be consulted for information they have on the location of historic and cultural sites in the town. The location and local importance of specific sites will be taken into account during the town's planning review process. Depending on the land use planned for a particular site, special protective conditions may be formulated to preserve the site.



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The concept of public welfare is broad and inclusive . . . The values it represents are spiritual as well as physical, aesthetic as well as monetary. It is within the power of the legislature to determine that the community should be beautiful as well as healthy, spacious as well as clean, well balanced as well as carefully patrolled.

–JUSTICE WILLIAM O. DOUGLAS
Berman v. Parker
348–United States 26 (1954)