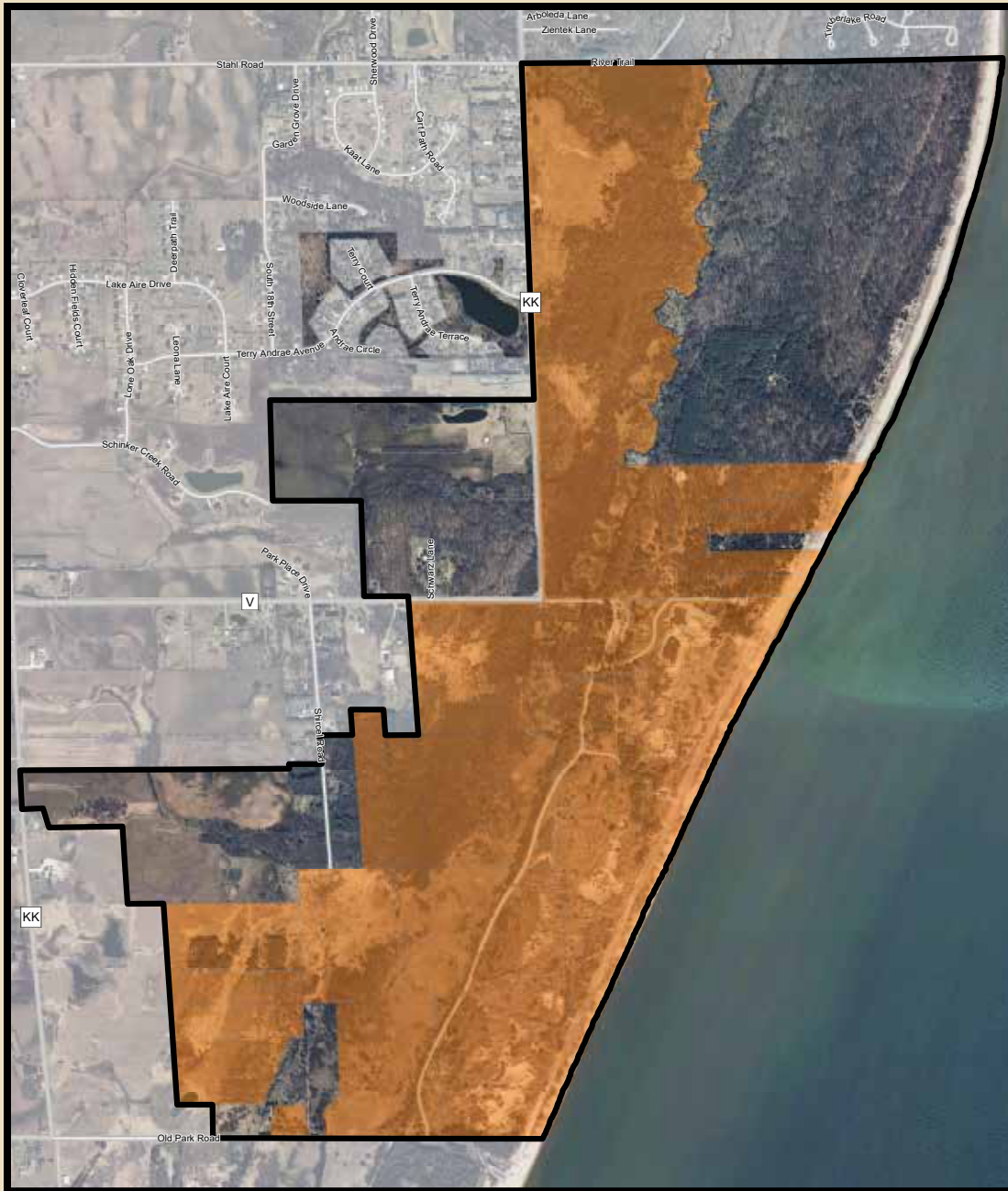


KOHLER-ANDRAE LAKESHORE

A Planning Tool for Migratory Bird Conservation along Lake Michigan



20



County

Sheboygan

Ecological Landscape

Central Lake Michigan Coastal

Site Owner

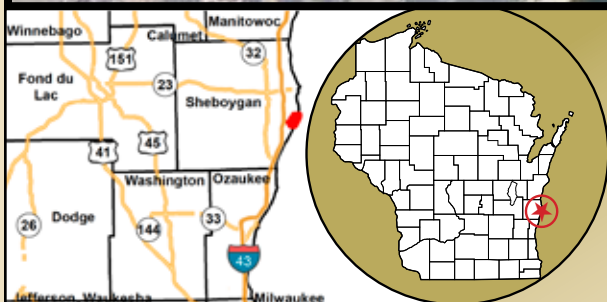
Wisconsin DNR
Private Ownership

Basis for Designation

>10,000 Landbirds Annually
>10,000 Waterfowl Annually

Threats

Coastal Development
Recreational Overuse
Invasive Species
Deer Herbivory
Climate Change



 Stopover Site
 Protected Areas

0 Miles 0.125 0.25





KOHLER-ANDRAE LAKESHORE

Site Description

Kohler-Andrae Lakeshore contains the largest dune complex on Wisconsin's western shore of Lake Michigan and an important stretch of undeveloped shoreline. It features ridge and swale topography with northern dry to dry-mesic forest dominated by white pine, red oak, and sugar maple. Further inland there are mixed stands of white pine, American beech and red maple with a low-growing understory of sedges. Several wetland types are present, including alder thicket, southern sedge meadow and northern hardwood swamp. The Black River and its associated riparian forest are prominent features of this site. There are approximately 1,000 acres of protected land, which is surrounded by moderate agricultural and residential development. Private property of outstanding habitat value occurs adjacent to the protected area.

This site encompasses Kohler-Andrae State Park and Kohler Park Dunes State Natural Area and extends two miles from shore to include Lake Michigan's offshore waters. Kohler-Andrae Lakeshore is recognized as an Important Bird Area by the Wisconsin Bird Conservation Initiative, a Wetland Gem by the Wisconsin Wetlands Association, a State Natural Area by the Wisconsin Department of Natural Resources and a Conservation Opportunity Area by the Wisconsin Wildlife Action Plan.

Stopover Importance

Kohler-Andrae Lakeshore qualifies as a **Priority Stopover Site** because of its high relative abundance of migratory birds and the consistency of use between seasons (spring and fall). More than 10,000 waterfowl and landbirds and 1,000 raptors and waterbirds are estimated to use the site annually. Long-tailed Ducks, Red-breasted Mergansers and Greater Scaup are particularly abundant in the offshore waters during spring and fall migration. Sanderling, Dunlin and other shorebirds forage along the sandy shore. The Cedar Grove Ornithological Station just to the south has documented heavy use of this stretch of shoreline by migrant Sharp-shinned Hawks, Red-tailed Hawks, Merlins and other raptors. According to eBird, more than 200 migratory species have been recorded at this site, including 35 Species of Greatest Conservation Need.

The combination of wetland and upland plant communities adjacent to undeveloped shoreline provides significant stopover value for migrating birds. The waters of Lake Michigan are important migrating areas for birds that require large and/or deep bodies of water. Because so little undeveloped shoreline is left, the few remaining patches at this site provide critical rest stops for birds negotiating the large ecological barrier of Lake Michigan. The larger blocks of forested habitat are particularly important to landbirds and raptors. Some raptors may feed and rest for up to 5 days in one location before continuing their migration.

Conservation Opportunities

The Wisconsin Department of Natural Resources owns all of the protected acreage at this site. Several private properties adjacent to the protected area have high ecological value but are threatened by high development pressure. Priority should be given to protecting these properties to maintain this site's stopover value. Ridge-and-swale complexes have been identified as being highly vulnerable to the impacts of climate change, with the major concerns

being changes to hydrology and tree species composition. Adaptive measures need to be developed to increase the resilience of this natural community.

Kohler-Andrae Lakeshore was categorized as a **Full-service Hotel** site where all necessary resources (food, water, shelter) are relatively abundant and available for quick refueling. To further enhance the site's appeal to migratory birds, minimize disturbance at coastal stopover sites by instituting public awareness campaigns, establishing protection zones and enforcing dog leash laws during the migratory period. Conservation efforts should focus on protecting forested ridge-and-swale complexes from development and fragmentation, preserving natural hydrology, and controlling invasive species. Manage as diverse complexes that are linked by hydrology, landform, and vegetation mosaic. Land protection efforts should seek to acquire parcels that protect hydrological function, connect forest blocks to create larger habitat corridors, and buffer protected areas from encroachment by non-compatible uses. Future land acquisitions should prioritize the following habitat attributes for migratory birds, giving high priority to any parcels within .25 miles of Lake Michigan:

- Undeveloped or natural cover within 660 ft of lakes and wetlands where there is high insect productivity (especially midges and caterpillars)
- Undeveloped or natural cover that contains diverse habitat structure (vertical and horizontal)
- Undeveloped or natural cover with woody species that bloom through the spring migration period (oak, willow, elm, and others) or fruit throughout fall migration
- Mixed emergent wetlands (ephemeral and permanent) >40 acres with >2.5 acres of open water
- Ephemeral or temporarily flooded wetlands, including those in agricultural fields, with hydric soils
- Open water and/or emergent wetland >5 acres and <0.5 miles from another wetland
- Known diving duck concentration areas (>10,000 each migration season)
- Lake Michigan open water areas within 2 miles of shore

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