



July 23, 2015

VIA EMAIL to: DNRKohlerProposal@wisconsin.gov

Jay Schiefelbein
Wisconsin Department of Natural Resources
2984 Shawano Avenue
Green Bay, WI 54313-6727

Re: Comments of the Wisconsin Society for Ornithology on the scope of the pending environmental impact statement for a Kohler golf course proposed to be developed in the Town of Wilson, Sheboygan County

Dear Mr. Schiefelbein;

I am submitting these comments on behalf of the Wisconsin Society for Ornithology (WSO). WSO is an active, volunteer-based, nonprofit organization established in 1939. We have over 1,400 members throughout Wisconsin. Our mission is to promote the enjoyment, study and conservation of Wisconsin's birds, and we publish a peer-reviewed journal, *The Passenger Pigeon*, on bird research and issues in Wisconsin. WSO provides opportunities for all people to enjoy resident and migratory birds, while being a leading steward of, and ambassador for, Wisconsin birds. Birdwatching is a huge activity in our state. The US Fish and Wildlife Service estimates that over 1.6 million Wisconsinites enjoy watching birds at some level. (U.S. Fish and Wildlife Service 2011)

WSO has an active Conservation Committee that keeps our membership informed of important bird conservation issues, focusing on the state-wide level. These issues can affect bird populations directly or, indirectly, through habitat changes. We work to analyze the issues, provide expert advice, and help develop recommended actions to reduce potential impacts to Wisconsin birds.

The golf course proposed by Kohler here in Sheboygan County is a significant bird conservation issue that it warrants WSO'S concern.



Every spring and fall, tens of millions of migrating birds sweep through the Great Lakes region on their journeys between their breeding and wintering grounds. Because some of these birds may breed as far north as Greenland and the Arctic Ocean and many spend their winters as far south as Central or South America, seldom are these migration flights a one-shot deal; most are multiple-leg trips. To successfully make this journey they need spots, called stopover sites, that can provide them with critical food and shelter. Loss of stopover habitats poses an ongoing threat to migratory bird populations nationwide.

The Great Lakes region poses another challenge for migrating birds. The size of the lakes is a barrier to some migrating birds, while others will readily cross these large expanses. Those that do cross the lakes depend heavily on stopover sites along the shorelines. Birds often migrate at night, and at dawn will make their way towards land to find suitable stopover habitat in which to rest and refuel. Likewise, birds encountering bad weather while crossing the lake will also reverse direction and head for shorelines. Wisconsin birders themselves flock to the western shore of Lake Michigan during spring migration to see these flocks of migrants.

Prior to European settlement, the landscape along the Lake Michigan shoreline was dominated by northern or central hardwood forests, interspersed with a mixture of wetlands, and minor inclusions of other vegetative cover. Today, the landscape is dominated by extensive agricultural lands and human developments. The forest cover that remains is generally fragmented and scattered and housing developments have encroached on many of the remaining forest blocks. Those few undeveloped forest stands are the critical remnants of the migration stopover habitat that once was widespread in this region. The Kohler parcel is one of the few remaining large forest blocks with enough resources to support large numbers of migrants of many species through extended stopovers, which migratory bird biologists refer to as “full service hotels.” (Mehlman et al. 2005)

The DNR's *Ecological Landscapes of Wisconsin* publication says this about the lakeshore landscape in the Sheboygan area:

"The Lake Michigan shoreline is heavily used by migratory birds of many kinds, including waterfowl, loons, grebes, gulls, terns, shorebirds, raptors, and passerines. Many sites along the Lake Michigan shore are popular with birders because of the high diversity of birds and many rarities that can be observed there... Providing and maintaining a sufficient variety and abundance of the habitats needed by these birds is a priority conservation goal."

DNR's *Ecological Landscapes* publication goes on to say that one of the management needs for this lakeshore landscape is to:

"Work with private and public partners to identify and protect additional shoreline forests, as these habitats are in very short supply, public land is scarce, and bird use during migration periods is heavy. Reforestation of some areas along the Lake Michigan shoreline that are used as migratory stopover sites for land birds is generally desirable."

The area south of Sheboygan, including the state park lands, has been recognized by others as an important resource for migratory birds. It's been identified as an Important Bird Area, or IBA, a world-wide program in which Wisconsin participates. This area was recognized as an IBA due to the extensive use by birds as on-shore migratory stopover habitat and off-shore wintering waterfowl habitat. This area has also been identified by the Wisconsin Stopover Initiative as a Tier 1 area, the highest level of significance for migratory bird stopover habitat. (Grveles et al. 2011)

The golf course proposed by Kohler would result in a significant adverse change to the existing forest communities on its 247 acre site. WSO asks that the EIS for this project include a thorough examination of the role this parcel plays as stopover habitat. This examination should include the current condition and stopover habitat value of the Kohler parcel, the change that the proposed golf course would make to that habitat, and the regional significance of this area as critical stopover habitat in an already extensively developed landscape.

Potential Project Impacts to Breeding Rare Birds

This section of our comments focuses on the potential effects of the proposed golf course on rare breeding birds, primarily rare forest birds. By rare birds, we mean state-listed threatened and endangered species, along with other birds identified in Wisconsin DNR's *Wildlife Action Plan* as Species of Greatest Conservation Need, or SGCN. The *Wildlife Action Plan* lists species as SGCN if they "have low or declining populations and are in need of conservation action."

We are hampered in reviewing this project's potential effects on rare birds by the protected nature of information on rare species. Exemptions in Wisconsin's Open Records law restricts public disclosure of information on the locations and populations of threatened and endangered species, and this information has been redacted in the Environmental Impact Report. Thus, WSO does not have access to information on the occurrence of those bird species that are of most interest to us or which may be at greatest risk from this proposal, but we were able to determine the listed bird species that are known to occur in area via the DNR's web-based Natural Heritage Inventory County and Township Tool, and the online database eBird.

According to eBird, 20 SGCN landbird species have been observed in the adjacent forests, shrublands, and grasslands of Kohler-Andrae State park that would be affected by this development. Based on the county-wide listing from the DNR's Natural Heritage Inventory database, there are four threatened forest songbird species, one threatened forest hawk, and one endangered shorebird that potentially could occur in the project area.

The Environmental Impact Report states in Section 2.1 that under the preferred design for the golf course, 50% of the forest cover will be removed, and Section 5.1.3 states that this loss will be irreversible. Figure ES-1 of the report shows that the remaining forest will not be a contiguous block, but will be highly fragmented by the fairways. It has been known since the 1980's that forest fragmentation is detrimental to many species of breeding forest birds, including SGCN species such as Wood Thrush and Hooded Warbler, both of which are found in the state park. One detrimental effect is the creation of edge habitat, where nest predators such as raccoons, skunks, possums, snakes, and invasive Brown-headed Cowbirds are more common than in deep woods. The nest success of breeding birds is reduced, the nests fail entirely, or the nests produce cowbird chicks instead the SGCN species. (Robinson et al. 1985) In addition, some forest-breeding birds are "area sensitive", meaning they require a certain size forest block in order to establish a viable territory and breed successfully. One example is the Ovenbird, which may be found singing in small woodland patches but not successfully breeding there.

The Environmental Impact Report states in section 4.4 that the forest cover remaining after the construction of the course will be comparable to that of the nearby residential developments. This will negatively impact breeding bird populations in the adjacent Kohler-Andrae State Park, in addition to the effects on the Kohler property itself. A recent study by the University of Wisconsin, Cornell Laboratory of Ornithology, and USDA Forest Service, currently in press in the *Journal of Ecological Applications* (Wood et al. 2015, in press), found that housing developments that are adjacent to protected lands reduce the number and abundance of species of greatest conservation need and other habitat specialists within the protected lands, although birds associated with human habitation, such as American Robins, increase. The Kohler (Black River) forest currently buffers Kohler-Andrae State Park from the effects of housing development to the north, but construction of the course and its support facilities (clubhouse, maintenance buildings, rest stations, cart barn, and parking lots) will act like other low-intensity development and affect the bird abundance and diversity in the state park.

The EIS DNR prepares on the Kohler project should include a thorough evaluation of the potential impacts to threatened, endangered, and other SGCN birds that breed in the area of Kohler's proposed golf course. We support the DNR's request for information on breeding and migratory bird surveys that may have been conducted as part of the Environmental Impact Report. We also strongly suggest that formal breeding and migratory bird surveys, following

established protocols, within the park and the Kohler forest will help define the species in greatest conservation need that are likely to be impacted by the permanent 50% loss of forest that will accompany the course construction. A formal survey will also suggest potential strategies to modify or mitigate the impact of the proposal if it is eventually approved. The Department's assessment should also include a review of the published literature on the habitat needs of the SGCN species that breed in or migrate through the area and the impact of the project on that habitat, including the quality of the remaining post-construction forest species composition, tree age diversity, ground cover, etc.

Finally, we urge the Department to thoroughly analyze the cumulative impact of this project on the entire landscape of forest and wetland bird habitat along this important migratory corridor, the western Lake Michigan shoreline, where few intact forests remain. The fragmentation of this forest, together with the past fragmentation of other habitats in the corridor, does not bode well for migratory birds.

Thank you for the opportunity to provide input into the scope of the EIS. Please contact me if you have any questions or if we can be of further assistance. I can be reached at (608) 335-2546 or at jaegermj@charter.net.

Sincerely,

Michael John Jaeger

Michael John Jaeger, Vice President
Wisconsin Society for Ornithology, Inc.

References

Grveles, K.M., S.W. Matteson, S. Eichhorst, and K. Kreitinger. 2011. Protecting Bird Migration Stopover Habitat in the Western Great Lakes: Final Report. Wisconsin Department of Natural Resources, Endangered Resources Program. http://www.wisconsinbirds.org/migratory/docs/WISI_report_finaldraft.pdf

Mehlman, D. W., S. E. Mabey, D. N. Ewert, C. Duncan, B. Abel, D. Cimprich, R. D. Sutter, M. Woodrey. 2005. Conserving stopover sites for forest-dwelling migratory landbirds. *Auk* 122:1281-1290. <http://tinyurl.com/ppznxdp>

Robinson, S. K., F. R. Thompson III, T. M. Donovan, D. R. Whitehead, and J. Faaborg. 1995. Regional forest fragmentation and the nesting success of migratory birds. *Science* 267: 1987-1990. <http://tinyurl.com/p5vwu6x>

U.S. Fish & Wildlife Service. Birding in the United States: A Demographic and Economic Analysis, Addendum to the 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. Report 2011-1. <http://www.fws.gov/southeast/economicImpact/pdf/2011-BirdingReport--FINAL.pdf>

Wood, E. M., A. M. Pidgeon, V. C. Radeloff, D. P. Helmers, P. D. Culbert, N. S. Keuler, and C. H. Flather. 2015. Long-term avian community response to housing development at the boundary of US protected areas: effect size increases with time. *Journal of Ecological Applications*. In press. Attached as a PDF to this letter.